APPENDIX A

Regional Haze Metrics Trends and HYSPLIT Trajectory Analyses

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Executive Summary

Staff from the Maine Department of Environmental Protection (MEDEP) carried out regional haze metrics and speciation analyses for 2000-2015 and trajectory modeling analyses for the "most impaired" visibility days in 2002, 2011 and 2015 for Class I areas in the Mid-Atlantic Northeast Visibility Union (MANE-VU) and nearby Class I areas in Virginia and West Virginia. For MANE-VU states, 2002 is the base year for the first round of regional haze State Implementation Plans (SIPs), 2011 is the base year for the current round of regional haze SIPs and 2015 is the latest year Interagency Monitoring of Protected Visual Environments (IMPROVE) data was available for this report.

Regional Haze metrics trends were completed for both the previously approved calculation method looking at "20% worst" visibility days and EPA proposed calculation method looking at the "20% most impaired" visibility days. Trends for both methods show that all Class I areas are well below the 2018 Uniform Rate of Progress (URP) level for the first SIP planning period and all but the Brigantine Wilderness Class I area are currently below the 2028 URP level for the second SIP planning period.

A speciation analysis divides light extinction impacts into the following principle components of regional haze: sulfates, nitrates, coarse mass, organic carbon mass, light absorbing carbon, soil, sea salt and Rayleigh scattering. For all Class I areas analyzed in this report, there is a significant decrease in sulfates from 2002 to 2011 with a further decrease from 2011 to 2015. This decrease resulted in a different mix of components and a different mix of days with more days in the winter for the 20% worst visibility days for some of the sites. Sulfates remain the dominant component of regional haze at all Class I areas; however the percentage contribution from sulfates in the current 5-year period (2011-15) has decreased 17-28% from the 2000-04 base year period. With more winter days the percent contribution from nitrates has increased at least 5% from the base year period at the Lye Brook Wilderness, Brigantine Wilderness, Shenandoah National Park and James River Face Wilderness Class I sites. The natural component of regional haze (Rayleigh scattering) percent contributions have also increased with Northern Class I areas increasing 9-13% and southern Class I areas increasing 6-9% from the base year period.

The HYbrid Single-Particle Lagrangian Integrated Trajectory (HYSPLIT) model was used to plot 72-hour back trajectories four times per day from a starting height of 500 meters above ground level. Results of the trajectory analyses can be used to identify transport patterns and can be used in conjunction with other MANE-VU contribution analysis tools (CALPUFF modeling and Q/d analyses) to determine states to be included in the consultation process. Results are in general agreement with CALPUFF modeling (MANE-VU 2016) results for states that may contribute to regional haze at MANE-VU Class I areas. There are strong transport patterns from Canadian source regions for Class I areas in Maine, New Hampshire and Vermont. Results also show that transport patterns have changed very little since the base year period as sulfates continue to dominate impacts at Class I areas.

1.0 Overview

For comparison purposes and to be consistent with the CALPUFF modeling analysis conducted by staff from New Hampshire Department of Environmental Services (NHDES) and Vermont Department of Environmental Conservation (VTDEC) (Mid-Atlantic Northeast Visibility Union April 2017), 2000-04 and 2011-15 regional haze daily speciation data and trajectories for the "20% most impaired" days in 2002, 2011 and 2015 were analyzed in this report for the following Class I areas (see Figure 1) that have historical IMPROVE monitoring sites in MANE-VU and nearby Class I areas in Virginia and West Virginia:

MANE-VU CLASS I AREAS

Acadia National Park, Maine
Moosehorn Wilderness Area, Maine (also representative of Roosevelt Campobello International Park, NB-ME)
Great Gulf Wilderness Area, New Hampshire (also representative of Presidential/Dry River Wilderness Area)
Lye Brook Wilderness Area, Vermont
Brigantine Wilderness Area, New Jersey

NEARBY CLASS I AREAS

Dolly Sods Wilderness Area, West Virginia (also representative of Otter Creek Wilderness Area)
Shenandoah National Park, Virginia
James River Face Wilderness Area, Virginia

Figure 1: Class I Areas with IMPROVE Monitors in and near MANE-VU States

2.0 Regional Haze Metrics Trends

EPA has not finalized the Regional Haze Guidance method to track changes in visibility for the "20% most impaired" days so analyses in this section will show trends of the proposed "new method" to calculate most impaired days and the "current method" to calculate 20% worst days. Both methods are the same for the 20% best day trends. Regional haze data from the following databases for 2000-2015 were downloaded from the Federal Land Manager Environmental Database (FED) (http://views.cira.colostate.edu/fed/) for all Class I areas listed in Section 1.0:

- IMPROVE AEROSOL, RHR II (New Equation) - current method metrics
- IMPROVE AEROSOL, RHR III (New Equation) - latest updated proposed new method metrics
- IMPROVE Natural Conditions II, Baseline (00-04) - current method metrics for natural conditions for the glide path

Derived natural conditions for the proposed new method metrics used to create the glide path are from Appendix E of EPA's technical support document (US EPA July 2016) for EPA's draft Regional Haze Guidance (US EPA 2016). New method metrics for the Lye Brook Class I areas are not yet available for the years 2012-15.

Regional Haze metrics trends were created for the 20% most impaired days, 20% worst days and 20% best days. Results are shown in Figures 2-9. All Class I areas show no visibility degradation for the 20% best days. All Class I areas have current (2011-2015 5-yr average) 20% worst days and 20% most impaired days visibility conditions below the respective 2028 level of the Uniform Rate of Progress (URP) with the exception of Lye Brook (due to no data available for the 20% most impaired days) and Brigantine Wilderness. For Brigantine, the 20% worst days visibility levels for 2012-15 are all below or near the 2028 URP level and the 20% most impaired visibility levels for 2012-15 are below or near the 'proposed' 2028 glide path level, so it's expected that the trends at this site after 2016 data is available will also be below the respective 2028 glide path level.

Figure 2: Acadia National Park Haze Metrics Trends

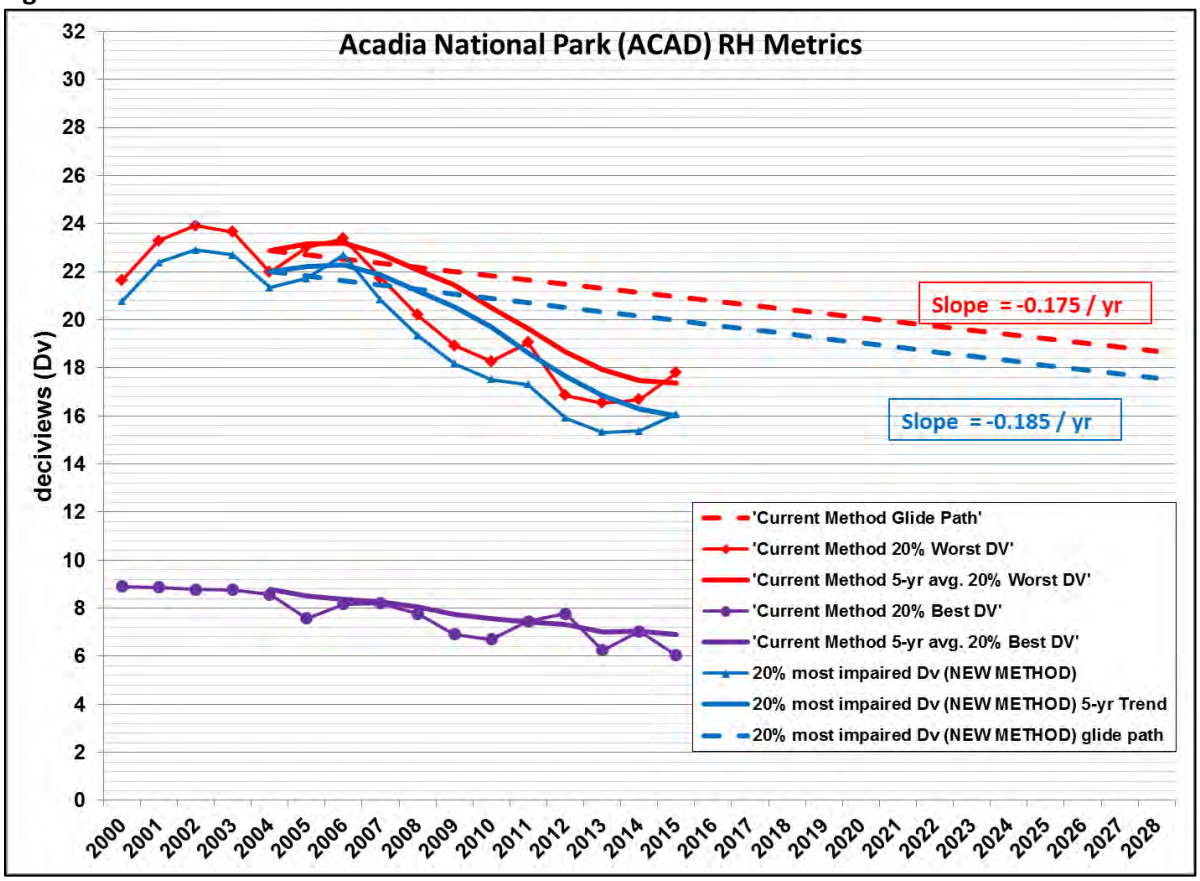


Figure 3: Moosehorn Wilderness Haze Metrics Trends

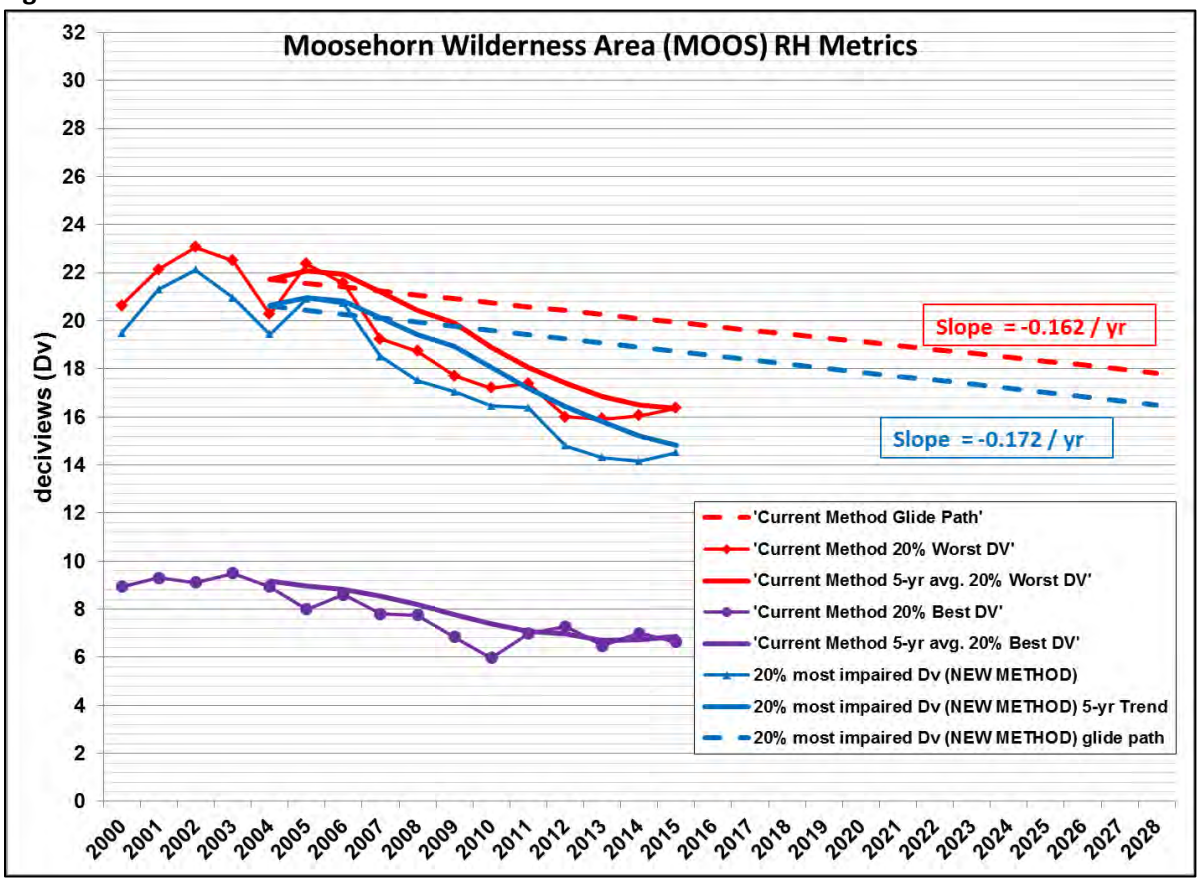


Figure 4: Great Gulf Wilderness Haze Metrics Trends

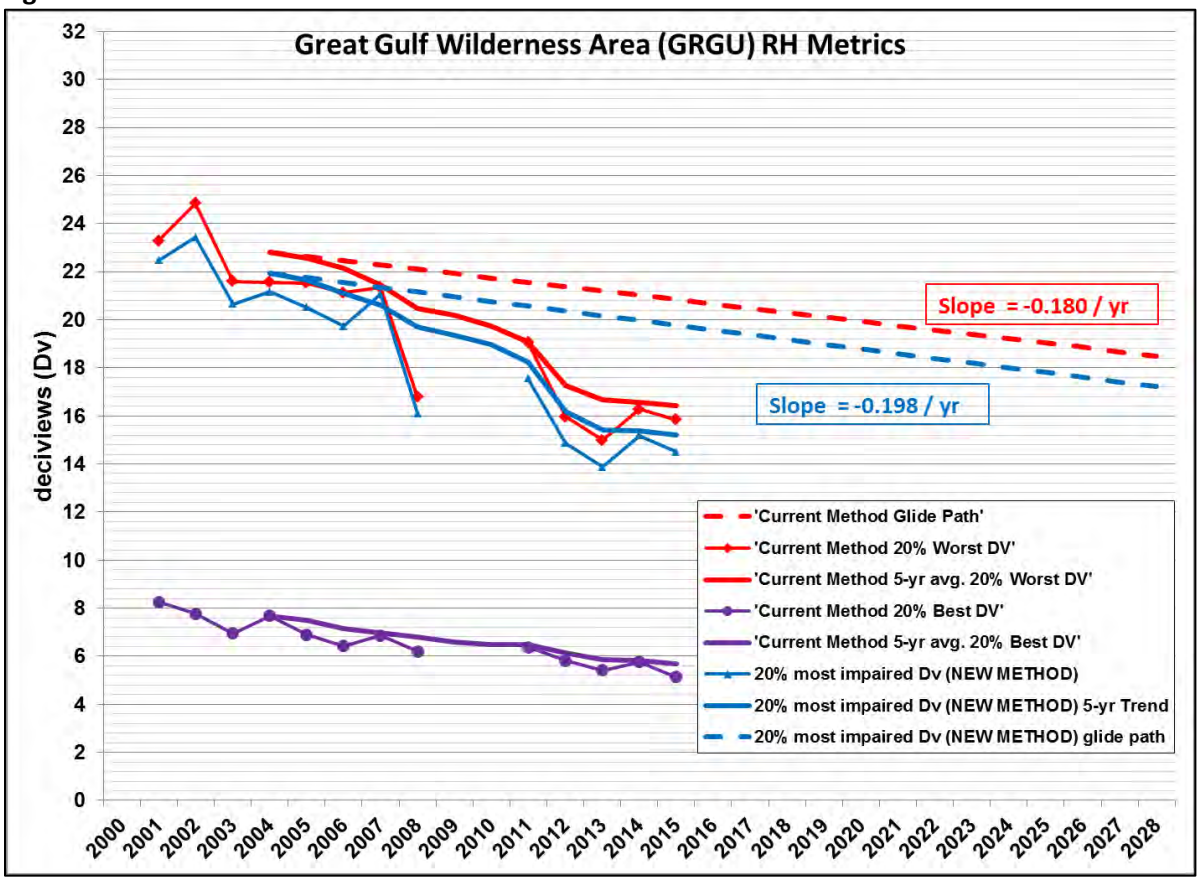


Figure 5: Lye Brook Wilderness Haze Metrics Trends

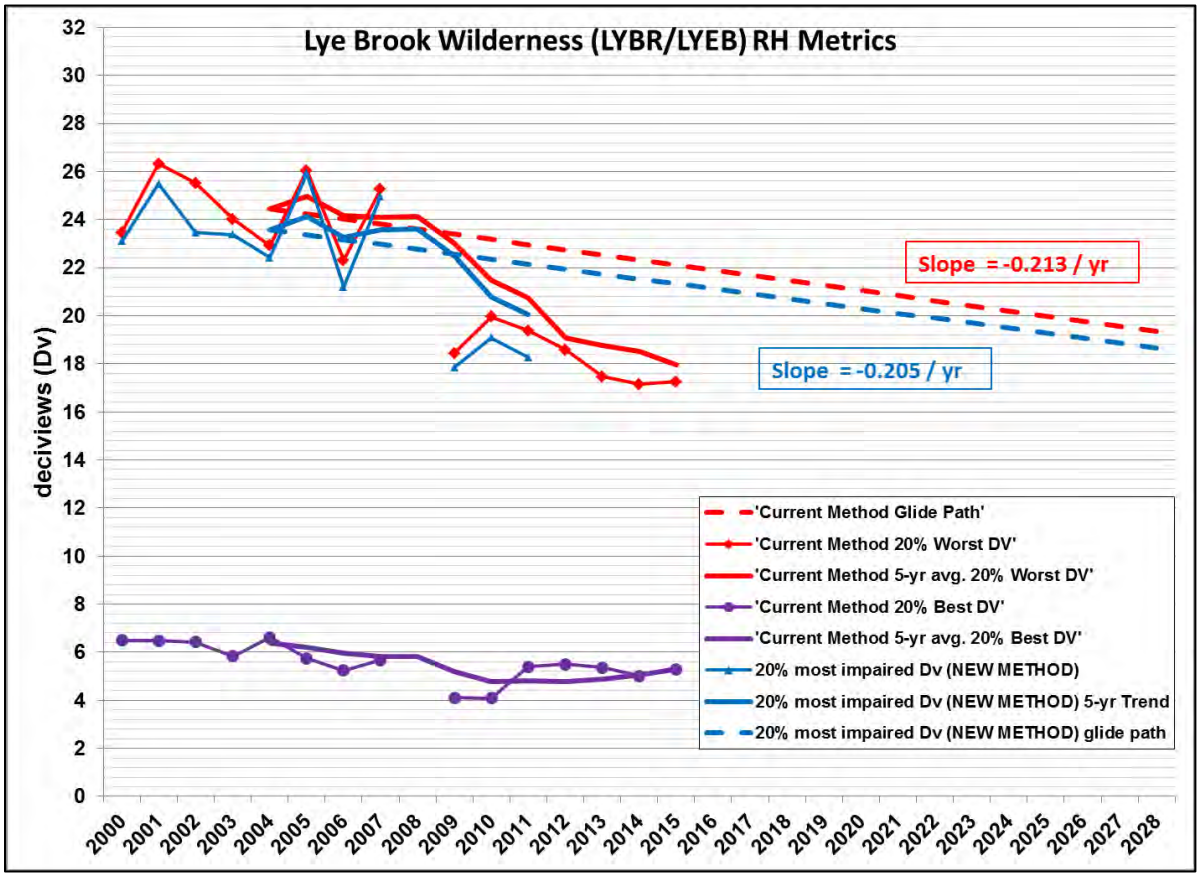


Figure 6: Brigantine Wilderness Haze Metrics Trends

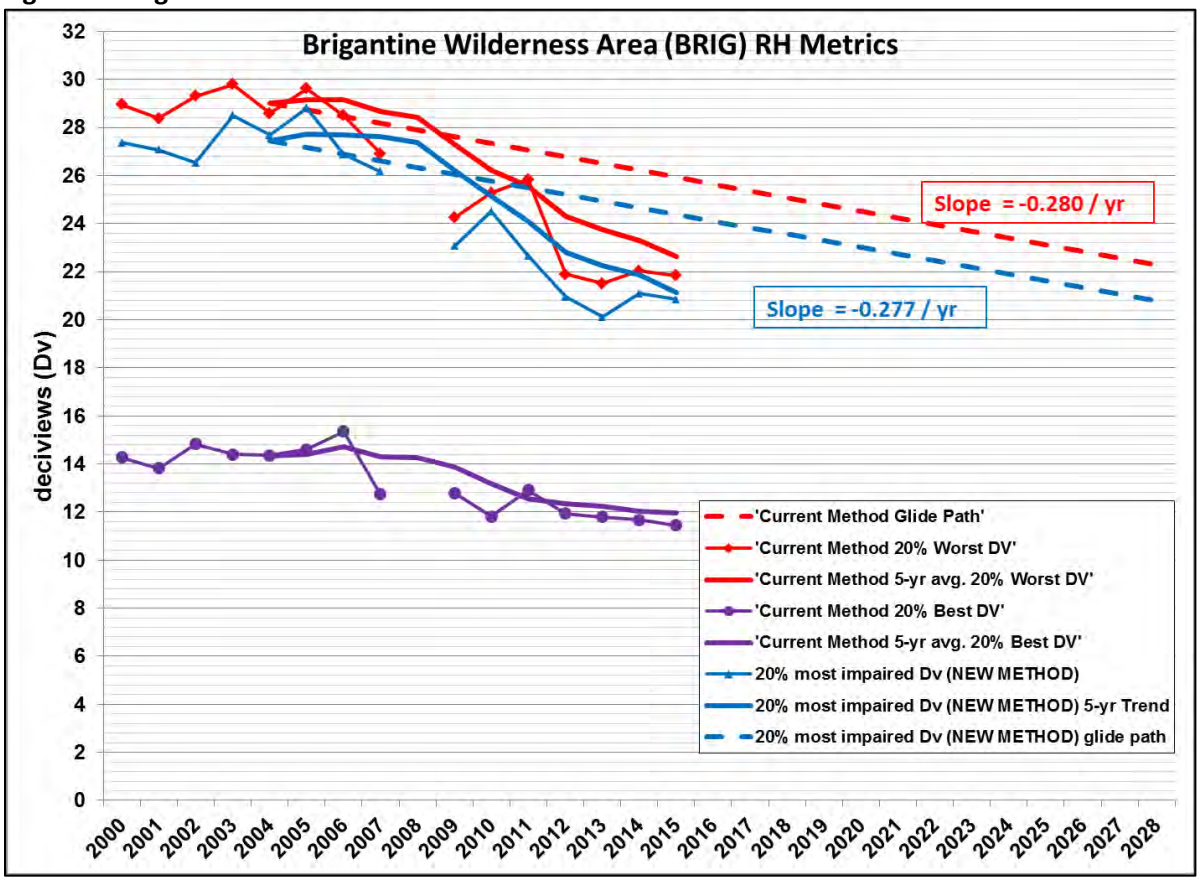


Figure 7: Shenandoah National Park Haze Metrics Trends

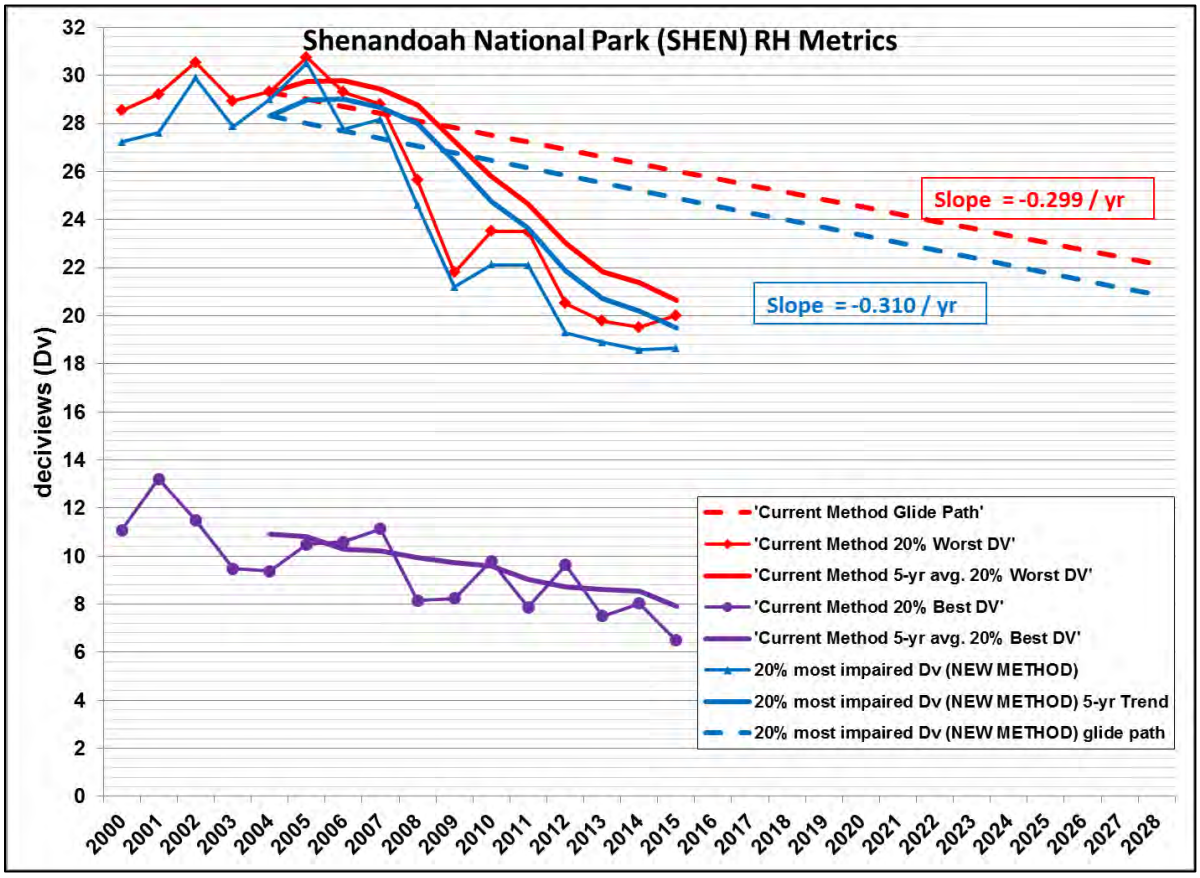


Figure 8: Dolly Sods Wilderness Haze Metrics Trends

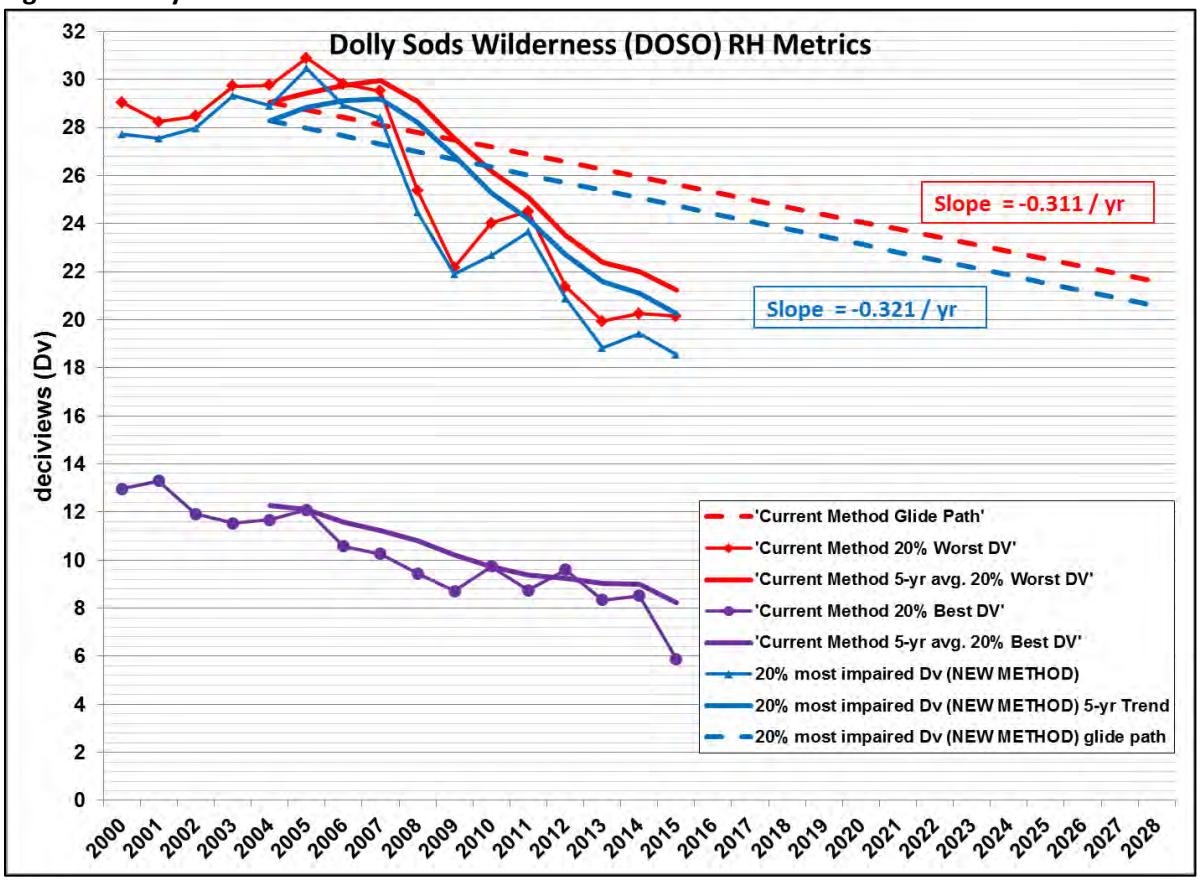
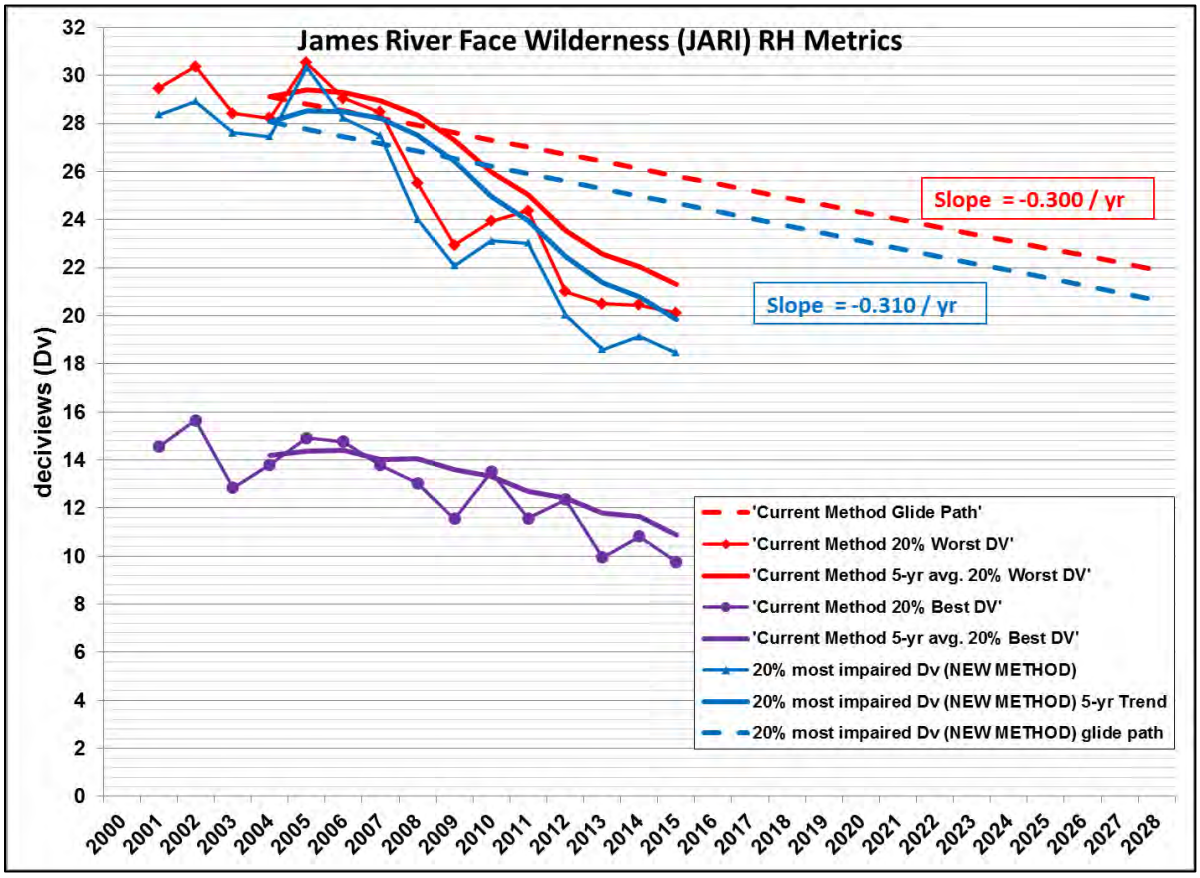


Figure 9: James River Face Wilderness Haze Metrics Trends



3.0 Speciation Analysis

Regional haze data (Improve Aerosol, RHR III (New Equation)) for 2000-2015 were downloaded from the FED for all Class I areas listed in Section 1.0. For the Lye Brook site RHR II data was used for 2012-15. The following light extinction (units of inverse megameters (Mm^{-1}) components of regional haze were analyzed in this report:

Sulfates
Nitrates
Organic Carbon Mass
Light Absorbing Carbon (Elemental Carbon)
Coarse Mass
Soil
Sea Salt
Rayleigh Scattering

3.1 Comparison Plots of 2002, 2011 and 2015 Data

For each Class I area plots (see Figures 10-17) were created showing light extinction speciation for each day for 2002, 2011 and 2015. For all Class I areas the trend clearly shows a significant decrease from 2002 to 2011 in light extinction especially for sulfates and a smaller decrease from 2011 to 2015.

Figure 10: Acadia National Park 2002/2011/2015 Speciation Comparison

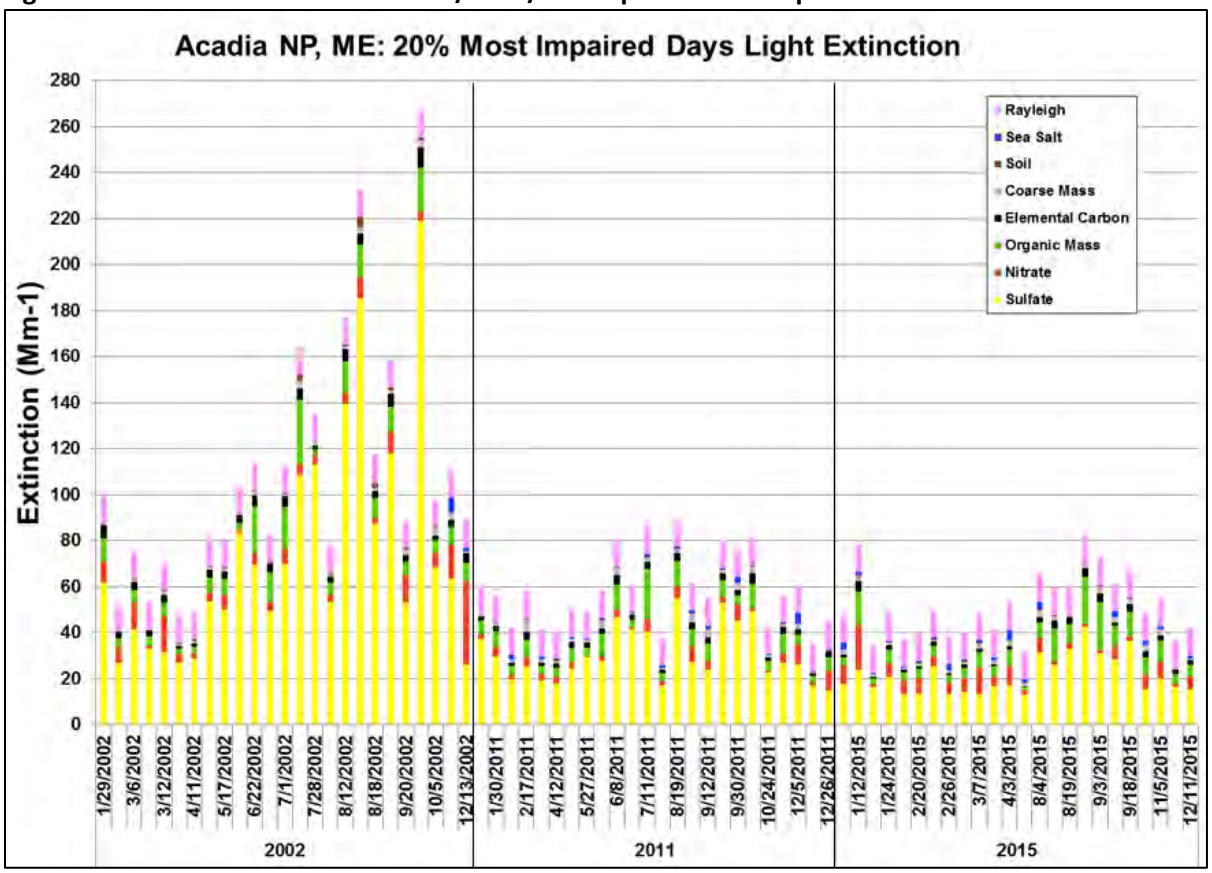


Figure 11: Moosehorn Wilderness 2002/2011/2015 Speciation Comparison

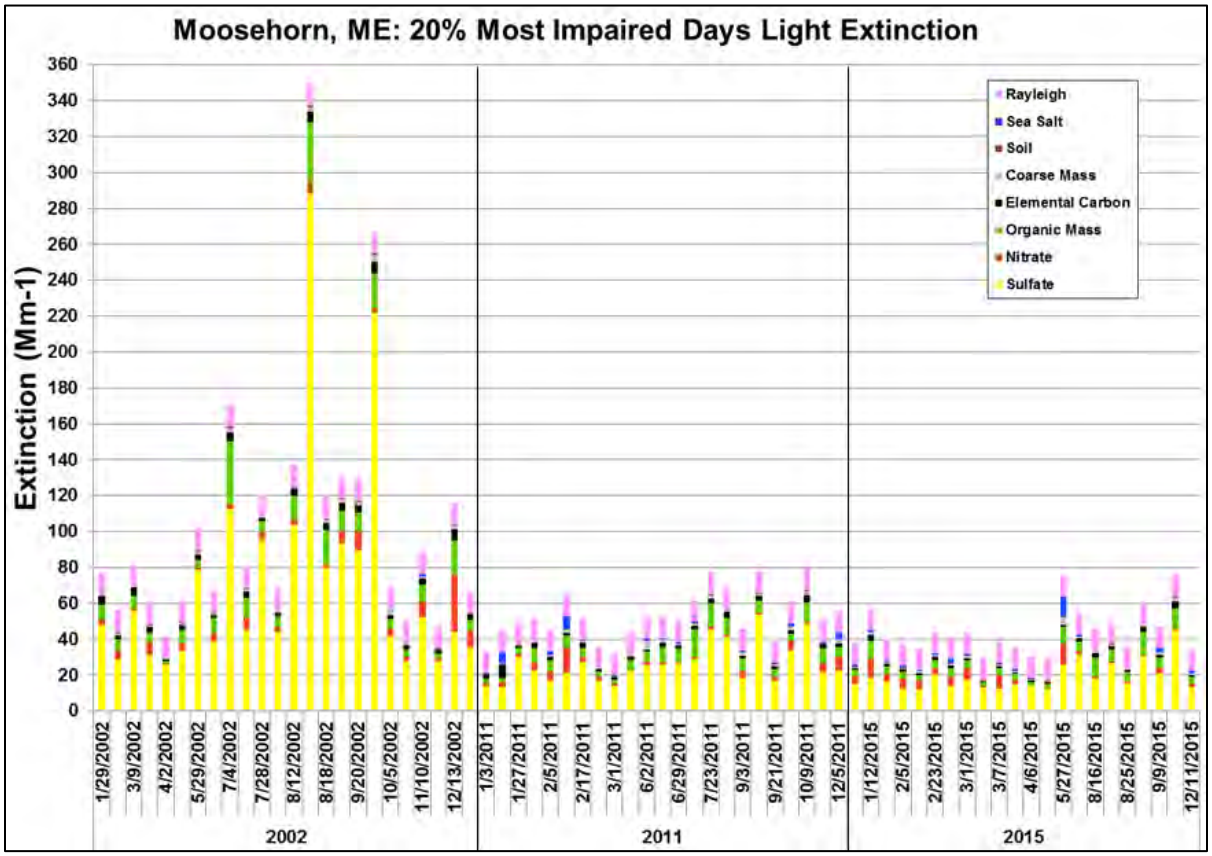


Figure 12: Great Gulf Wilderness 2002/2011/2015 Speciation Comparison

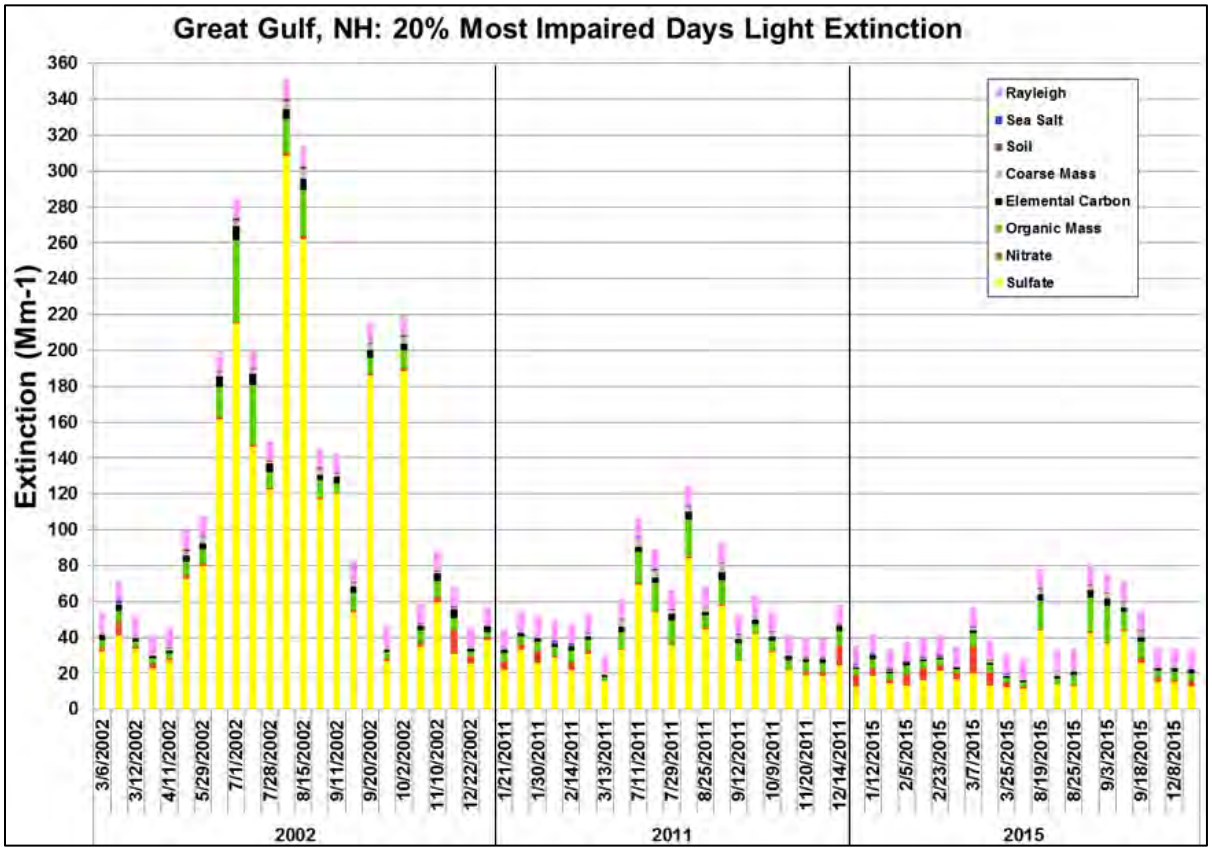


Figure 13: Lye Brook Wilderness 2011/2015 Speciation Comparison

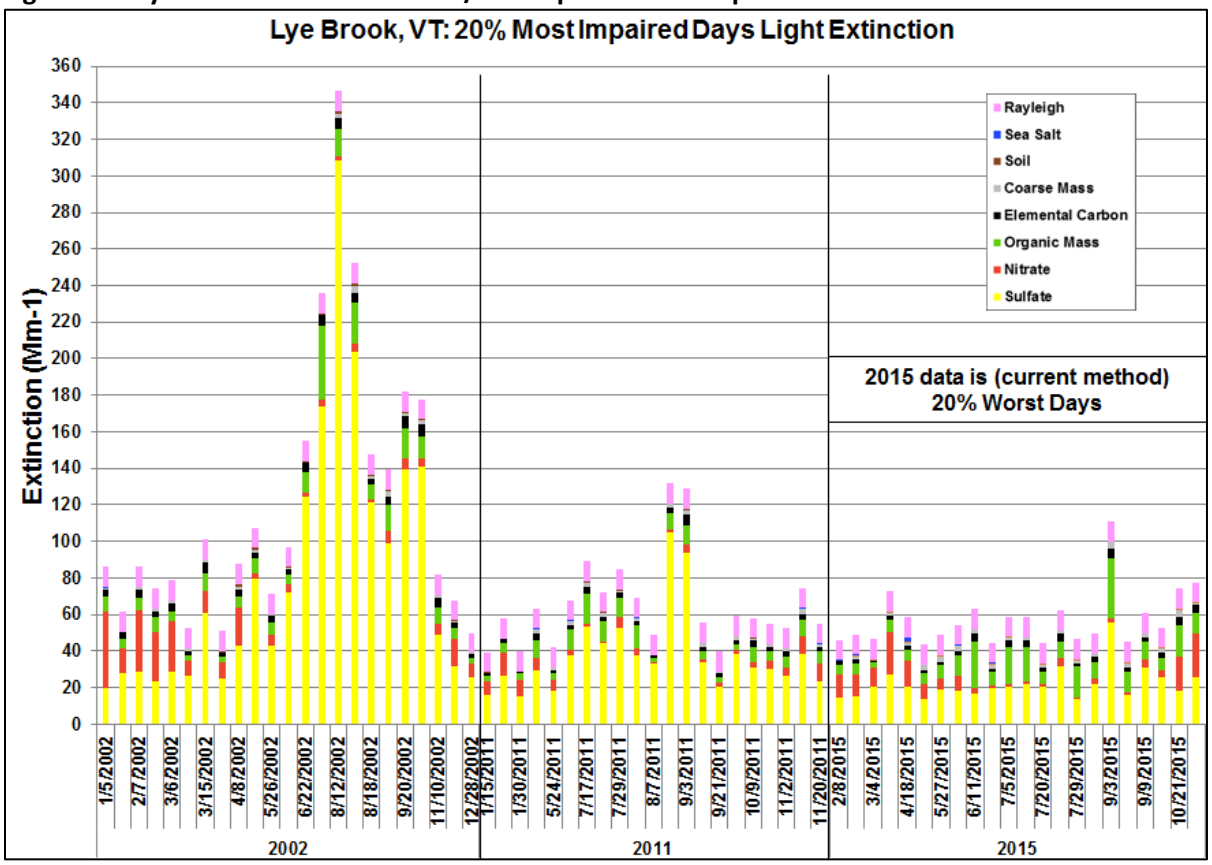


Figure 14: Brigantine Wilderness 2002/2011/2015 Speciation Comparison

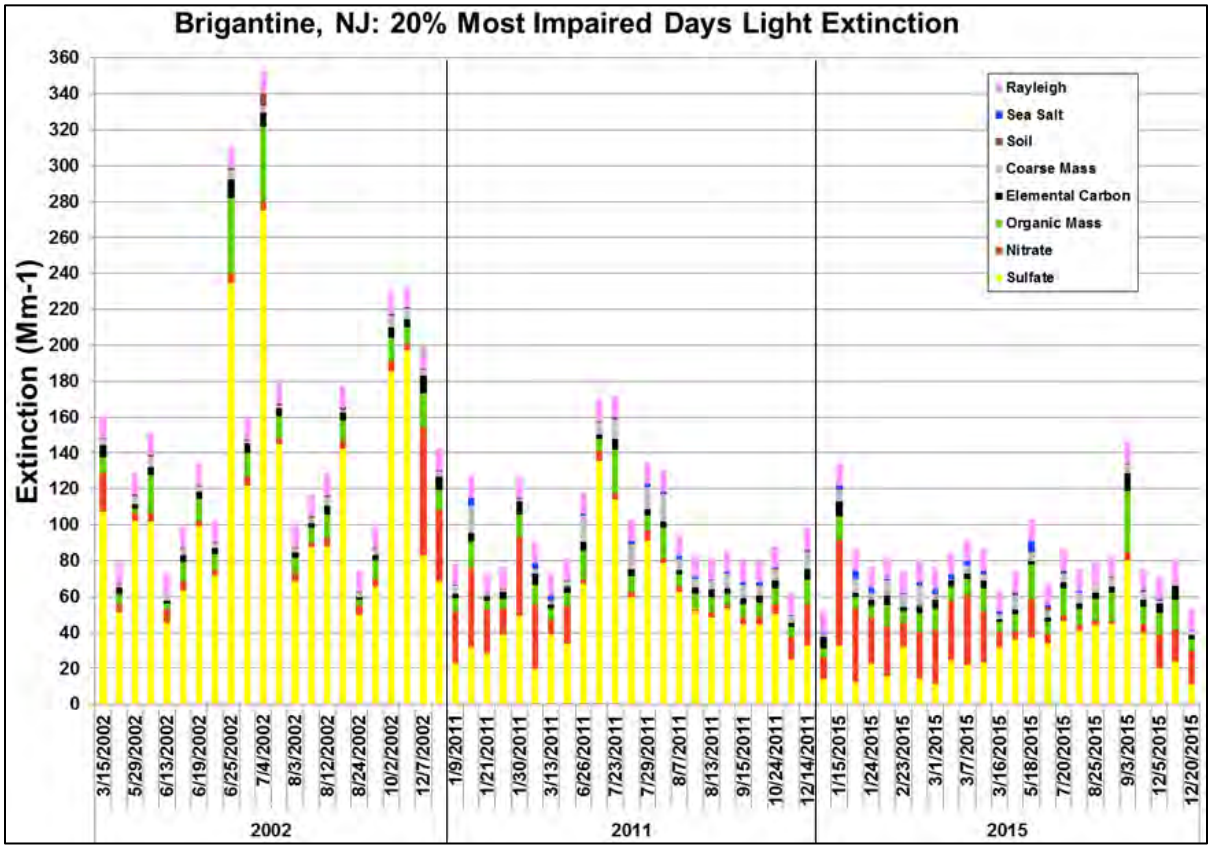


Figure 15: Shenandoah National Park 2002/2011/2015 Speciation Comparison

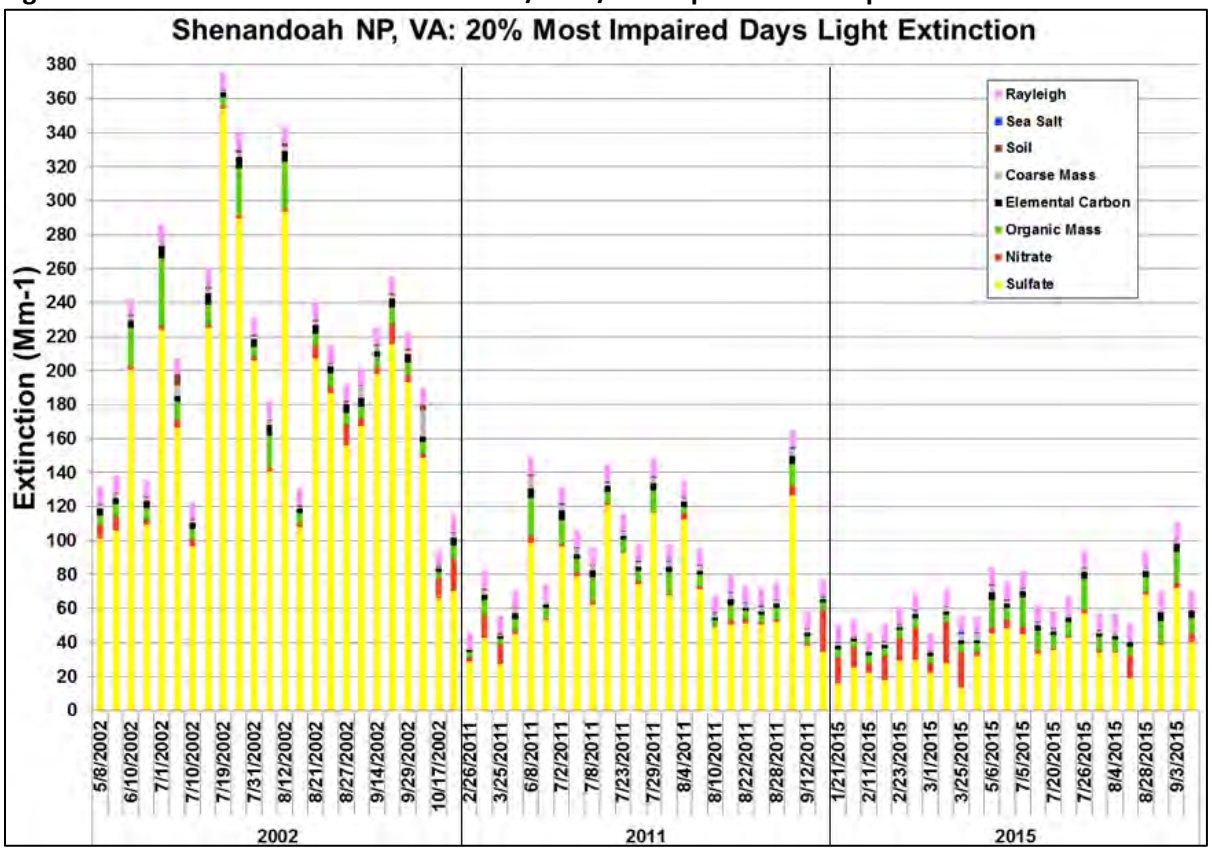


Figure 16: Dolly Sods Wilderness 2002/2011/2015 Speciation Comparison

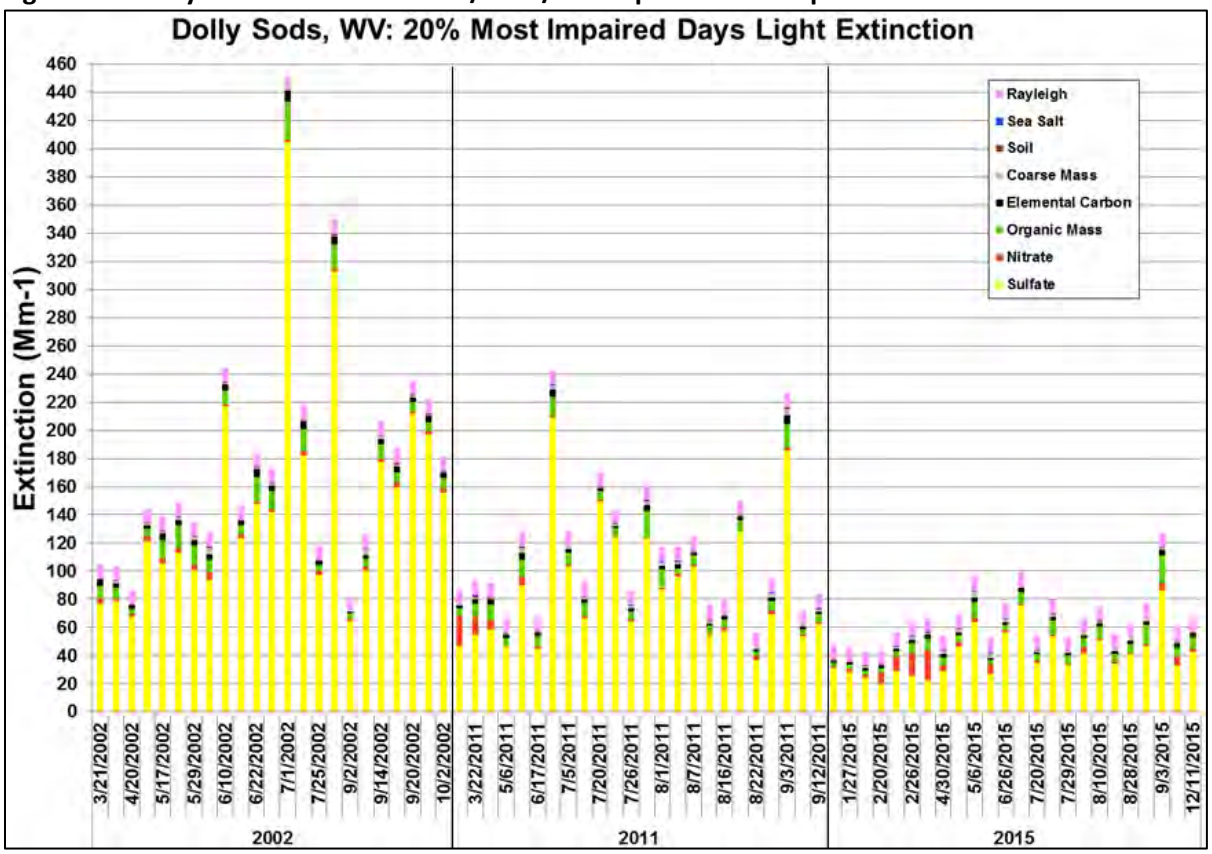
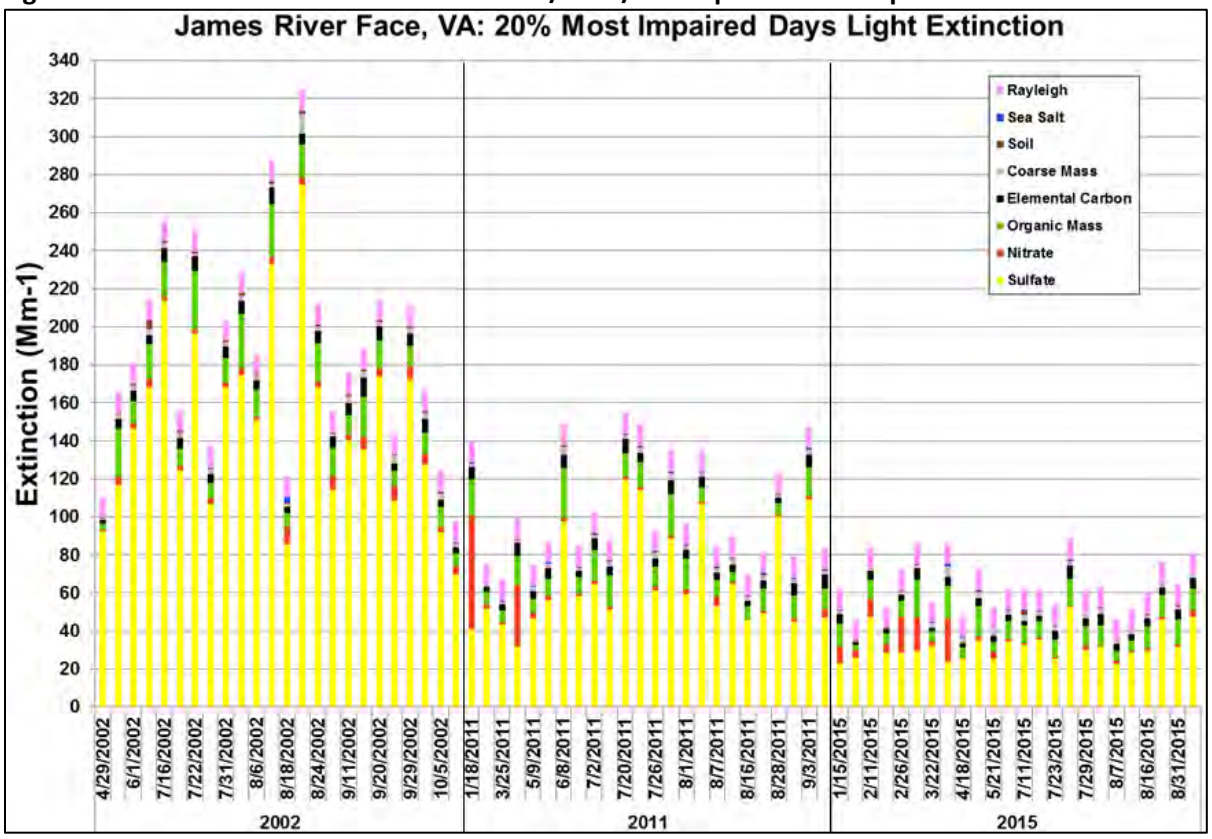


Figure 17: James River Face Wilderness 2002/2011/2015 Speciation Comparison



3.2 Percent Contribution Speciation Plots

Plots (see Figures 18-25) for each Class I area were created showing the percentage contribution for each of the species for 2002, 2011, 2015, 2000-04 (base 5-year period) and 2011-15 (current five year period). Sulfate light extinction percentage decreases for the regions Class I areas from 2000-04 to 2011-15 ranged from 17-28%. The resulting average light extinction percentage increase from Rayleigh scattering was 9-13% for northern Class I areas and 6-9% for Brigantine and other nearby Virginia and West Virginia Class I areas. Other significant (5% or more) light extinction component increases included:

- **Lye Brook Wilderness** - 5% from nitrates and 6% from organic carbon mass (note: higher because 2012-15 data from current method used instead of proposed method);
- **Shenandoah National Park** - 7% from nitrates;
- **Dolly Sods Wilderness** - 5% from nitrates; and
- **Brigantine Wilderness** - 13% from nitrates.

Figure 18: Acadia National Park 20% most impaired days light extinction speciation percentage

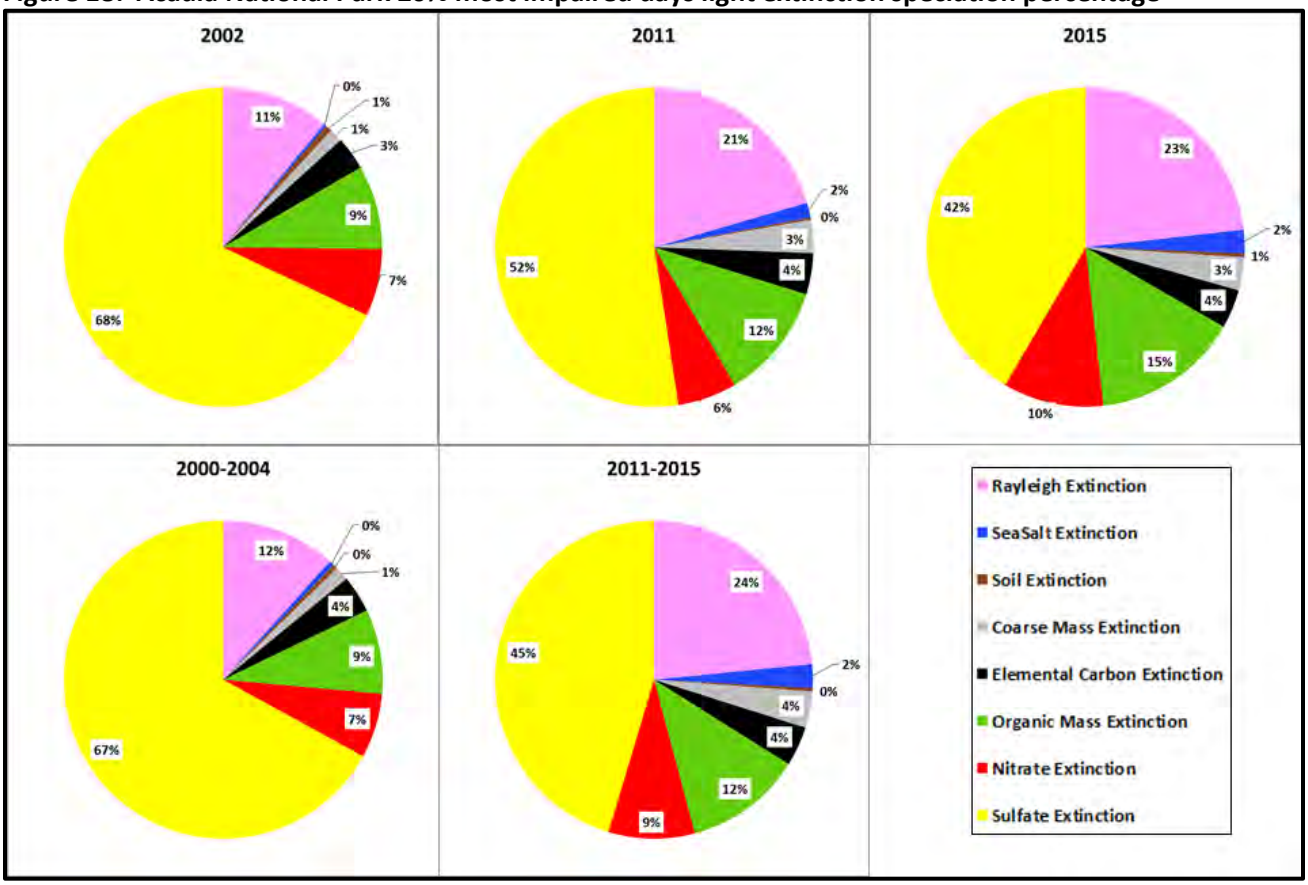


Figure 19: Moosehorn Wilderness 20% most impaired days light extinction speciation percentage

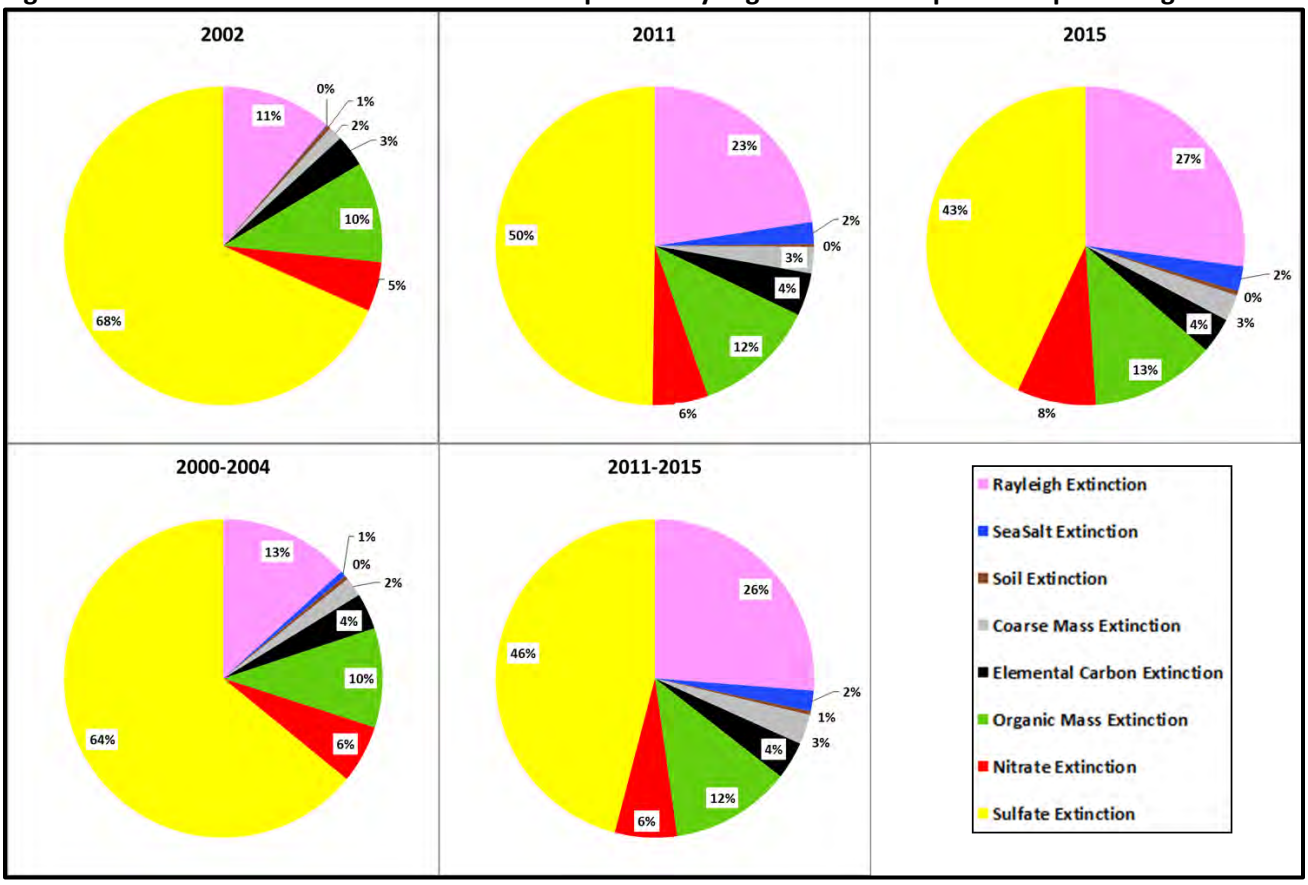


Figure 20: Great Gulf Wilderness 20% most impaired light extinction speciation percentage

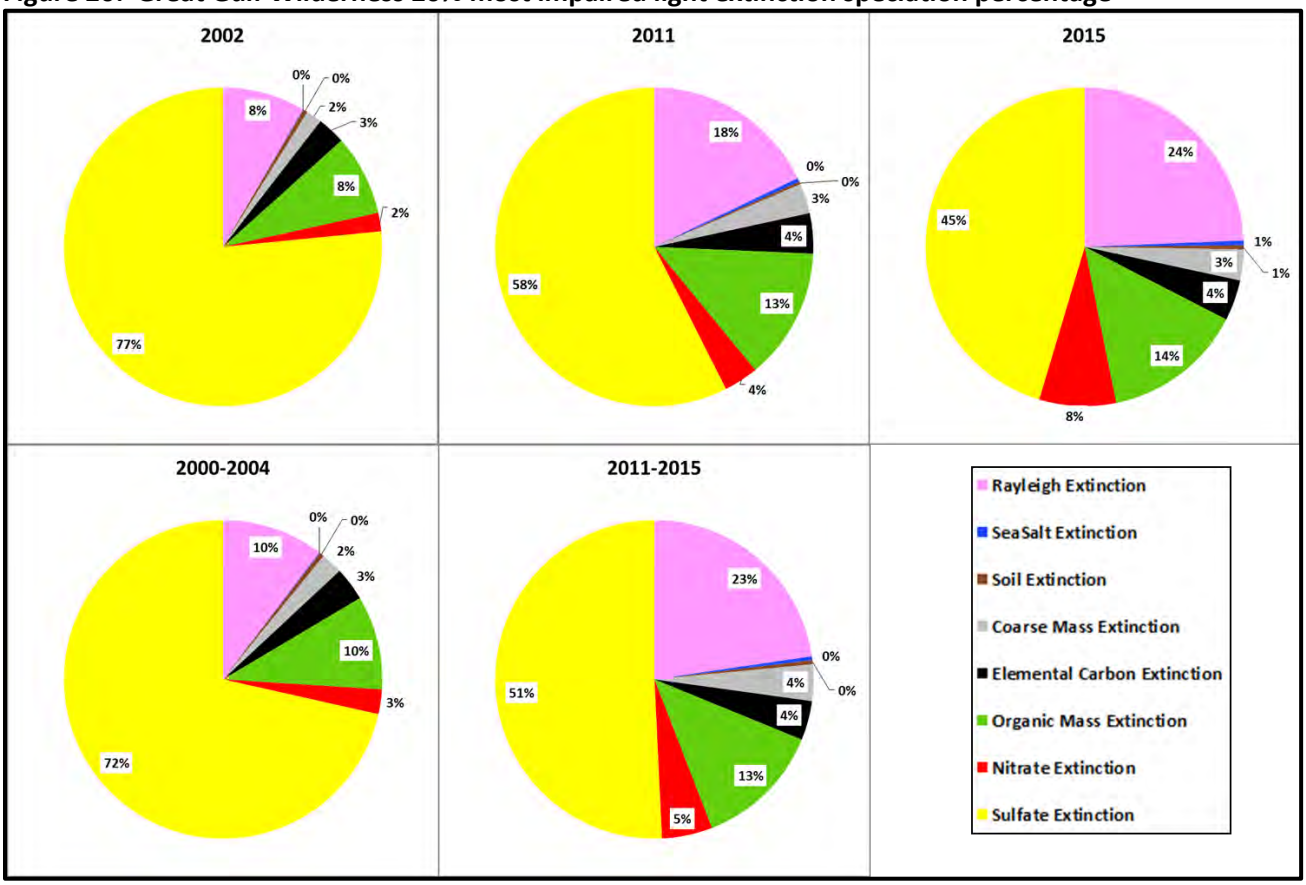


Figure 21: Lye Brook Wilderness 20% most impaired days light extinction speciation percentage

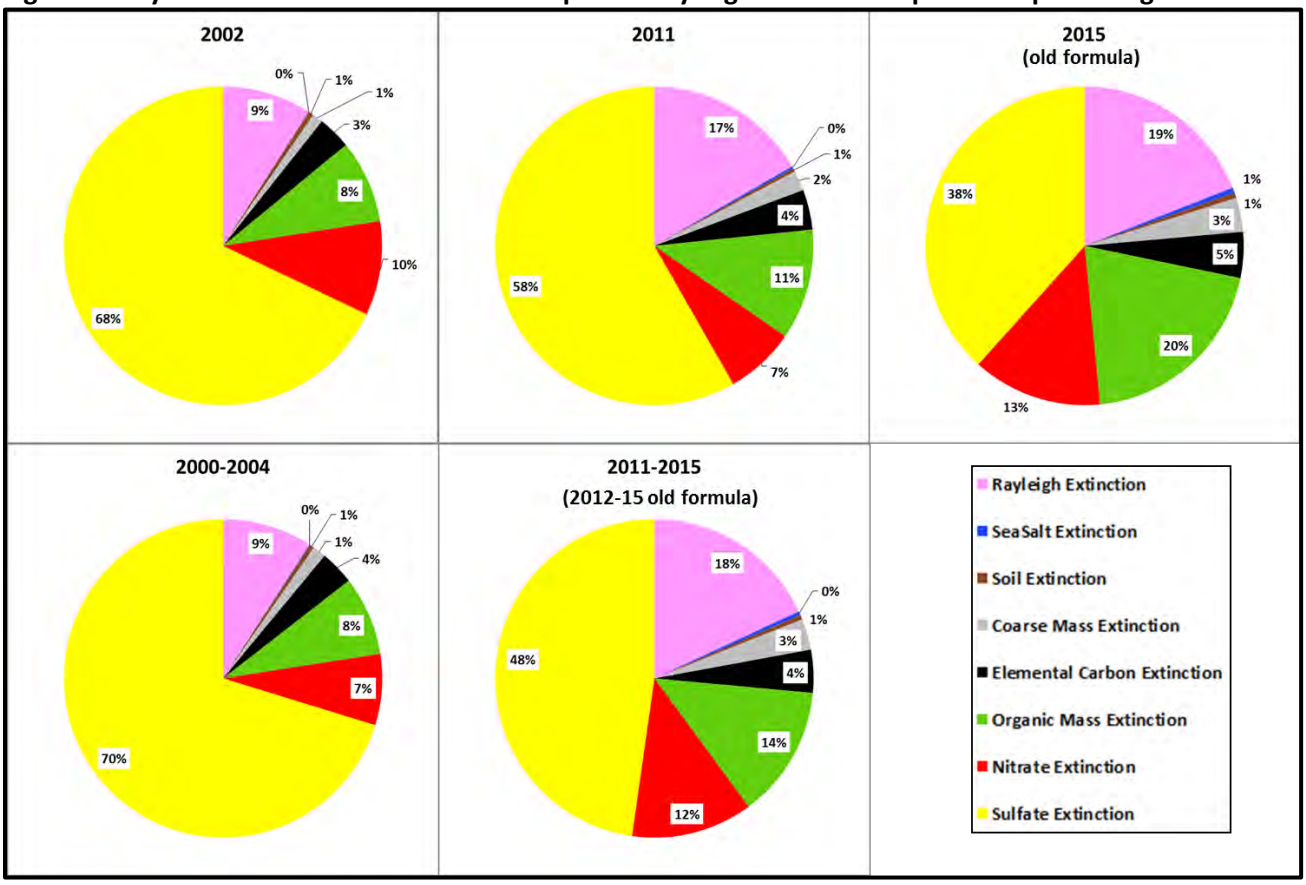


Figure 22: Brigantine Wilderness 20% most impaired days light extinction speciation percentage

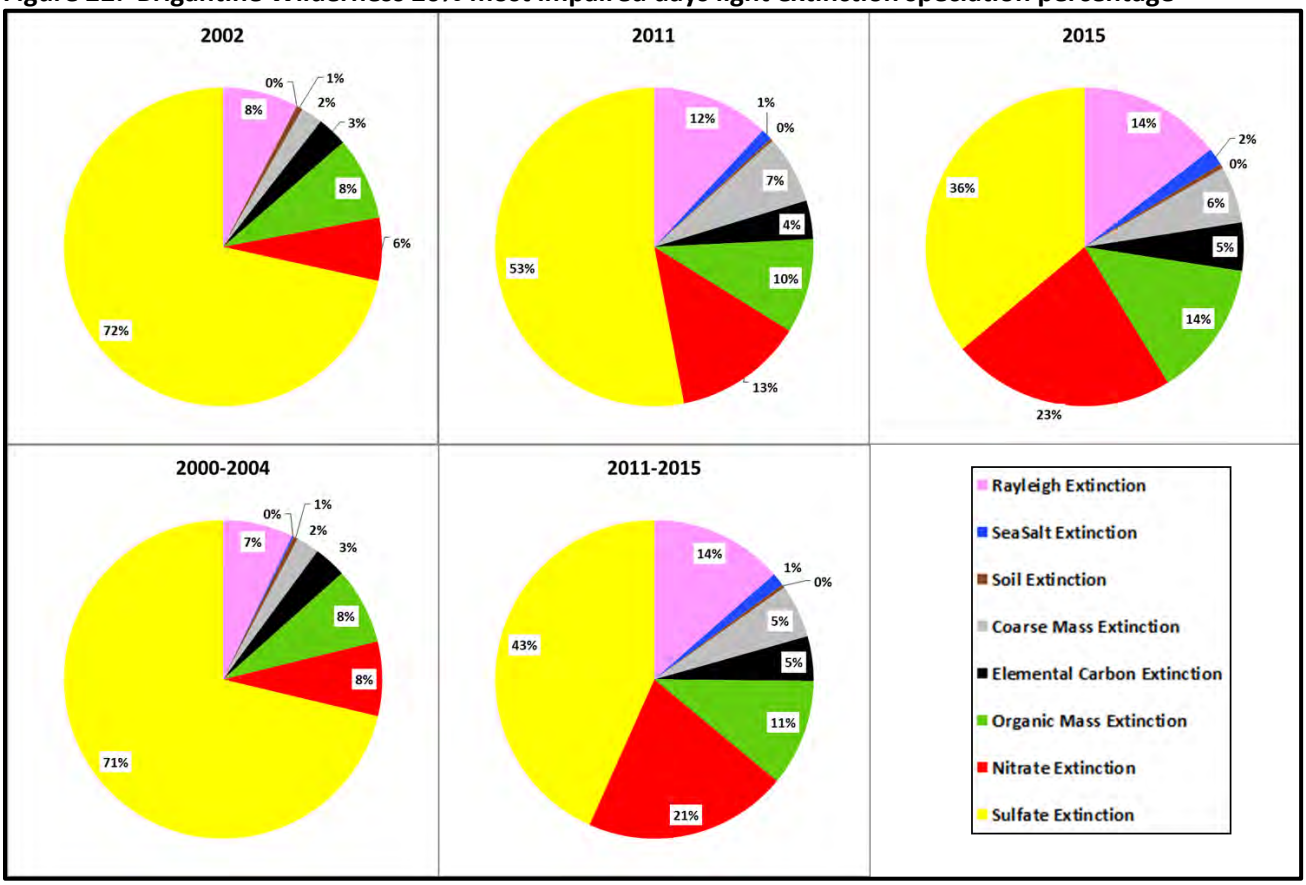


Figure 23: Shenandoah National Park 20% most impaired days light extinction speciation percentage

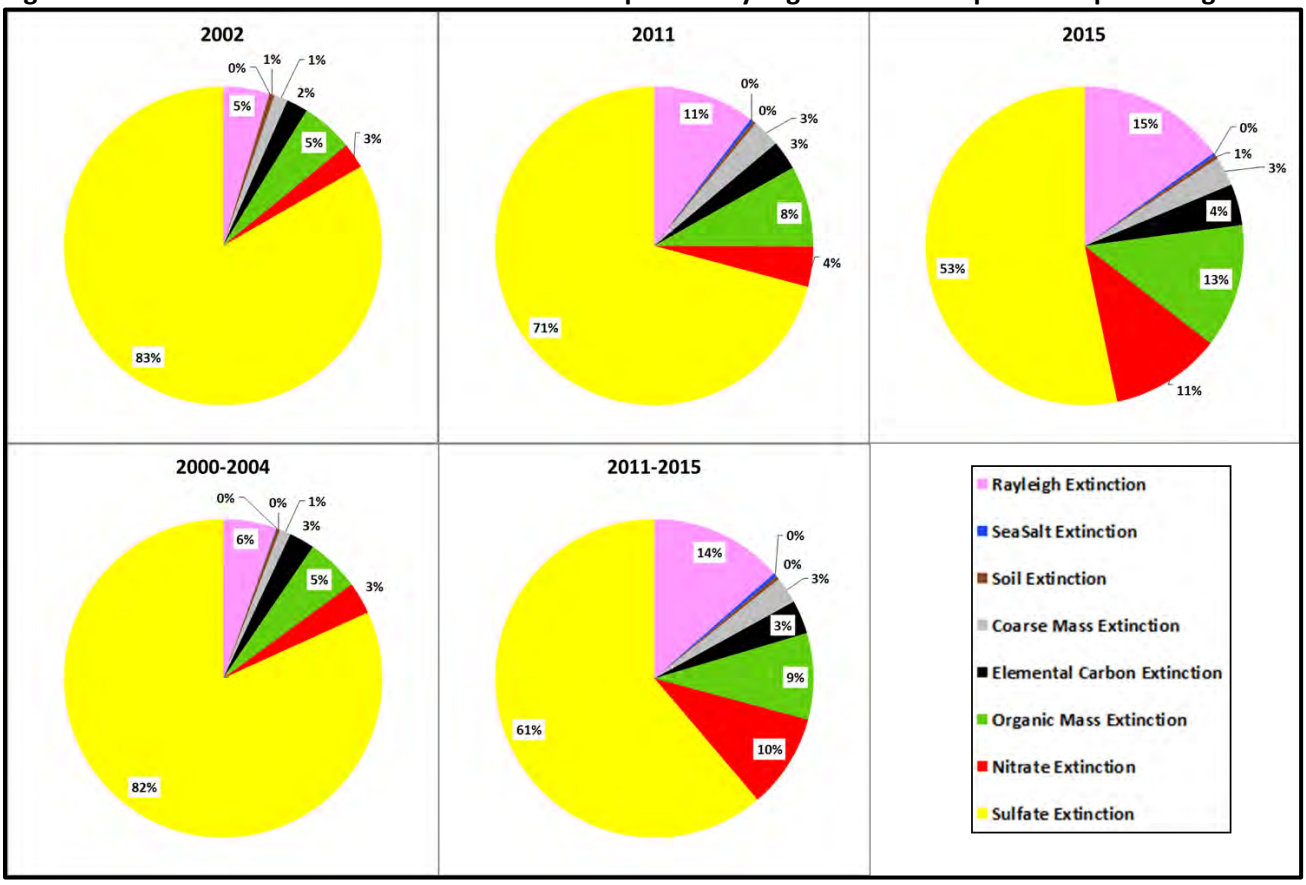


Figure 24: Dolly Sods Wilderness 20% most impaired days light extinction speciation percentage

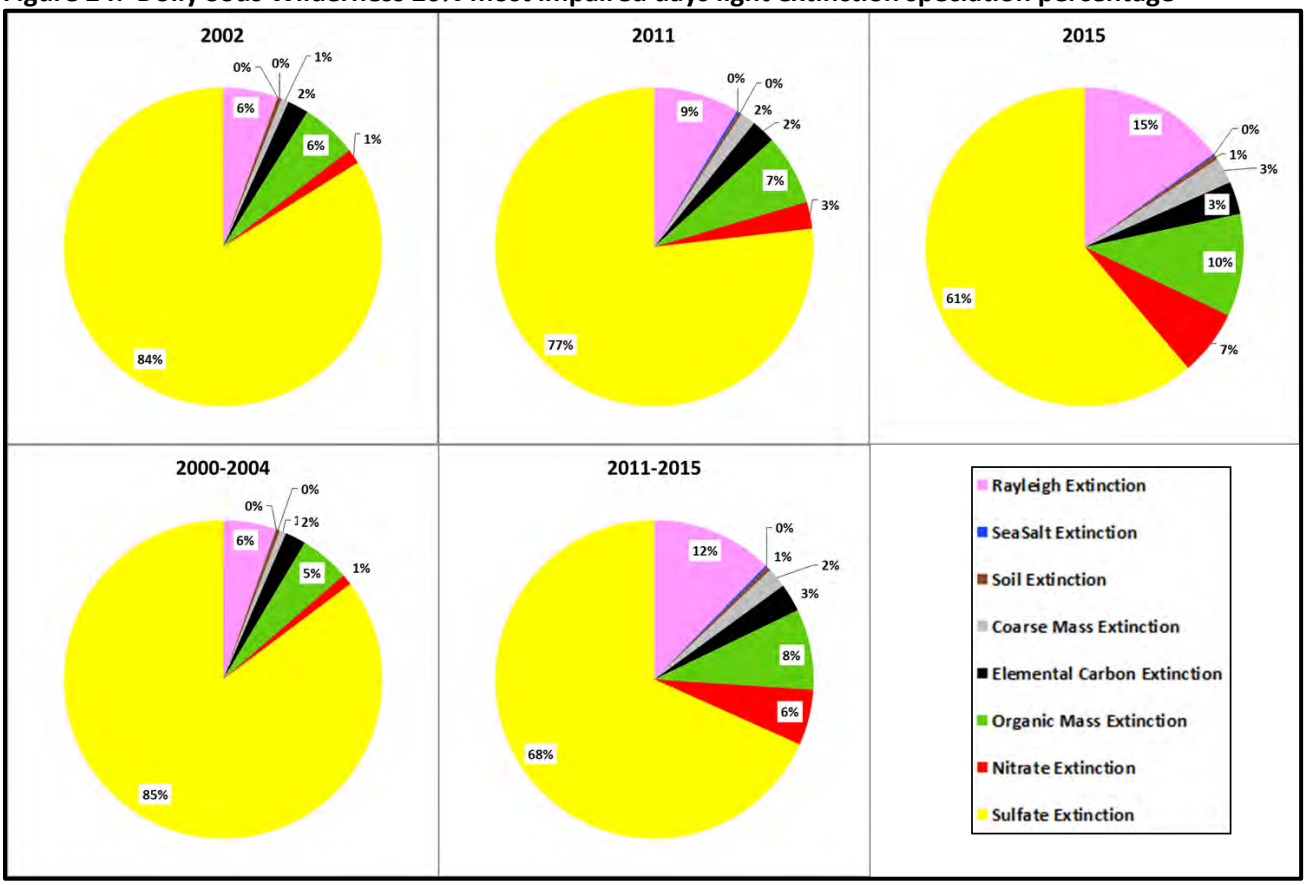
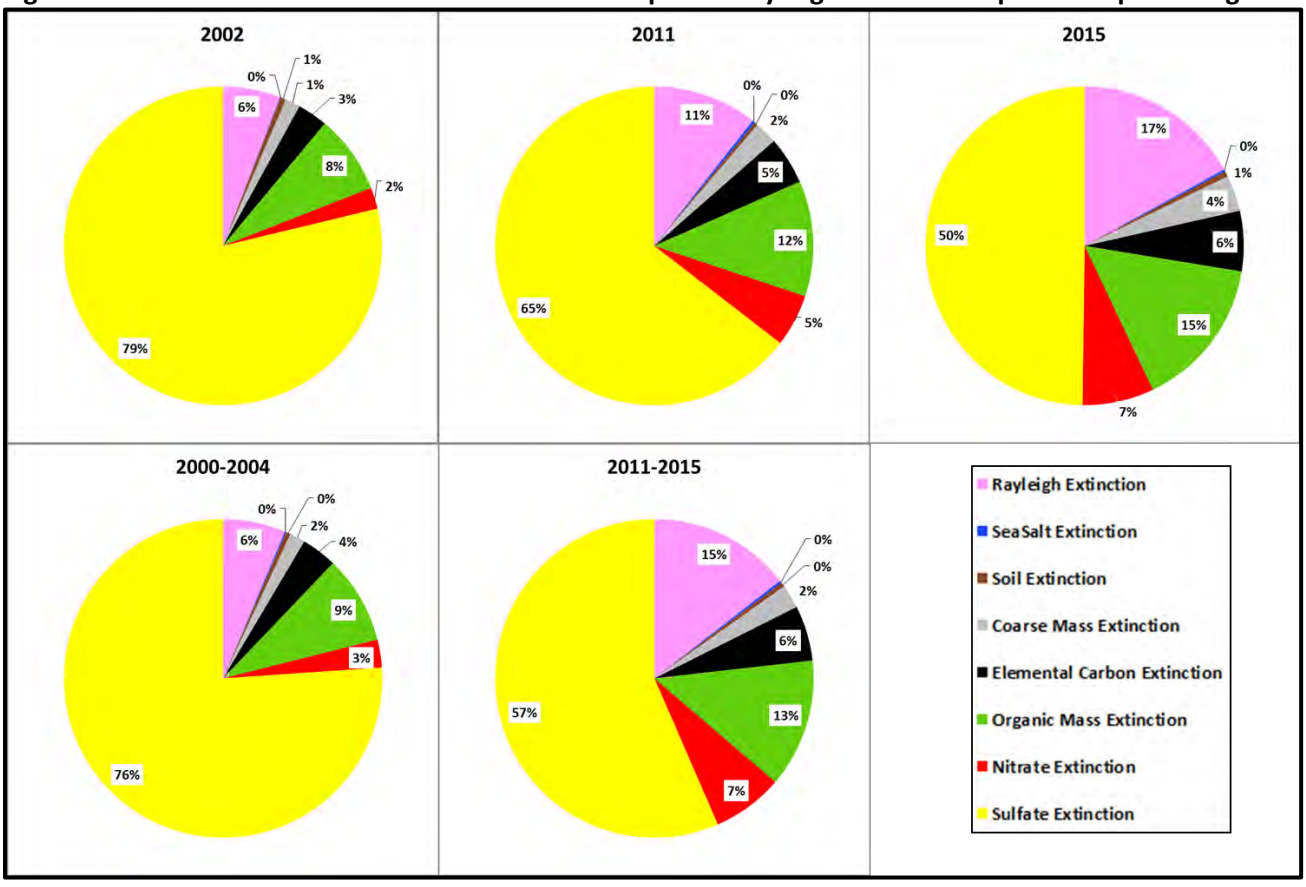


Figure 25: James River Face Wilderness 20% most impaired days light extinction speciation percentage



4.0 Trajectory Analysis

MEDEP-BAQ Air Quality Meteorologists conducted a back trajectory analysis for the 20% most impaired days for 2002, 2011 and 2015 at each of the five Class I Areas within MANE-VU as well as the three nearby Class I areas as listed in Section 2.0. Years chosen were the same years used in the 2016 MANE-VU Source Contribution Modeling Report (*CALPUFF Modeling of Large Electrical Generation units and Industrial Sources*).

A trajectory is a three dimensional representation of the path an air parcel followed based on forecast or archived meteorological data. A back trajectory is the path the parcel took to reach a specific point in time and space.

The National Oceanic and Atmospheric Administration (NOAA) Air Resources Laboratory's HYSPLIT (HYbrid Single-Particle Lagrangian Integrated Trajectory) is a computer model used to create and map trajectories (Draxler and Hess December 1997). The model uses gridded meteorological data, which is selected within the online model's GUI.

HYSPLIT is available for use online and also on a local computer (PC). MEDEP-BAQ staff meteorologists used the online version to create the trajectories included in this analysis. Archived EDAS meteorological (MET) data at 80 km was used for the dates in 2002 while EDAS at 40 km was for dates in 2011 & 2015 used because this data set had the best resolution and had an excellent data recovery rate. The previous trajectory analyses, *Contributions to Regional Haze in the Northeast and Mid-Atlantic United States* (NESCAUM 31 August 2006) performed for the first round of Regional Haze SIP was reviewed and it was determined due to resource restraints that the following settings within HYSPLIT would be used in this analysis to give states a general understanding of transport patterns during the 20% most impaired days for each Class I area:

- The model was set to include vertical velocity.
- Back trajectory length was set at 72 hours.
- Ending height was set to 500m above ground level.
- Four start times were set for each day -- 3AM, 9AM, 3PM and 9PM.

For each run, the HYSPLIT online model generates both a graphical presentation of the trajectories and a text file. The text file contains information about the hourly endpoints along each trajectory path including the location in time and space. These endpoint text files were saved and subsequently loaded into an Access database for each site. Each site's database was then mapped in ARCMAP, a geographical mapping tool used within the department.

4.1 Trajectory Analysis Results

Trajectories can identify the frequency and general direction of air masses that are transported to a Class I area. However, trajectories don't distinguish emissions density nor what area along the 72-hour projection is most likely to contribute emissions that impact the Class I areas. The results will be useful in combination with other contribution analyses.

Two types of maps were created for each Class I area. The first map will show the frequency (count) of hourly trajectory endpoints in each of the 25x25 mile grid points on a map to help define transport patterns to a Class I area during the most impaired visibility days. The second set of maps will show individual trajectories for each day to show seasonal differences in transport patterns. Note that you can also use the trajectory plots to look at potential impact from states in combination with other contribution analyses. CALPUFF modeling results (Mid-Atlantic Northeast Visibility Union April 2017) used for comparison with the trajectory analyses include states having an impacting EGU source or Industrial Source (industrial, commercial, and institutional) source with at least a 1 Mm^{-1} light extinction impact to a Class I area. Detailed source impacts are in Appendix F of the CALPUFF modeling report. For EGU source impacts, results are for the more recent 2015 95^{th} percentile emissions modeled using 2002, 2011 and 2015 meteorology. For Industrial Source source impacts, results are for 2011 typical emissions (2015 emissions not yet available) also modeled using 2002, 2011 and 2015 meteorology. Note that every day was modeled in the CALPUFF analysis not the 20% most impaired days. For each Class

I area in the following subsections are a list of states meeting that criteria and trajectory plots for 2002, 2011 and 2015 20% most impaired days.

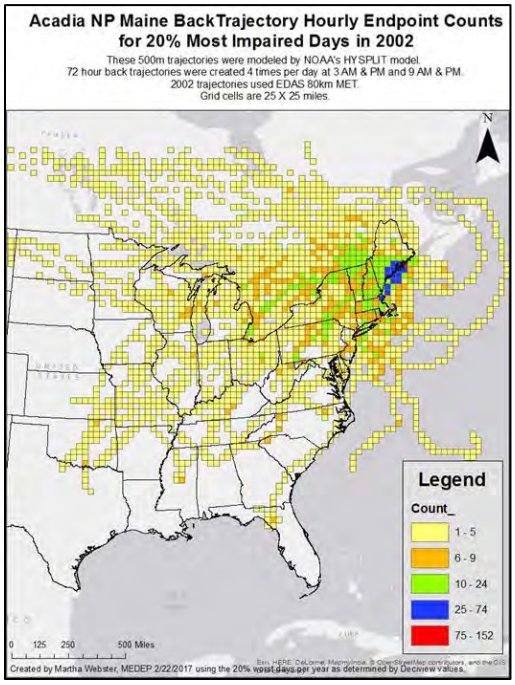
4.1.1 Acadia National Park

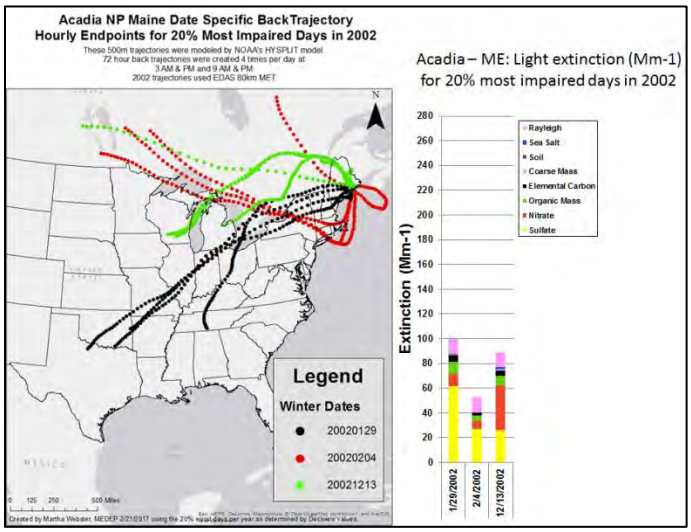
CALPUFF modeling results showed the following states (including the number of sources) meeting the criteria contributing to Acadia National Park regional haze impacts:

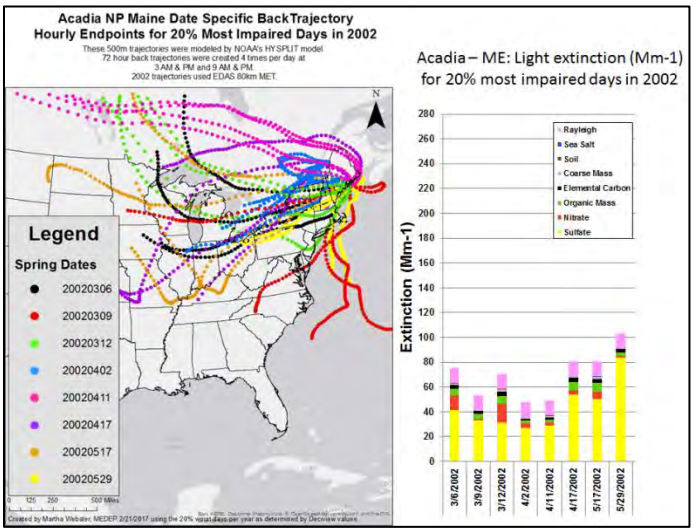
- MANE-VU Northeast states
  - Maine - 1 EGU and 4 Industrial Sources
  - Maryland - 2 EGUs and 1 Industrial Source
  - Massachusetts - 3 EGUs
  - New Hampshire - 4 EGUs
  - New York - 2 EGUs and 1 Industrial Source
  - Pennsylvania - 10 EGUs
- LADCO Midwest states
  - Illinois - 1 EGU
  - Indiana - 4 EGUs and 1 Industrial Source
  - Michigan - 7 EGUs
  - Ohio - 8 EGUs and 1 Industrial Source
- SESARM Southeast states
  - Georgia - 1 EGU
  - Kentucky - 3 EGUs
  - Tennessee - 1 EGU
  - Virginia - 2 EGUs and 1 Industrial Source
  - West Virginia - 2 EGUs

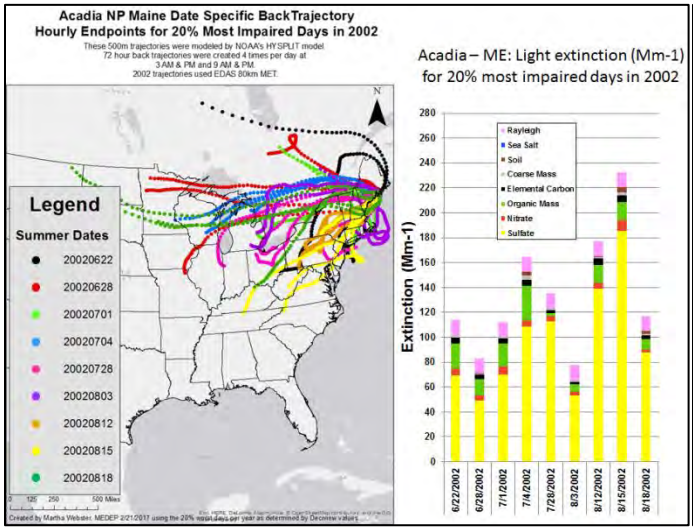
Trajectory plots for the 2002 (Figure 26), 2011 (Figure 27) and 2015 (Figure 28) 20% most impaired visibility days show trajectories from many regions including the states listed above. Transport patterns are similar for the three years. Other than the MANE-VU and Canadian regions, the strongest signal was from LADCO states and northern SESARM states. There was a strong signal from Canada due to a mixture of impacts from the high populated areas from Toronto to Montreal and from other areas of Canada with smoke impacts (higher OMC fraction) from forest fires.

Figure 26: Trajectory analyses of Acadia National Park most impaired days during 2002









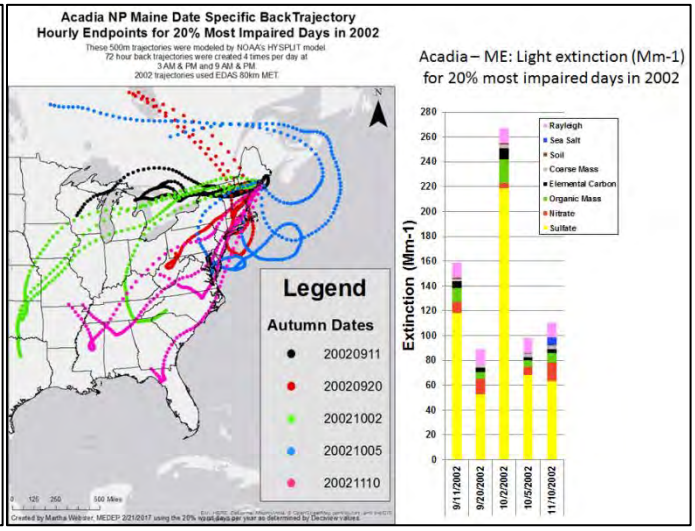
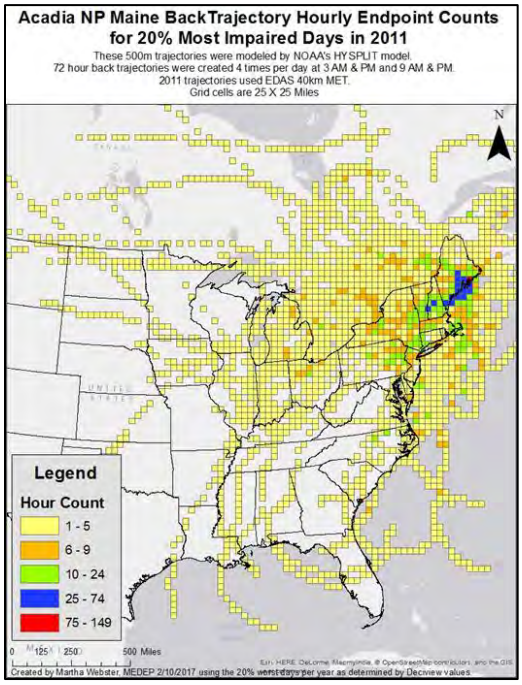
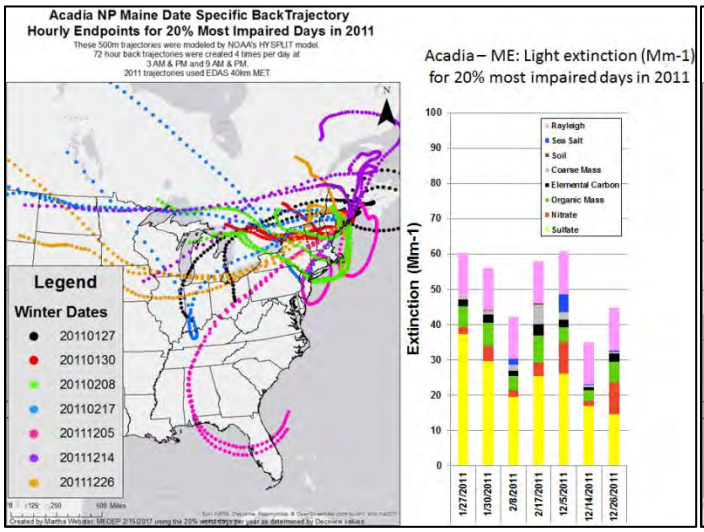
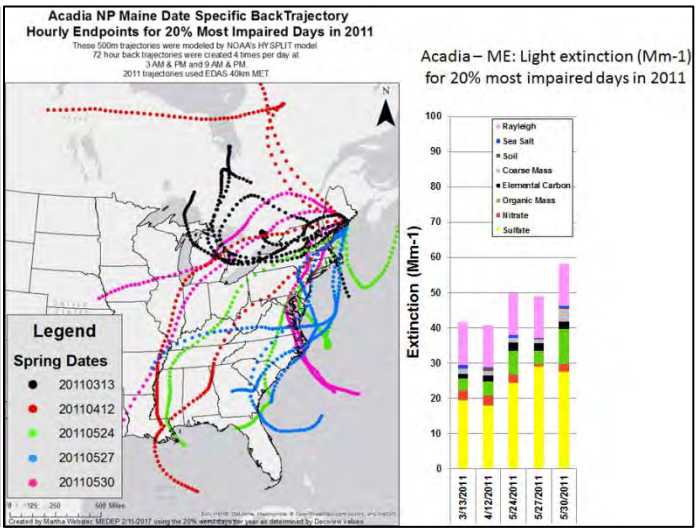
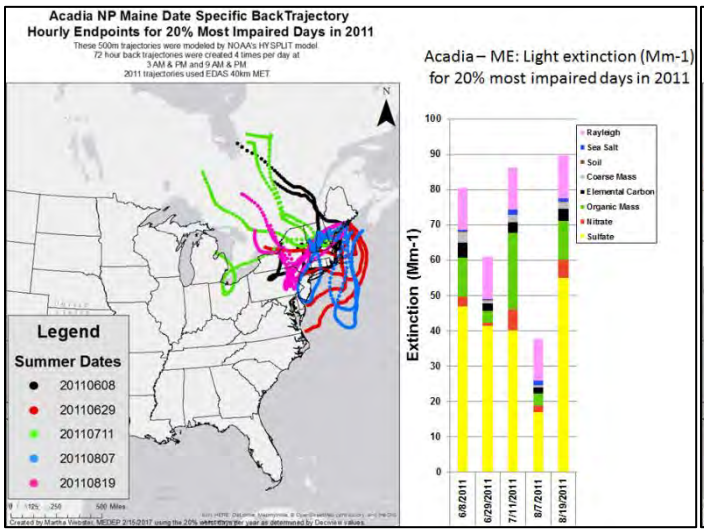


Figure 27: Trajectory analyses of Acadia National Park most impaired days during 2011









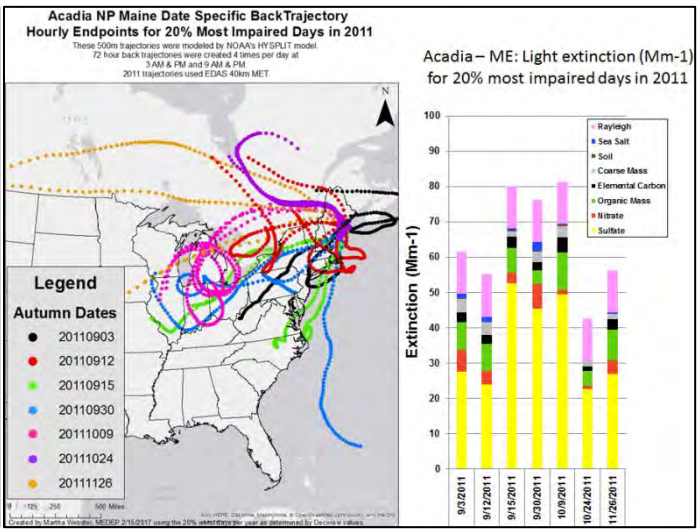
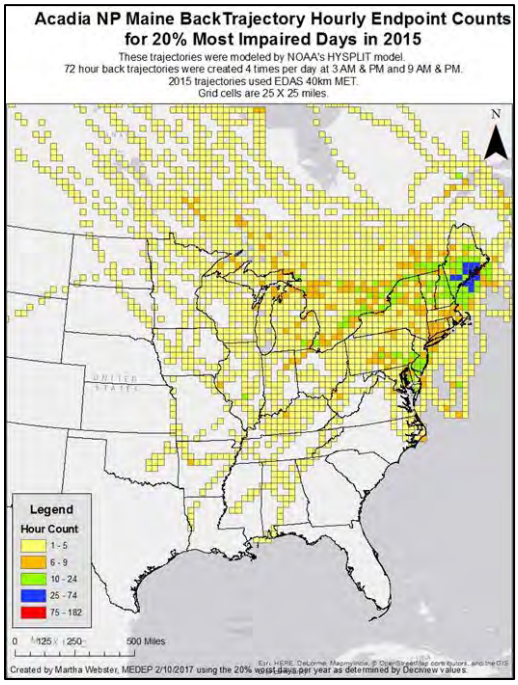
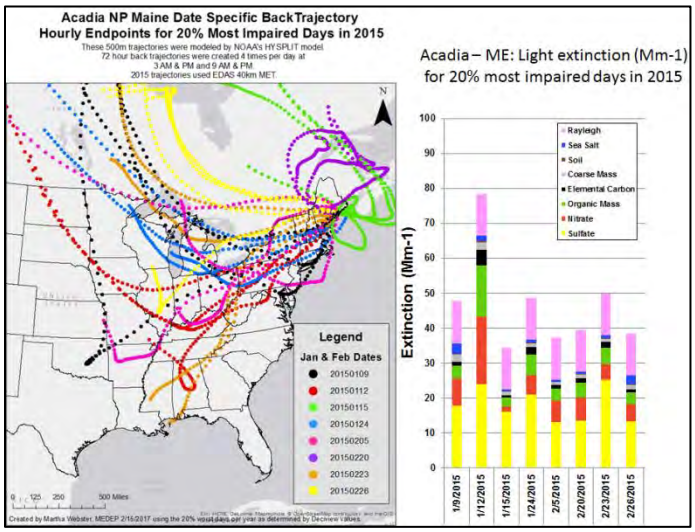
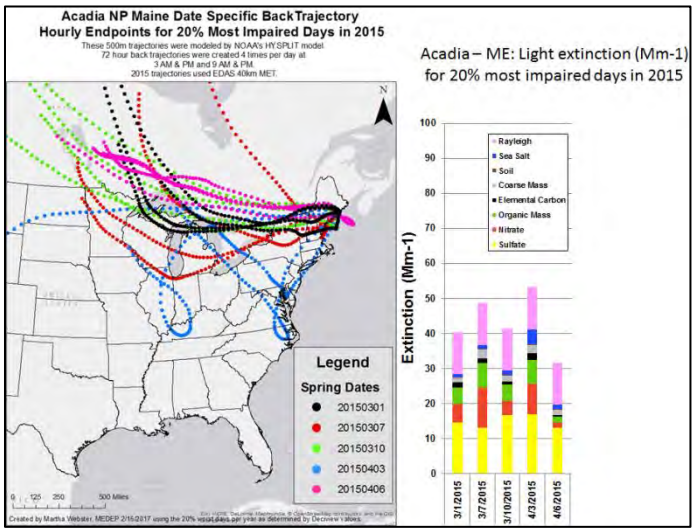
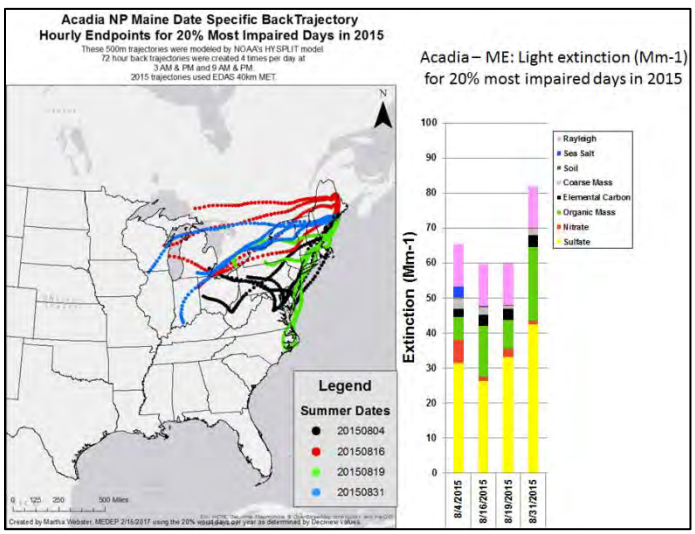


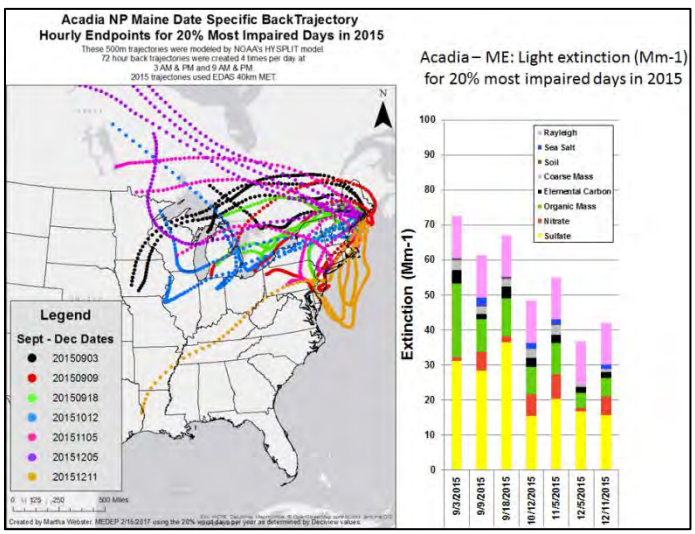
Figure 28: Trajectory analyses of Acadia National Park most impaired days during 2015











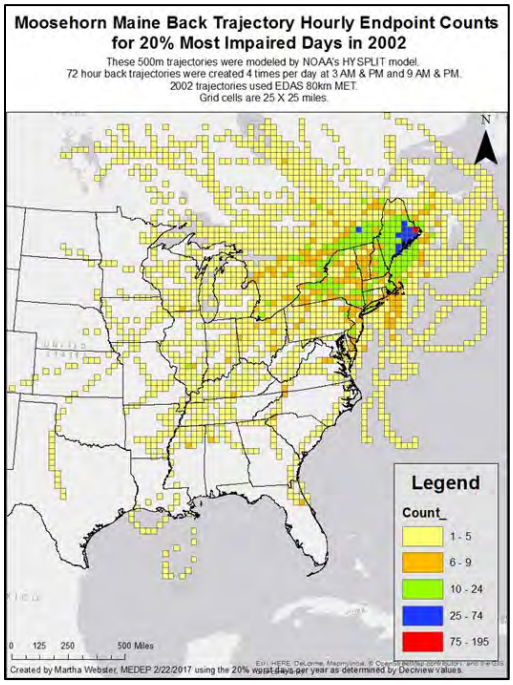
4.1.2 Moosehorn Wilderness Area

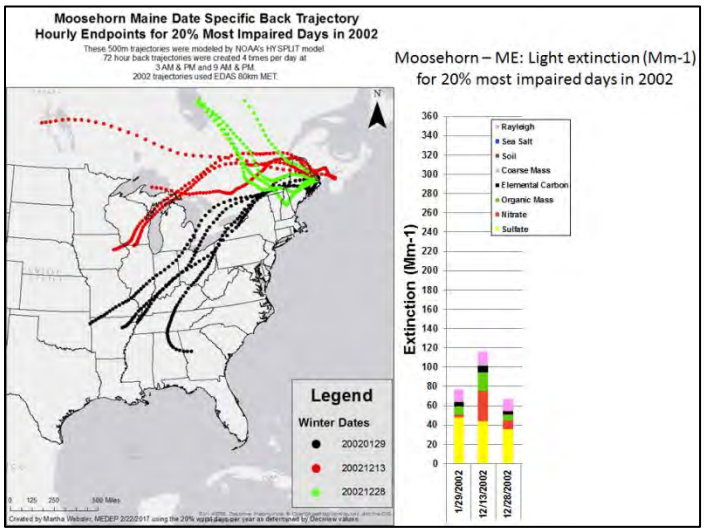
CALPUFF modeling results showed the following states meeting the criteria contributing to Moosehorn Wilderness regional haze impacts:

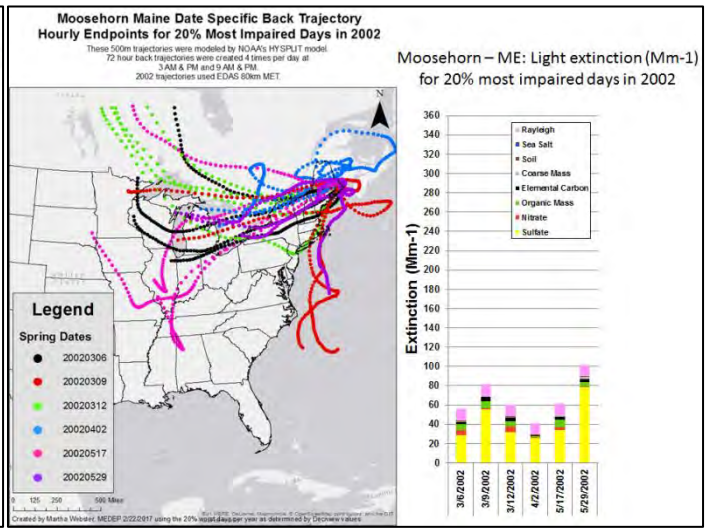
- MANE-VU Northeast states
  - Maine - 1 EGU and 2 Industrial Sources
  - Maryland - 1 EGU and 1 Industrial Source
  - Massachusetts - 3 EGUs
  - New Hampshire - 1 EGU
  - New York - 1 EGU and 1 Industrial Source
  - Pennsylvania - 9 EGUs
- LADCO Midwest states
  - Illinois - 1 EGU
  - Indiana - 4 EGUs and 1 Industrial Source
  - Michigan - 6 EGUs
  - Ohio - 7 EGUs and 1 Industrial Source
- SESARM Southeast states
  - Georgia - 1 EGU
  - Kentucky - 2 EGUs
  - Tennessee - 1 EGU
  - Virginia - 2 EGUs
  - West Virginia - 2 EGUs

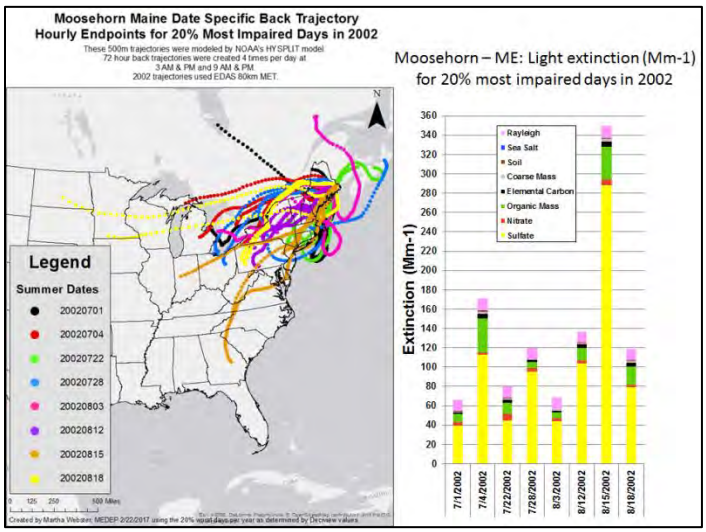
Trajectory plots for the 2002 (Figure 29), 2011 (Figure 30) and 2015 (Figure 31) 20% most impaired visibility days show trajectories from all the states listed. Transport patterns are similar for the three years. Other than the MANE-VU and Canadian regions, the strongest signal was from LADCO and northern SESARM states. Similar to the Acadia National Park trajectories, there was a very strong signal from Canada.

Figure 29: Trajectory analyses of Moosehorn Wilderness most impaired days during 2002









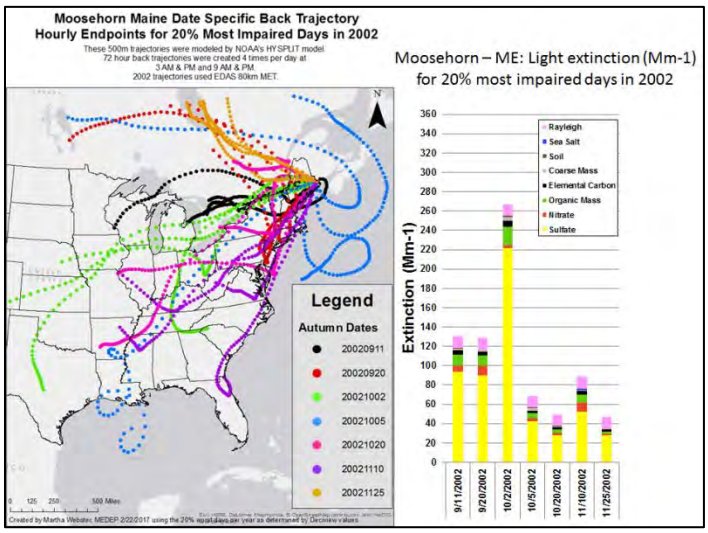
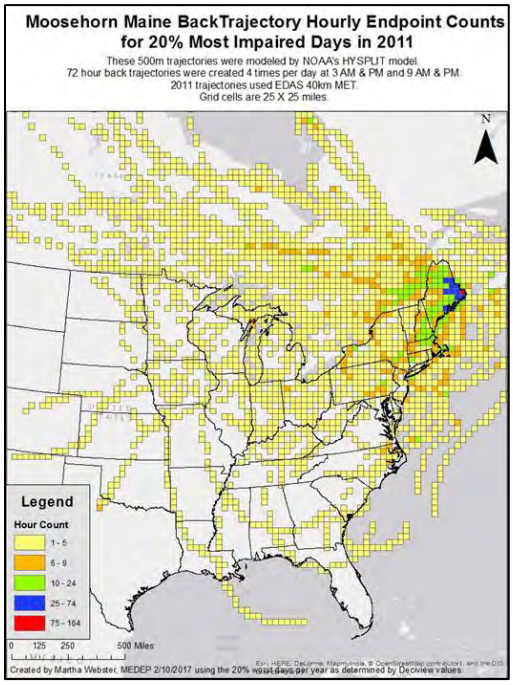
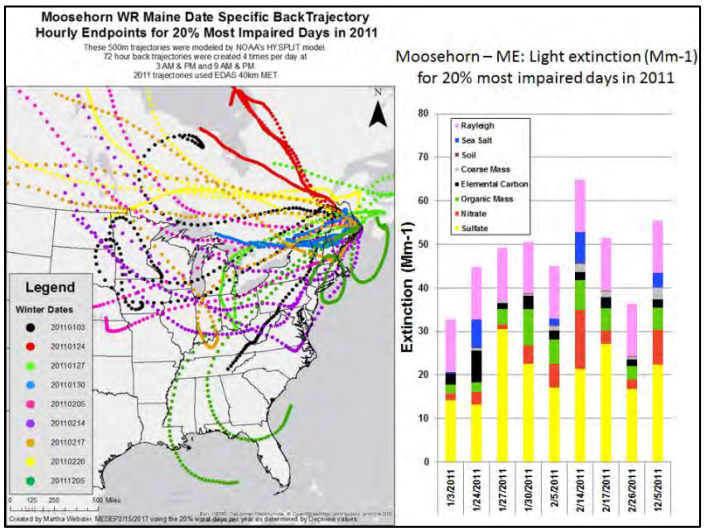
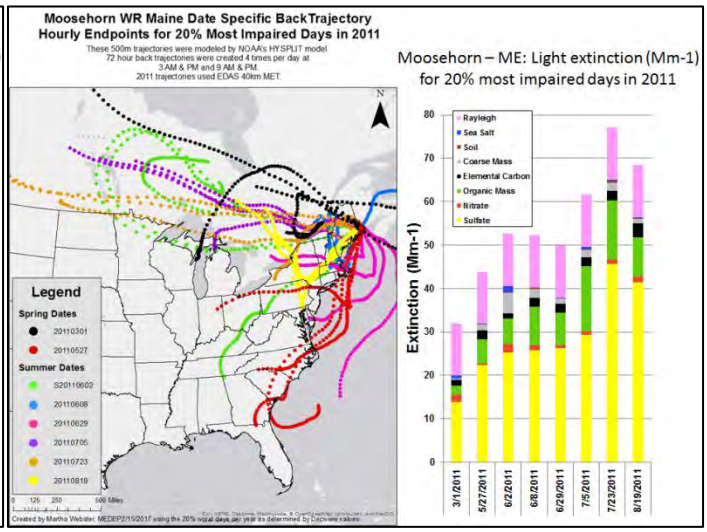


Figure 30: Trajectory analyses of Moosehorn Wilderness most impaired days during 2011







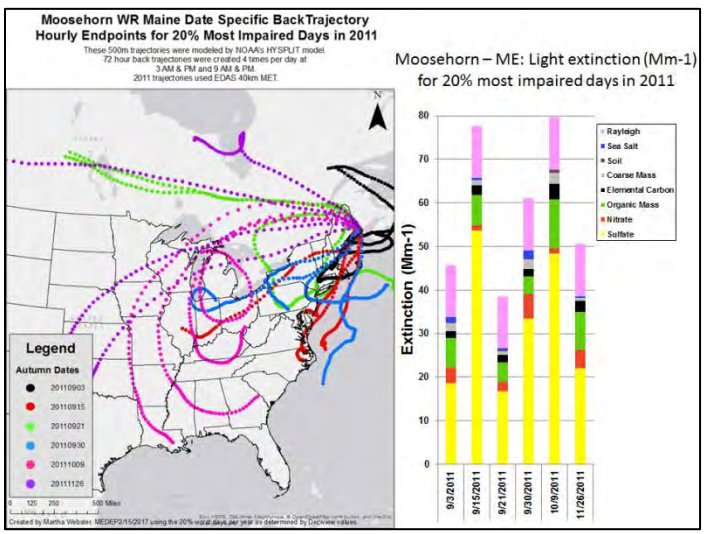
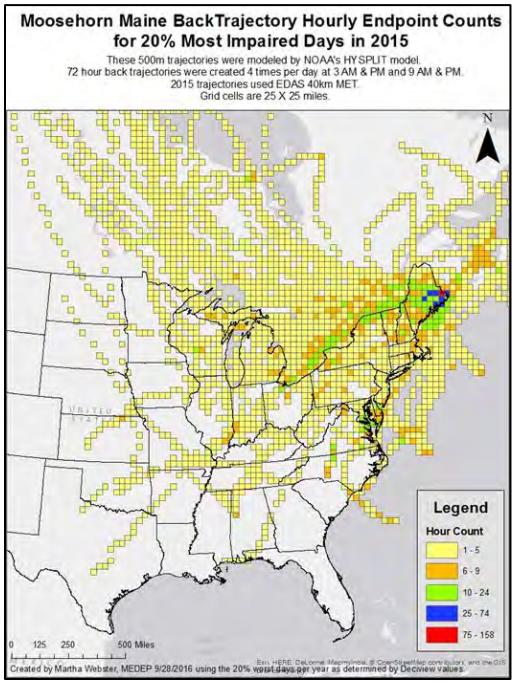
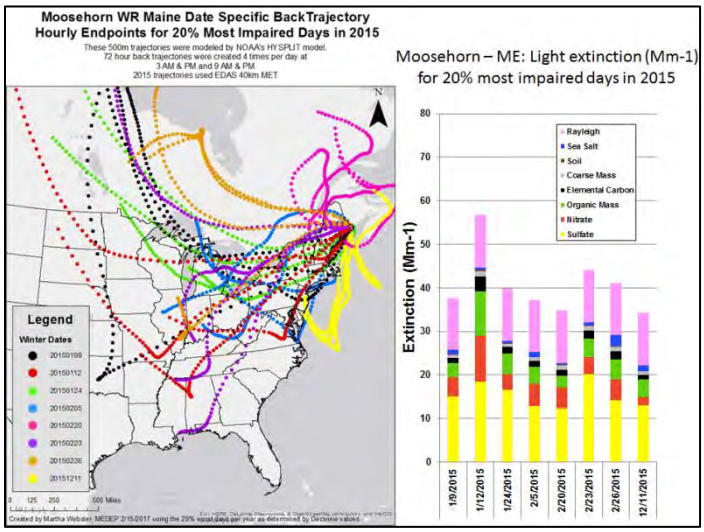
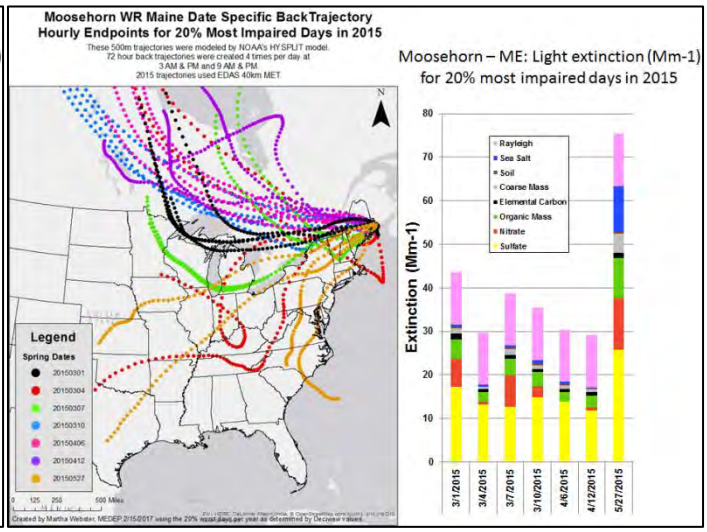
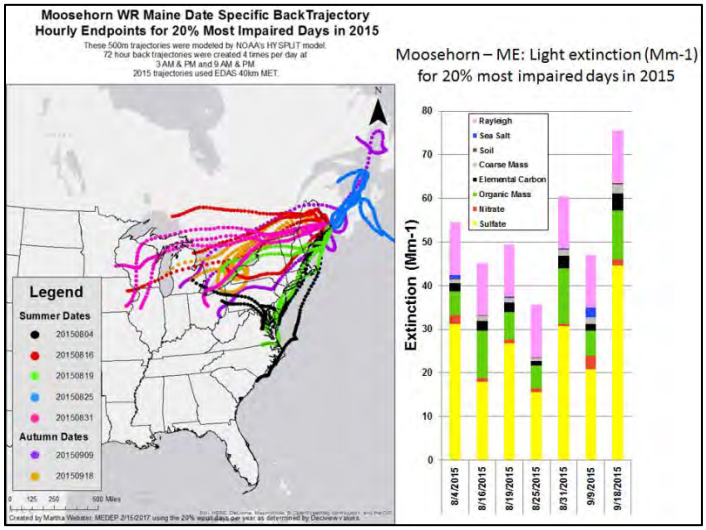


Figure 31: Trajectory analyses of Moosehorn Wilderness most impaired days during 2015









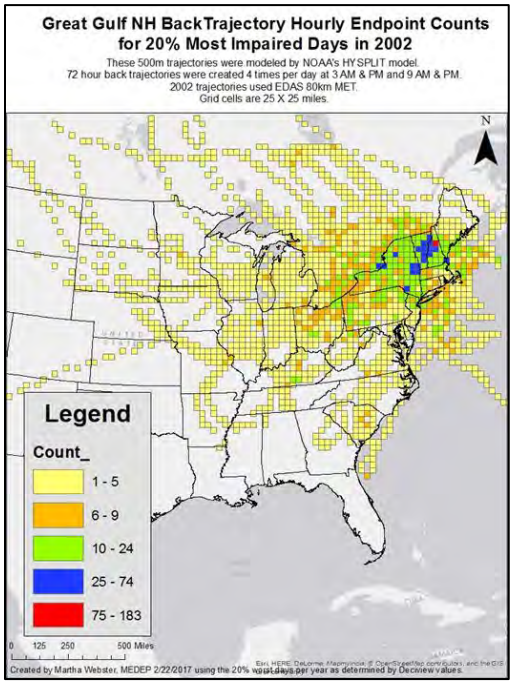
4.1.3 Great Gulf Wilderness Area

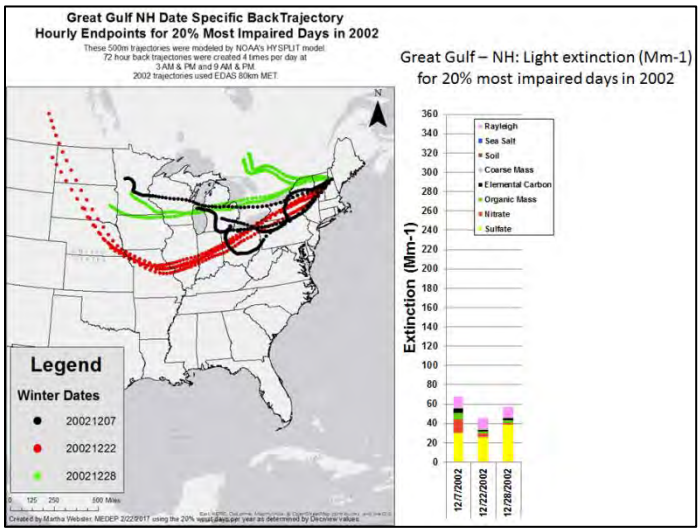
CALPUFF modeling results showed the following states meeting the criteria contributing to Great Gulf Wilderness regional haze impacts:

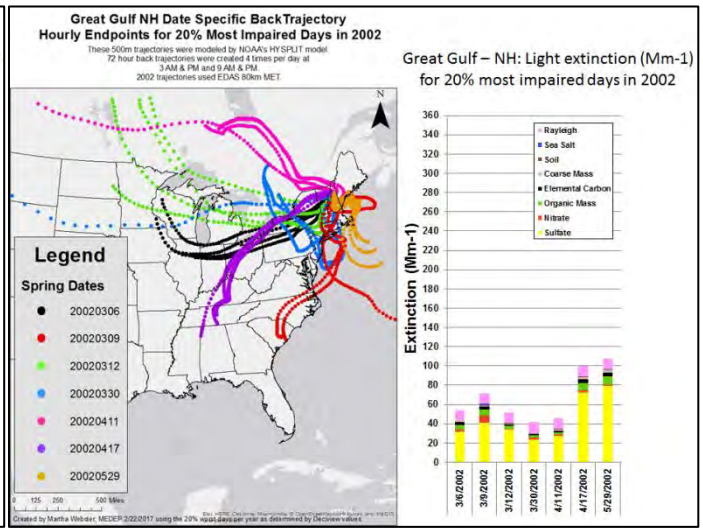
- MANE-VU Northeast states
  - Maine - 1 EGU and 2 Industrial Sources
  - Maryland – 1 Industrial Source
  - Massachusetts - 1 EGU
  - New Hampshire - 3 EGUs
  - New York - 2 EGUs and 2 Industrial Sources
  - Pennsylvania - 11 EGUs
- LADCO Midwest states
  - Illinois - 1 EGU
  - Indiana - 4 EGUs and 1 Industrial Source
  - Michigan - 8 EGUs
  - Ohio - 9 EGUs and 1 Industrial Source
- SESARM Southeast states
  - Georgia - 1 EGU
  - Kentucky - 1 EGU
  - Virginia - 2 EGUs and 1 Industrial Source
  - West Virginia - 4 EGUs

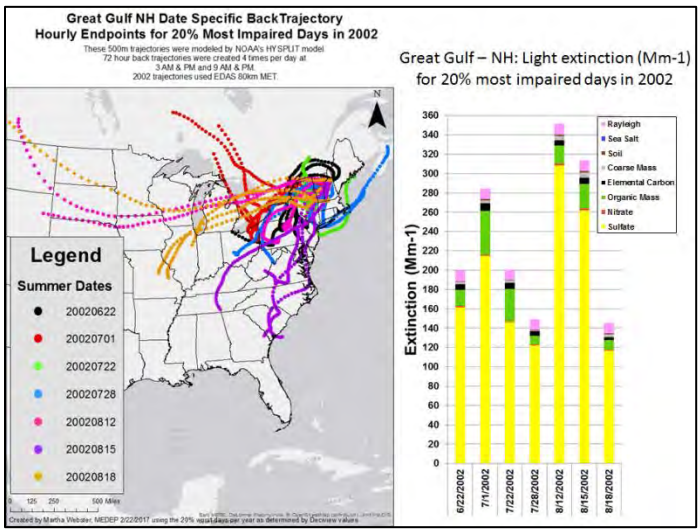
Trajectory plots for the 2002 (Figure 32), 2011 (Figure 33) and 2015 (Figure 34) 20% most impaired visibility days show trajectories from all the states listed above. Other than the MANE-VU and Canadian regions, during 2011 and 2015 the strongest signal was from LADCO and northern SESARM states. Similar to other northern Class I areas, there was a strong signal from Canada. It was only during the winter of 2015 where there was a signal from Georgia.

Figure 32: Trajectory analyses of Great Gulf Wilderness most impaired days during 2002









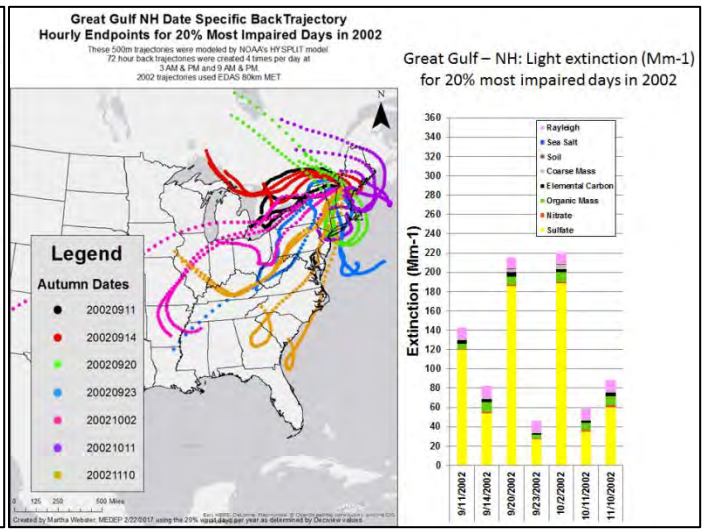
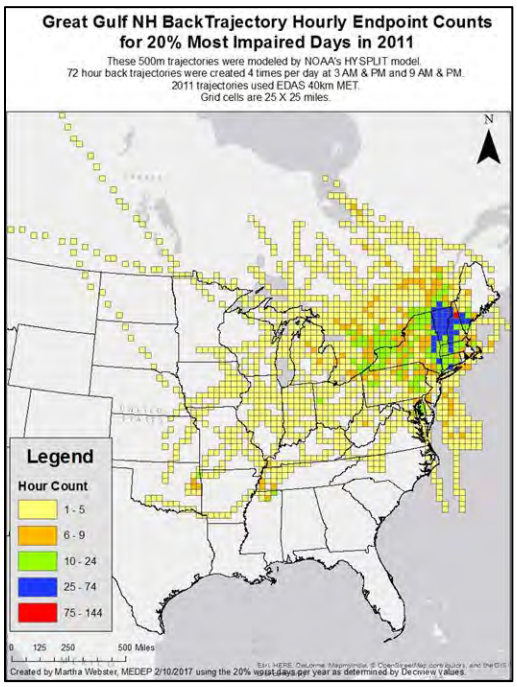
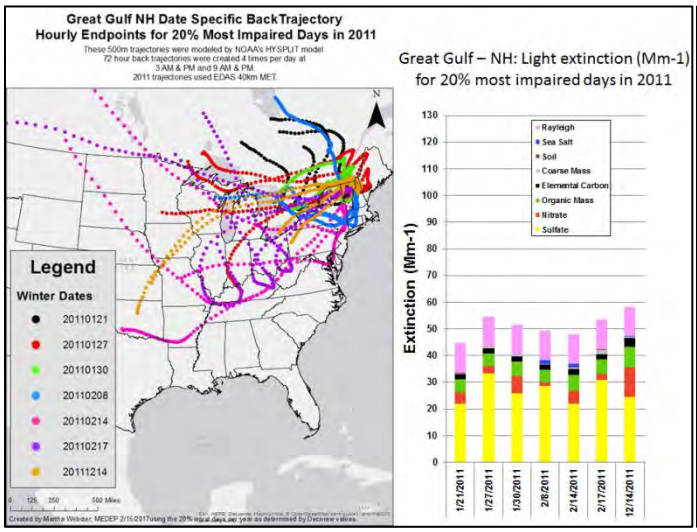
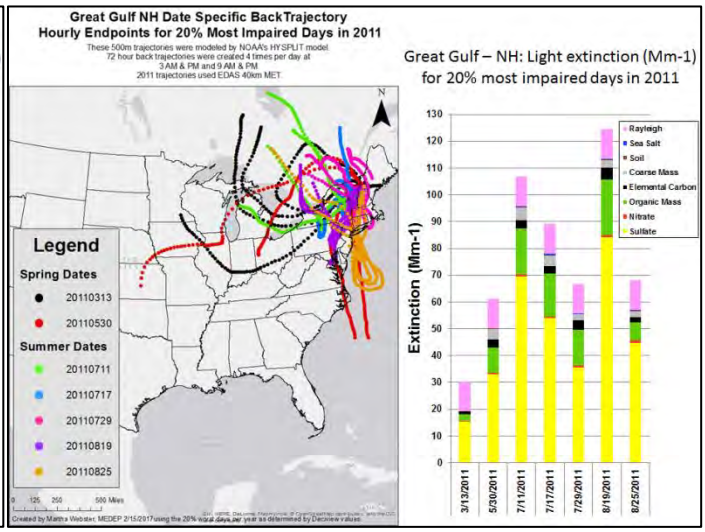


Figure 33: Trajectory analyses of Great Gulf Wilderness most impaired days during 2011







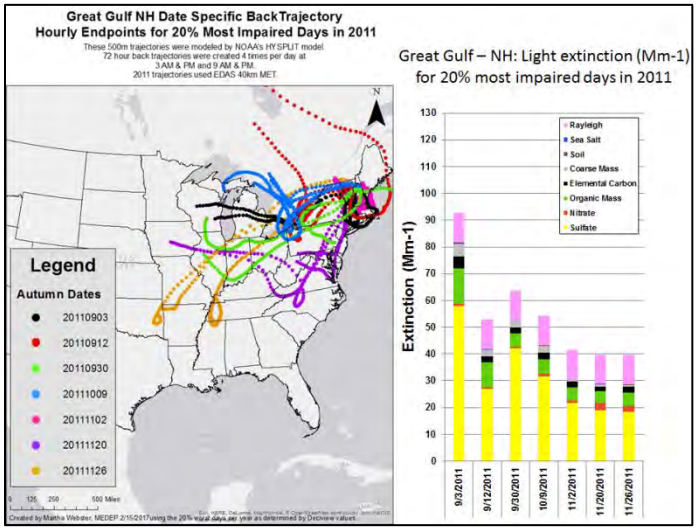
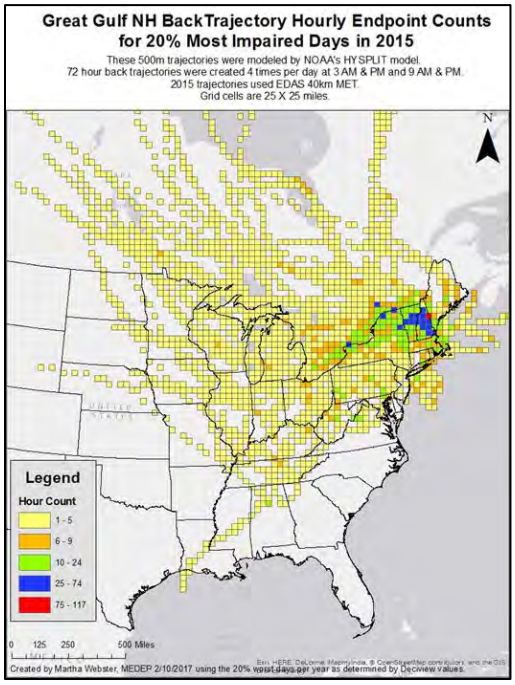
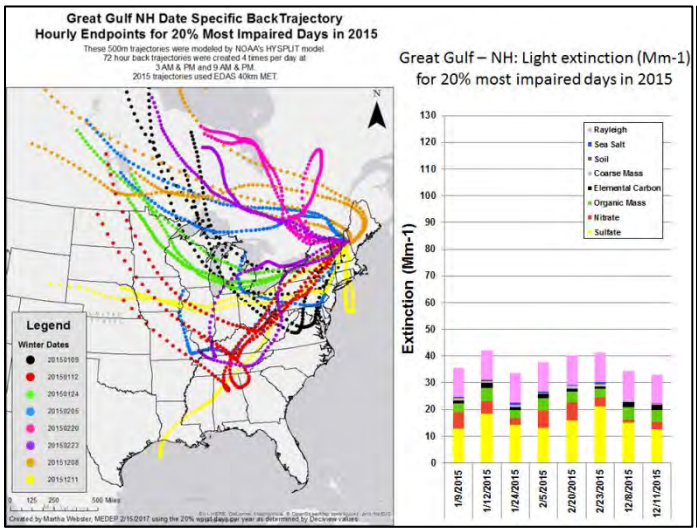
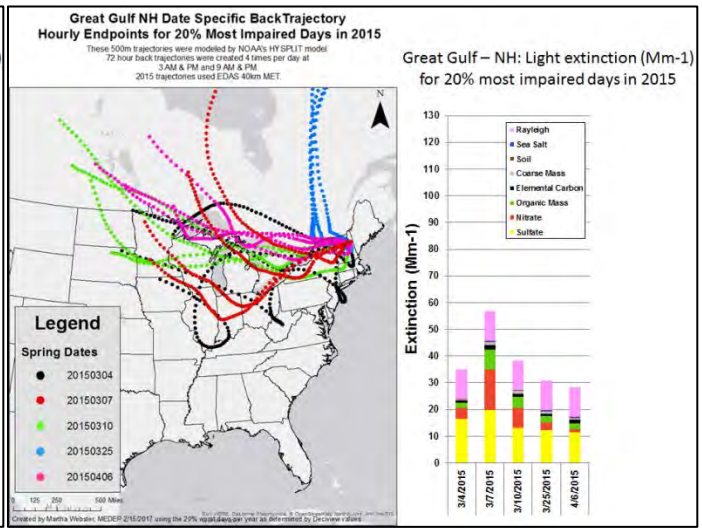
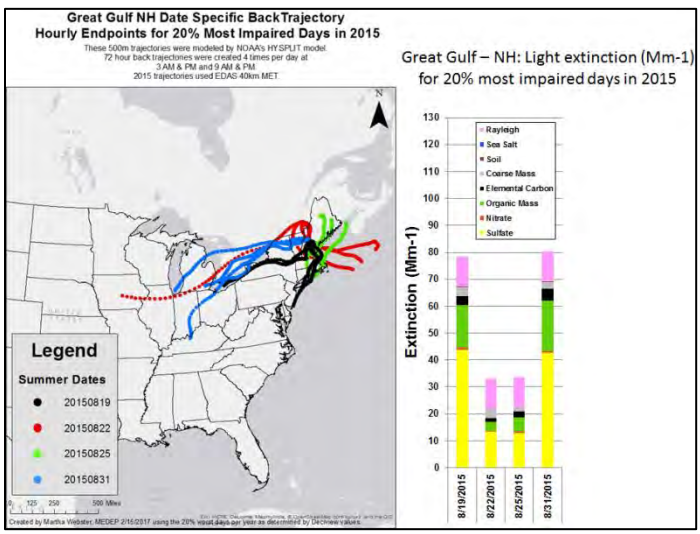


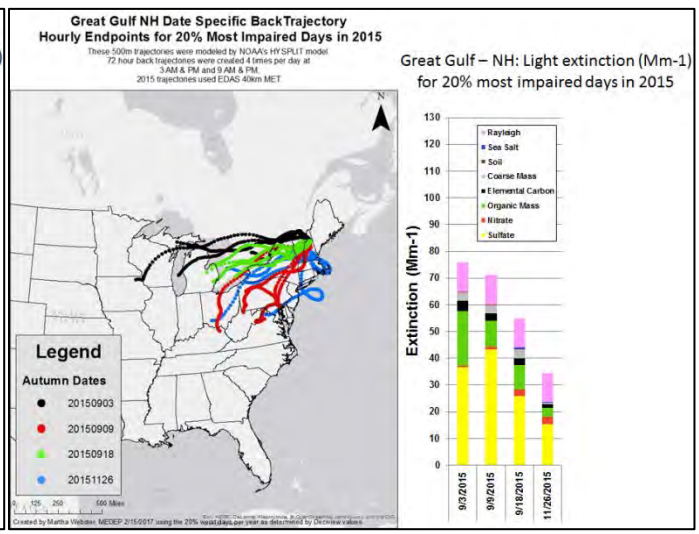
Figure 34: Trajectory analyses of Great Gulf Wilderness most impaired days during 2015











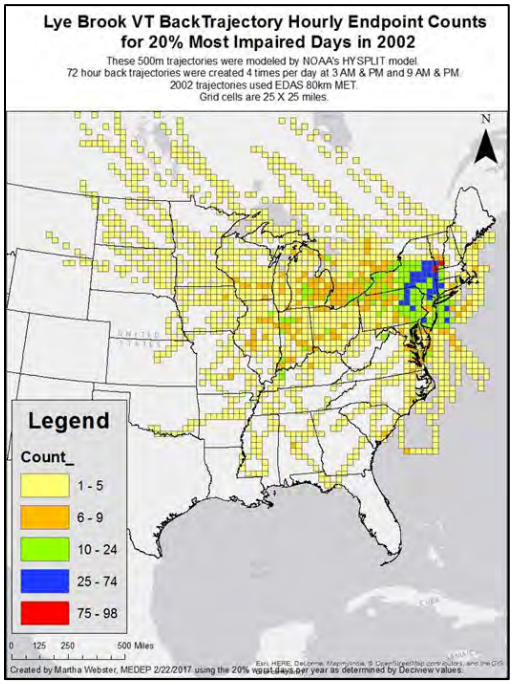
4.1.4 Lye Brook Wilderness Area

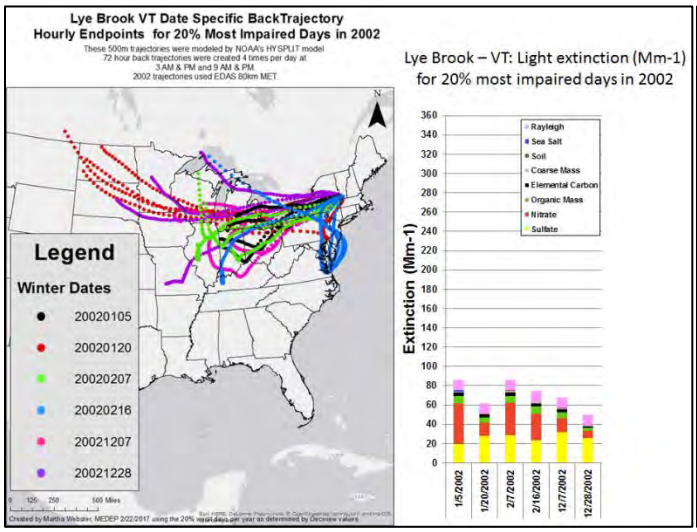
CALPUFF modeling results showed the following states meeting the criteria contributing to Lye Brook Wilderness regional haze impacts:

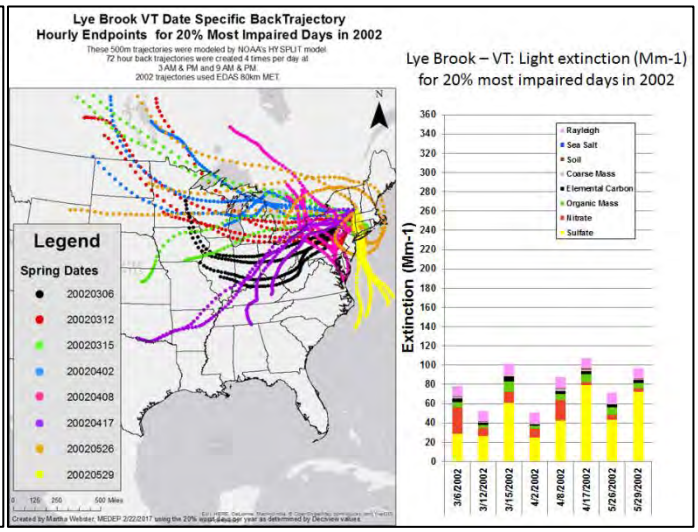
- MANE-VU Northeast states
  - Maine - 1 EGU and 1 Industrial Source
  - Maryland - 1 EGU and 1 Industrial Source
  - Massachusetts - 2 EGUs
  - New Hampshire - 3 EGUs
  - New York - 3 EGUs and 4 Industrial Sources
  - Pennsylvania - 12 EGUs
- LADCO Midwest states
  - Indiana - 4 EGUs and 1 Industrial Source
  - Michigan - 7 EGUs
  - Ohio - 9 EGUs and 1 Industrial Source
- SESARM Southeast states
  - Georgia - 1 EGU
  - Kentucky - 2 EGUs
  - Tennessee - 1 Industrial Source
  - Virginia - 2 EGUs
  - West Virginia – 4 EGUs
- CENRAP Central states
  - Missouri 1 EGU
  - Texas 2 EGUs

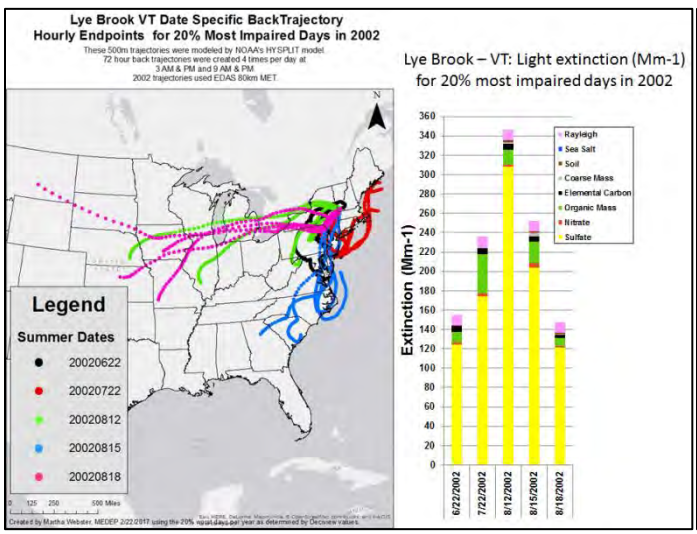
Trajectory plots for the 2002 (Figure 35) and 2011 (Figure 36) most impaired visibility days and 2015 (Figure 37) 20% worst visibility days show trajectories from all the states listed above except for Texas. Other than the MANE-VU and Canadian regions, the strongest signals were from LADCO and northern SESARM states. As was the case for other northern Class I areas, there was also a signal from Canada.

Figure 35: Trajectory analyses of Lye Brook Wilderness most impaired days during 2002









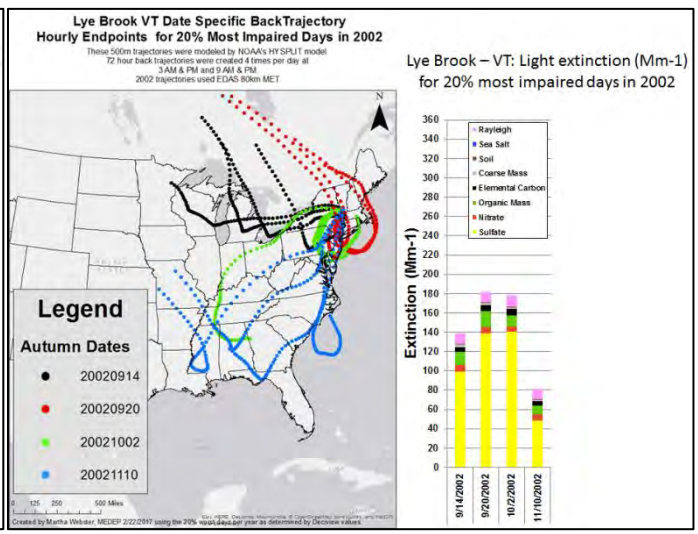
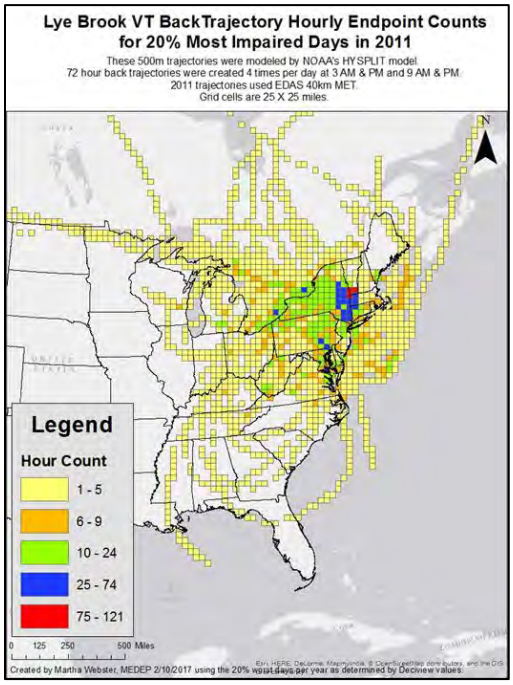
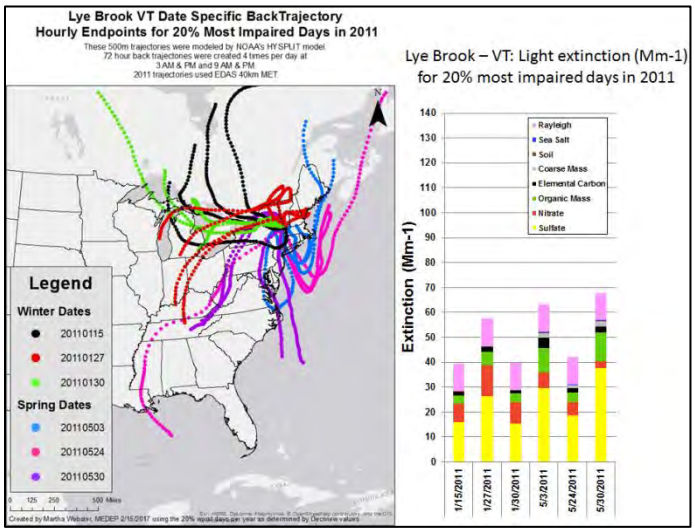
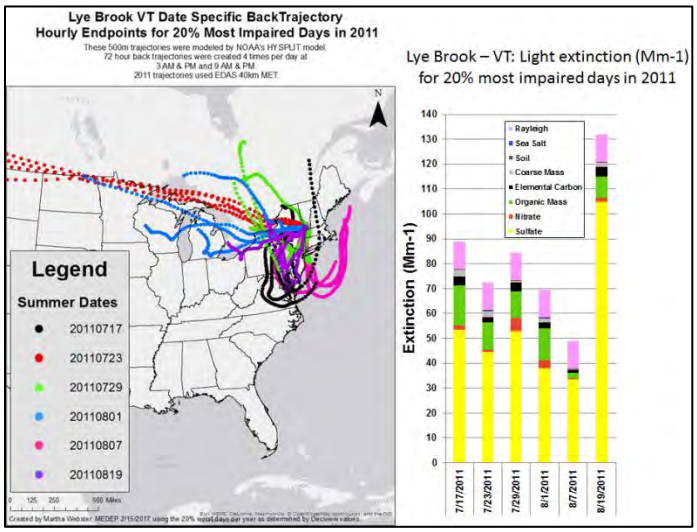


Figure 36: Trajectory analyses of Lye Brook Wilderness most impaired days during 2011







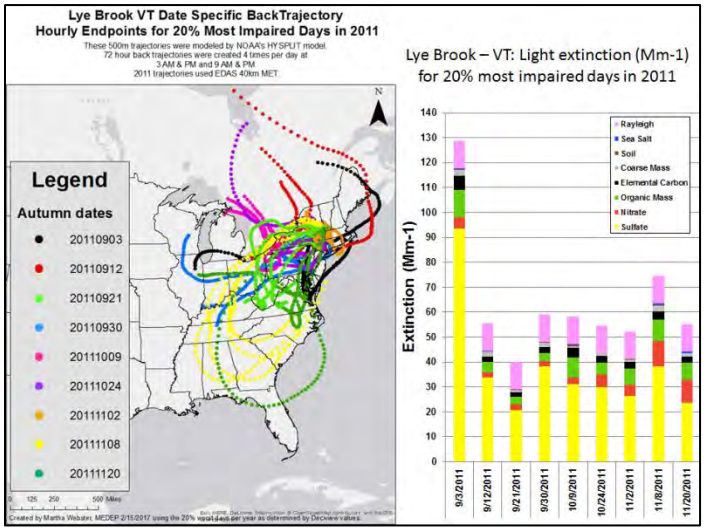
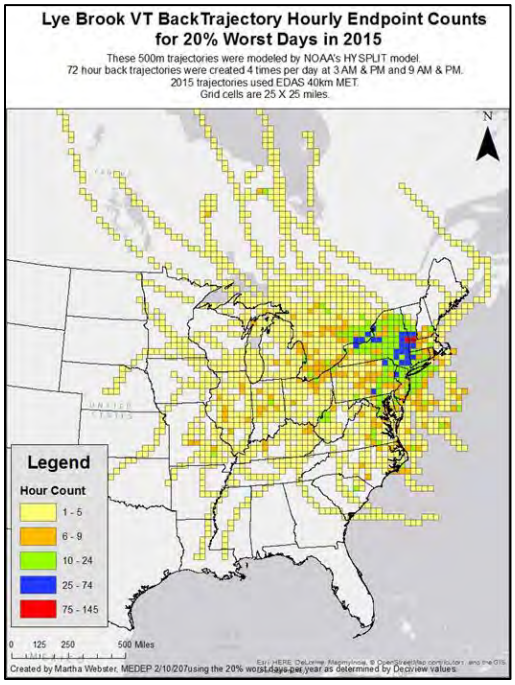
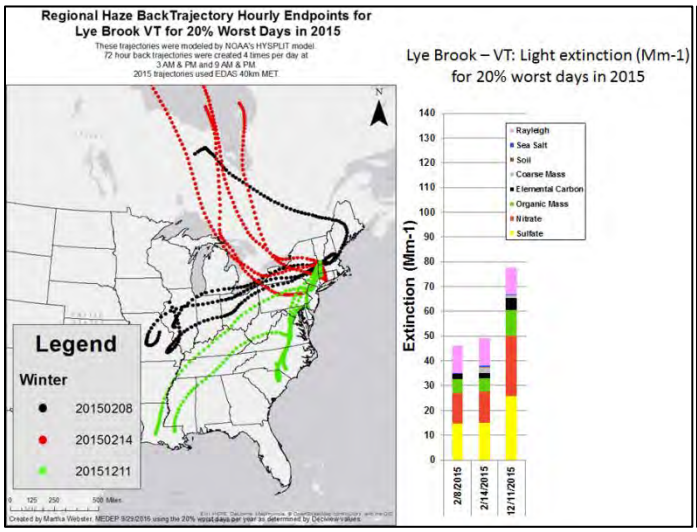
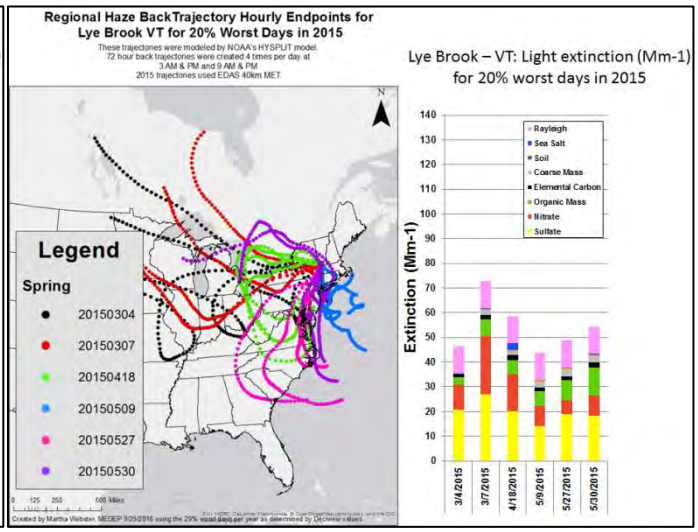
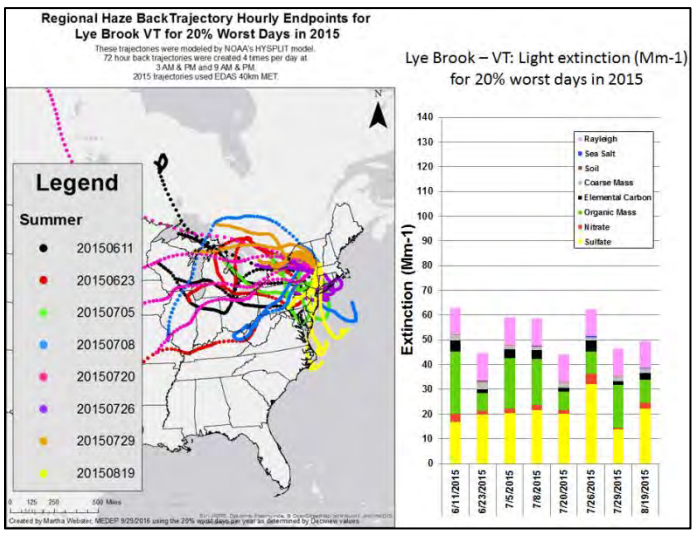


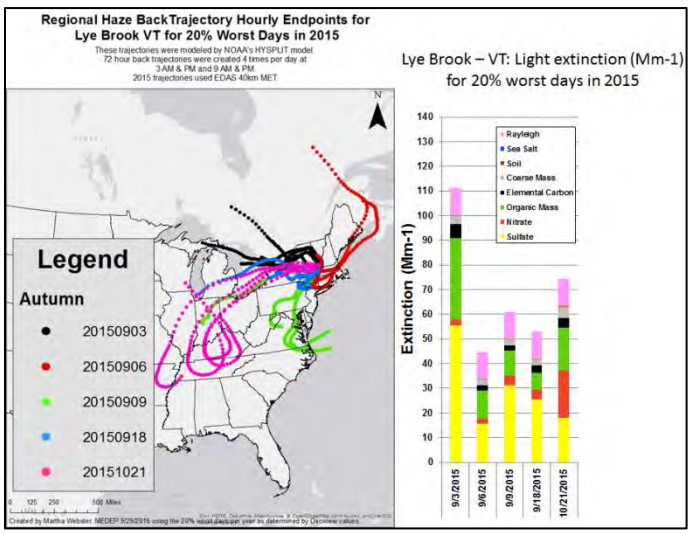
Figure 37: Trajectory analyses of Lye Brook Wilderness 20% worst days during 2015











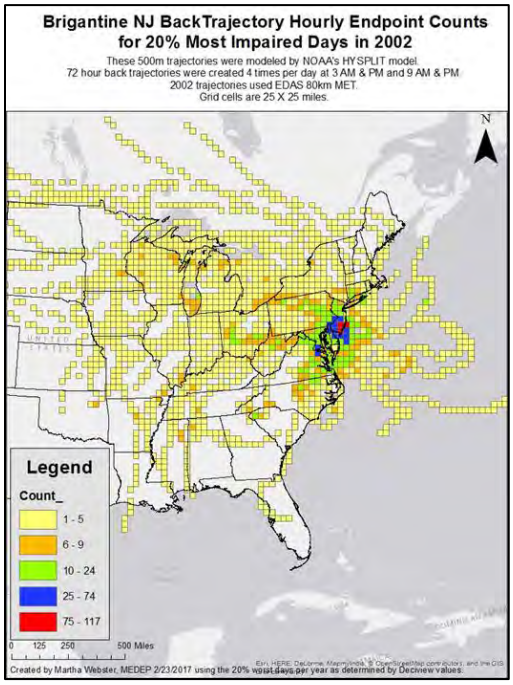
4.1.5 Brigantine Wilderness Area

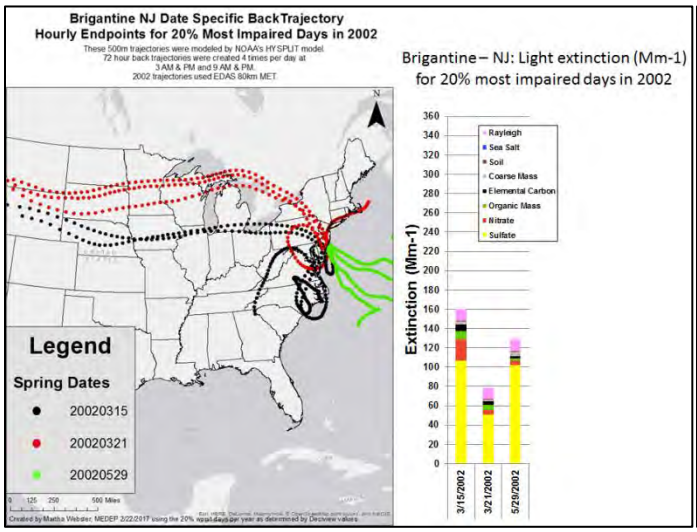
CALPUFF modeling results showed the following states meeting the criteria contributing to Brigantine regional haze impacts:

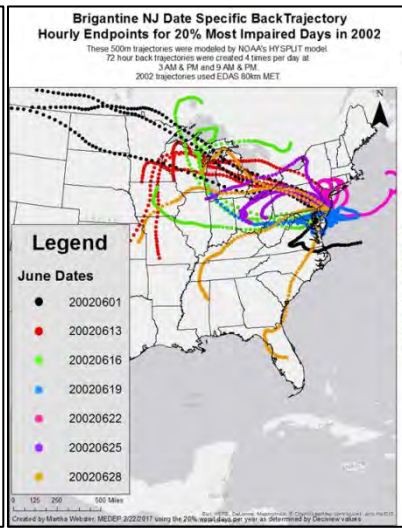
- MANE-VU Northeast states
  - Connecticut – 1 EGU
  - Massachusetts - 3 EGUs
  - Maryland - 6 EGUs and 2 Industrial Sources
  - Maine 1 EGU
  - New Jersey 1 EGU and 1 Industrial Source
  - New York - 2 EGUs and 1 Industrial Source
  - Pennsylvania - 12 EGUs and 2 Industrial Sources
- LADCO Midwest states
  - Illinois - 1 EGU
  - Indiana - 5 EGUs and 1 Industrial Source
  - Michigan - 8 EGUs
  - Ohio - 9 EGUs and 1 Industrial Source
- SESARM Southeast states
  - Alabama – 1 EGU
  - Georgia - 2 EGUs
  - Kentucky - 3 EGUs
  - North Carolina – 2 EGUs and 1 Industrial Source
  - Tennessee - 1 EGU and 1 Industrial Source
  - Virginia - 2 EGUs and 2 Industrial Sources
  - West Virginia - 5 EGUs
- CENRAP Central states
  - Texas – 2 EGUs

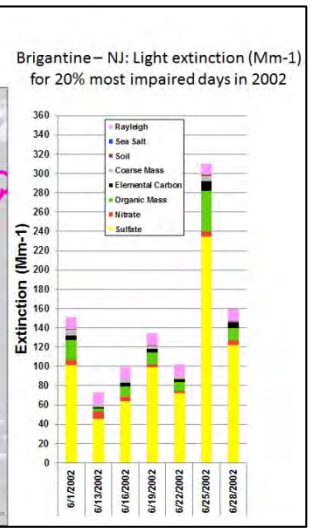
Trajectory plots for the 2002 (Figure 38), 2011 (Figure 39) and 2015 (Figure 40) 20% most impaired visibility days show trajectories from all the LADCO and SESARM states listed above. Other than the MANE-VU and Canadian regions, during 2011 and 2015 there were strong signals from Great Lake states, Ohio Valley states and Virginia.

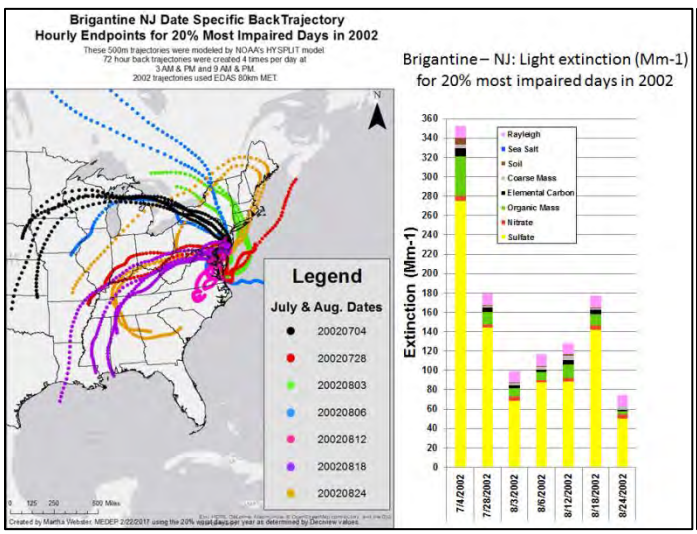
Figure 38: Trajectory analyses of Brigantine Wilderness most impaired days during 2002











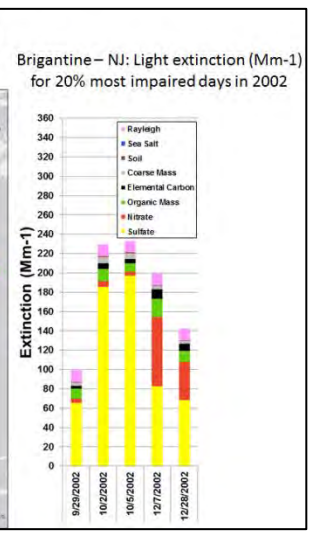
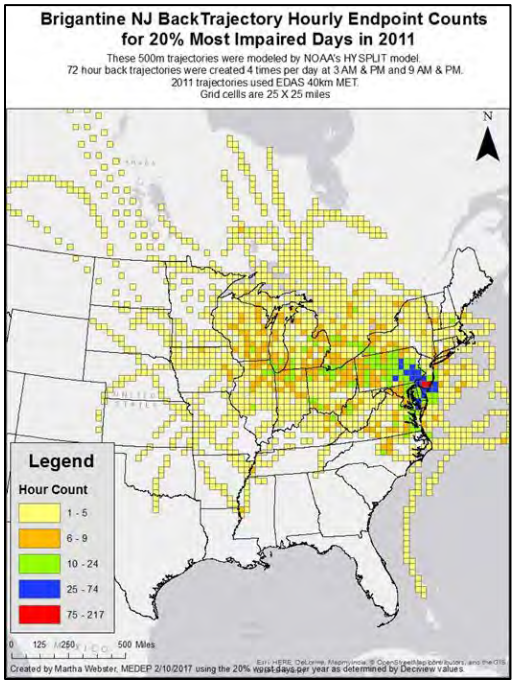
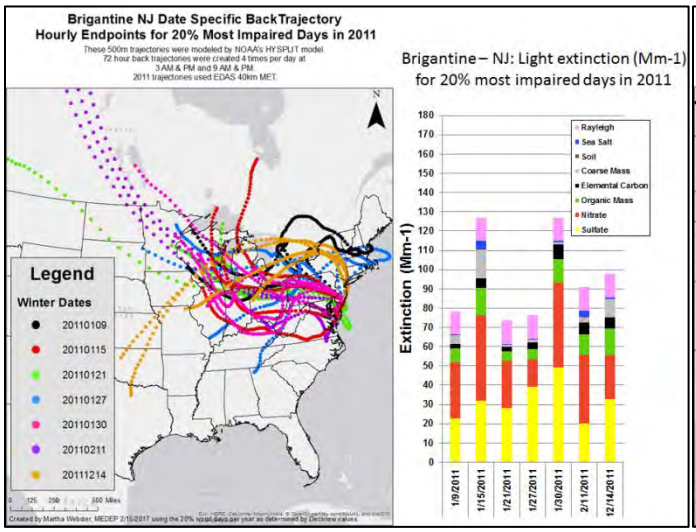
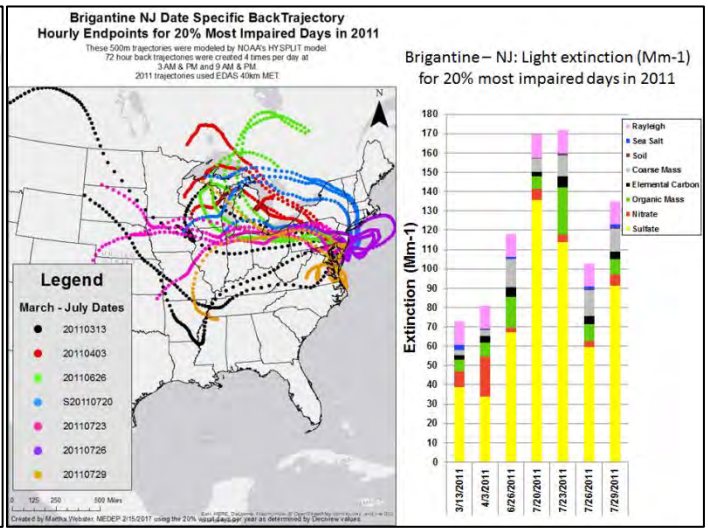
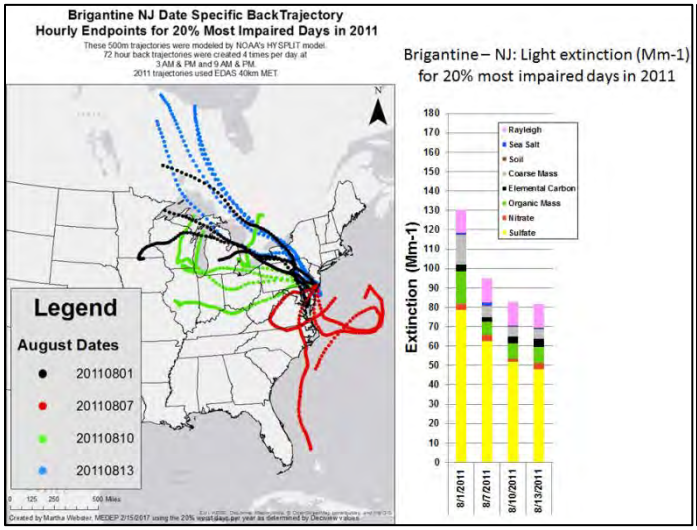


Figure 39: Trajectory analyses of Brigantine Wilderness most impaired days during 2011









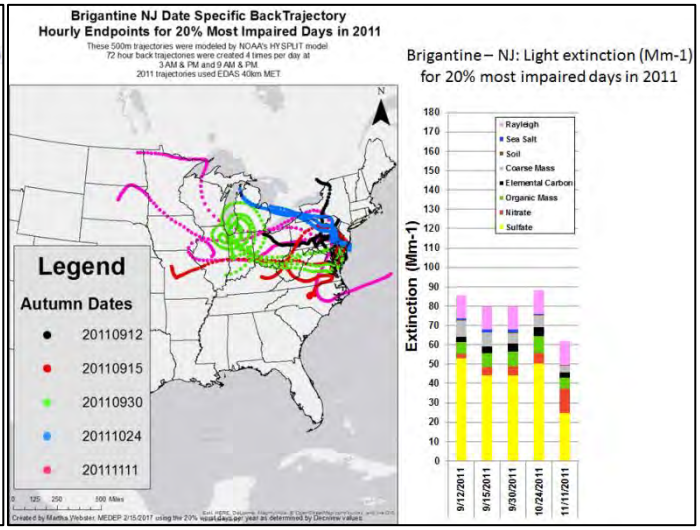
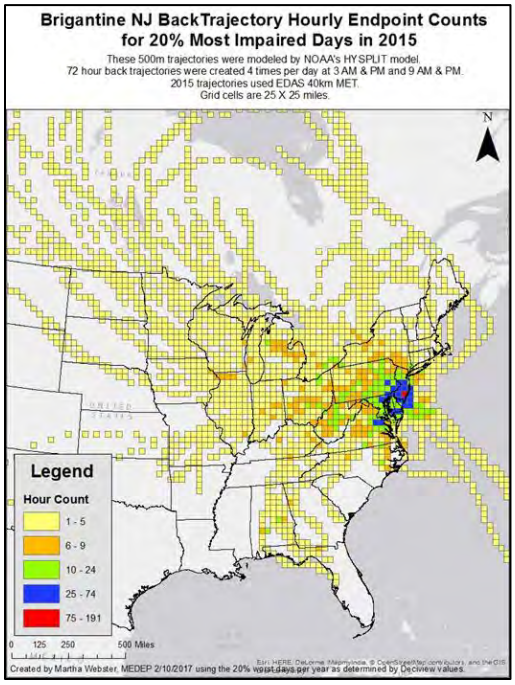
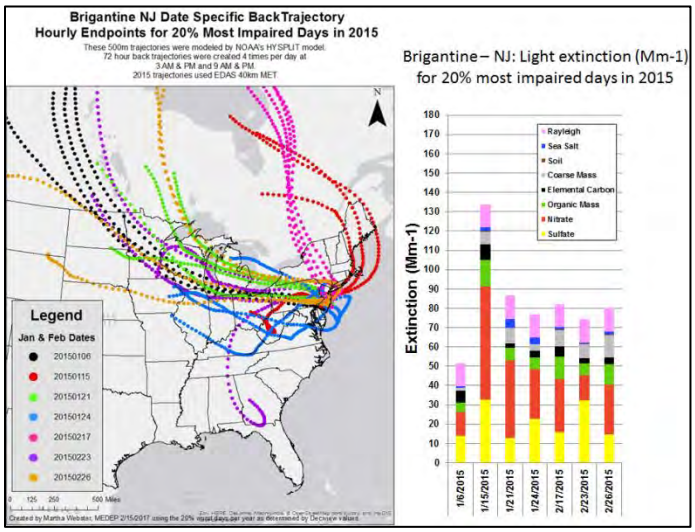
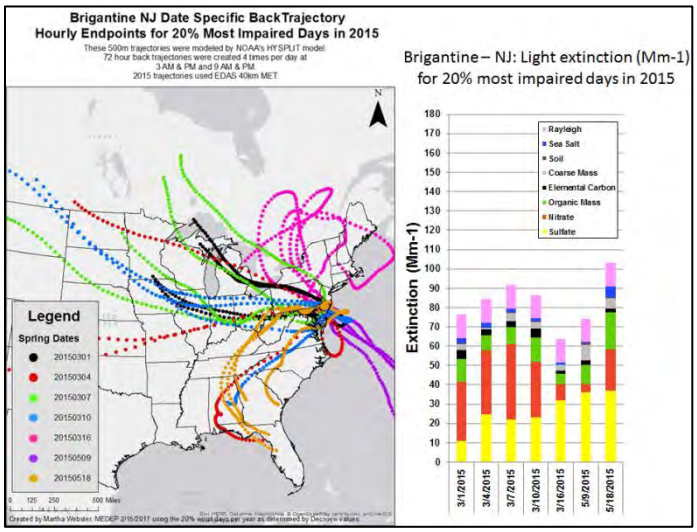
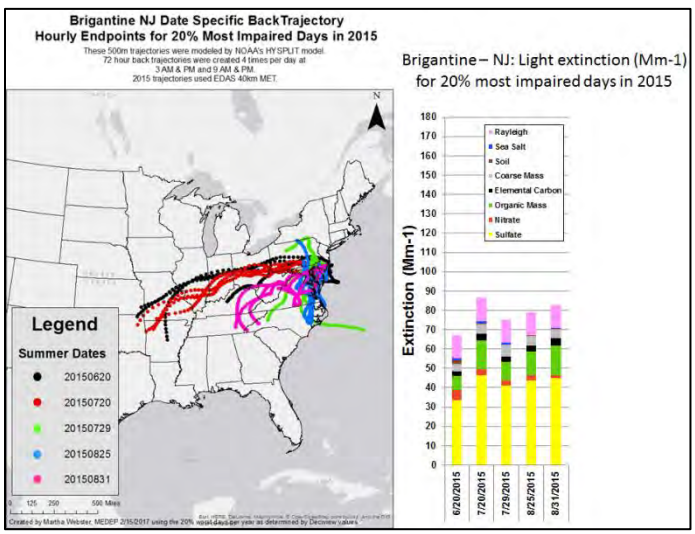


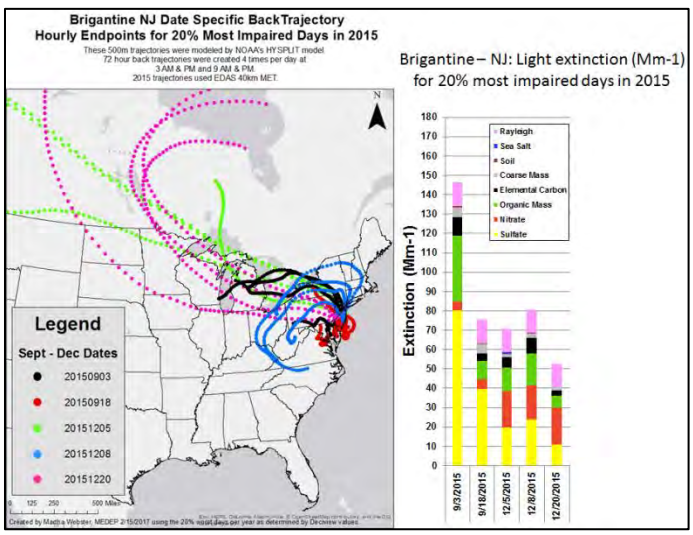
Figure 40: Trajectory analyses of Brigantine Wilderness most impaired days during 2015











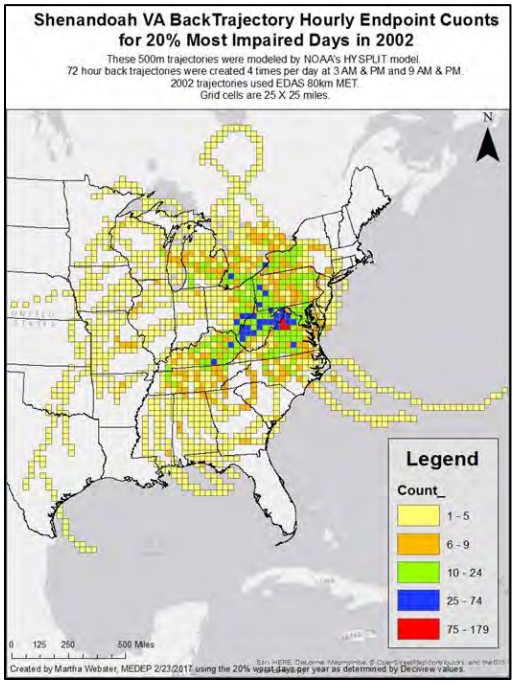
4.1.6 Shenandoah National Park

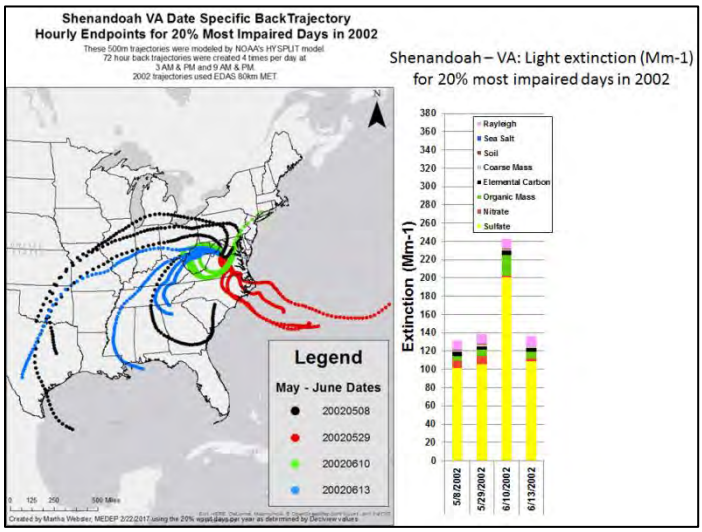
CALPUFF modeling results showed the following states meeting the criteria contributing to Shenandoah National Park regional haze impacts:

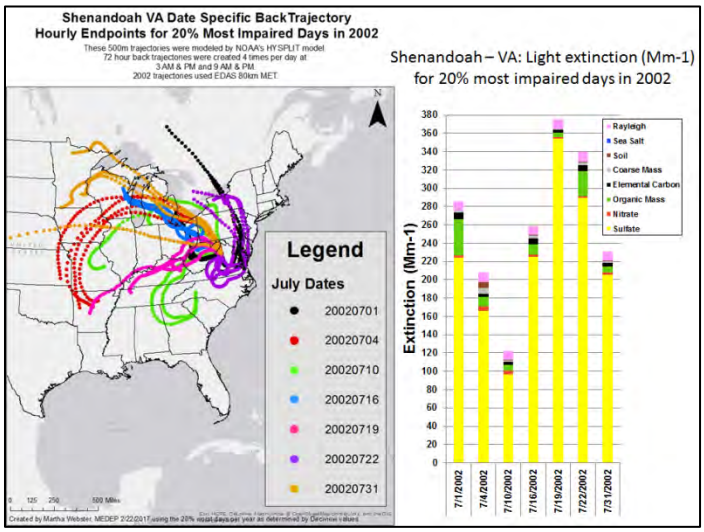
- MANE-VU Northeast states
  - Maryland - 7 EGUs and 2 Industrial Sources
  - New Jersey 1 EGU
  - New York - 1 EGUs
  - Pennsylvania - 11 EGUs and 2 Industrial Sources
- LADCO Midwest states
  - Illinois - 1 EGU and 1 Industrial Source
  - Indiana - 13 EGUs and 1 Industrial Source
  - Michigan - 11 EGUs and 1 Industrial Source
  - Ohio - 10 EGUs and 2 Industrial Sources
- SESARM Southeast states
  - Alabama – 1 EGU
  - Georgia - 3 EGUs
  - Kentucky - 5 EGUs
  - North Carolina – 2 EGUs and 1 Industrial Source
  - Tennessee - 1 EGU and 1 Industrial Source
  - Virginia - 2 EGUs and 1 Industrial Source
  - West Virginia - 6 EGUs and 1 Industrial Source
- CENRAP Central states
  - Iowa – 2 EGUs
  - Texas – 2 EGUs

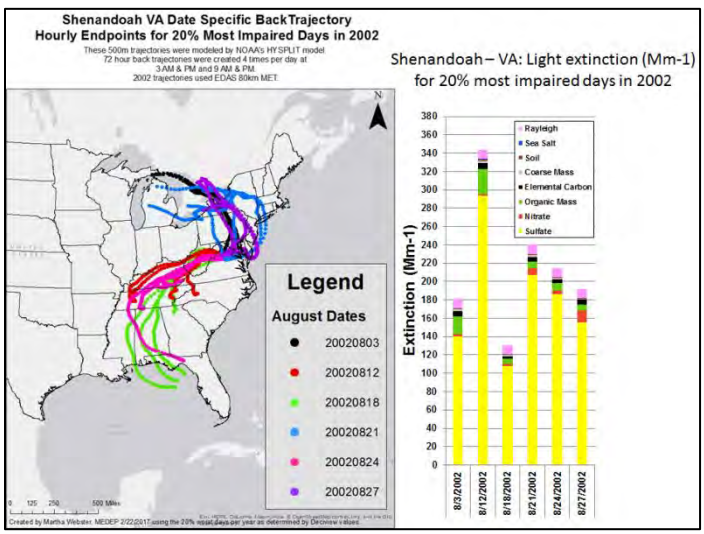
Trajectory plots for the 2002 (Figure 41), 2011 (Figure 42) and 2015 (Figure 43) 20% most impaired visibility days show trajectories from all the states listed above. From the MANE-VU region, during 2011 and 2015 the strongest signal was from Western Pennsylvania with a few trajectories showing impacts from other Mid-Atlantic MANE-VU states and New York during 2015.

Figure 41: Trajectory analyses of Shenandoah National Park most impaired days during 2002









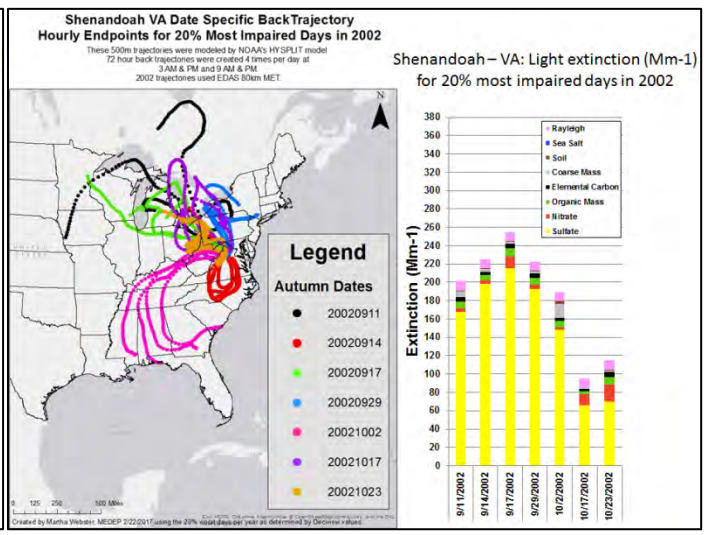
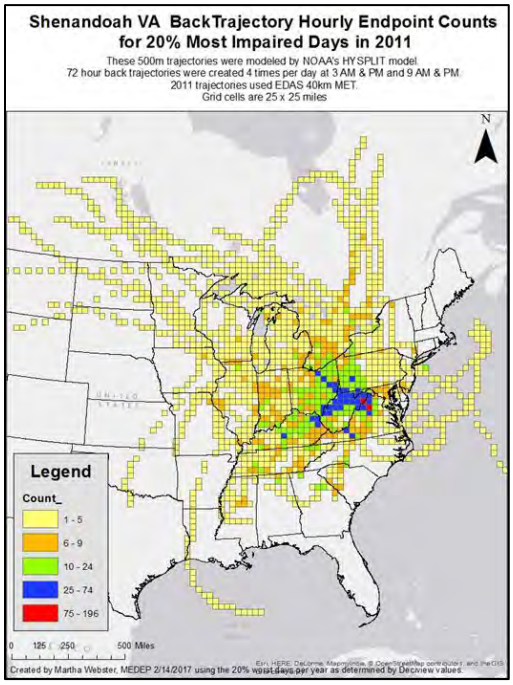
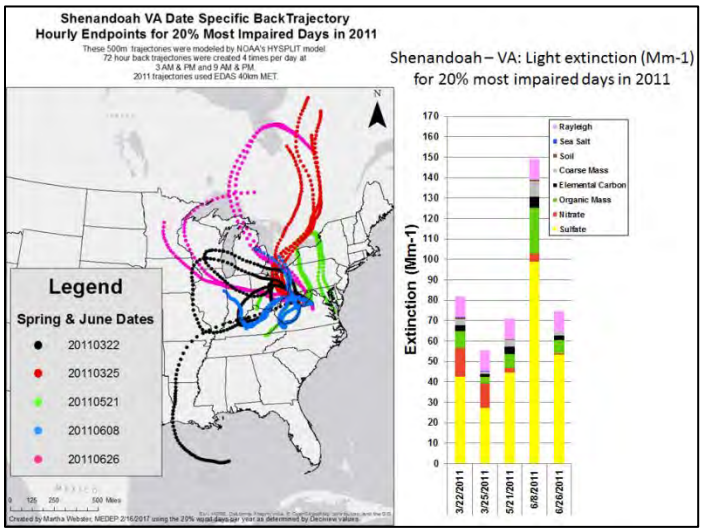
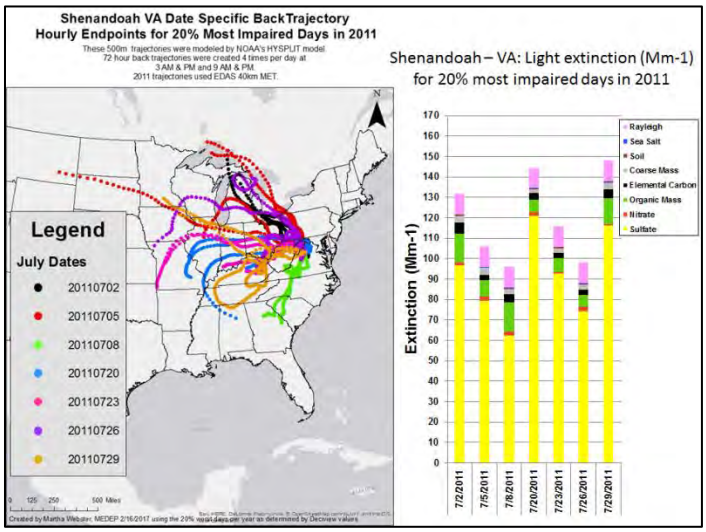
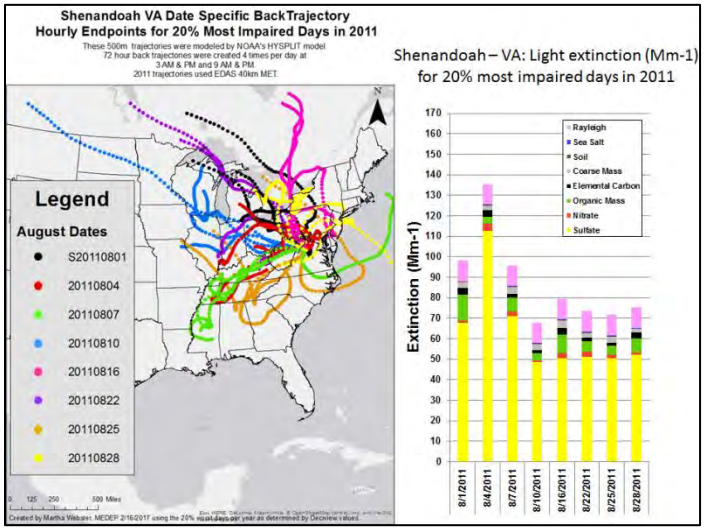


Figure 42: Trajectory analyses of Shenandoah National Park most impaired days during 2011









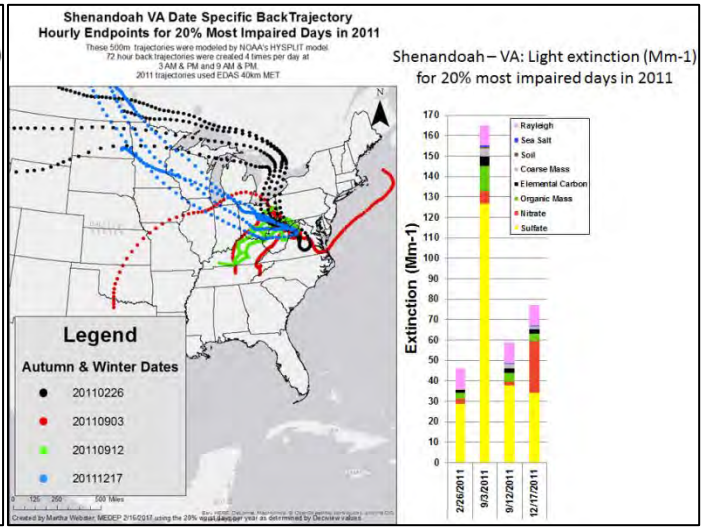
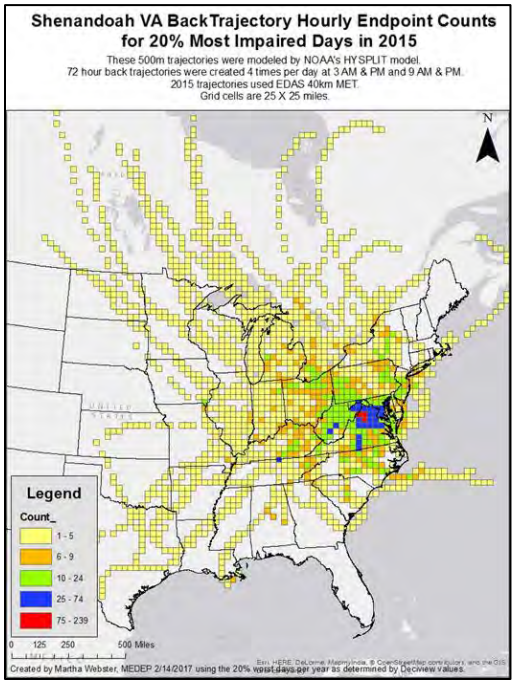
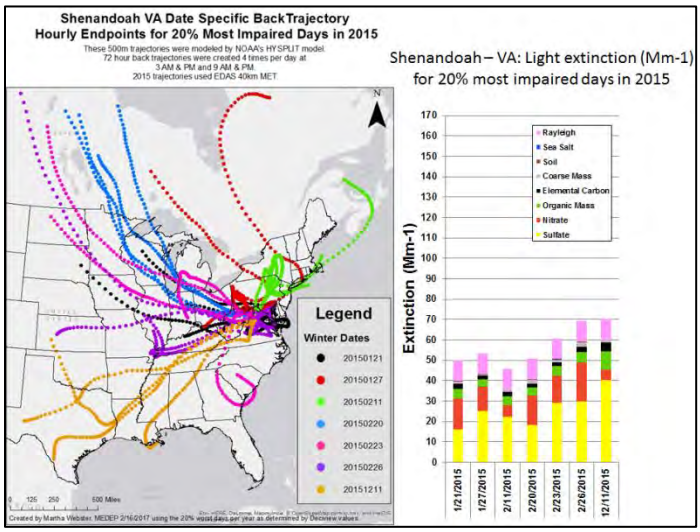
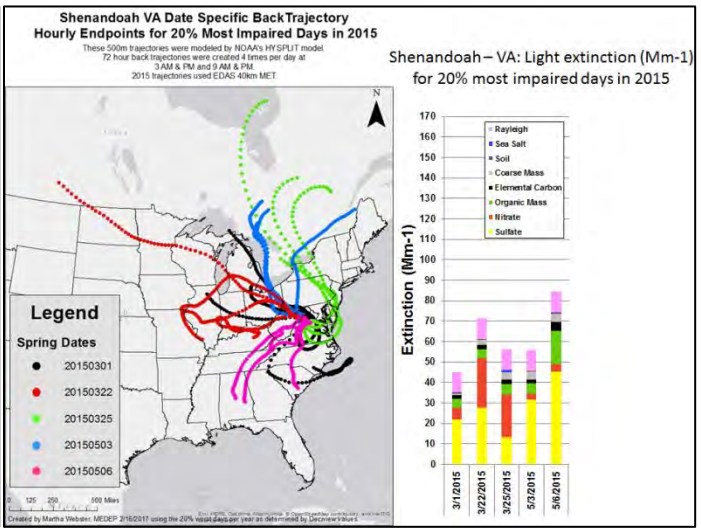
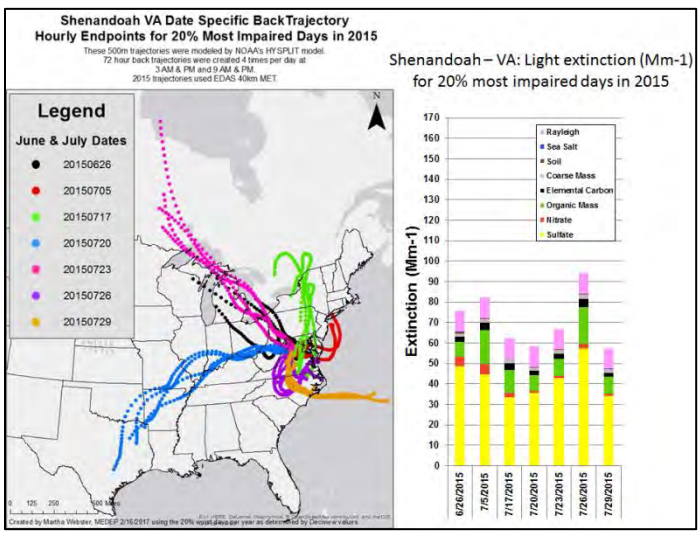


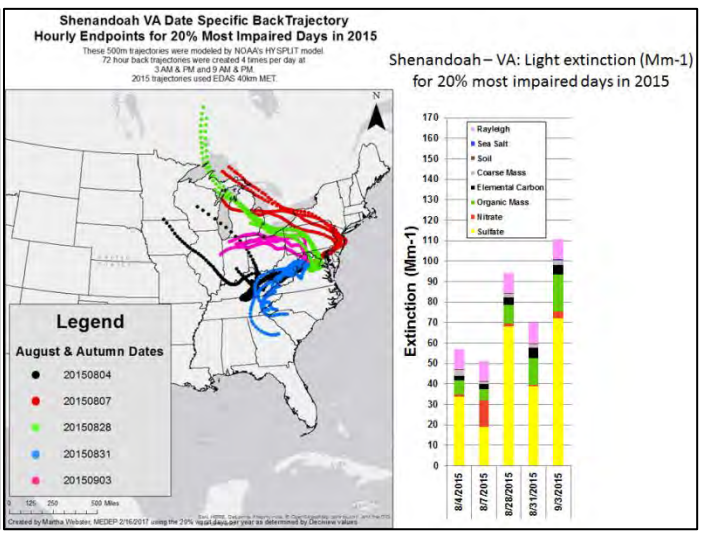
Figure 43: Trajectory analyses of Shenandoah National Park most impaired days during 2015











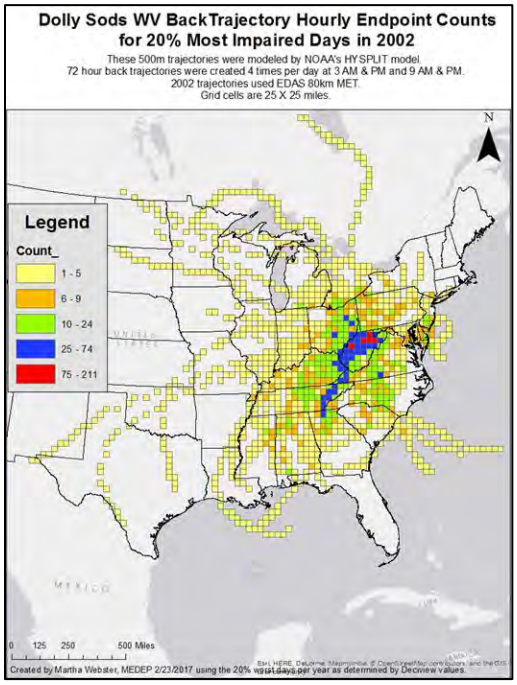
4.1.7 Dolly Sods Wilderness Area

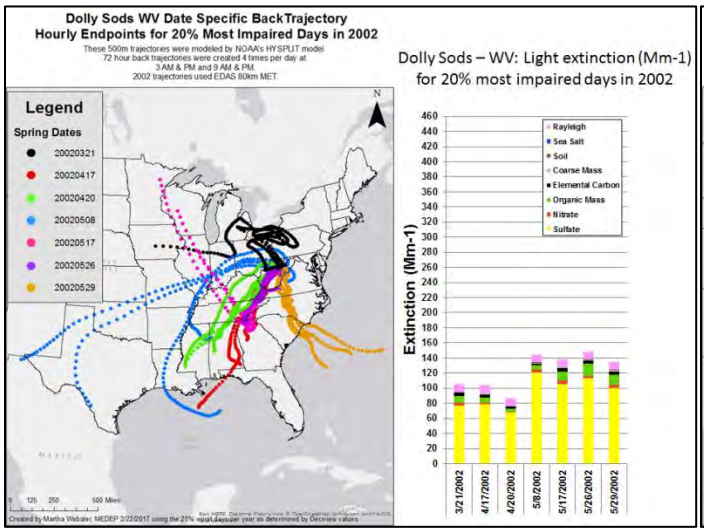
CALPUFF modeling results showed the following states meeting the criteria contributing to Dolly Sods Wilderness regional haze impacts:

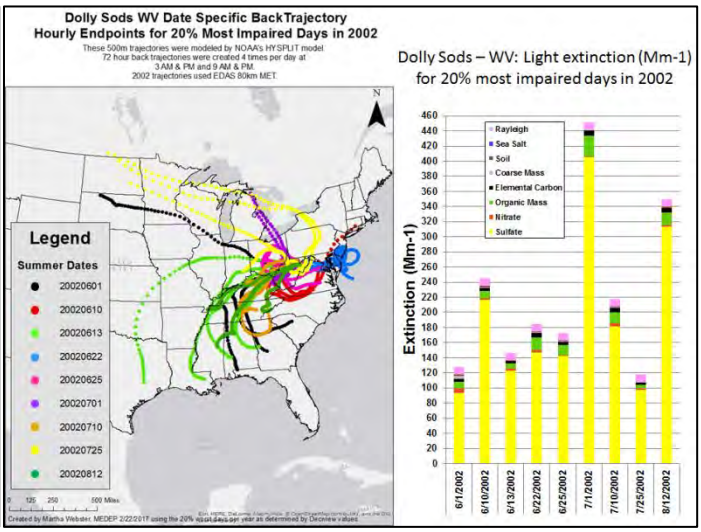
- MANE-VU Northeast states
  - Maryland - 6 EGUs and 1 Industrial Source
  - New York - 1 EGU
  - Pennsylvania - 11 EGUs and 2 Industrial Sources
- LADCO Midwest states
  - Illinois - 1 EGU and 1 Industrial Source
  - Indiana - 13 EGUs and 1 Industrial Source
  - Michigan - 11 EGUs and 1 Industrial Source
  - Ohio - 11 EGUs and 2 Industrial Sources
- SESARM Southeast states
  - Alabama – 1 EGU
  - Georgia - 3 EGUs
  - Kentucky - 5 EGUs
  - North Carolina – 2 EGUs and 1 Industrial Source
  - Tennessee - 1 EGU and 1 Industrial Source
  - Virginia - 2 EGUs and 2 Industrial Sources
  - West Virginia - 6 EGUs and 1 Industrial Source
- CENRAP Central states
  - Texas – 2 EGUs

Trajectory plots for the 2002 (Figure 44), 2011 (Figure 45) and 2015 (Figure 46) 20% most impaired visibility days show trajectories from all the states listed above. From the MANE-VU region, during 2011 and 2015 the strongest signal was from Western Pennsylvania with a few trajectories showing impacts from other Mid-Atlantic MANE-VU states and New York.

Figure 44: Trajectory analyses of Dolly Sods Wilderness most impaired days during 2002







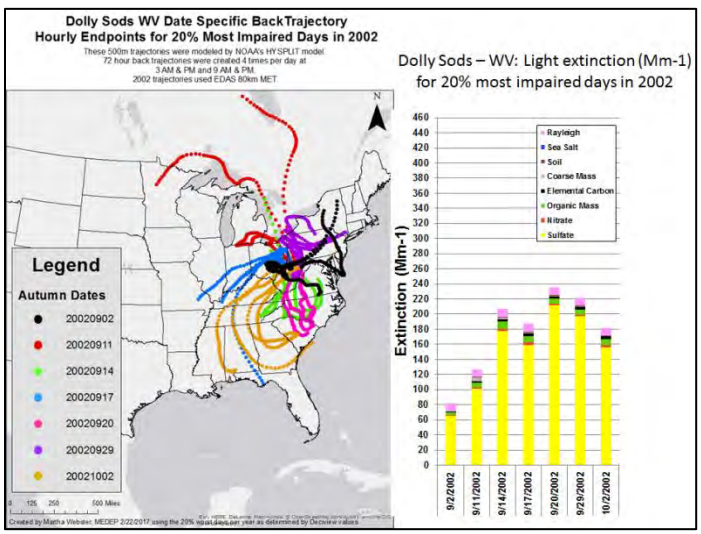
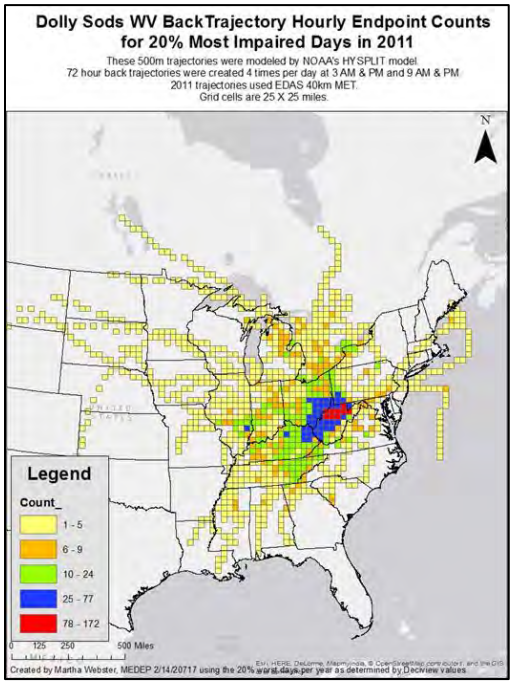
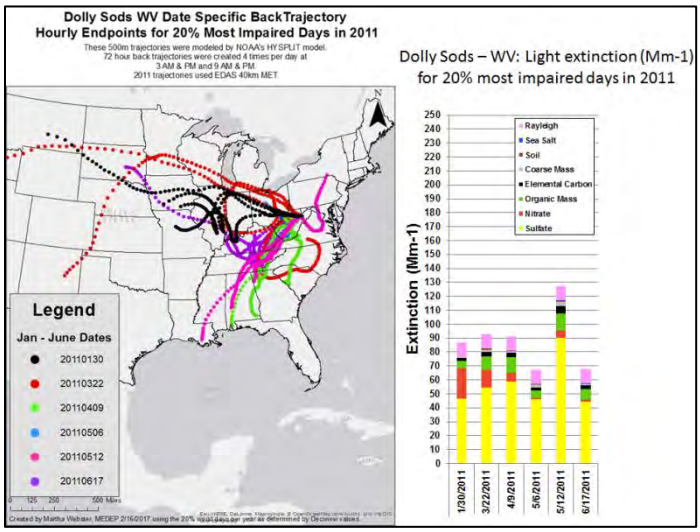
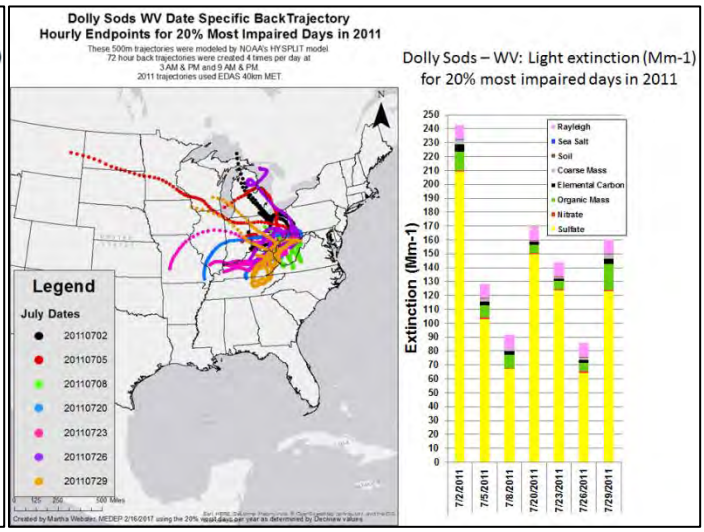
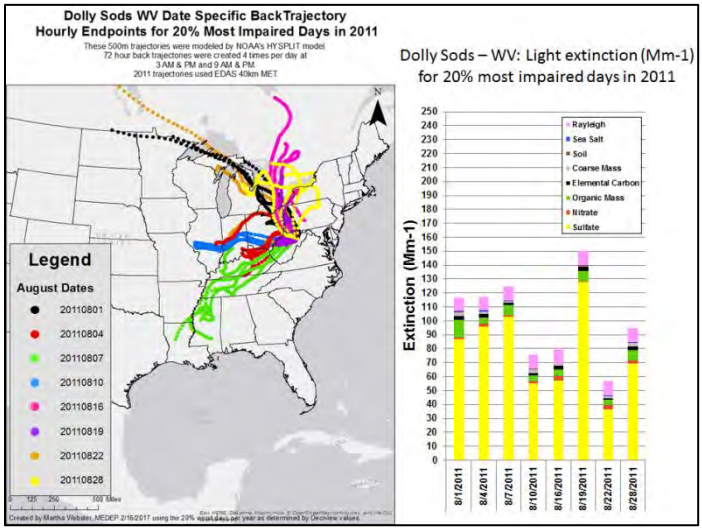


Figure 45: Trajectory analyses of Dolly Sods Wilderness most impaired days during 2011









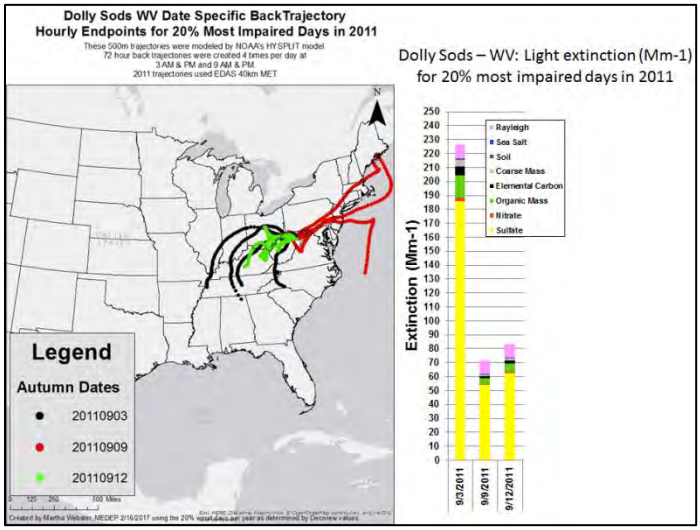
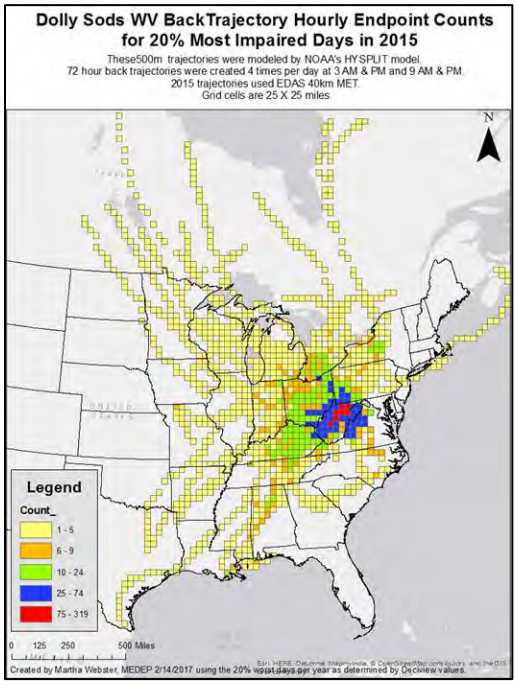
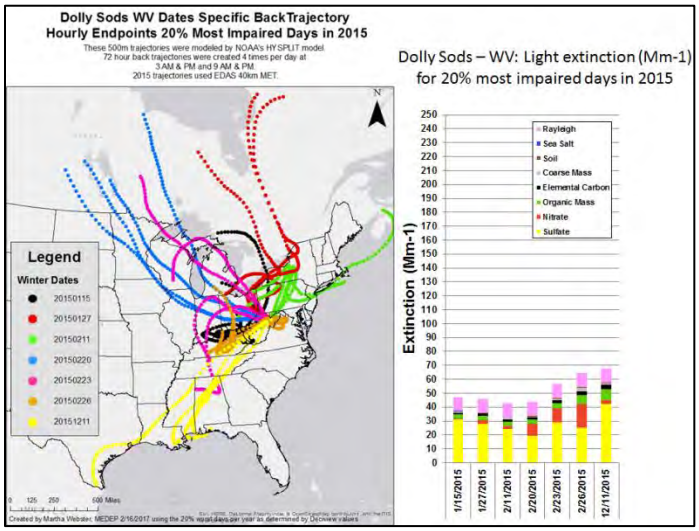
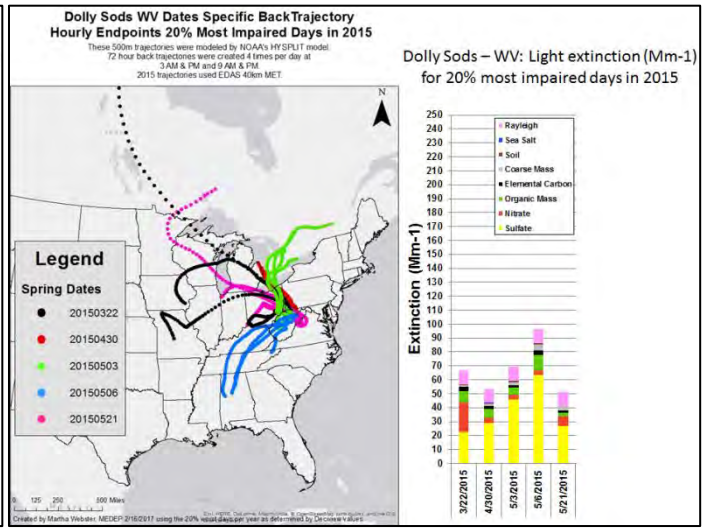
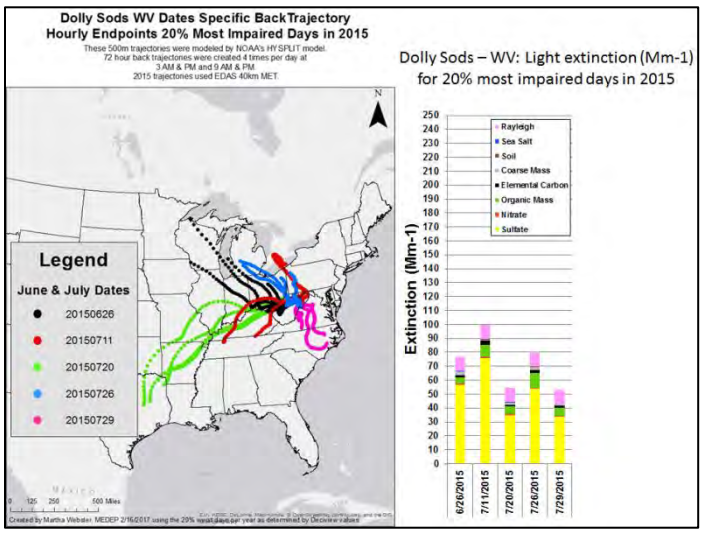


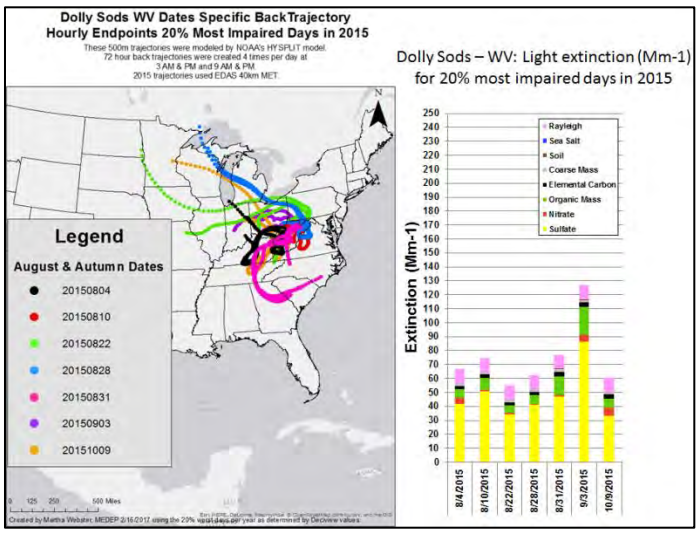
Figure 46: Trajectory analyses of Dolly Sods Wilderness most impaired days during 2015











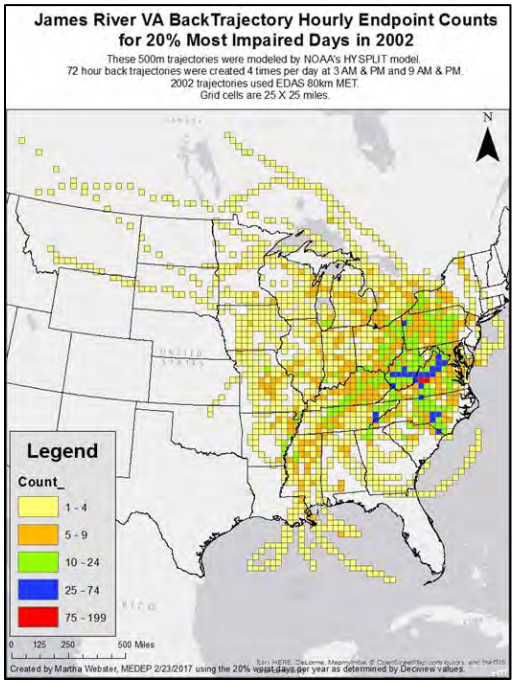
4.1.8 James River Face Wilderness Area

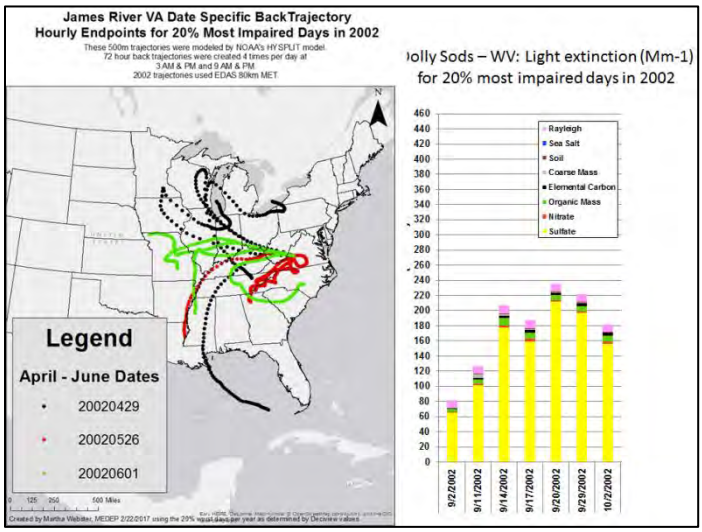
CALPUFF modeling results showed the following states meeting the criteria contributing to James River Face Wilderness regional haze impacts:

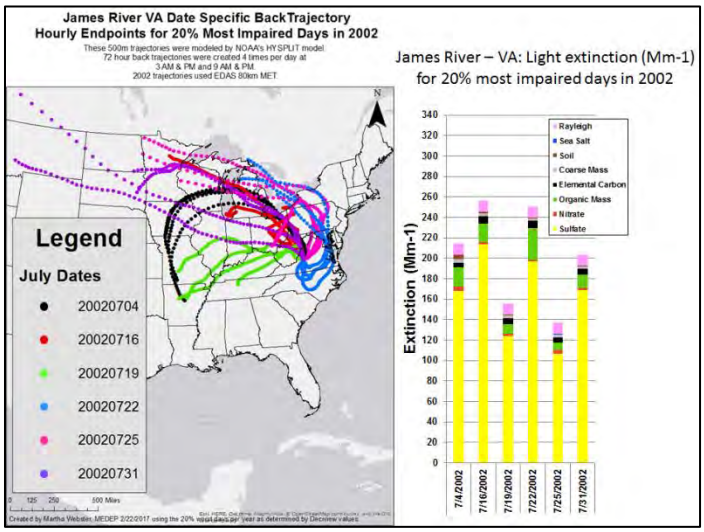
- MANE-VU Northeast states
  - Maryland - 5 EGUs and 2 Industrial Sources
  - Pennsylvania - 11 EGUs and 1 Industrial Source
- LADCO Midwest states
  - Illinois - 1 EGU and 1 Industrial Source
  - Indiana - 11 EGUs and 1 Industrial Source
  - Michigan - 8 EGUs
  - Ohio - 10 EGUs and 1 Industrial Source
- SESARM Southeast states
  - Alabama – 1 EGU
  - Georgia - 3 EGUs
  - Kentucky - 5 EGUs
  - North Carolina – 2 EGUs and 2 Industrial Sources
  - Tennessee - 1 EGU and 1 Industrial Source
  - Virginia - 2 EGUs and 3 Industrial Sources
  - West Virginia - 6 EGUs and 1 Industrial Source
- CENRAP Central states
  - Iowa – 1 EGU
  - Oklahoma 1 EGU
  - Texas – 2 EGUs

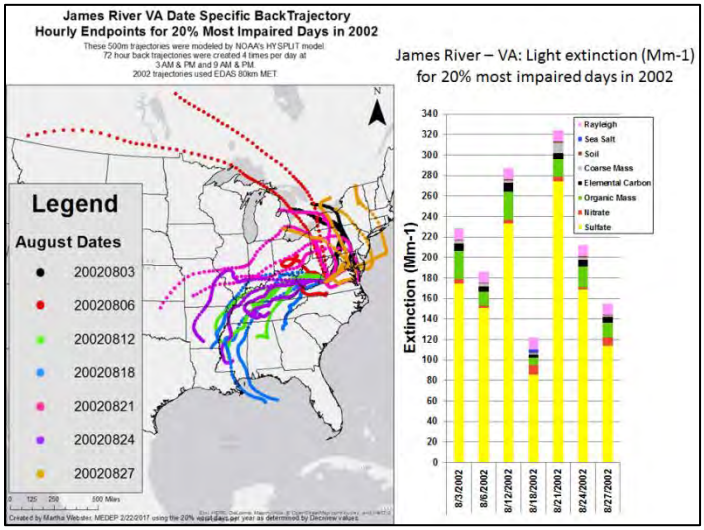
Trajectory plots for 2002 (Figure 47), 2011 (Figure 48) and 2015 (Figure 49) most impaired visibility days show strong trajectory patterns from Pennsylvania. From the MANE-VU region, during 2011 and 2015 the strongest signal was from Western Pennsylvania with a few trajectories showing impacts from other Mid-Atlantic MANE-VU states and New York.

Figure 47: Trajectory analyses of James River Face Wilderness most impaired days during 2002









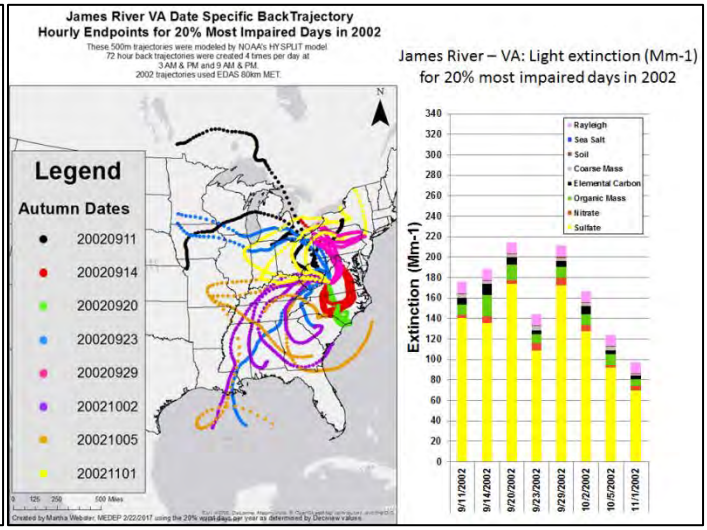
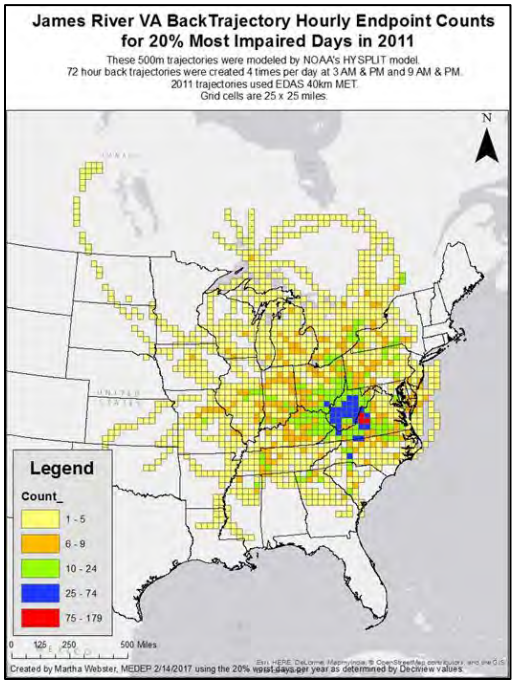
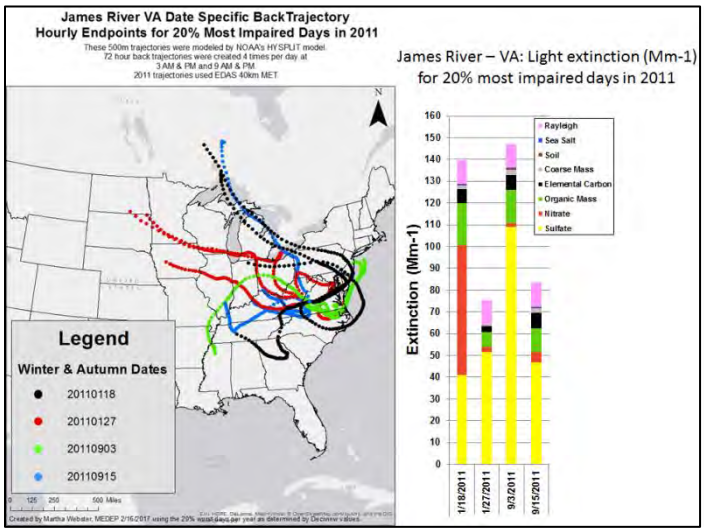
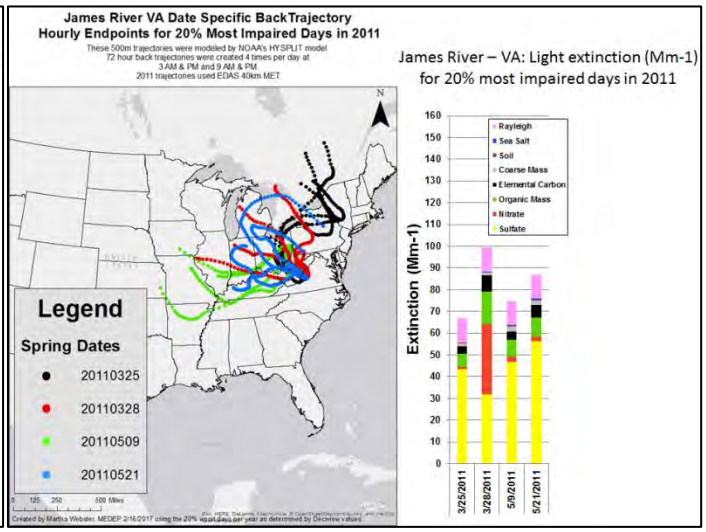
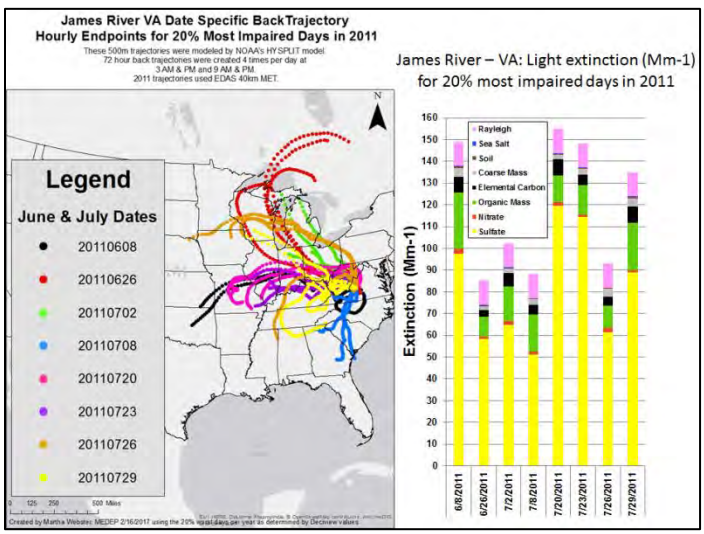


Figure 48: Trajectory analyses of James River Face Wilderness most impaired days during 2011









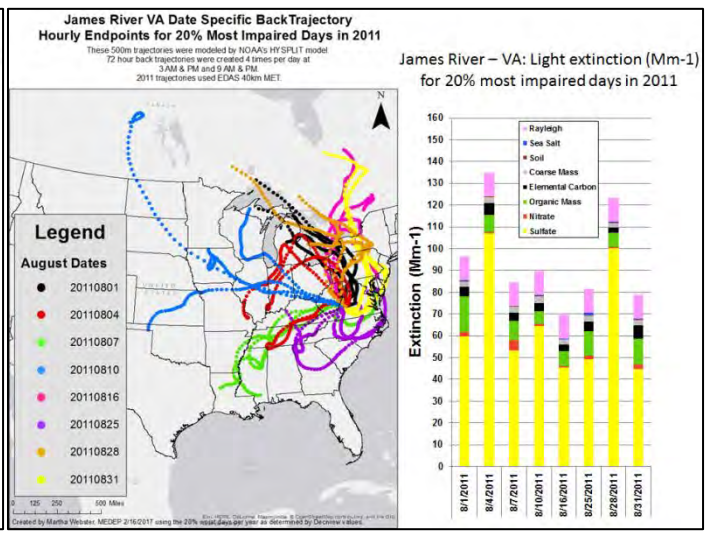
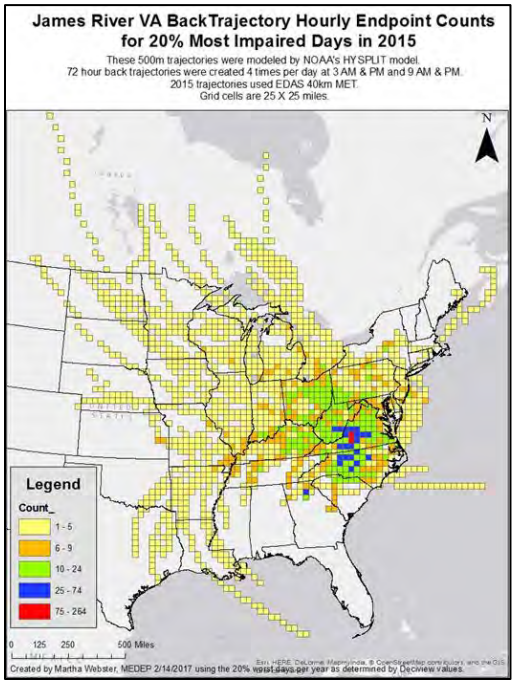
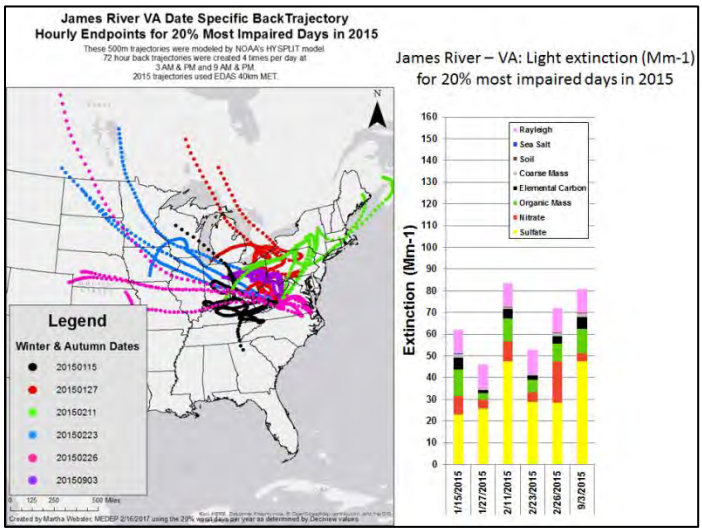
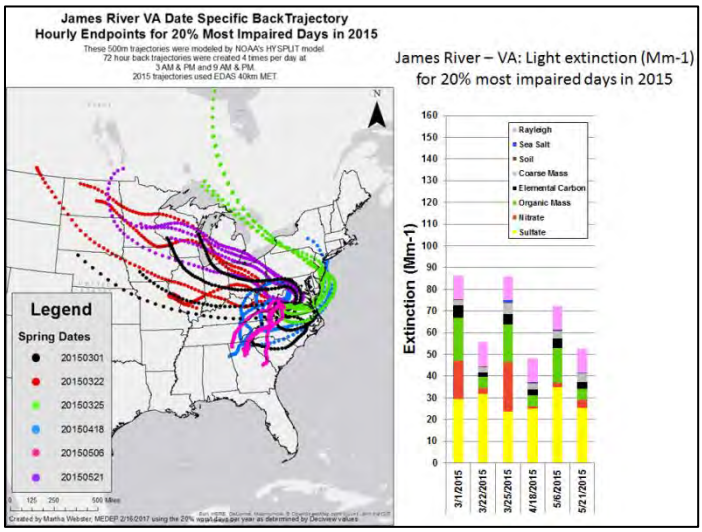
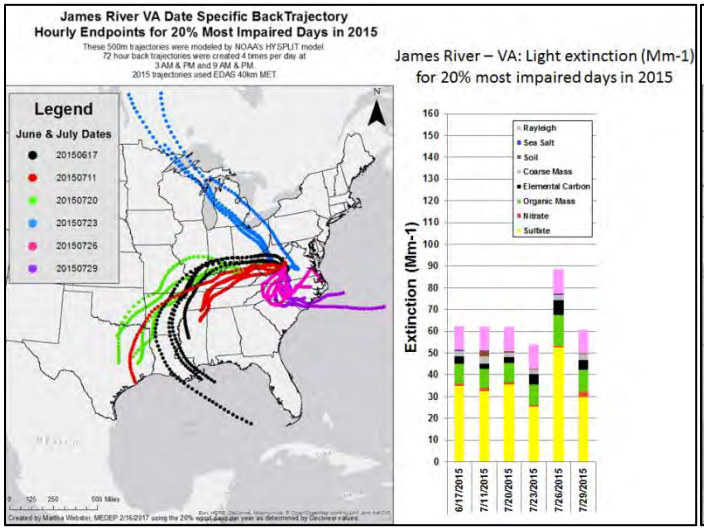


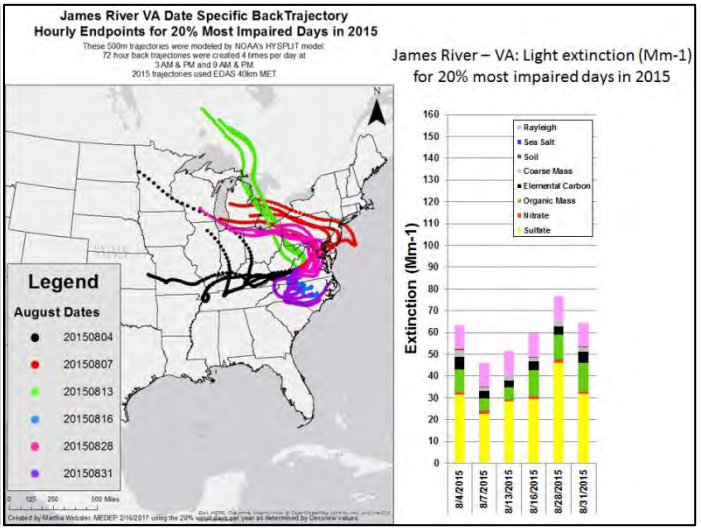
Figure 49: Trajectory analyses of James River Face Wilderness most impaired days during 2015











5.0 Summary

As noted in the MANE-VU CALPUFF analysis report, results provided in this report are also not intended to provide policy recommendations. Trajectory analyses results in this report are to give states a general understanding of transport patterns during the most impaired visibility days for each Class I area. It is also anticipated that results of all MANE-VU contribution analyses and four-factor analyses will subsequently be considered for potential policy development.

Observations of results from the speciation analyses include:

1. For all Class I areas, the light extinction trend shows a significant decrease from the 2000-04 base period to the 2011-15 current 5-year period.
2. The light extinction percentage decrease from the base period (2000-04) to the current 5-year period (2011-15) from sulfates was 17-28% for all Class I areas, however sulfates continues to contribute to regional haze more than other principle components.
3. The light extinction percentage increase from the base period (2000-04) to the current 5-year period (2011-15) from nitrates was 5% or more at Lye Brook Wilderness, Brigantine Wilderness, Shenandoah National Park, and James River Face Wilderness Class I sites.
4. Nitrate light extinction contribution is largest during the late fall to early spring days.
5. Organic mass carbon, sea salt, coarse mass, light absorbing carbon, and soil contribution changes from the base period were all less than 5% at all Class I sites.
6. The resulting light extinction percentage decrease from the base period (2000-04) to the current 5-year period (2011-15) from Rayleigh scattering was 9-13% for northern Class I areas and 6-9% for Brigantine Wilderness and other Class I areas in Virginia and West Virginia.

Observations of results from the trajectory analyses include:

1. For northern New England Class I areas there were strong transport signals from Canadian sources (forest fire smoke and emissions from high population areas in southern Canada).
2. For all MANE-VU Class I areas in 2011 and 2015 there were strong transport signals from LADCO and northern SESARM states.
3. In general, the trajectory analyses confirm contribution results from the MANE-VU CALPUFF modeling report.
4. For Virginia and West Virginia Class I areas there were strong transport pattern from MANE-VU Mid-Atlantic states with the strongest signal from western Pennsylvania.

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APPENDIX B

Mid-Atlantic/Northeast U.S. Visibility Data 2004-2019

(2nd RH SIP Metrics)

Prepared by
Maine Department of Environmental Protection (ME DEP)
for the
Mid-Atlantic/Northeast Visibility Union (MANE-VU)

Project Manager- Tom Downs (MEDEP)

January 21, 2020 revision

MANE - VU
Mid-Atlantic/Northeast Visibility Union

Acknowledgments

This document is an update of the following report: *Mid-Atlantic/Northeast U.S. Visibility Data 2004-2018 (2nd RH SIP Metrics) – 5-1-2020 Update* (MANE-VU 2020).

We could not have completed this work without the IMPROVE (Interagency Monitoring of Protected Visual Environments) program and long-term commitment of the National Park Service and other state and federal partners to maintain visibility networks and the Federal Land Manager Environmental Database (FED). FED is hosted at the Colorado State University's Cooperative Institute for Research in the Atmosphere (CIRA). IMPROVE is a collaborative association of state, tribal, and federal agencies, and international partners. US Environmental Protection Agency is the primary funding source, with contracting and research support from the National Park Service. The Air Quality Group at the University of California, Davis is the central analytical laboratory, with ion analysis provided by Research Triangle Institute, and carbon analysis provided by Desert Research Institute.

Special thanks to Scott Copeland, USDA Forest Service Air Data Analyst for all his efforts to complete data analyses used for this report, Rich Greves with the Maine Department of Environmental Protection for his help creating analysis plots and Martha Webster with the Maine Department of Environmental Protection for her help creating monitoring site maps.

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Executive Summary

This technical document fulfills U.S. Environmental Protection Agency's (USEPA's) Regional Haze Rule (RHR) 51.308(f)(1) provision for the second implementation period (2018-28) to determine baseline, current and natural visibility conditions for the 20 percent most impaired days and the 20 percent clearest days, for each in-state and out-of-state Class I area for states in the Mid-Atlantic/Northeast Visibility Union (MANE-VU) region.

Visibility trends analyses in this document used USEPA recommended metrics in the December 2018 guidance (U.S. EPA 2018) at IMPROVE (Interagency Monitoring of Protected Visual Environments) monitoring sites at federal Class I areas in and adjacent to the MANE-VU region that are subject to USEPA's RHR. Visibility trends analyses were also calculated for IMPROVE Protocol monitoring sites in and adjacent to the MANE-VU region. For visibility trends at IMPROVE Protocol monitoring sites December 19, 2020 data downloaded from the FED website were used.

This technical document provides an analysis of visibility data collected at the IMPROVE monitoring sites, starting in the baseline period of 2000-2004 through 2014-2019, the most recent five-year period with available data. The results of this analysis show the following:

- There continue to be definite downward trends in overall haze levels at all Class I areas in and adjacent to the MANE-VU region and at IMPROVE Protocol monitoring sites.

- Based on rolling five-year averages demonstrating progress since the 2000-2004 baseline period, all MANE-VU and nearby Class I area visibility conditions are currently better than the 2028 uniform rate of progress (URP) visibility condition for the 20 percent most impaired visibility days and below baseline conditions for the 20 percent clearest days.

- Further progress is needed to achieve modeled 2028 reasonable progress goals (RPGs) at all except for the Moosehorn Wilderness Area in the MANE-VU and nearby Class I areas.

- Trends are mainly driven by large reductions in sulfate light extinction.

- Levels of organic carbon mass (OCM) and light absorbing carbon (LAC) appear to be approaching natural background levels at most of the MANE-VU Class I areas.

- The percent contribution of nitrate light extinction has been significantly increasing at some of the MANE-VU Class I areas not just due to lower sulfate contributions but due to more winter days and fewer summer days in the mix of 20 percent most impaired days.

1. INTRODUCTION

1.1. Background

Haze, or reduced visibility, occurs when ambient particulate matter and gases scatter or absorb light ("light extinction") that would otherwise reach an observer. Particles responsible for regional haze are produced naturally, from windblown dust, forest fires, and aerosolized sea salt; and by human-caused pollution from vehicles, power plants, and other combustion and dust-generating activities. Haze-forming particles can also cause serious health effects in the lungs and cardiopulmonary system, potentially leading to premature death. In addition, some particle species contribute to acidic deposition and other environmental harms.

In 1999, the US Environmental Protection Agency (USEPA) issued a rule under Section 169A of the Clean Air Act (Visibility Protection for the Federal Class I Areas) to address human-caused regional haze: Regional Haze Rule (RHR) [64 FR 35614 (July 1, 1999)]. The RHR is designed to improve visibility at certain national parks and wilderness areas (Class I areas) on the 20 percent haziest ('worst') days while not exacerbating haze on the 20 percent clearest ('best') days. The RHR requires states to submit state implementation plans (SIPs) to USEPA every ten years, setting interim progress goals and strategies consistent with the long-term national visibility goal of achieving natural conditions at Class I areas by 2064. States submitted their first haze SIPs to USEPA beginning in 2008. States additionally are required to track their progress against their historic baseline period[1] in achieving reductions in regional haze, submitting reports every five years, and to adjust their emissions management strategies accordingly.

In 2017, USEPA finalized revisions to the 1999 RHR [82 FR 3078 (January 10, 2017)] that will now require states to track progress of visibility for the 20 percent 'most impaired' days due to anthropogenic emissions instead of 20 percent worst visibility days as was done for the first planning period. The method for tracking progress for the 20 percent clearest days will not change from the first planning period. USEPA has recommended metrics for determining 20 percent most impaired days in a December 2018 guidance (U.S. EPA 2018). MANE-VU states have since decided to use those recommended metrics for the second implementation period. All analyses in this document use the most recent (20% most impaired natural conditions were updated in April 2020) recommended metrics.

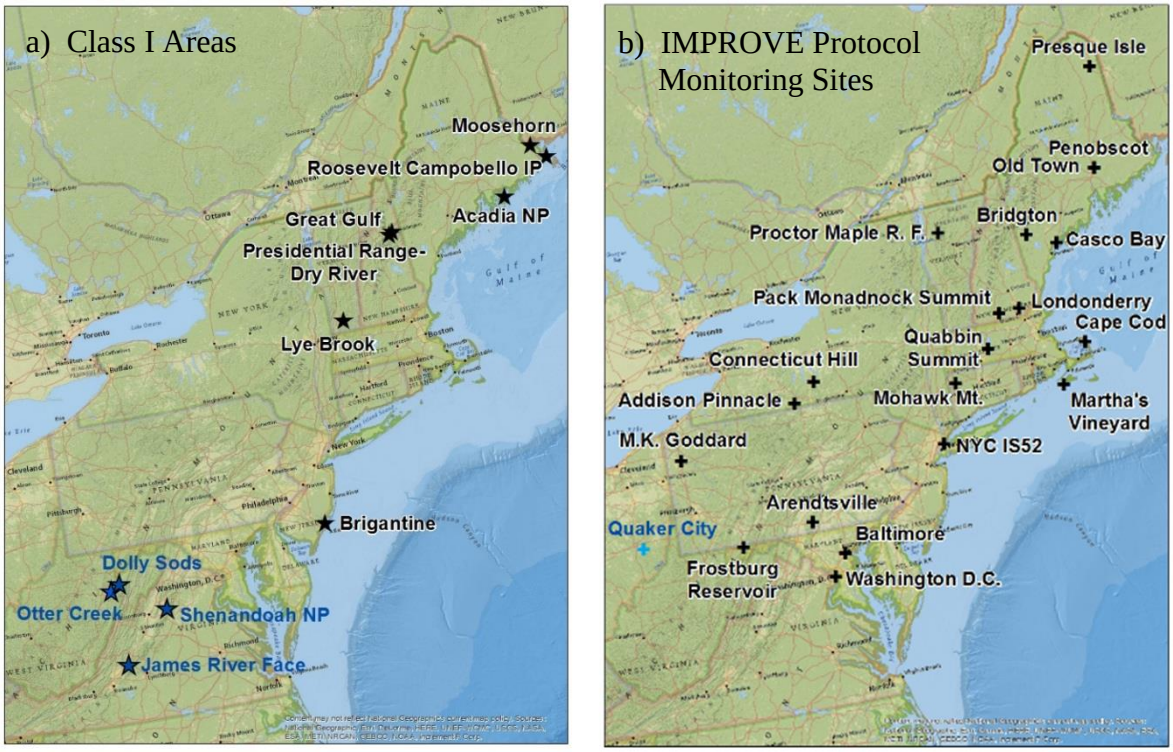
The Mid-Atlantic/Northeast Visibility Union (MANE-VU) was formed to support visibility planning efforts in the mid-Atlantic and northeastern portion of the country, and includes the members listed in Table 1-1. The seven Class I areas in the MANE-VU region (black text) and four Class I areas adjacent to the MANE-VU region (blue text) are shown in Figure 1-1(a). This document also includes analyses for IMPROVE Protocol monitoring sites (see Figure 1-1(b)), with twenty monitors in the MANE-VU region (black text) and one adjacent to the MANE-VU region (blue text)). The purpose of this report is to support MANE-VU states to meet USEPA's RHR 51.308(f)(1) provision for the second implementation period (2018-28) to determine baseline, current and natural visibility conditions for the 20 percent most impaired days and the 20 percent clearest days, for each in-state and out-of-state Class I area for states in the Mid-Atlantic/Northeast Visibility Union (MANE-VU) region.

[1] The title of this and earlier trends reports use 2004 as the base year because the trend is based on rolling averages of 5-year periods, and 2004 was the end of the initial 5-year period used as the baseline.

Table 1-1. Members of the Mid-Atlantic/Northeast Visibility Union (MANE-VU)

Connecticut	Pennsylvania
Delaware	Penobscot Indian Nation
District of Columbia	Rhode Island
Maine	St. Regis Mohawk Tribe
Maryland	Vermont
Massachusetts	National Park Service
New Hampshire	U.S. EPA
New Jersey	U.S. Fish and Wildlife Service
New York	U.S. Forest Service

Figure 1-1. Class I Areas and IMPROVE Protocol Monitoring Sites In and Adjacent to the MANE-VU Region



While this report provides readers with a basic background on regional haze, it does not include in-depth discussions of topics covered in previous reports. For a broader understanding of these topics, readers can visit USEPA's regional haze website: https://www.epa.gov/visibility, the IMPROVE technical documentation website: http://vista.cira.colostate.edu/improve/, the Publications section of the MANE-VU website: http://www.otcair.org/manevu/document.asp?Fview=Reports, the MARAMA regional haze website: http://www.marama.org/technical-center/regional-haze-planning and the NESCAUM regional haze documents archive, located at the following web address: http://www.nescaum.org/topics/regional-haze

2. Visibility Metrics

IMPROVE is a collaborative association of state, tribal, and federal agencies, and international partners. USEPA is the primary funding source, with contracting and research support from the National Park Service. The Air Quality Group at the University of California, Davis is the central analytical laboratory, with ion analysis provided by Research Triangle Institute, and carbon analysis provided by Desert Research Institute. IMPROVE was initially established as a national visibility network in 1985 consisting of 30 monitoring sites primarily located in national parks, 20 of which began operation in 1987. IMPROVE has operated many sites within the MANE-VU and nearby regions with some sites (Acadia and Shenandoah National Parks) with data available since 1988. For this report, only available data for the period 2000-19 were analyzed. Table 2-1 lists all IMPROVE monitoring sites in the MANE-VU and nearby regions used in this report. Other IMPROVE Protocol monitoring sites [BALT (Baltimore, Maryland) and COHI (Connecticut Hills, New York), and OLTO (Old Town, Maine)] in the MANE-VU region were not included primarily because no impairment statistics were calculated for those sites.

Table 2-1. IMPROVE Monitoring Sites

Site Code	Class I Area or IMPROVE Protocol Site Name	State	Latitude	Longitude	Elevation (m AMSL)	Start Date	End Date
MANE-VU Class I Areas							
ACAD	Acadia National Park	ME	44.3771	-68.261	157	3/1988	Active
BRIG	Brigantine Wilderness	NJ	39.465	-74.4492	5	9/1991	Active
GRGU	Great Gulf Wilderness	NH	44.3082	-71.2177	453	6/1995	Active
LYBR	Lye Brook Wilderness	VT	43.1482	-73.1268	1015	9/1991	9/2012
LYEB	Lye Brook Wilderness	VT	42.9561	-72.9098	882	1/2012	Active
MOOS	Moosehorn Wilderness	ME	45.1259	-67.2661	77	12/1994	Active
Nearby Class I Areas							
DOSO	Dolly Sods Wilderness	WV	39.1053	-79.4261	1182	9/1991	Active
SHEN	Shenandoah National Park	VA	38.5229	-78.4348	1079	3/1988	Active
JARI	James River Face Wilderness	VA	37.6266	-79.5125	289	6/2000	Active
MANE-VU IMPROVE Protocol Sites							
ADPI	Addison Pinnacle	NY	42.0912	-77.2099	512	4/2001	6/2010
AREN	Arendtsville	PA	39.9232	-77.3079	267	4/2001	12/2010
BRMA	Bridgton	ME	44.1074	-70.7292	233	3/2001	12/2015
CABA	Casco Bay	ME	43.8325	-70.0644	26	3/2001	Active
CACO	Cape Cod	MA	41.9758	-70.0242	49	4/2001	Active
FRRE	Frostburg Reservoir	MD	39.7058	-79.0122	767	4/2004	Active
LOND	Londonderry	NH	42.8624	-71.3801	124	1/2011	Active
MAVI	Martha's Vineyard	MA	41.3309	-70.7846	2	1/2003	Active
MKGO	M.K. Goddard	PA	41.4269	-80.1453	379	4/2001	12/2010
MOMO	Mohawk Mt.	CT	41.8214	-73.2973	521	9/2001	Active
NEYO	New York City – IS52	NY	40.8161	-73.9019	45	8/2004	6/2010
PACK	Pack Monadnock Summit	NH	42.8619	-71.8786	695	10/2007	Active
PENO	Penobscot Nation	ME	44.948	-68.6479	45	1/2006	Active
PMRF	Proctor Maple R. F.	VT	44.5284	-72.8688	401	12/1993	Active
PRIS	Presque Isle	ME	46.6964	-68.0333	165	3/2001	Active
QURE	Quabbin Summit	MA	42.2985	-72.3346	317	3/2001	12/2015
WASH	Washington D.C.	DC	38.8762	-77.0344	15	3/1988	12/2014
Nearby IMPROVE Protocol Site							
QUCI	Quaker City	OH	39.9428	-81.3378	366	5/2001	Active

Figure 1-1(a) shows Class I areas in the MANE-VU and nearby regions. Monitoring data for the LYBR (2000-11) and LYEB (2012-19) sites at the Lye Brook Wilderness Class I area were merged with a new LYBR_RHTS site code. The Roosevelt Campobello International Park, Presidential Range-Dry River and Otter Creek Class I areas do not have an IMPROVE monitor. For those Class I sites without an IMPROVE monitor, monitoring data from a nearby representative Class I area was used to track visibility conditions. In addition to sites that are used to represent Class I areas, IMPROVE Protocol sites are in operation to provide expanded spatial coverage for the network. Protocol sites are separately sponsored by state, regional, tribal, and national organizations and use the same instrumentation, monitoring, and analysis protocols as IMPROVE. Figure 1-1(b) shows the IMPROVE Protocol sites in the MANE-VU and nearby regions with at least six years of valid data. Monitoring data and visibility metrics used for both the first and second implementation planning period are available on the Federal Land Manager Environmental Data Base (FED) website that is hosted at the Colorado State University's Cooperative Institute for Research in the Atmosphere (CIRA).

2.1. IMPROVE Equation

MANE-VU states have agreed to use the revised IMPROVE equation (Pitchford et al., 2007) to calculate, from monitoring data, light extinction contributions from individual particle components for the first and second implementation period. The equation to estimate light extinction (b_{ext}) from the referenced literature is summarized below.

$$b_{ext} \approx 2.2 \times f_S(RH) \times [\textit{Small Ammonium Sulfate}] + 4.8 \times f_L(RH) \times [\textit{Large Ammonium Sulfate}]$$

$$+ 2.4 \times f_S(RH) \times [\textit{Small Ammonium Nitrate}] + 5.1 \times f_L(RH) \times [\textit{Large Ammonium Nitrate}]$$

$$+ 2.8 \times [\textit{Small Organic Mass}] + 6.1 \times [\textit{Large Organic Mass}]$$

$$+ 10 \times [\textit{Elemental Carbon}]$$

$$+ 1 \times [\textit{Fine Soil}]$$

$$+ 1.7 \times f_{SS}(RH) \times [\textit{Sea Salt}]$$

$$+ 0.6 \times [\textit{Coarse Mass}]$$

$$+ \textit{Rayleigh Scattering (Site Specific)}$$

$$+ 0.33\ (Mm^{-1}/ppb) \times [\textit{Nitrogen Dioxide (ppb)}]$$

Light extinction and Rayleigh scattering units are inverse megameters (Mm^{-1}), concentrations shown in brackets units are microgram per cubic meter ($\mu g/m^3$), and the water growth terms, f(RH), do not have units. The nitrogen dioxide (NO_2) light absorption term will not be used for MANE-VU and nearby region sites due to no NO_2 concentration data being available at those sites. The organic compound mass (OM) to organic carbon mass (OC) ratio is 1.8 (OM=1.8*OC). Sulfate, nitrate and organics are split into small and large modes based

on their mass. For masses less than 20 μg/m^3, the fraction in the large mode is estimated by dividing the total concentration of the component by 20 μg/m^3 with the remaining in the small mode. If the total concentration of a component exceeds 20 μg/m^3, all of it is assumed to be in the large mode. The small and large modes of sulfate and nitrate have associated hygroscopicities, f_S(RH) and f_L(RH), respectively, while f_{SS}(RH) is for sea salt.

To convert light extinction to a haze index with units of deciviews (dv) the following equation is used:

$$\text{Haze index (dv)} = 10(\ln(b_{ext}/10)$$

Not all visibility metrics used by MANE-VU states for the first implementation period can be used for the second implementation period. Recent amendments to the Regional Haze rule (USEPA, 2017) allow states to use the same metrics for the 20 percent clearest days however baseline and current haze metrics for the 20 percent most impaired days must now be calculated for the 20 percent most anthropogenically impaired days. USEPA has recommended metrics for determining 20 percent most impaired days in Chapter 2 of the December 2018 guidance (U.S. EPA 2018). MANE-VU states have agreed to use the recommended metrics for the second implementation period.

For all analyses in this report, the latest available (12/19/2020) data was downloaded from the Federal Land Manager Environmental Data Base (FED) website including daily calculated light extinction, deciview values (using the revised (new) IMPROVE algorithm including patched data) and other metrics needed in the determination of 20 percent clearest days and 20 percent most impaired days for 2000 through 2019. Natural conditions for 20 percent clearest days (IMPROVE Natural Haze Levels II version 2) and natural conditions for 20 percent most impaired days for Class I areas were downloaded from the IMPROVE website (http://vista.cira.colostate.edu/Improve/rhr-summary-data/).

2.2. Natural Visibility Metrics

Even in the absence of emissions from human activities, some level of light extinction occurs from natural causes. This "natural haze" represents the best expectation for long-term progress at Class I areas and is the goal for these areas by 2064.

For the first SIP planning period ending in 2018, USEPA has guidance (U.S. EPA 2003a) for calculating natural haze levels based on measurements of particulate species at Class I areas during a baseline period. States combine measurements of several parameters to calculate a "Haze Index" in deciview (dv) units based on estimates of light extinction. A fuller explanation of tracking progress procedures is presented in a 2003 USEPA guidance document for tracking progress (U.S. EPA 2003b). For the current SIP planning period ending in 2028, the December 2018 guidance (U.S. EPA 2018) contains final recommendations on methods for selecting 20 percent most impaired days to track visibility and determining natural visibility conditions.

Natural haze levels are calculated for both 20 percent clearest days and 20 percent most impaired days, because changing natural processes lead to variability in natural visibility. MANE-VU states have agreed for the second implementation planning period to use 20 percent clearest days natural levels (IMPROVE Natural Haze Levels II version 2 (4/2020 update)) and derived 20 percent most impaired days natural levels in USEPA's recent guidance (U.S.EPA 2018). Note: For IMPROVE Protocol sites, 20 percent most impaired days metrics were calculated if at least 6-years of data is available. Natural visibility levels for 20 percent clearest days for Class I and IMPROVE Protocol monitoring sites in the MANE-VU and adjacent Class I areas are presented in Table 2-2.

Table 2-2. 20 Percent Clearest Days Natural Conditions for Class I and IMPROVE Protocol Sites In and Adjacent to the MANE-VU Region

Site Code	Deciview (dv)	Extinction (Mm-1)						
		Sulfate	Nitrate	Organic Mass Carbon	Light Absorbing Carbon	Coarse Mass	Sea Salt	Soil
MANE-VU Class I Areas								
ACAD	4.66	0.75945	0.27297	2.00049	0.08352	0.56367	0.18629	0.10431
BRIG	5.52	0.88119	0.35236	2.54476	0.11958	1.03972	0.22229	0.24231
GRGU	3.73	0.67050	0.35433	1.61155	0.08198	0.63134	0.10698	0.09615
LYBR_RHTS	2.79	0.39477	0.25933	1.02682	0.05891	0.37730	0.04617	0.08571
MOOS	5.02	0.83994	0.32516	2.24568	0.12446	0.75137	0.16123	0.11956
Nearby Class I Areas								
DOSO	3.64	0.79949	0.38313	2.35139	0.10451	0.57496	0.06985	0.16779
SHEN	3.15	0.55701	0.55370	1.63632	0.08378	0.71779	0.07105	0.14487
JARI	4.39	0.81288	0.46888	2.07294	0.09621	0.83206	0.06385	0.19781
MANE-VU IMPROVE Protocol Sites								
ADPI	4.12	0.66484	0.37501	2.05769	0.08995	0.61837	0.19171	0.12611
AREN	4.24	0.69604	0.28666	2.04036	0.09179	0.82225	0.17024	0.19266
BRMA	4.65	0.74476	0.30023	1.84437	0.07813	0.65535	0.21168	0.10856
CABA	4.83	0.72653	0.22981	1.99149	0.07961	0.86898	0.17602	0.16803
CACO	5.95	0.78033	0.43355	2.55505	0.11739	1.03772	1.12550	0.14441
FRRE	4.48	0.79186	0.39847	2.14043	0.10559	0.95432	0.11841	0.20139
LOND	5.00	0.84343	0.24382	2.17850	0.08201	0.80890	0.26277	0.10280
MAVI	6.11	0.84190	0.35160	2.53561	0.12299	0.97590	1.50675	0.14822
MKGO	4.52	0.79382	0.47430	2.13868	0.08989	0.87227	0.20685	0.19927
MOMO	3.67	0.64117	0.28174	1.60370	0.07982	0.55116	0.15415	0.15967
NEYO	5.52	0.74000	0.22607	2.59008	0.11492	0.94187	0.50003	0.28483
PACK	3.17	0.51903	0.22931	1.36239	0.07343	0.42529	0.09999	0.06772
PENO	4.62	0.67044	0.22115	1.80158	0.06975	0.73000	0.28312	0.13280
PMRF	3.86	0.57006	0.24555	2.04162	0.08695	0.55555	0.14592	0.08835
PRIS	4.91	0.71974	0.26817	2.04509	0.11767	0.80764	0.20499	0.20713
QURE	3.92	0.62331	0.21697	1.83980	0.08000	0.72058	0.23090	0.11885
WASH	5.52	0.86507	0.39121	2.34693	0.12815	1.19015	0.17470	0.28916
Nearby IMPROVE Protocol Site								
QUCI	4.96	0.76891	0.58488	2.66763	0.11451	0.97224	0.12414	0.22298

Data Source: Natural Conditions II updated April 2020 file on the IMPROVE website..

** Natural haze values are not calculated for areas without 2000-04 baseline monitoring data or nearby representative IMPROVE site values. Visibility for the Presidential Range/Dry River Wilderness Area, Roosevelt Campobello International Park and Otter Creek Wilderness are represented by the IMPROVE monitors for Great Gulf, Moosehorn and Dolly Sods, respectively.*

In USEPA's guidance (U.S.EPA 2018), to calculate 20 percent most impaired days haze index levels, there are more natural conditions metrics needed to complete the calculations.

The guidance uses 2000-14 data to determine extinction levels for episodic (e3) carbon and dust and natural extinction (NC-II (group 100)) levels for sulfate, nitrate, organic carbon, elemental carbon, fine soil and coarse mass. The RHR does not require Protocol sites to establish Reasonable Progress Goals (RPGs) however, e3 and NC-II (Group 100) extinction metrics are needed to calculate daily extinction levels for Protocol sites. For IMPROVE Protocol sites, e3 and NC-II (group 100) levels were determined if there were at least six years of valid data available (not in USEPA's guidance), but in the latest available dataset). Derived e3 and NC-II (group 100) extinction levels for all MANE-VU and nearby Class I areas and IMPROVE Protocol sites are listed in Table 2-3.

Table 2-3. Derived Episodic (e3) and Natural Conditions for Class I and IMPROVE Protocol Sites In and Adjacent to the MANE-VU Region

	e3 (Mm-1)		Natural Extinction# (Mm-1)					
Site Code*	**Episodic Carbon**	**Episodic Dust**	**Sulfate**	**Nitrate**	**Organic Carbon Mass**	**Light Absorbing Carbon**	**Soil**	**Coarse Mass**
MANE-VU Class I Areas								
ACAD	10.43781	3.11129	2.0362	0.9343	5.4325	0.2	0.2471	1.2826
BRIG	20.14885	9.06602	1.8028	0.8159	6.0084	0.2	0.4716	1.8
GRGU	12.06917	3.23312	1.8346	0.8185	5.567	0.2	0.2457	1.589
LYBR_RHTS	11.44467	2.75272	1.7712	0.7974	5.4171	0.2	0.2787	1.0723
MOOS	11.13297	2.53611	1.9045	0.8729	5.7791	0.2	0.2322	1.5336
Nearby Class I Areas								
DOSO	13.56802	3.39637	1.8867	0.8222	5.7402	0.2	0.4262	1.3146
SHEN	15.06487	3.91633	1.8228	0.7919	5.9616	0.2	0.4086	1.7282
JARI	26.21782	2.94106	1.7784	0.7975	5.7779	0.2	0.481	1.8
MANE-VU IMPROVE Protocol Sites								
ADPI	14.74291	3.70176	1.8252	0.8309	5.9314	0.2	0.3975	1.549
AREN	22.12885	5.55573	1.7191	0.7791	5.9075	0.2	0.4788	1.8
BRMA	12.93536	2.52050	1.7925	0.8171	5.8414	0.2	0.2714	1.2729
CABA	18.89948	3.77916	1.716	0.7939	6.077	0.2	0.3216	1.7606
CACO	12.34542	4.92962	1.7068	0.781	6.106	0.2	0.3218	1.8
FRRE	15.56266	4.50415	1.862	0.8228	5.726	0.2	0.4568	1.8
LOND	20.85445	4.38664	1.7467	0.7999	5.7653	0.2	0.2256	1.7957
MAVI	12.19136	6.16371	1.7205	0.7844	5.2647	0.2	0.2763	1.8
MKGO	29.77069	4.69115	1.9606	0.8908	5.7382	0.2	0.4603	1.8
MOMO	15.20135	3.02756	1.7634	0.8034	5.9778	0.2	0.3957	1.488
NEYO	50.20181	11.22020	1.6464	0.755	5.7306	0.2	0.5	1.8
PACK	12.23893	3.01266	1.7673	0.8032	4.7402	0.2	0.2291	1.3533
PENO	24.01936	4.65363	1.805	0.8263	5.9382	0.2	0.3332	1.7952
PMRF	13.69720	2.88460	1.8026	0.7977	5.859	0.2	0.2827	1.2672
PRIS	16.54543	7.71344	1.8395	0.8386	5.8598	0.2	0.4976	1.8
QURE	17.02239	3.13621	1.747	0.7909	6.0622	0.2	0.3683	1.612
WASH	30.73590	6.01375	1.6828	0.7745	5.7776	0.2	0.5	1.8
Nearby IMPROVE Protocol Site								
QUCI	16.66106	5.52181	1.8759	0.8473	5.716	0.2	0.4862	1.8

Data Sources: 12/19/2020 RH3 (e3) data download from the FED website and Natural Conditions (Extinction)II updated April 2020 file on the IMPROVE website.

** Visibility for the Presidential Range/Dry River Wilderness Area, Roosevelt Campobello International Park and Otter Creek Wilderness are represented by the IMPROVE monitors for Great Gulf, Moosehorn and Dolly Sods, respectively.*

 # NC-II group 100 (all days)

Per USEPA guidance (U.S. EPA 2018), other metrics needed to calculate natural (2064) deciview conditions for the 20 percent most impaired days include routine and episodic extinction levels. Table 2-4 shows the derived natural routine and episodic extinction levels and the final derived natural deciview levels for all MANE-VU and nearby Class I areas and IMPROVE Protocol sites.

Table 2-4. 20 Percent Most Impaired Days Natural Conditions for Class I and IMPROVE Protocol Sites In and Adjacent to the MANE-VU Region

	Derived	Routine Extinction (Mm-1)							Episodic Extinction (Mm-1)			
*Site Code	Natural Deciview (dv)	Sulfate	Nitrate	Organic Mass Carbon	Light Absorbing Carbon	Coarse Mass	Sea Salt	Soil	Organic Mass Carbon	Light Absorbing Carbon	Soil	Coarse Mass
MANE-VU Class I Areas												
ACAD	10.39	5.1225	1.6127	5.6344	0.3375	1.3841	0.7715	0.2965	1.6554	0.5697	0.0344	0.1519
BRIG	10.68	3.8860	1.2427	7.6581	0.2719	1.6719	0.6525	0.5491	1.3753	0.4494	0.0318	0.6238
GRGU	9.78	4.7588	1.1049	6.3404	0.3247	1.7437	0.1307	0.2869	1.5853	0.4329	0.0491	0.3231
LYBR_RHTS	10.24	5.0908	1.4947	6.2733	0.3583	1.3873	0.1694	0.3714	2.0988	0.7200	0.0573	0.2790
MOOS	9.98	4.5337	1.3939	5.9851	0.2980	1.3072	0.6300	0.2532	1.3123	0.3876	0.0257	0.1743
Nearby Class I Areas												
DOSO	8.92	4.5229	0.5268	6.4175	0.2411	1.3120	0.1045	0.5479	1.0104	0.3069	0.0263	0.1024
SHEN	9.52	4.3343	0.7651	7.1524	0.2750	1.8252	0.1984	0.4892	1.2562	0.3918	0.0412	0.1493
JARI	9.47	3.7743	0.6904	6.6699	0.2373	1.8777	0.2130	0.4759	0.6733	0.2076	0.1103	0.4454
MANE-VU IMPROVE Protocol Sites												
ADPI	10.48	4.7466	0.8260	7.5189	0.2722	1.8009	0.1603	0.5579	1.8008	0.7248	0.0498	0.2153
AREN	10.17	3.8109	1.1974	7.3847	0.2649	1.9374	0.7386	0.6202	1.0213	0.3431	0.0511	0.0995
BRMA	10.46	4.4871	1.3354	7.1206	0.3068	1.2544	0.2344	0.3207	1.8027	0.6644	0.0389	0.1922
CABA	10.93	4.1025	1.4243	7.9553	0.3003	1.8831	1.0234	0.3313	1.3535	0.4859	0.0327	0.1908
CACO	11.00	4.2234	1.2289	6.9553	0.3471	1.7617	1.2958	0.4302	2.0194	0.6634	0.0245	0.1806
FRRE	9.61	4.0620	0.8463	6.9401	0.2376	1.9033	0.1067	0.5028	0.7042	0.2469	0.0233	0.1176
LOND	10.45	3.2309	1.7937	8.0721	0.3053	1.8540	0.6588	0.2498	0.5620	0.2114	0.0085	0.0849
MAVI	11.11	4.2381	1.2957	6.5696	0.3272	1.7423	2.2013	0.4231	1.9719	0.5905	0.0191	0.3768
MKGO	10.18	4.6325	1.2410	7.3525	0.2665	2.0299	0.3580	0.6558	0.4851	0.1811	0.0238	0.1025
MOMO	10.90	4.5408	1.3803	8.1949	0.3168	1.6460	0.3685	0.4495	2.4354	0.7666	0.0508	0.2304
NEYO	10.86	3.6153	1.2985	8.1825	0.2612	2.1042	1.2931	0.6963	0.4763	0.3415	0.0169	0.1270
PACK	9.55	4.3606	1.4794	6.4355	0.3334	1.4150	0.1333	0.2987	0.9303	0.2470	0.0302	0.1981
PENO	10.34	3.9756	1.3615	7.8991	0.2713	1.8770	0.5946	0.3302	0.4490	0.1667	0.0202	0.2140
PMRF	10.29	4.8501	1.4571	7.4530	0.3164	1.3721	0.1518	0.3695	1.6648	0.5119	0.0263	0.0966
PRIS	10.24	4.2311	1.4427	7.3465	0.2699	1.6332	0.3618	0.4082	1.0440	0.2928	0.0072	0.0545
QURE	10.81	4.4515	1.3399	8.7940	0.3063	1.4830	0.2317	0.4516	2.0001	0.6754	0.0314	0.1296
WASH	9.85	3.3849	0.9844	6.3415	0.2265	1.7642	0.5791	0.5931	1.0000	0.4976	0.0429	0.1311
Nearby IMPROVE Protocol Site												
QUCI	9.77	4.1207	1.1013	6.6323	0.2442	1.7604	0.2506	0.5690	0.8812	0.3799	0.0403	0.2091

Data Source: April 2020 2064 Endpoint file on the IMPROVE website.

** Visibility for the Presidential Range/Dry River Wilderness Area, Roosevelt Campobello International Park and Otter Creek Wilderness are represented by the IMPROVE monitors for Great Gulf, Moosehorn and Dolly Sods, respectively.*

2.3. Baseline, Current and Reasonable Progress Goal Visibility Metrics

The RHR requires states to evaluate current regional haze conditions at Class I areas subject to the rule relative to conditions during a historic baseline period. The historic baseline period is the five-year period from 2000 through 2004 and current five-year period is 2015 through 2019. Reasonable progress goals (RPGs) were established for the first implementation planning period for reduction of regional haze through 2018 for each Class I area and were established through 2028 in the second implementation planning period. States with Class I areas, in consultation with other states and federal land managers set 2028 RPGs (MANE-VU 2018a) for the 20 percent most impaired days and for the 20 percent clearest days as shown in Figure 2-5. Comparison between the five-year average Haze Index in 2028 (average of the 2024-2028 annual Haze Index values) and the baseline Haze Index will determine if states have met 2028 RPGs. The RPGs are designed to at least ensure no degradation from the baseline period for 20 percent clearest days visibility and achievement of reasonable progress toward natural conditions for 20 percent most impaired days visibility.

Haze indexes for baseline and current 20 percent clearest days are five-year averages of each year's average 20 percent lowest daily haze index values. Results for each Class I area in the MANE-VU and nearby regions are in Table 2-5. For all Class I areas, current haze indexes for the 20 percent clearest days are below baseline levels showing no degradation.

Haze indexes for baseline and current 20 percent most impaired days are determined by starting with calculating daily haze index values and calculating anthropogenic impairment levels as specified in Chapter 2 of the guidance (U.S. EPA 2018). The resulting impairment values are then sorted to determine the 20 percent most impaired days for each 'baseline' and 'current' year. The final 'baseline' and 'current' haze index calculation is a five-year average of each year's average 20 percent most impaired days daily haze index values. Results for each Class I area in the MANE-VU and nearby regions are in Table 2-5. The uniform rate of progress (URP) levels for 2019 and 2028 plus 2028 RPGs for each Class I area are also included in Table 2-5. Constant annual incremental improvement in the Haze Index (dv) such that natural conditions will be reached by 2064 is termed a "uniform rate of progress (URP)" (also referred to as the glide path). Results show that all Class I areas in the MANE-VU and nearby regions are currently between 4.71 dv and 7.24 dv below 2019 URP levels and between 2.2 dv and 4.71 dv below 2028 URP levels. Results also show that the Moosehorn Class I area is already 0.13 dv below the modeled 2028 RPG, other Class I areas in the MANE-VU region need between 0.33 dv and 0.89 dv improvements to reach the respective modeled 2028 RPGs and Class I areas in Virginia and West Virginia need between 1.94 dv and 2.13 dv improvements to reach the respective modeled 2028 RPGs.

Appendix B contains 20 percent clearest days and 20 percent most impaired days annual and 5-year rolling average haze indexes for all MANE-VU and nearby region Class I and IMPROVE Protocol sites.

Table 2-5. Baseline, Current and Reasonable Progress Goal Haze Index Levels for Class I Areas In or Adjacent to the MANE-VU Region

Class I Area	IMPROVE SITE DATA CODE(S)	State	CLEAREST DAYS			MOST IMPAIRED DAYS				
			Baseline (2000-04) (dv)	Current (2015-19) (dv)	RPG^ (2028) (dv)	Baseline (2000-04) (dv)	Current (2015-19) (dv)	URP* 2019 (dv)	URP* 2028 (dv)	RPG^ (2028) (dv)
Acadia National Park	ACAD	ME	8.78	6.36	6.33	22.01	14.24	19.11	17.36	13.35
Moosehorn Wilderness Area	MOOS	ME NB	9.16	6.48	6.45	20.65	12.99	17.98	16.38	13.12
Roosevelt Campobello International Park										
Great Gulf Wilderness Area	GRGU	NH	7.65	4.70	5.06	21.88	12.33	18.85	17.04	12.00
Presidential Range/Dry River Wilderness Area										
Lye Brook Wilderness Area	LYBR_ RHTS	VT	6.37	4.88	3.86	23.57	14.06	20.24	18.24	13.68
Brigantine Wilderness Area	BRIG	NJ	14.33	10.81	10.47	27.43	18.53	23.24	20.73	17.97
Dolly Sods Wilderness Area†	DOSO	WV	12.28	6.18	7.27	28.29	17.03	23.45	20.54	15.09
Otter Creek Wilderness Area†										
James River Face Area†	JARI	VA	14.21	8.99	9.36	28.08	17.28	23.43	20.64	15.31
Shenandoah National Park†	SHEN	VA	10.96	6.54	6.83	28.32	16.38	23.62	20.80	14.25

† *Class I area adjacent to the MANE-VU region;*
* *Uniform Rate of Progress;*
^ *Modeled Reasonable Progress Goal (MANE-VU 2018a)*

2.4. Visibility Metrics Trend Plots

Figure 2-1 through Figure 2-8 present annual and 5-year average haze indexes on the 20 percent clearest days and 20 percent most impaired days at MANE-VU and adjacent Class I areas between 2000 and 2019 in the context of long-term visibility goals. Table A-1 through Table A-5 in Appendix A present haze index trends numerically. Table A-6 through Table A-11 in Appendix A presents haze index trends numerically for all IMPROVE Protocol sites in and adjacent to the MANE-VU Region. URPs and RPGs shown in the figures are the long-term visibility goals for each Class I area.

These figures show that haze levels on the 20 percent clearest and 20 percent most impaired days from 2000 through 2019 have dropped across the entire region. The grey region in the figures denotes the range of 20 percent clearest to 20 percent most impaired haze levels expected to occur under natural conditions. Thus, the URP line intersects with the highest portion of the grey area in 2064 for most sites. For the Brigantine, Dolly Sods, Shenandoah and James River Face Wilderness Areas, whose haze levels on the 20 percent clearest days during the 2000 to 2004 baseline period were higher than estimated natural conditions on the 20 percent most impaired days, the no degradation line (representing the long-term clearest-day goal) is higher than the URP at dates approaching 2064. This nonsensical situation by 2064 is an artifact of technical guidance and only represents stated haze level goals, not anticipated results.

Figure 2-1. Visibility Metrics Levels at Acadia National Park

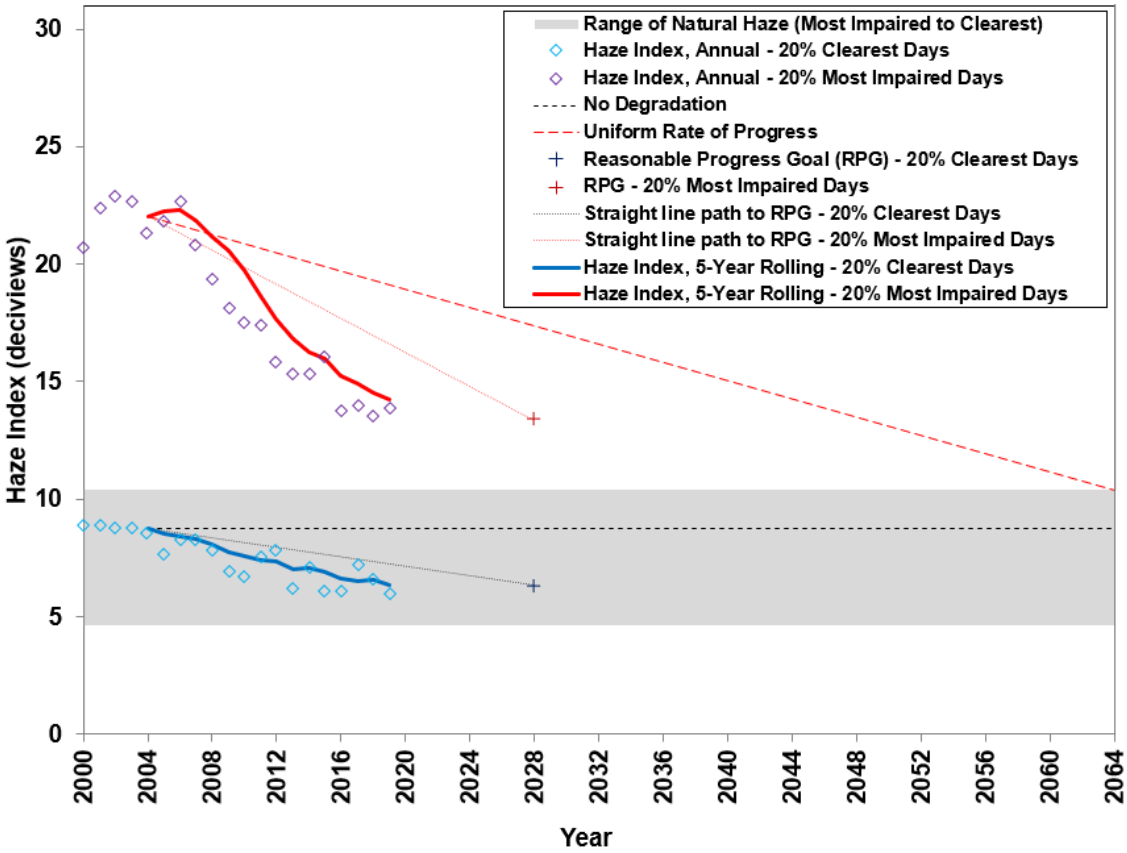


Figure 2-2. Visibility Metrics Levels at Moosehorn Wilderness Area

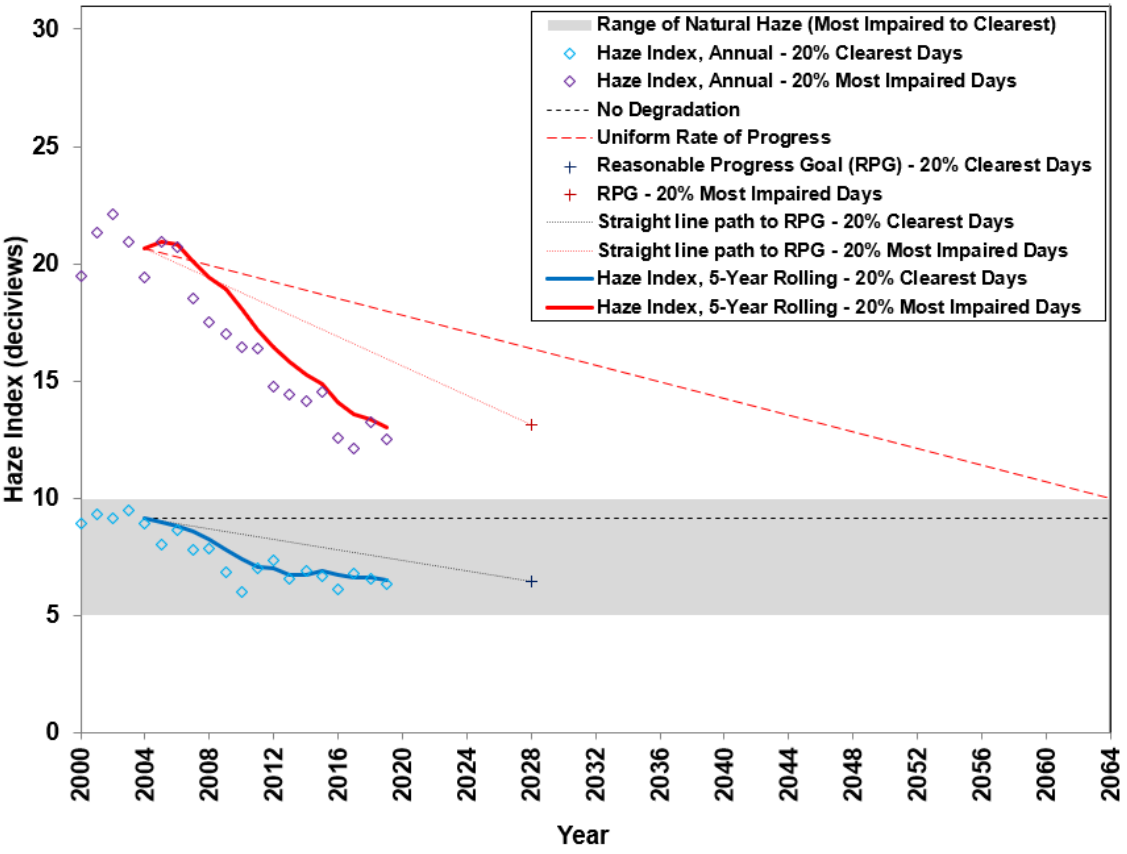


Figure 2-3. Visibility Metrics Levels at Great Gulf Wilderness Area

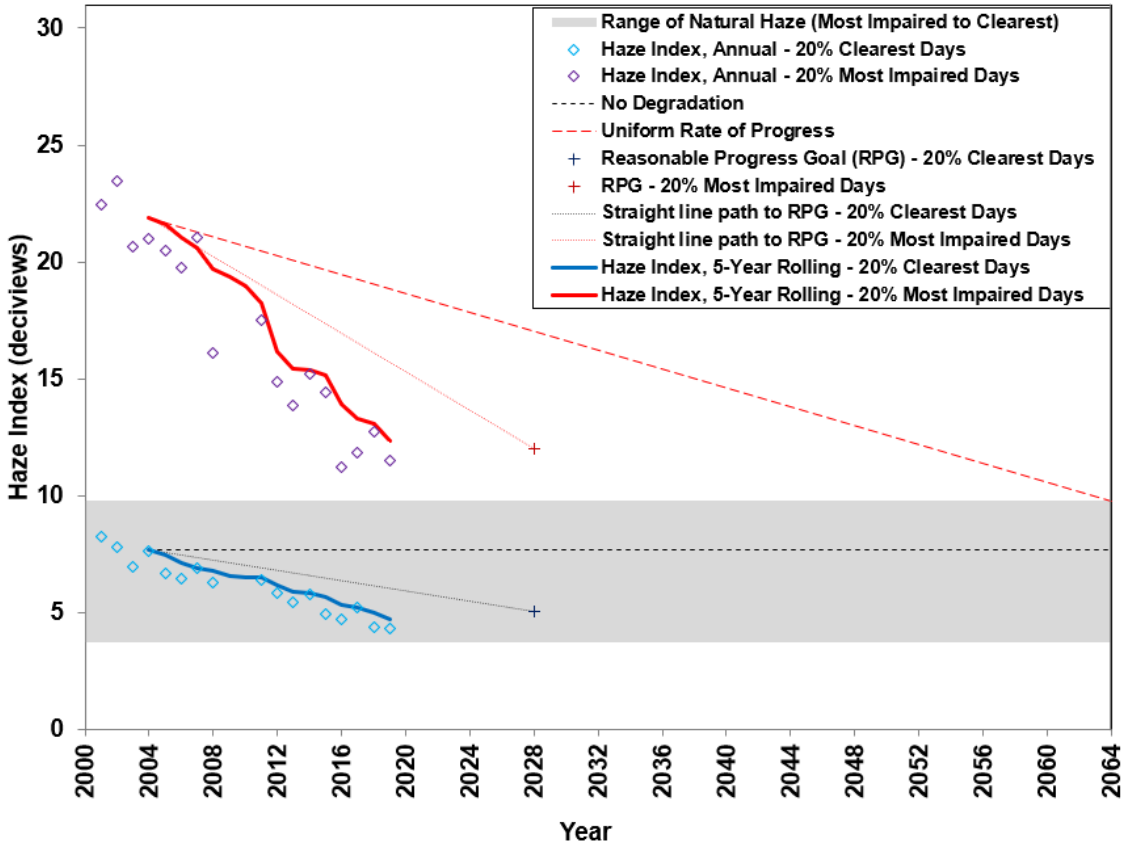


Figure 2-4. Visibility Metrics Levels at Lye Brook Wilderness Area

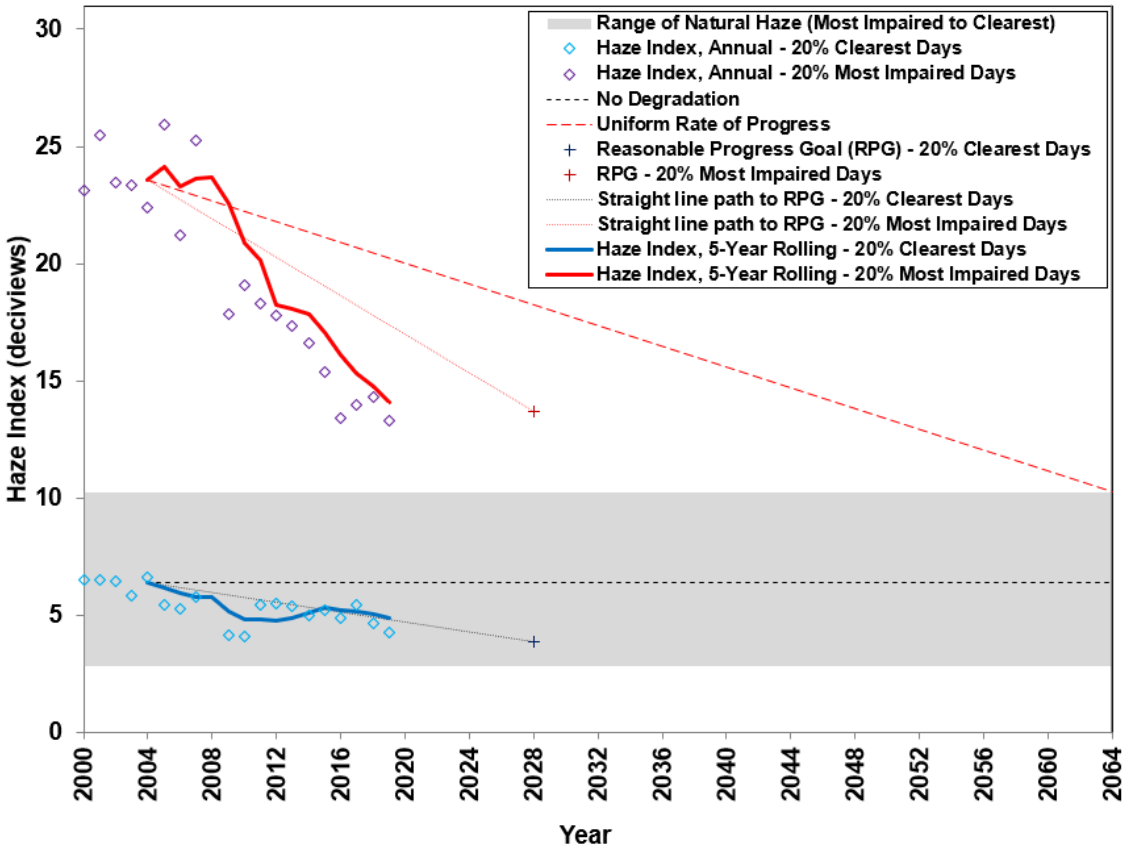


Figure 2-5. Visibility Metrics Levels at Brigantine Wilderness Area

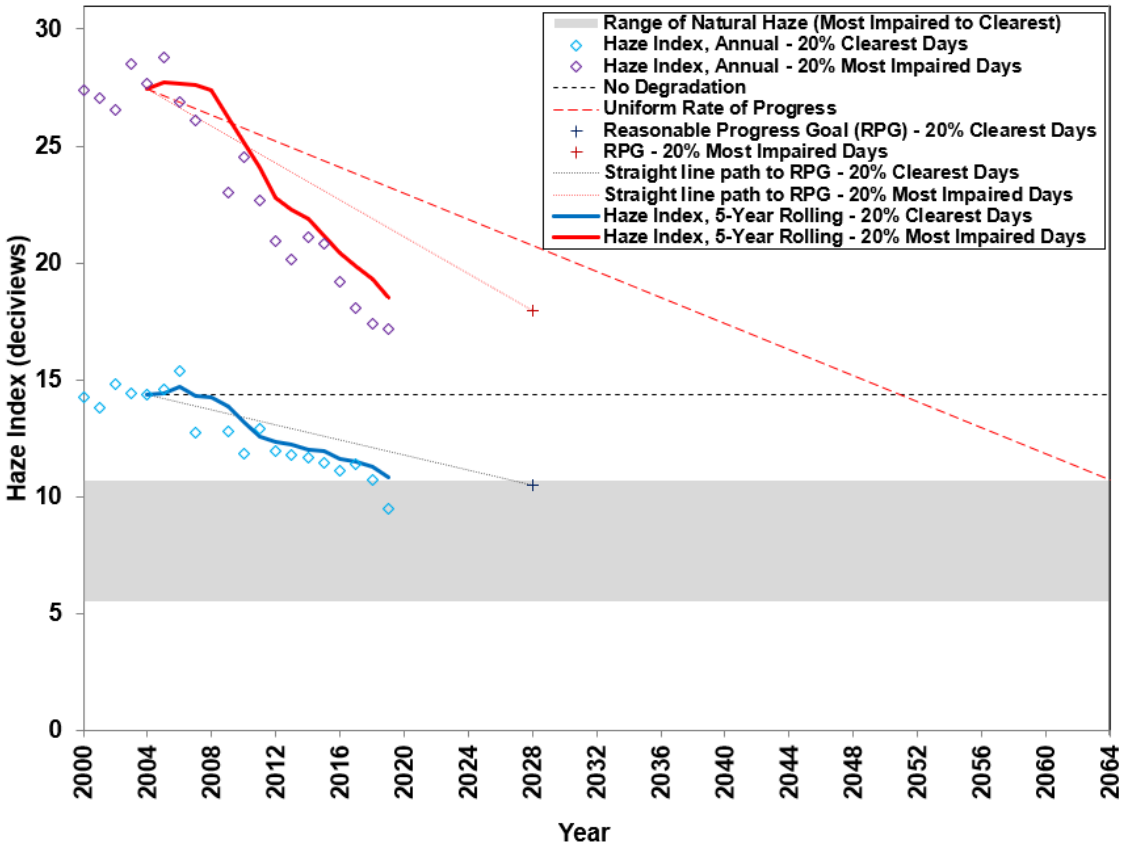


Figure 2-6. Visibility Metrics Levels at Dolly Sods Wilderness Area

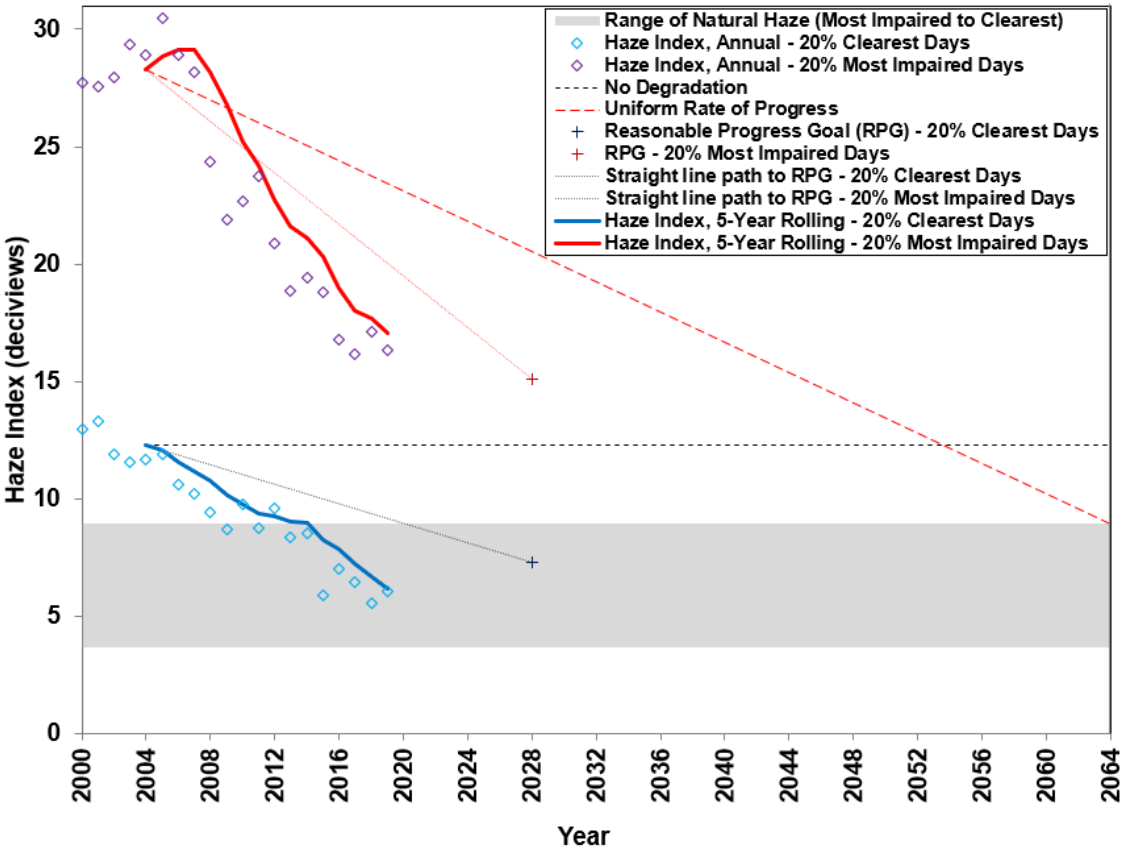


Figure 2-7. Visibility Metrics Levels at Shenandoah National Park

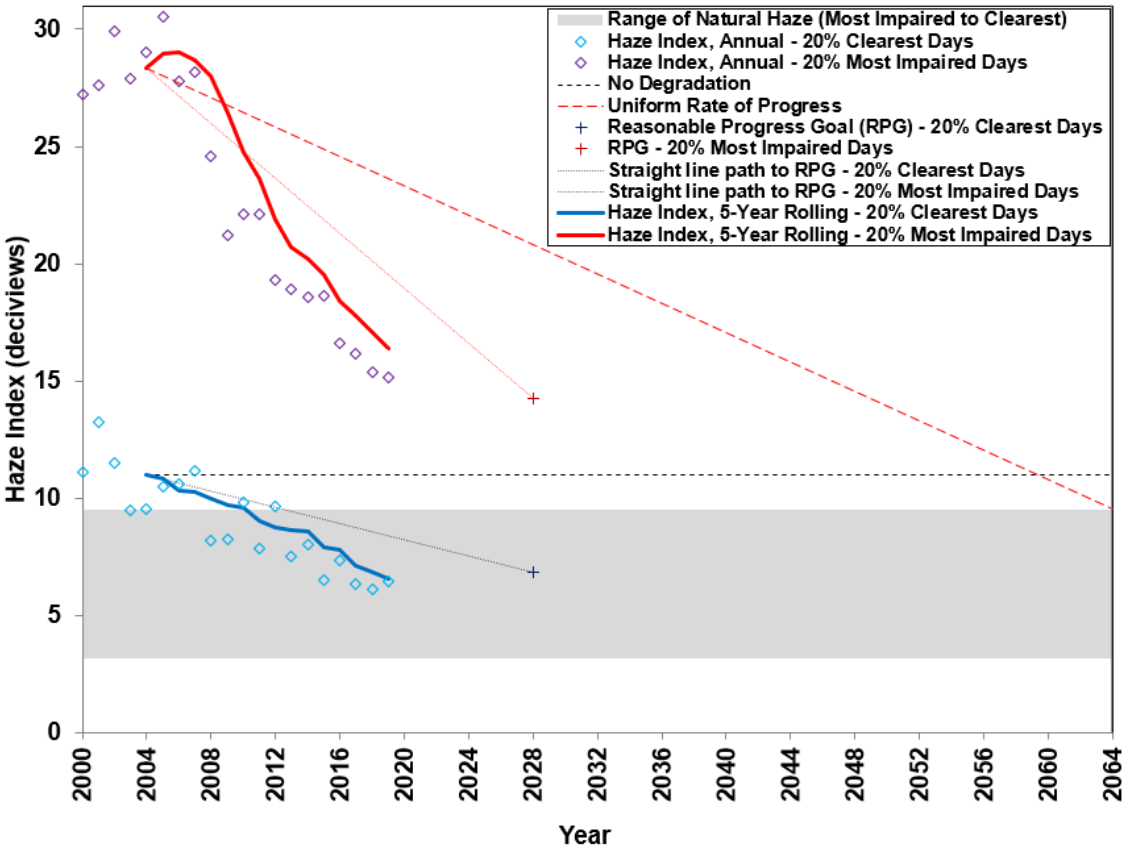
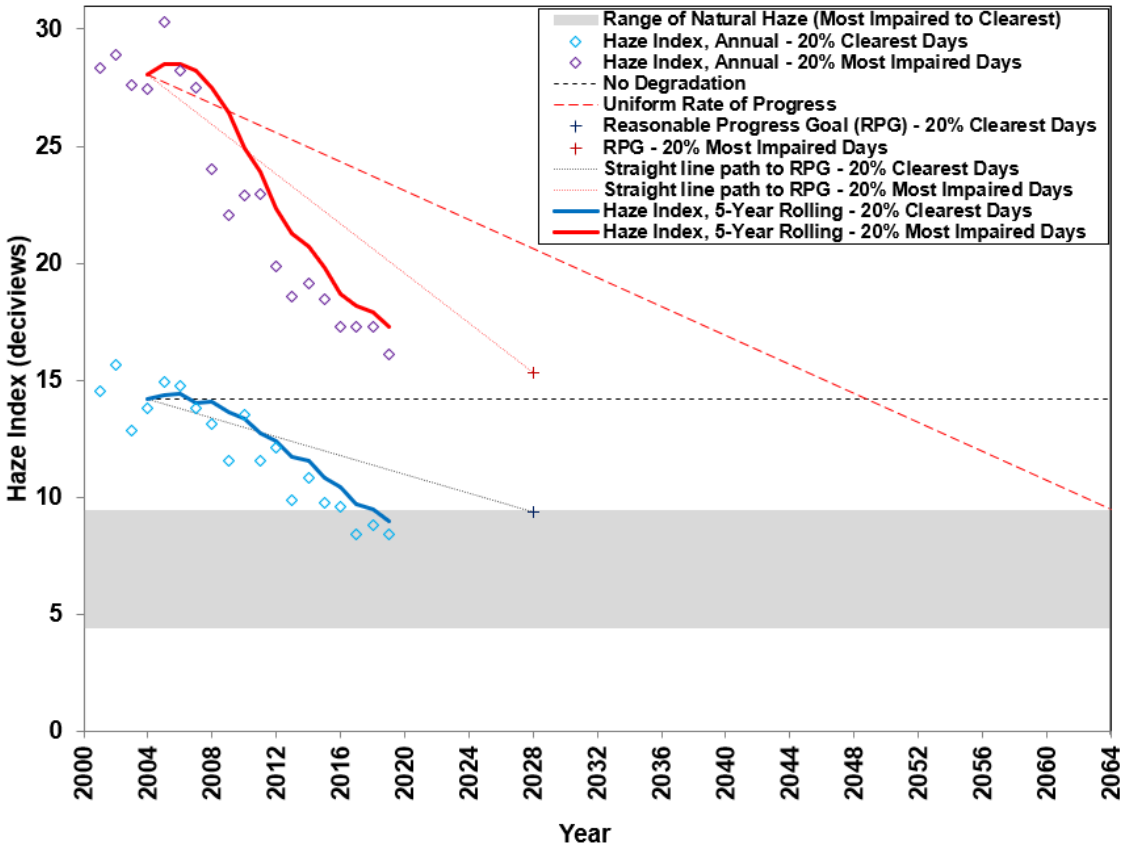


Figure 2-8. Visibility Metrics Levels at James River Face Wilderness



3. Visibility Species Light Extinction Trends

In addition to analyzing trends in overall visibility changes at IMPROVE monitoring locations in the region, data for changes in individual PM species (constituents) contributions to visibility impairment were also examined. Both natural and anthropogenic species contributions will be included in the analyses. Rayleigh, sea salt and soil species are natural components of visibility. Sulfate, nitrate, organic carbon mass, light absorbing carbon (elemental carbon) and coarse mass species in the analyses are both natural and anthropogenic components of visibility. Table B-1 through Table B-28 in Appendix B present species contributions numerically for all Class I and IMPROVE Protocol sites in and adjacent to the MANE-VU region. Note that data for individual species in Appendix B are light extinction (units = inverse megameters (Mm^{-1})).

Analyses of visibility by species helps policy decision makers determine what control strategies to consider for the second regional haze implementation planning period. The first set of analysis plots in Figure 3-1 through Figure 3-8 show 5-year baseline period vs. 5-year current period species average percent contributions for both 20 percent clearest and 20 percent most impaired days. Results clearly show a significant reduction in contributions at all Class I areas from sulfates for the 20 percent most impaired days with varying levels of increases for other species. Examples of increases include percent contribution from nitrates increasing at the Brigantine Wilderness and Lye Brook Wilderness Class I areas from 8% to 27% and from 7% to 23%, respectively. Similar plots for IMPROVE Protocol sites are in Appendix C.

Current and baseline 5-year average light extinction levels for the 20 percent best (see Figure 3-9(a)) and 20 percent worst (see Figure 3-9(b)) visibility days for all Class I IMPROVE sites are shown side by side. This is just another way to show reductions in the region and shows that reductions were primarily due to sulfate reductions with nitrate and OCM reductions more evident during the 20 percent best days. Because more winter days are in the current 20 percent worst days mix, the relative contribution of nitrates increased from the baseline especially at the Brigantine Wilderness Class I area.

The next set of analysis plots in Figure 3-10 to Figure 3-17 show individual species relative contributions [haze index*(species light extinction/total light extinction) (units = deciview (dv))] as stacked bar charts for sulfate, nitrate, organic carbon mass (OCM), light absorbing carbon (EC or LAC), soil, coarse mass, sea salt, and Rayleigh extinction levels on 20 percent clearest days ("a" plot) and 20 percent most impaired days ("b" plot). The total of the stacked bars represents annual Haze Index values and are marked by circles connected by a thin black line. The thick black line represents five-year back annual averages from 2004 to 2019. Two dashed lines descend from the 2004 five-year back average (i.e., the baseline value): the red dashed line represents the URP glide path to the 2064 natural visibility goal and the black dashed line represents the glide path to the modeled 2028 RPG. These figures confirm that large reductions in overall Haze Index values on the 20 percent most impaired days are primarily due to decreases in sulfate visibility impacts at MANE-VU and other nearby Class I areas. Significant decreases in sulfate contributions started in 2007 at Maine's Class I areas and in 2008 at all other Class I areas analyzed. As the sulfate contributions declined, relative nitrate contributions have started to increase at many sites, especially at the Brigantine Wilderness monitoring site. This increase is primarily due to having more winter days in the 20 percent most impaired days mix during recent years. During the winter, relative nitrate contributions are much higher than during the summer (more discussion of winter nitrates is located at the end of this section). Steady decreases in

sulfate contributions have reduced overall haze levels on the 20 percent clearest days. These decreases on the 20 percent clearest days started to occur after 2004 at most of the Class I areas. Sulfate remains the most significant contributor to light extinction at all Class I areas on the most impaired days in and adjacent to the MANE-VU region, followed by nitrate and OCM. For the Brigantine and Lye Brook Class I sites nitrate contributions are nearing the level of sulfate contributions. For the most part, light extinction from soil and sea salt, which help indicate the extent to which natural haze processes contribute to overall haze levels, are insignificant when compared to extinction from sulfate and nitrate. Based on these figures, continued progress in sulfate levels appears to be driving the trend in overall improvement in 20 percent most impaired days and 20 percent clearest days haze level reductions. Similar plots for IMPROVE Protocol sites are in Appendix D.

To examine the individual species trends more closely, the range of individual light extinction on 20 percent clearest days and 20 percent most impaired days from 2000 through 2019 at the Class I areas were plotted against the estimated light extinction under natural conditions in the next set of analysis plots. (See Table 2-2 for 20% clearest days natural extinction levels and Table 2-4 for 20% most impaired days routine and episodic natural extinction levels). Figure 3-18 through Figure 3-25 show the range of light extinction levels at MANE-VU and nearby Class I areas as compared to natural light extinction for selected species. IMPROVE Protocol sites are excluded from this analysis for simplicity and light extinction from soil and sea salt are excluded from this analysis as those contributions are small and are primarily natural. Estimated natural light extinction is represented in each chart by a purple line for 20 percent most impaired days and by a red line for 20 percent clearest days. For the carbonaceous species, OCM and LAC, the green band is observed OCM and the dark grey band is observed LAC. Note that the observations do not represent the range of the highest and lowest 20 percent light extinction levels for those species; rather, they represent the range of species light extinction levels on the 20 percent clearest and 20 percent most impaired visibility days.

It is clear from these charts that levels of extinction from sulfate have dropped significantly since the baseline period at all Class I areas, although remaining at levels much higher than the estimated natural range at all sites. Extinction due to nitrate is closer to natural levels than sulfates and is approaching natural levels on the clearest days, however, the range of nitrate extinction has expanded in recent years with the highest levels at southern Class I areas greater than the baseline period. At the Brigantine Wilderness Class I Area, extinction due to nitrate remains considerably higher than the natural baseline. At most Class I areas, levels of extinction due to carbonaceous species and coarse mass appear to be near or slightly above natural range levels. Prior peaks in carbonaceous matter extinction at most sites were driven by OCM levels. Carbonaceous matter and coarse mass light extinction levels at the Brigantine Wilderness Class I Area have started to decrease more into the natural range during more recent years.

The fourth set of analysis plots in Figure 3-26 for New England Class I areas and Figure 3-27 for other Class I areas show the mix of 20 percent most impaired days by season. Results clearly show that summer days no longer dominate the mix at all Class I areas. For many of the Class I areas there are now more winter days in the mix than in any other season. That trend is more evident at New Jersey, Virginia and West Virginia Class I areas. This helps to explain why nitrate extinction percent contributions are increasing and is consistent with the seasonality of nitrogen oxides (NO_x) emissions as shown in the Figure 3-28 monitoring data trends plot for sites located in or close to large cities (Boston, Philadelphia and Baltimore) in the region. Similar plots for IMPROVE Protocol sites are in Appendix E.

BASELINE AND CURRENT VISIBILITY SPECIES TRENDS PLOTS

Figure 3-1. Acadia National Park Species Percent Contribution to Baseline (2000-04) and Current (2015-19) Haze Index Levels

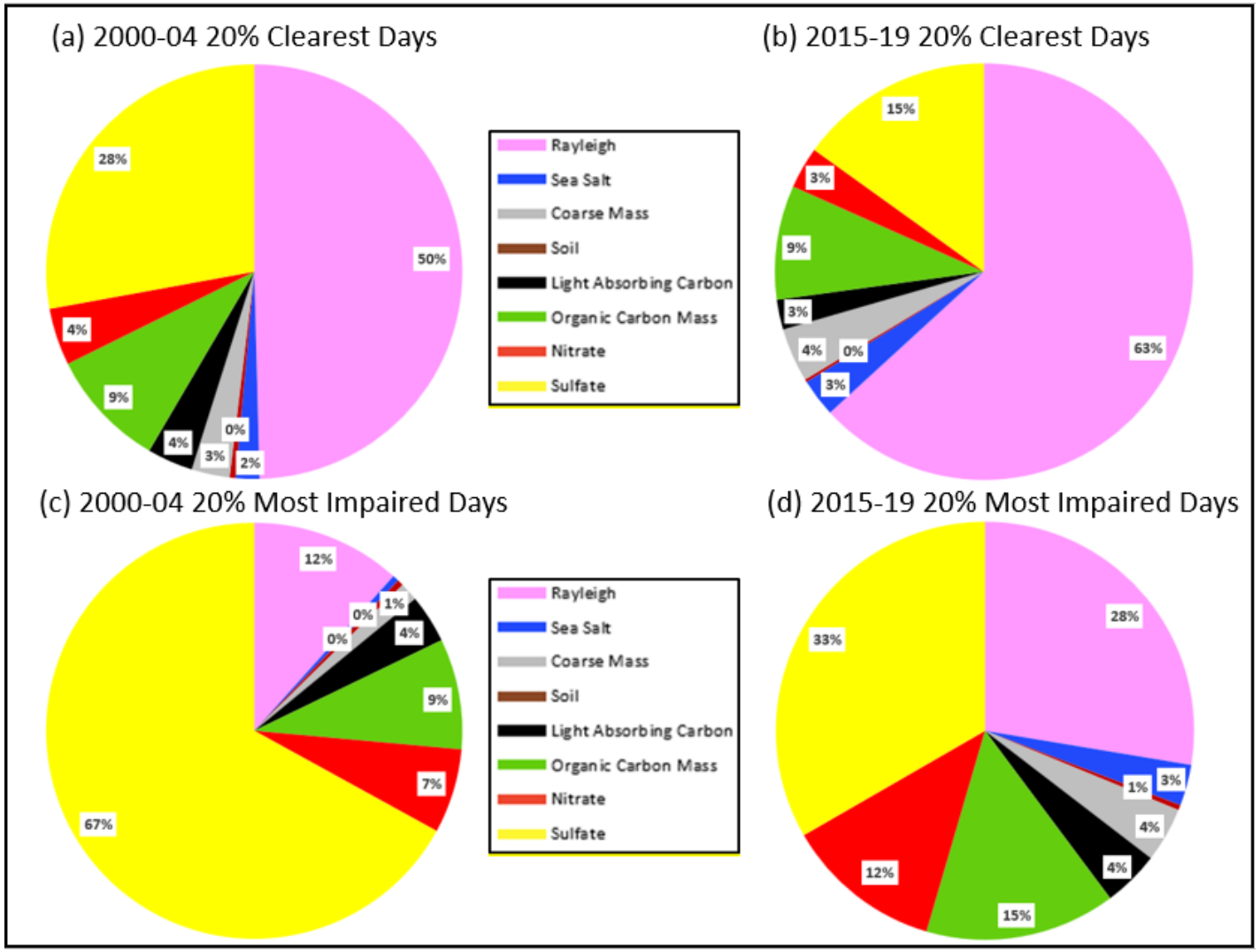


Figure 3-2. Moosehorn Wilderness Area Species Percent Contribution to Baseline (2000-04) and Current (2015-19) Haze Index Levels

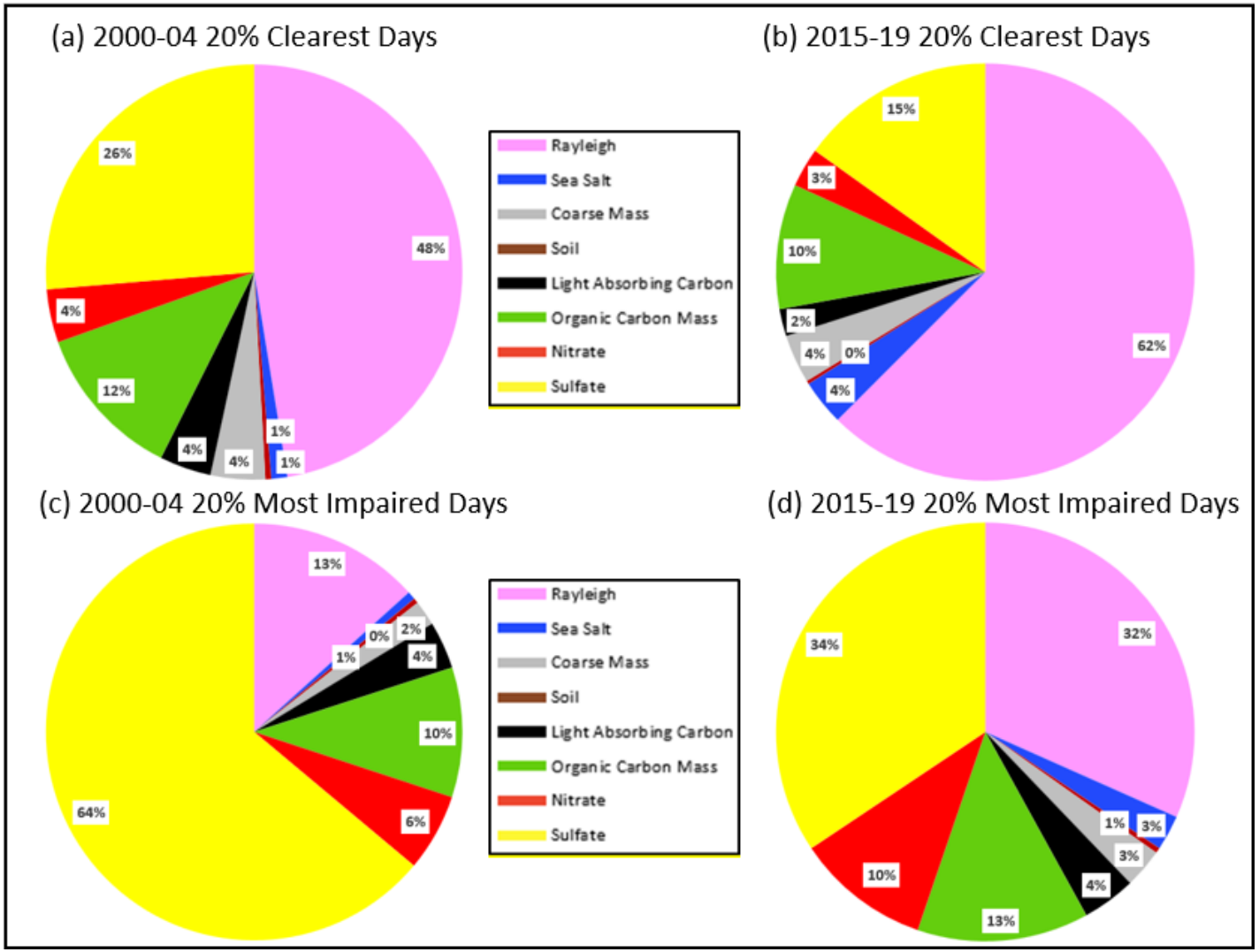


Figure 3-3. Great Gulf Wilderness Area Species Percent Contribution to Baseline (2000-04) and Current (2015-19) Haze Index Levels

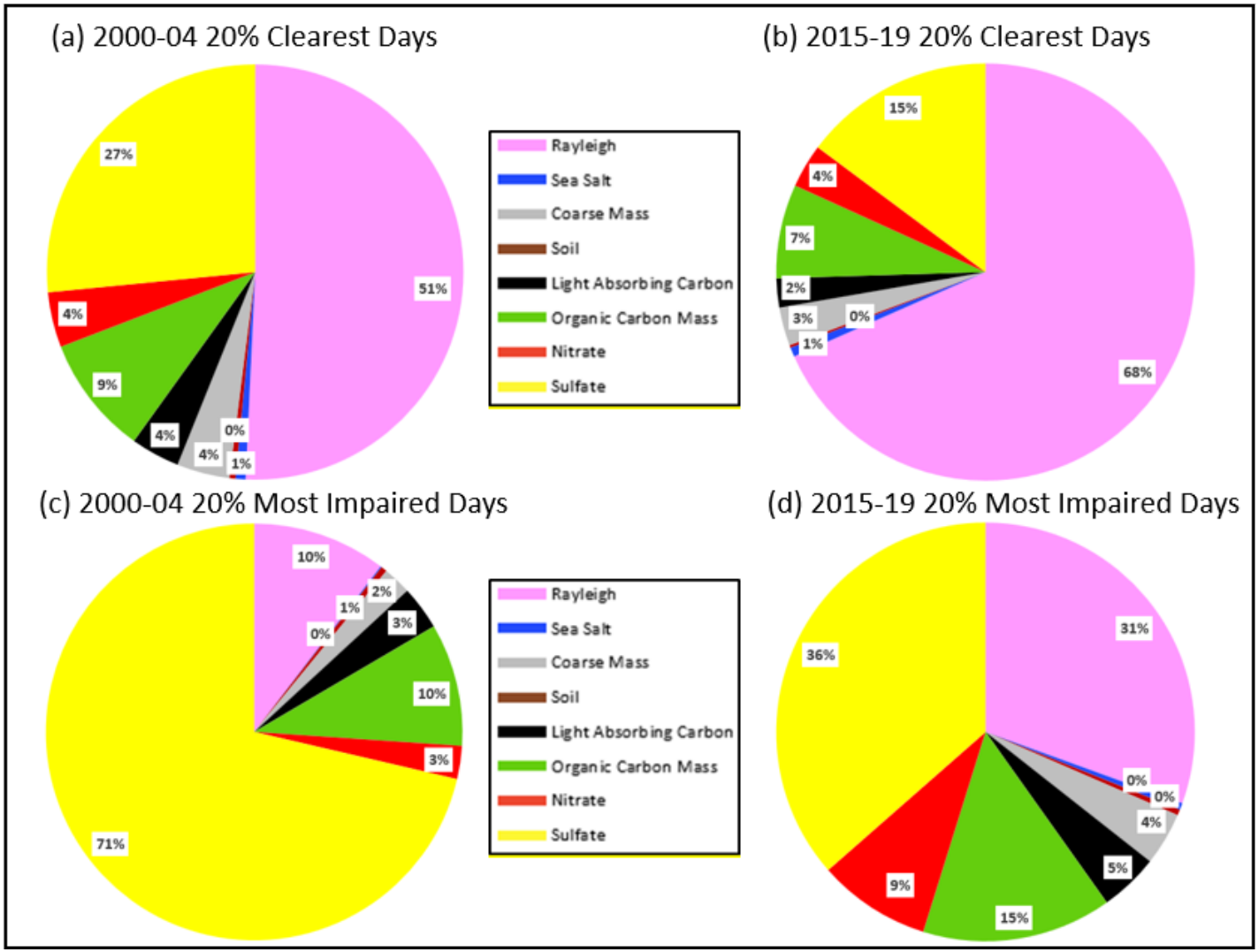


Figure 3-4. Lye Brook Wilderness Area Species Percent Contribution to Baseline (2000-04) and Current (2015-19) Haze Index Levels

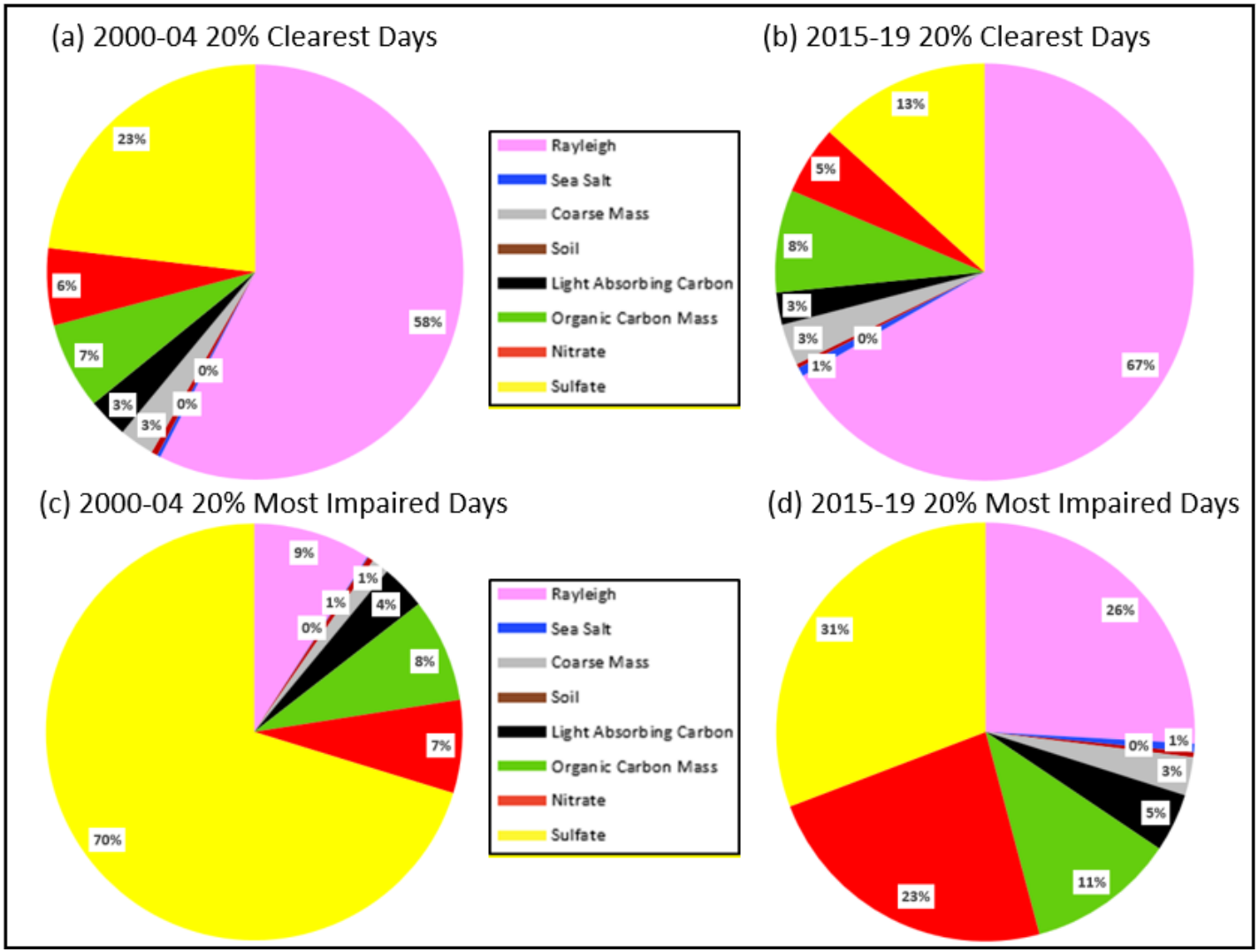


Figure 3-5. Brigantine Wilderness Area Species Percent Contribution to Baseline (2000-04) and Current (2015-19) Haze Index Levels

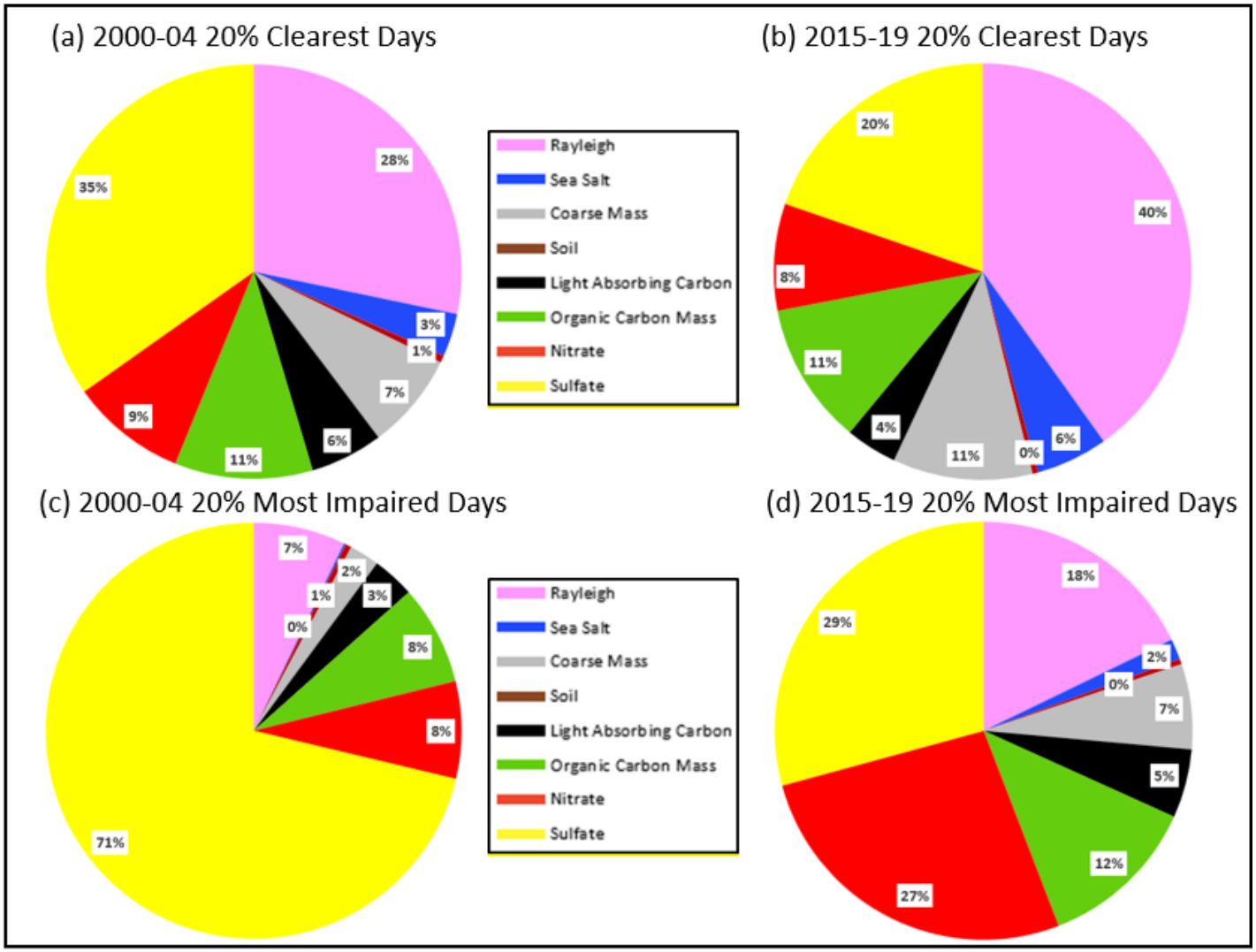


Figure 3-6. Dolly Sods Wilderness Area Species Percent Contribution to Baseline (2000-04) and Current (2015-19) Haze Index Levels

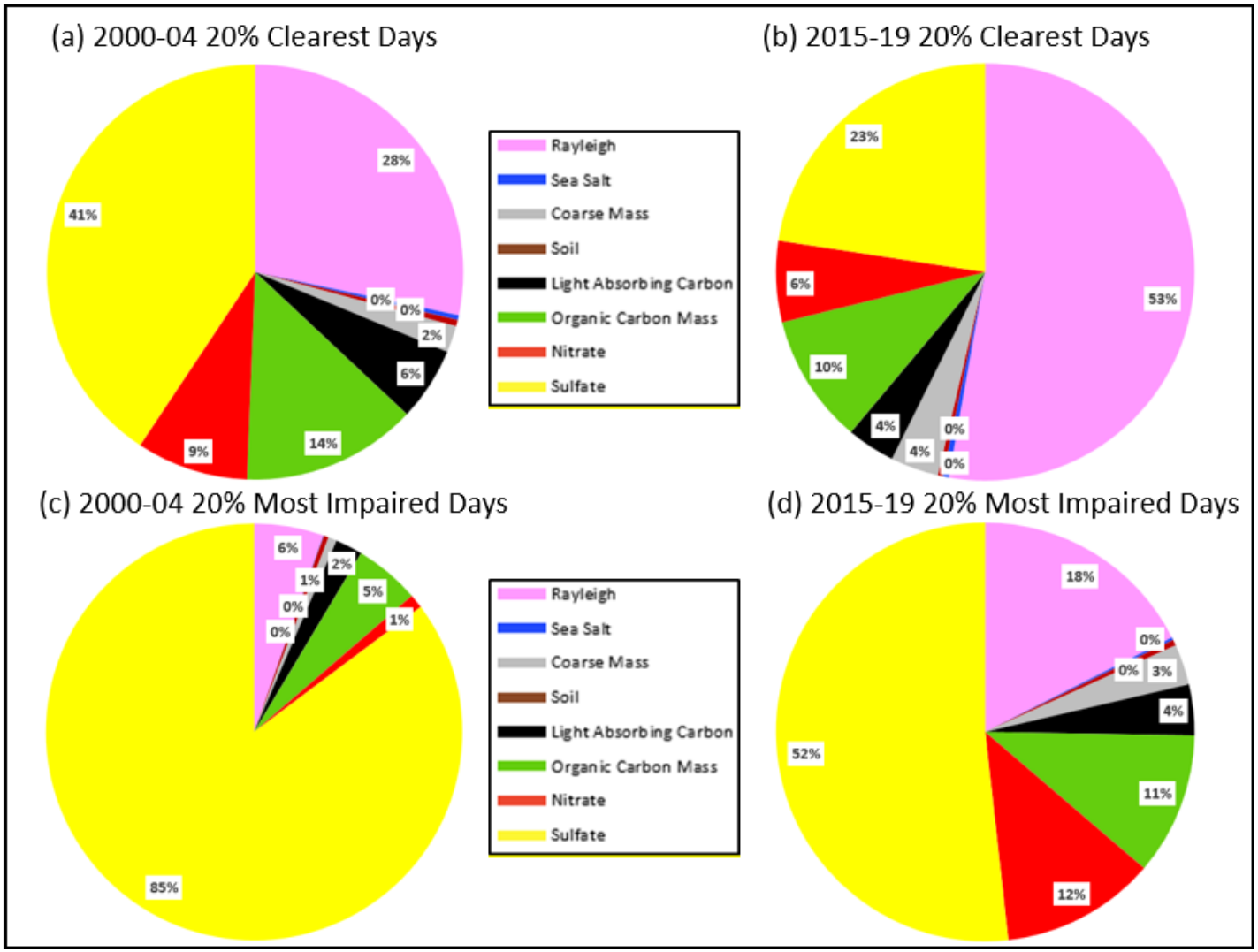


Figure 3-7. Shenandoah National Park Species Percent Contribution to Baseline (2000-04) and Current (2015-19) Haze Index Levels

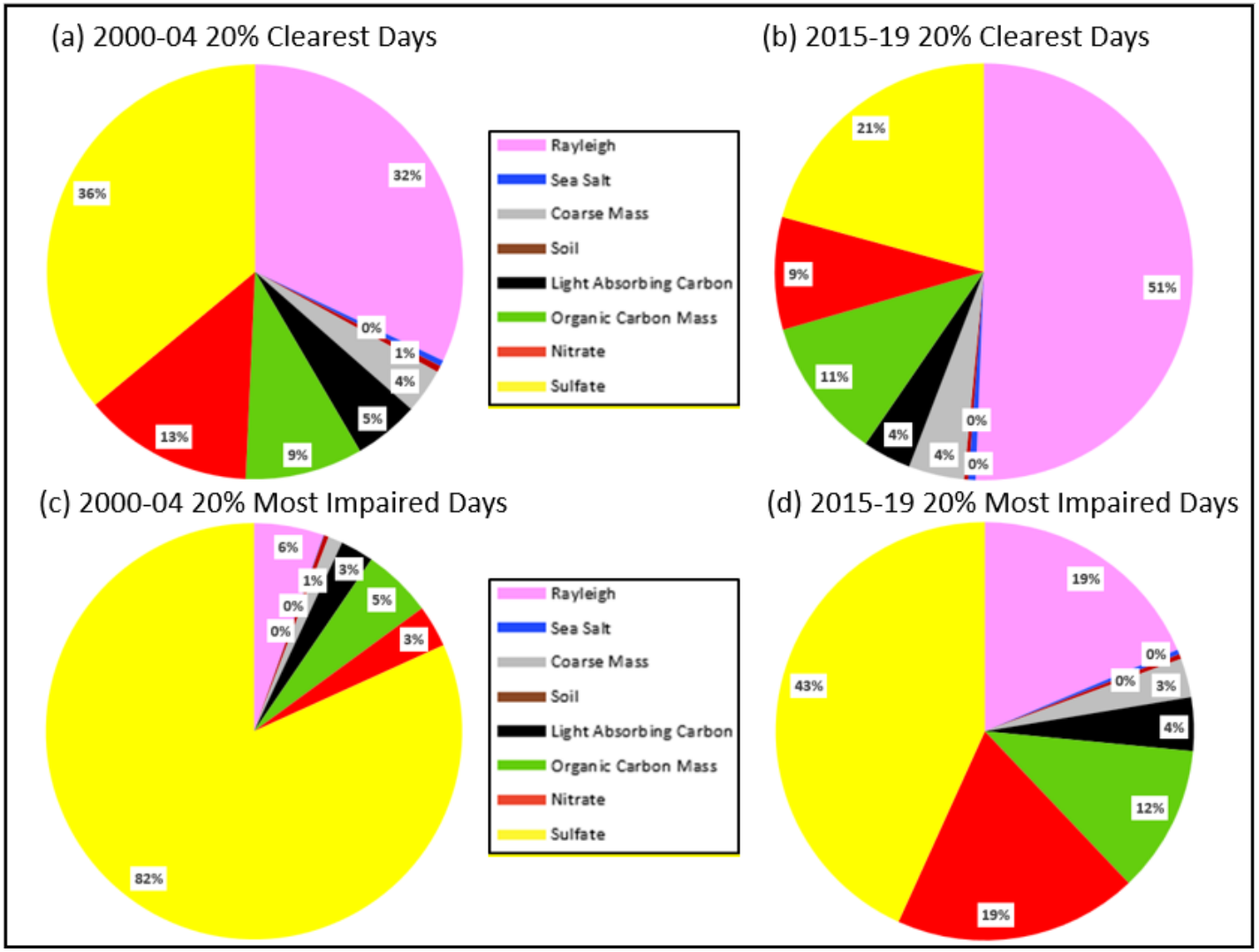


Figure 3-8. James River Face Wilderness Area Species Percent Contribution to Baseline (2000-04) and Current (2015-19) Haze Index Levels

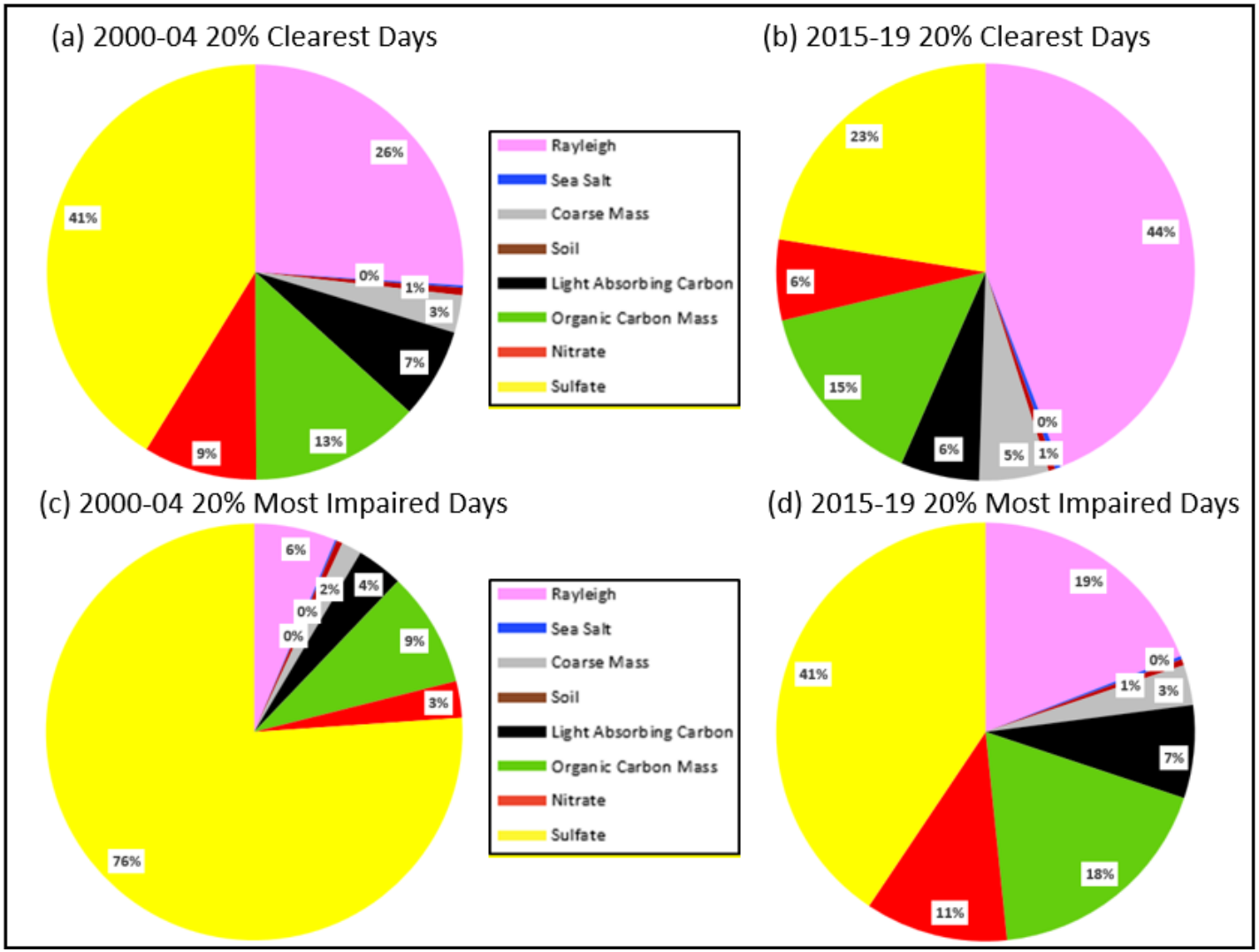
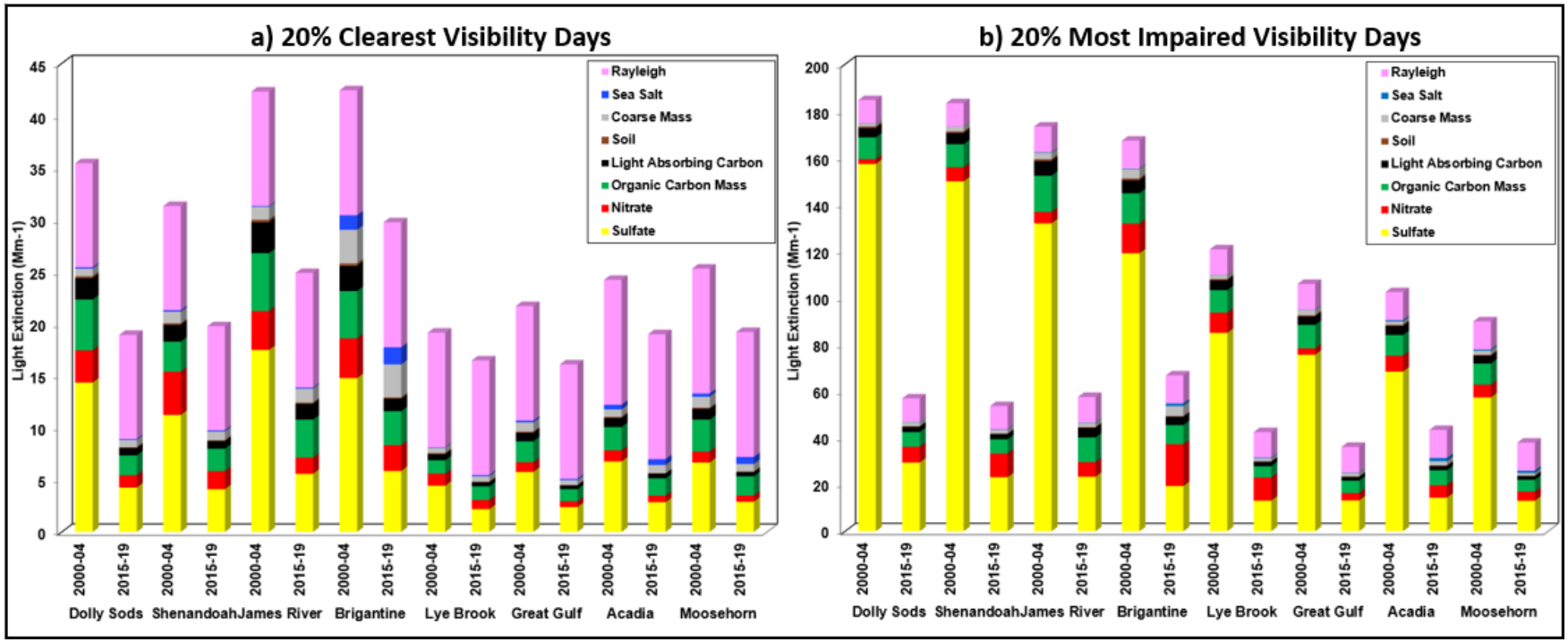


Figure 3-9. Current and Baseline 5-Year Average Light Extinction at Class I Sites on 20 Percent Clearest and 20 Percent Most Impaired Visibility Days



ANNUAL VISIBILITY SPECIES TRENDS PLOTS

Figure 3-10. Individual Species Contribution to Annual Haze Index Levels at Acadia National Park on 20 Percent Clearest and Most Impaired Visibility Days

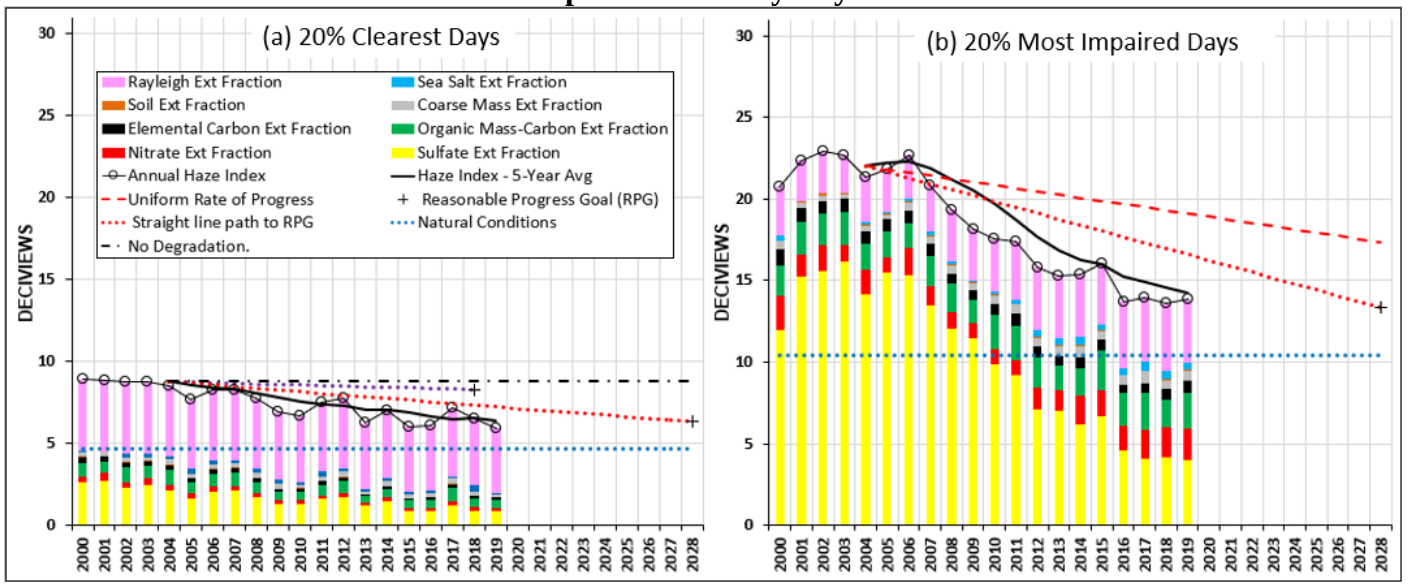


Figure 3-11. Individual Species Contribution to Annual Haze Index Levels at Moosehorn Wilderness Area on 20 Percent Clearest and Most Impaired Visibility Days

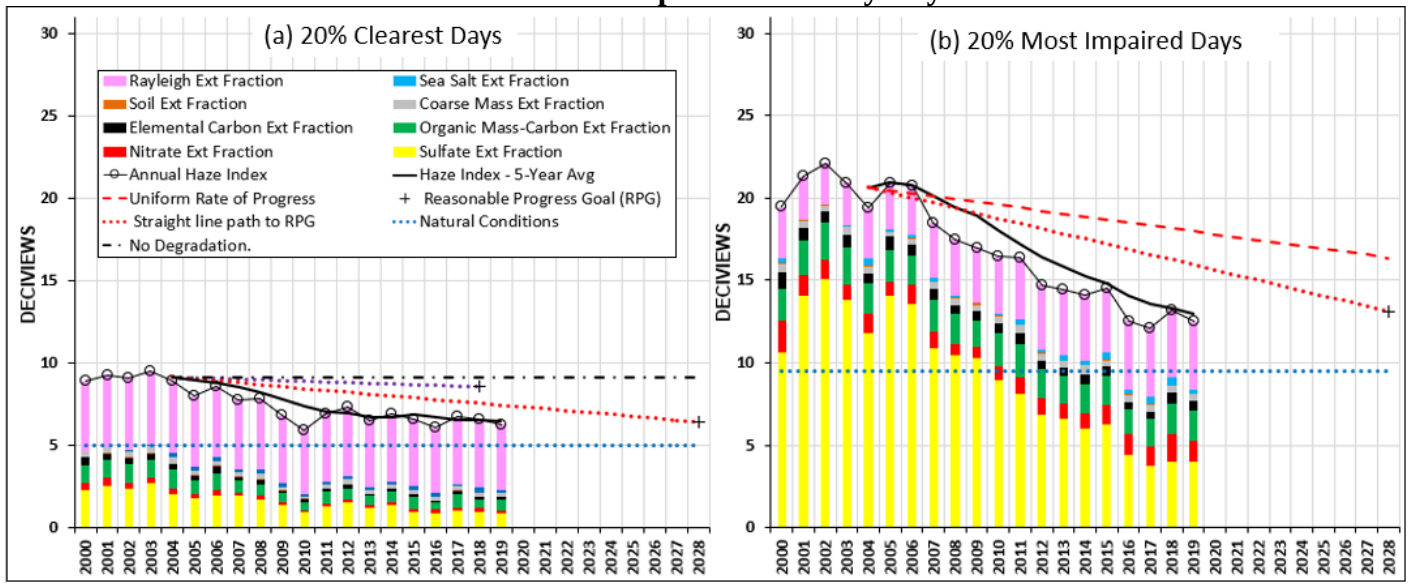


Figure 3-12. Individual Species Contribution to Annual Haze Index Levels at Great Gulf Wilderness Area on 20 Percent Clearest and Most Impaired Visibility Days

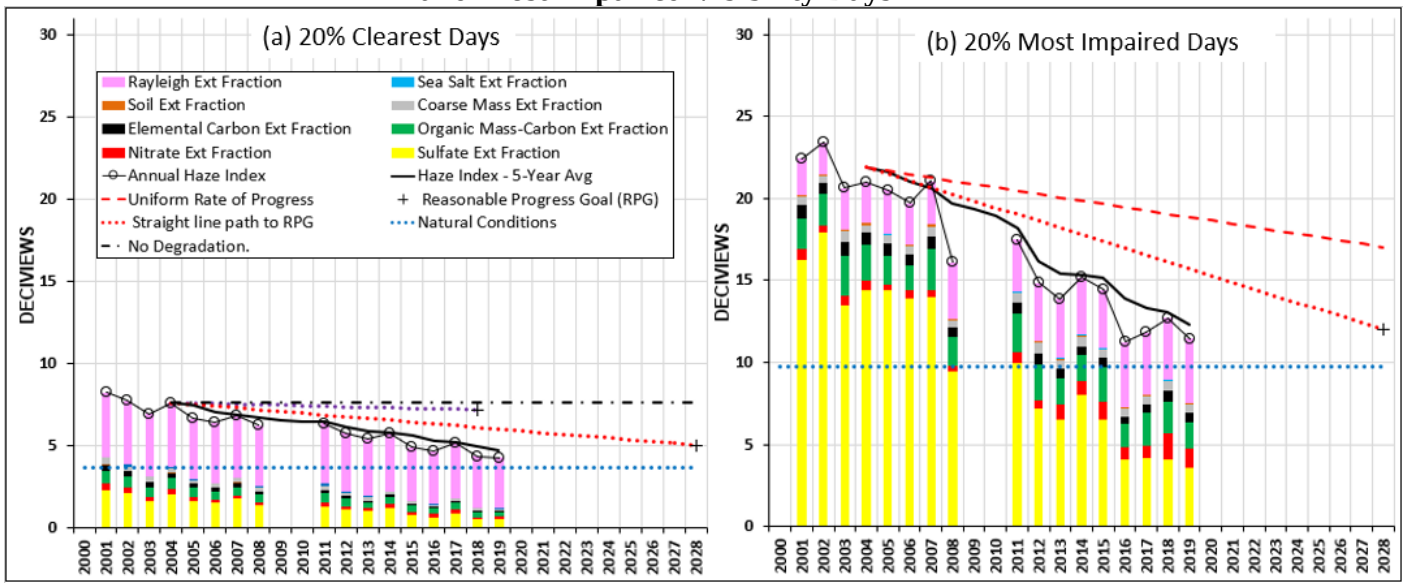


Figure 3-13. Individual Species Contribution to Annual Haze Index Levels at Lye Brook Wilderness Area on 20 Percent Clearest and Most Impaired Visibility Days

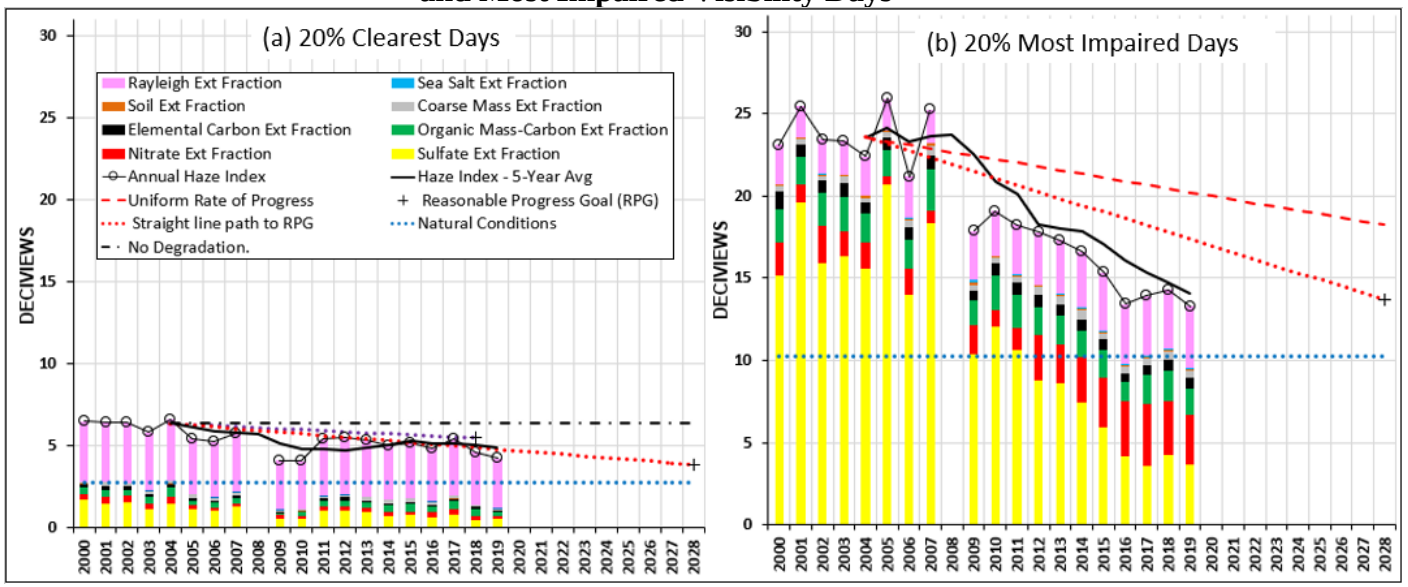


Figure 3-14. Individual Species Contribution to Annual Haze Index Levels at Brigantine Wilderness Area on 20 Percent Clearest and Most Impaired Visibility Days

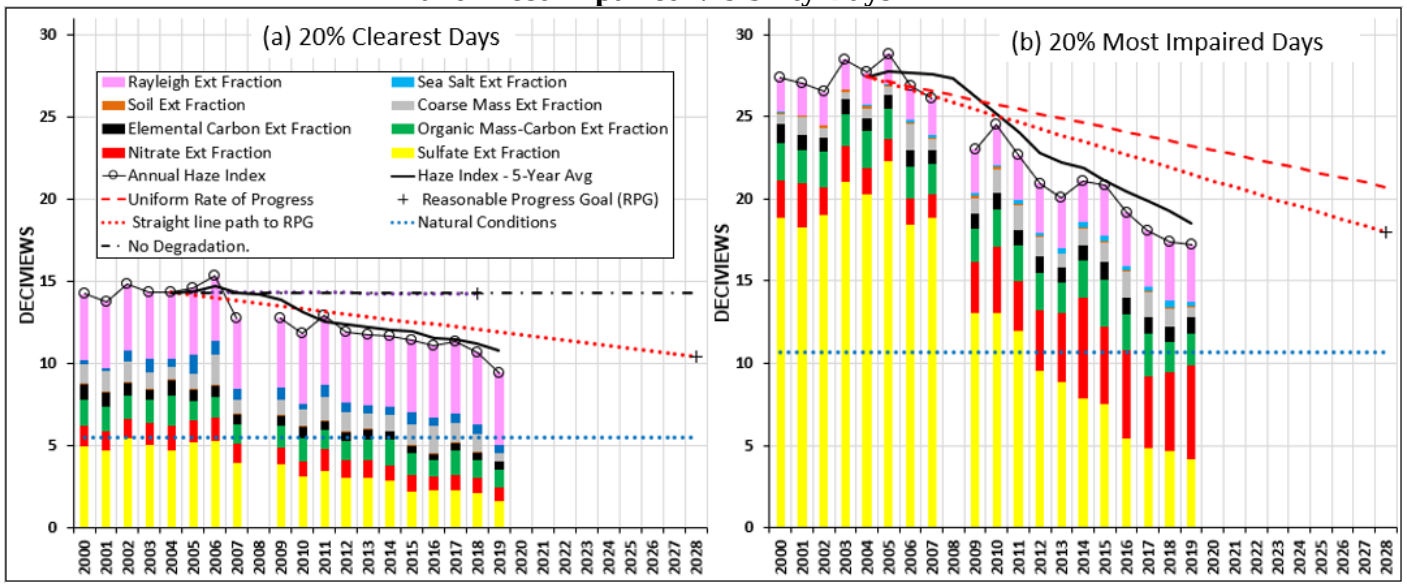


Figure 3-15. Individual Species Contribution to Annual Haze Index Levels at Dolly Sods Wilderness Area on 20 Percent Clearest and Most Impaired Visibility Days

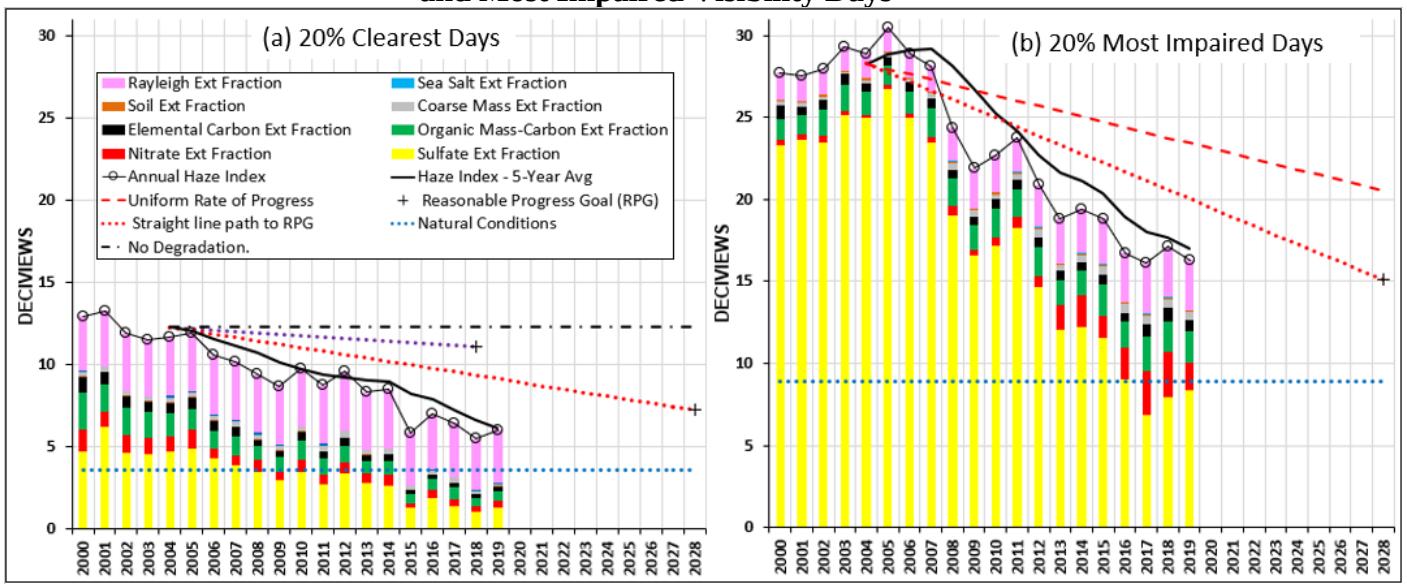


Figure 3-16. Individual Species Contribution to Annual Haze Index Levels at Shenandoah National Park on 20 Percent Clearest and Most Impaired Visibility Days

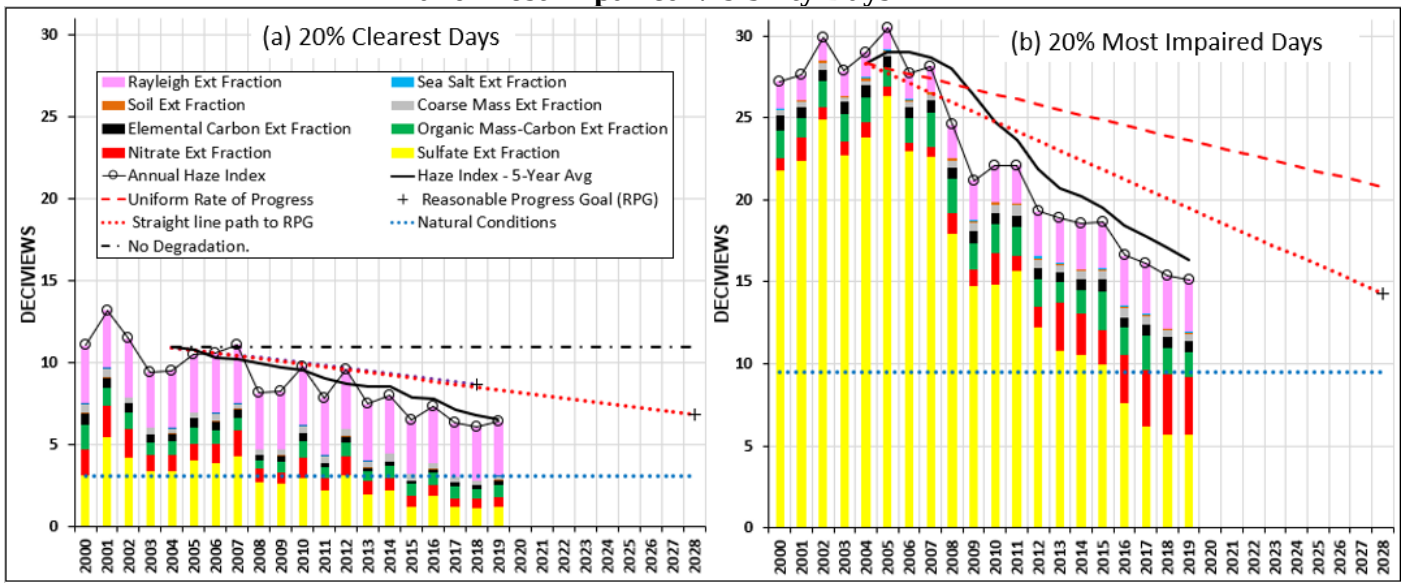
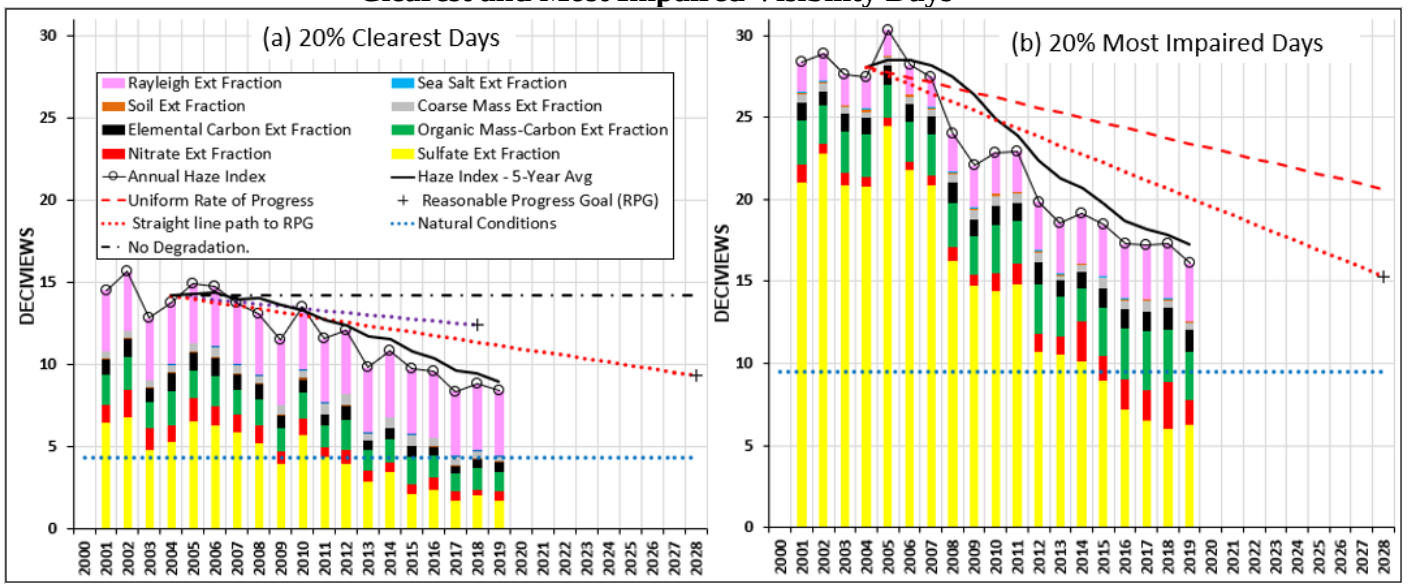
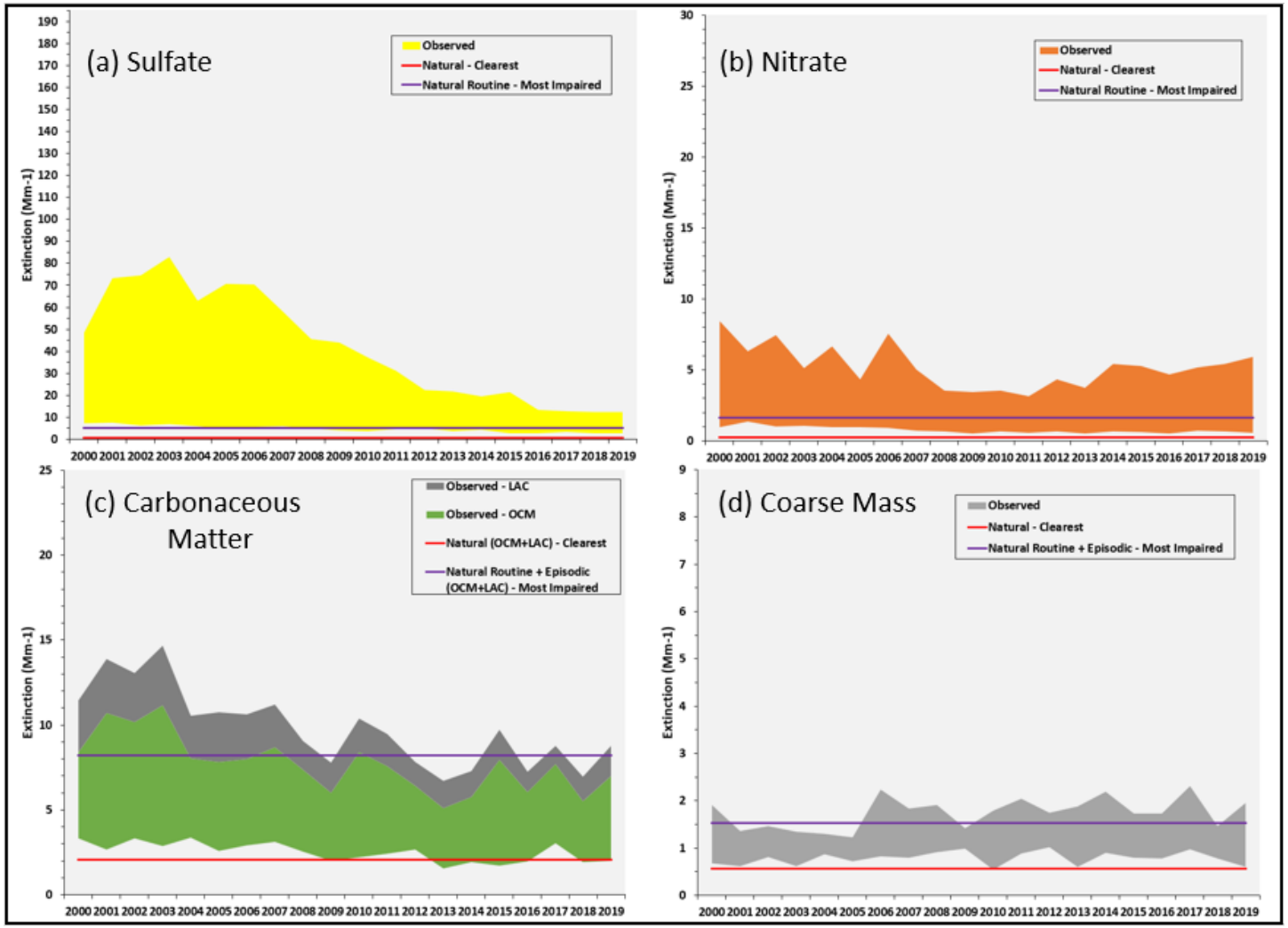


Figure 3-17. Individual Species Contribution to Annual Haze Index Levels at James River Face Wilderness Area on 20 Percent Clearest and Most Impaired Visibility Days



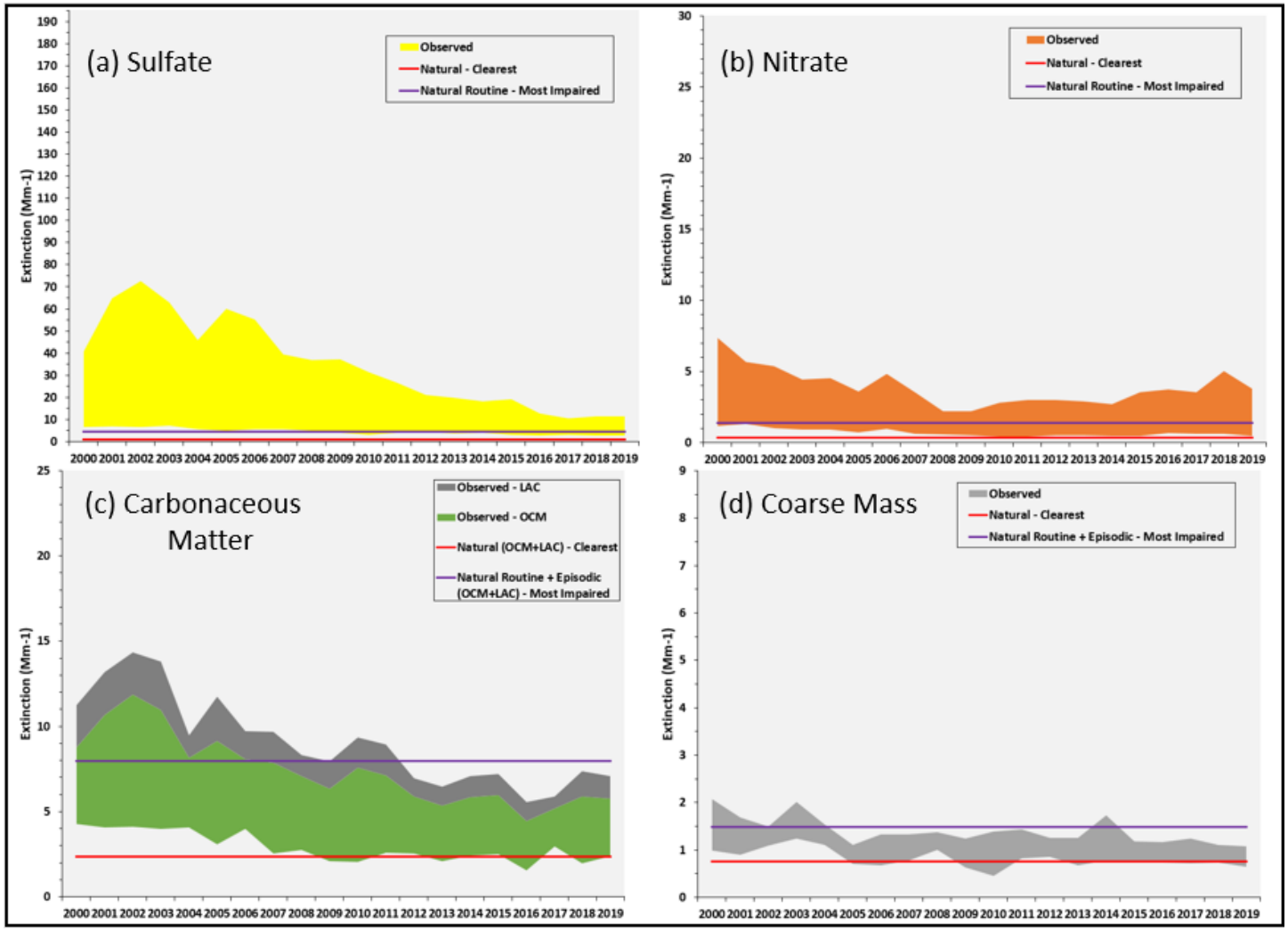
RANGE OF OBSERVED VISIBILITY SPECIES TRENDS PLOTS

Figure 3-18. Range of Observed and Estimated Natural Light Extinction for Select Individual Species at Acadia National Park on 20 Percent Clearest and Most Impaired Visibility Days



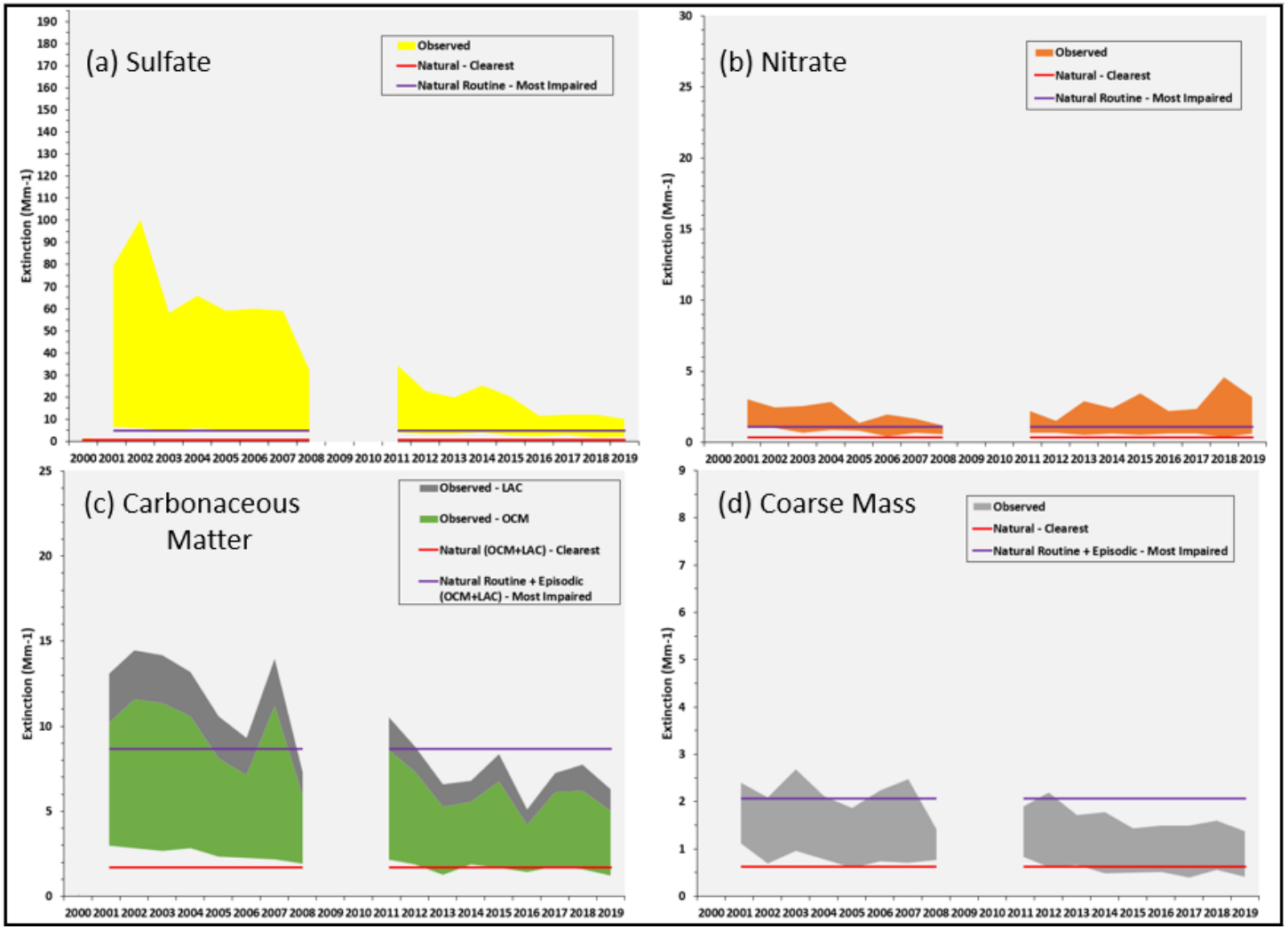
Notes: Light extinction from (a) sulfate, (b) nitrate, (c) carbonaceous matter (i.e., organic carbon mass or OCM and light absorbing carbon or LAC), and (d) coarse mass, alongside estimated natural light extinction from those species.

Figure 3-19. Range of Observed and Estimated Natural Light Extinction for Select Individual Species at Moosehorn Wilderness Area on 20 Percent Clearest and Most Impaired Visibility Days



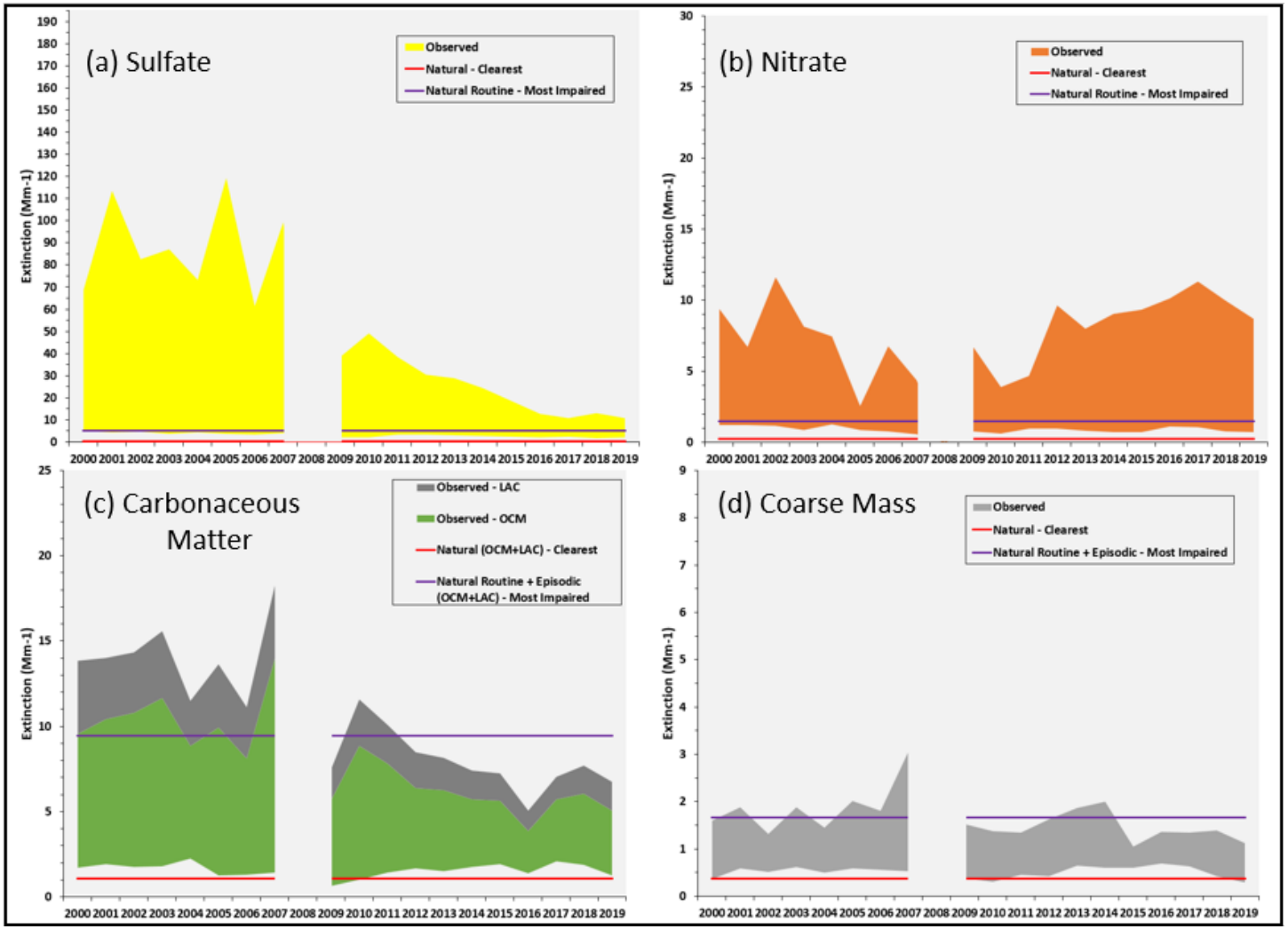
Notes: Light extinction from (a) sulfate, (b) nitrate, (c) carbonaceous matter (i.e., organic carbon mass or OCM and light absorbing carbon or LAC), and (d) coarse mass, alongside estimated natural light extinction from those species.

Figure 3-20. Range of Observed and Estimated Natural Light Extinction for Select Individual Species at Great Gulf Wilderness Area on 20 Percent Clearest and Most Impaired Visibility Days



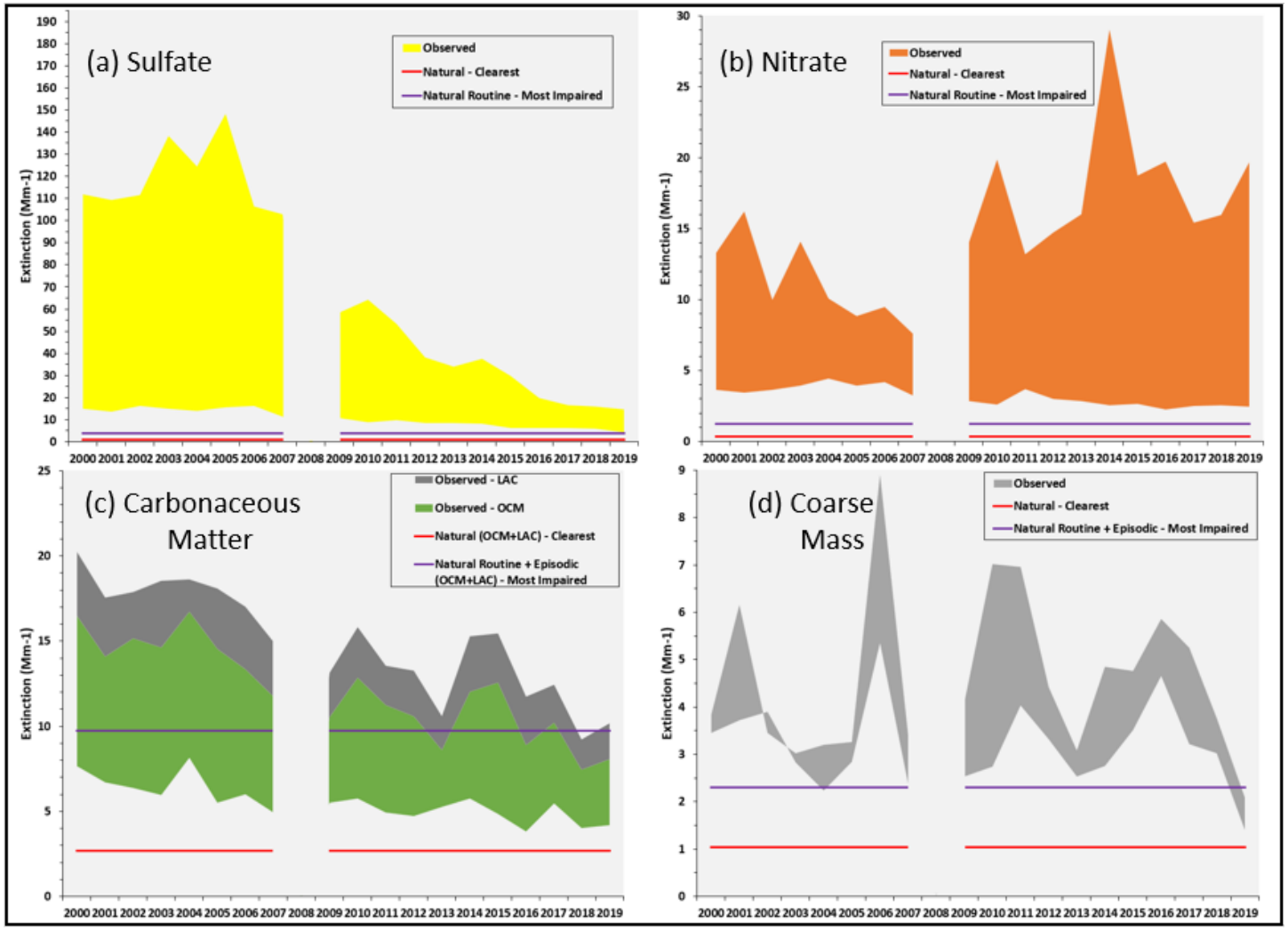
Notes: Light extinction from (a) sulfate, (b) nitrate, (c) carbonaceous matter (i.e., organic carbon mass or OCM and light absorbing carbon or LAC), and (d) coarse mass, alongside estimated natural light extinction from those species.

Figure 3-21. Range of Observed and Estimated Natural Light Extinction for Select Individual Species at Lye Brook Wilderness Area on 20 Percent Clearest and Most Impaired Visibility Days



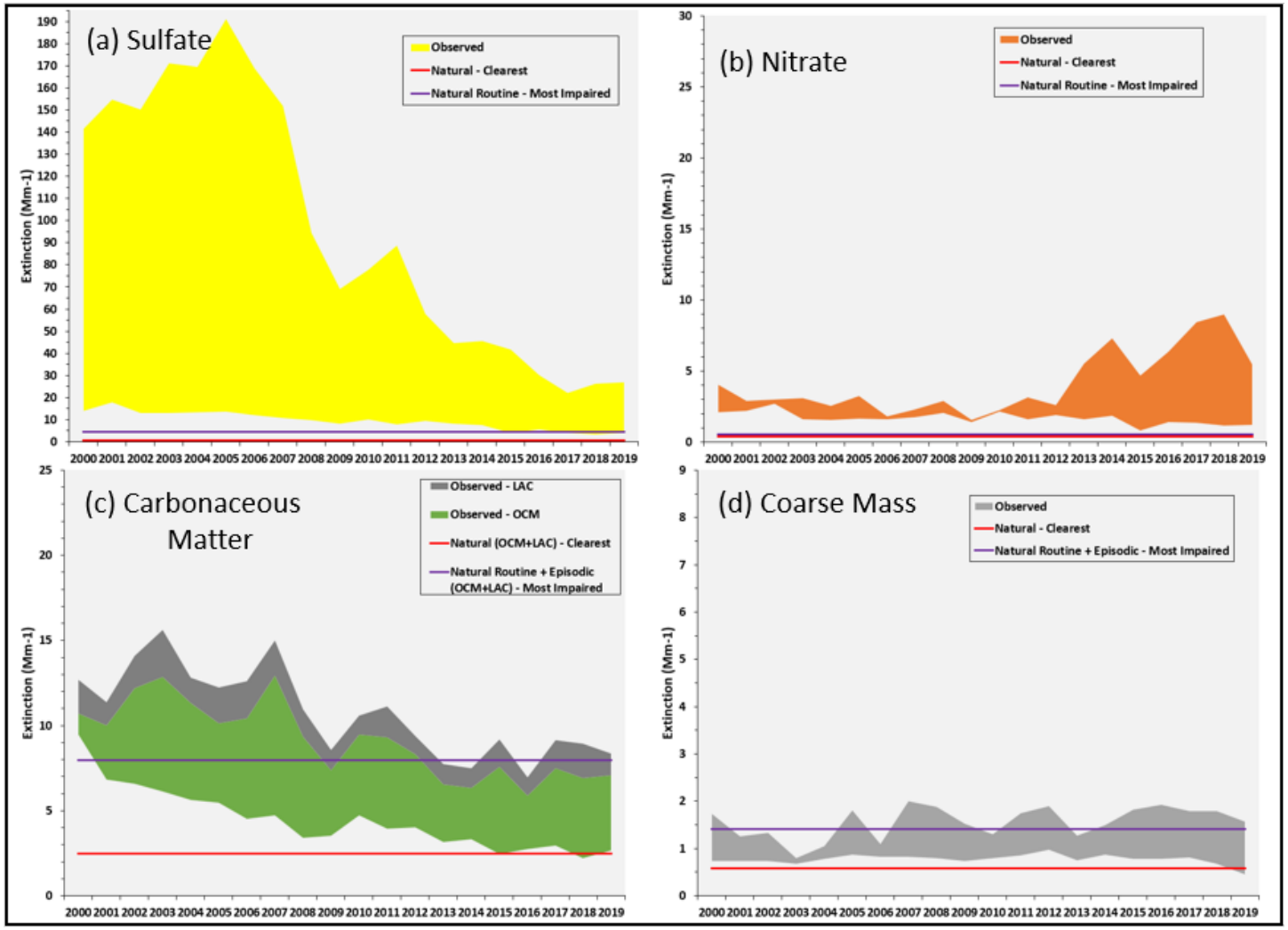
Notes: Light extinction from (a) sulfate, (b) nitrate, (c) carbonaceous matter (i.e., organic carbon mass or OCM and light absorbing carbon or LAC), and (d) coarse mass, alongside estimated natural light extinction from those species.

Figure 3-22. Range of Observed and Estimated Natural Light Extinction for Select Individual Species at Brigantine Wilderness Area on 20 Percent Clearest and Most Impaired Visibility Days



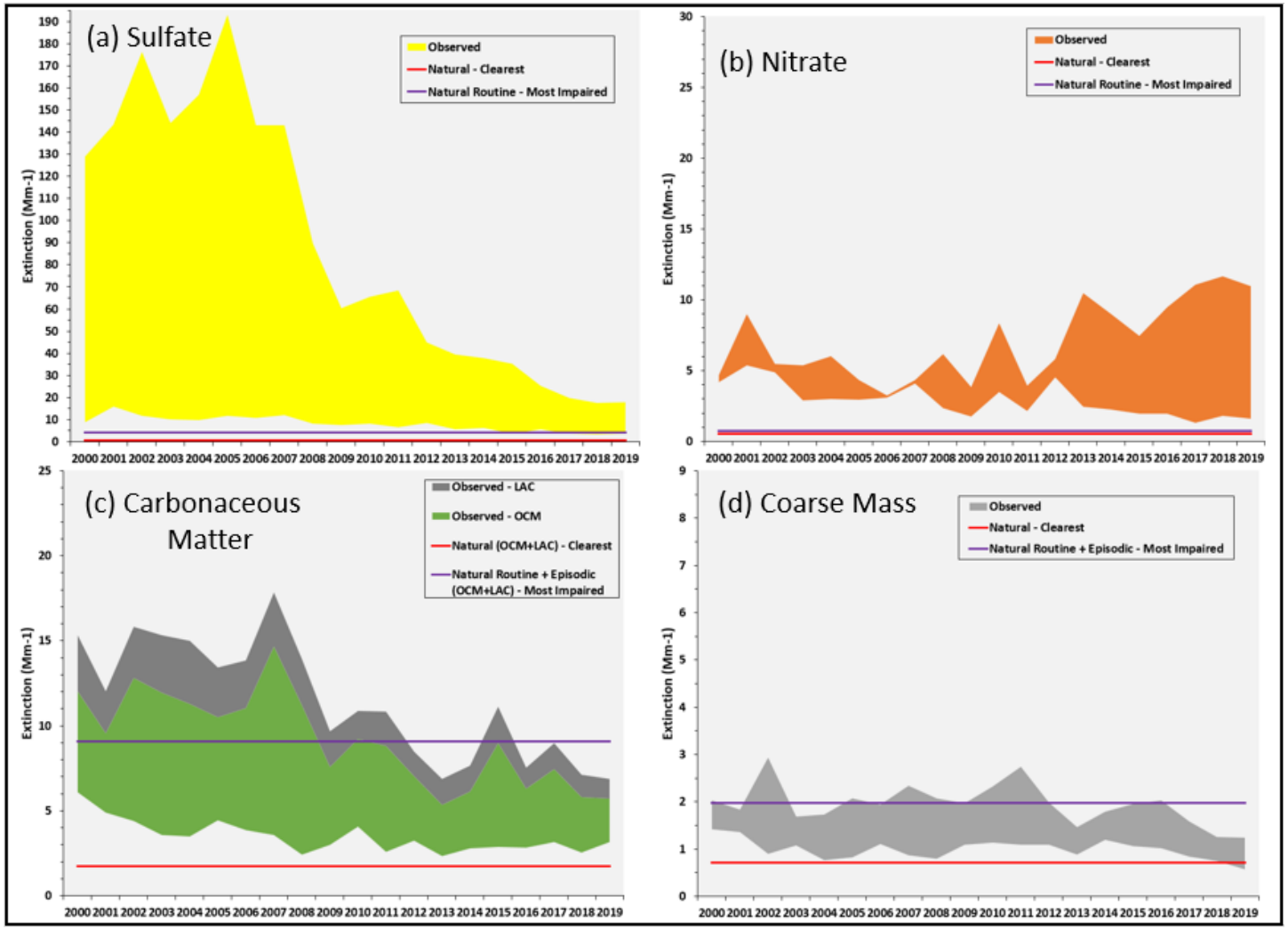
Notes: Light extinction from (a) sulfate, (b) nitrate, (c) carbonaceous matter (i.e., organic carbon mass or OCM and light absorbing carbon or LAC), and (d) coarse mass, alongside estimated natural light extinction from those species.

Figure 3-23. Range of Observed and Estimated Natural Light Extinction for Select Individual Species at Dolly Sods Wilderness Area on 20 Percent Clearest and Most Impaired Visibility Days



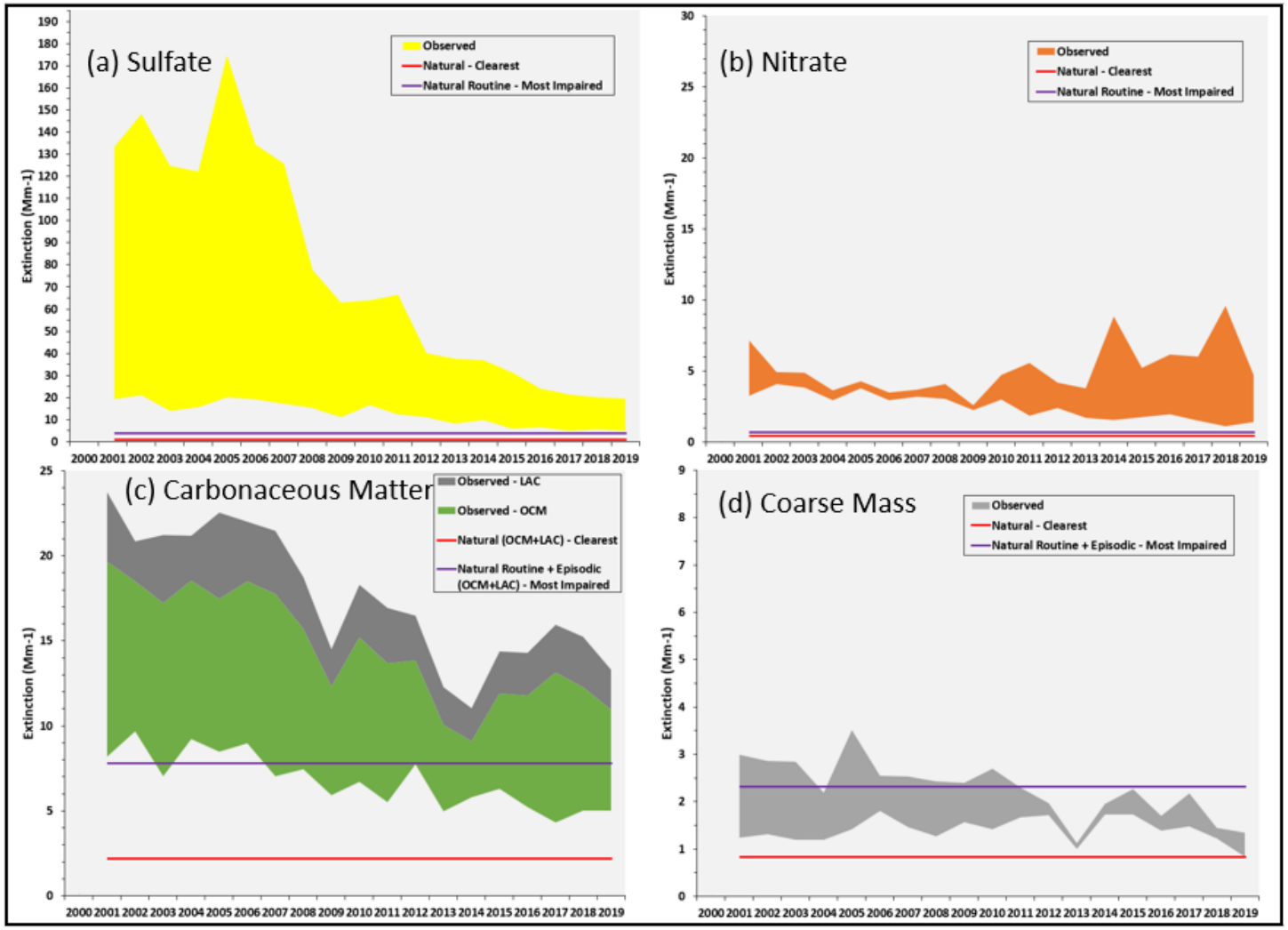
Notes: Light extinction from (a) sulfate, (b) nitrate, (c) carbonaceous matter (i.e., organic carbon mass or OCM and light absorbing carbon or LAC), and (d) coarse mass, alongside estimated natural light extinction from those species.

Figure 3-24. Range of Observed and Estimated Natural Light Extinction for Select Individual Species at Shenandoah National Park on 20 Percent Clearest and Most Impaired Visibility Days



Notes: Light extinction from (a) sulfate, (b) nitrate, (c) carbonaceous matter (i.e., organic carbon mass or OCM and light absorbing carbon or LAC), and (d) coarse mass, alongside estimated natural light extinction from those species.

Figure 3-25. Range of Observed and Estimated Natural Light Extinction for Select Individual Species at James River Face Wilderness Area on 20 Percent Clearest and Most Impaired Visibility Days



Notes: Light extinction from (a) sulfate, (b) nitrate, (c) carbonaceous matter (i.e., organic carbon mass or OCM and light absorbing carbon or LAC), and (d) coarse mass, alongside estimated natural light extinction from those species.

SEASONAL TRENDS OF 20 PERCENT MOST IMPAIRED DAYS

Figure 3-26. Seasonal Breakdown of 20 Percent Most Impaired Visibility Days for New England Class I Areas

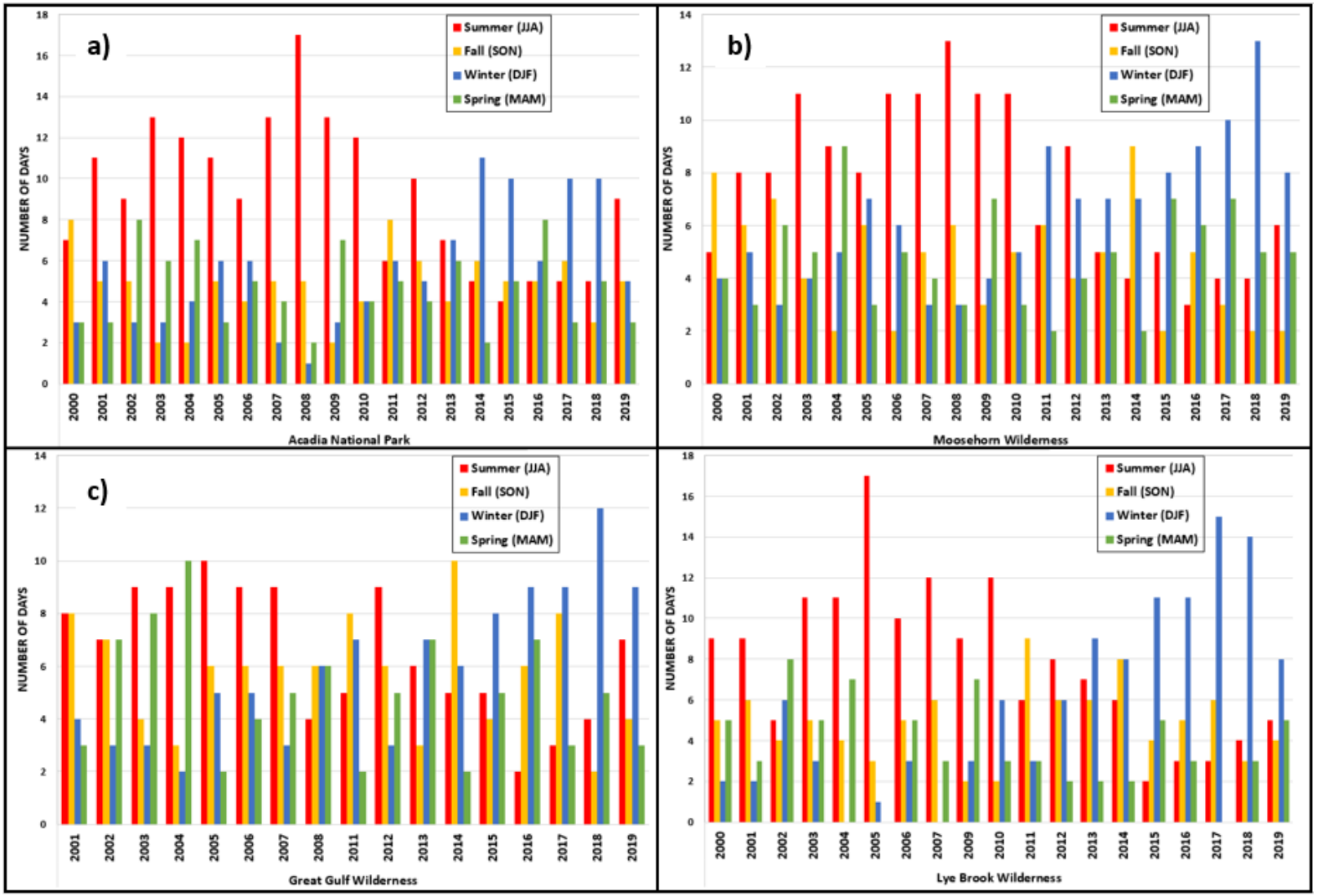


Figure 3-27. Seasonal Breakdown of 20 Percent Most Impaired Visibility Days for New Jersey, West Virginia and Virginia Class I Areas

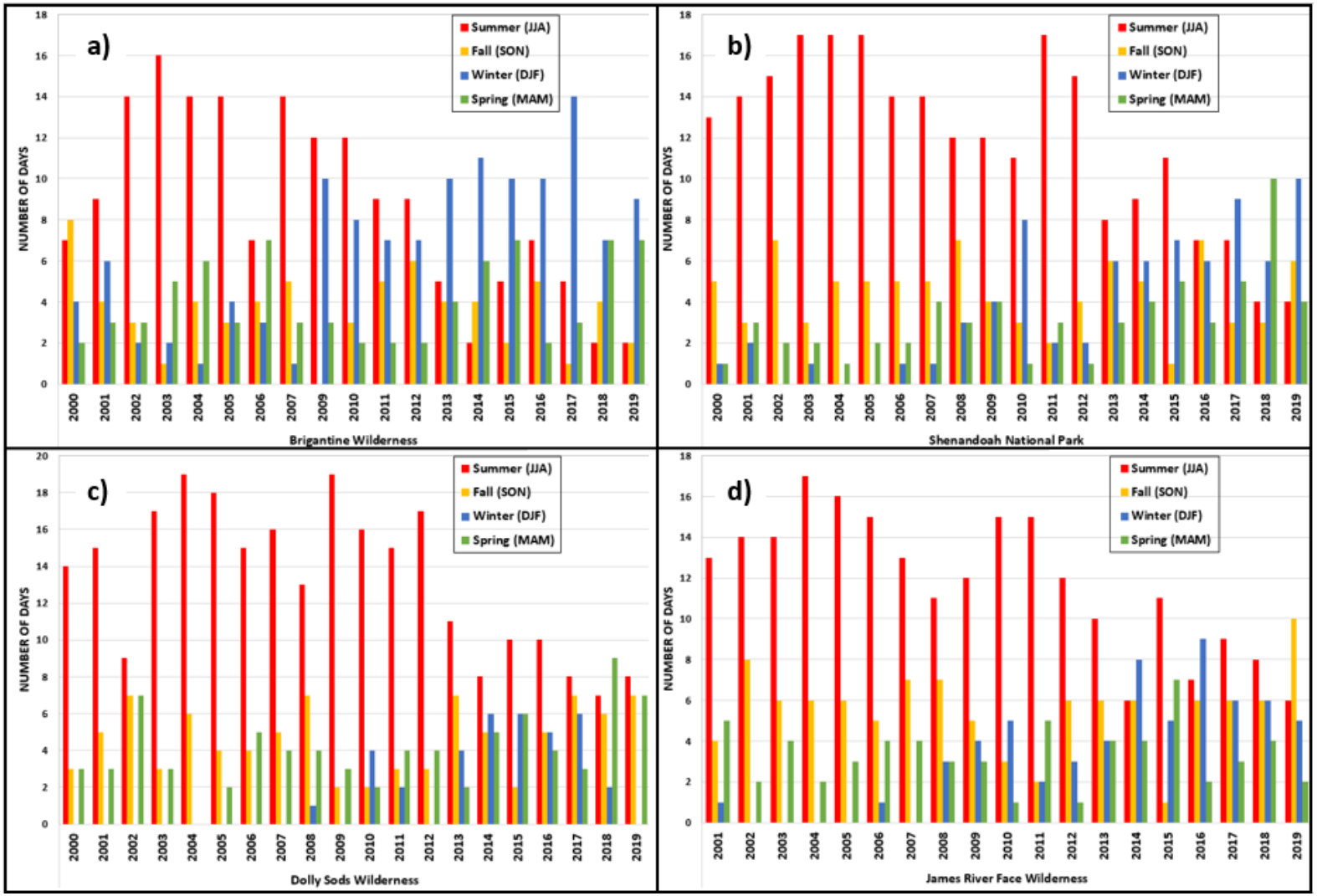
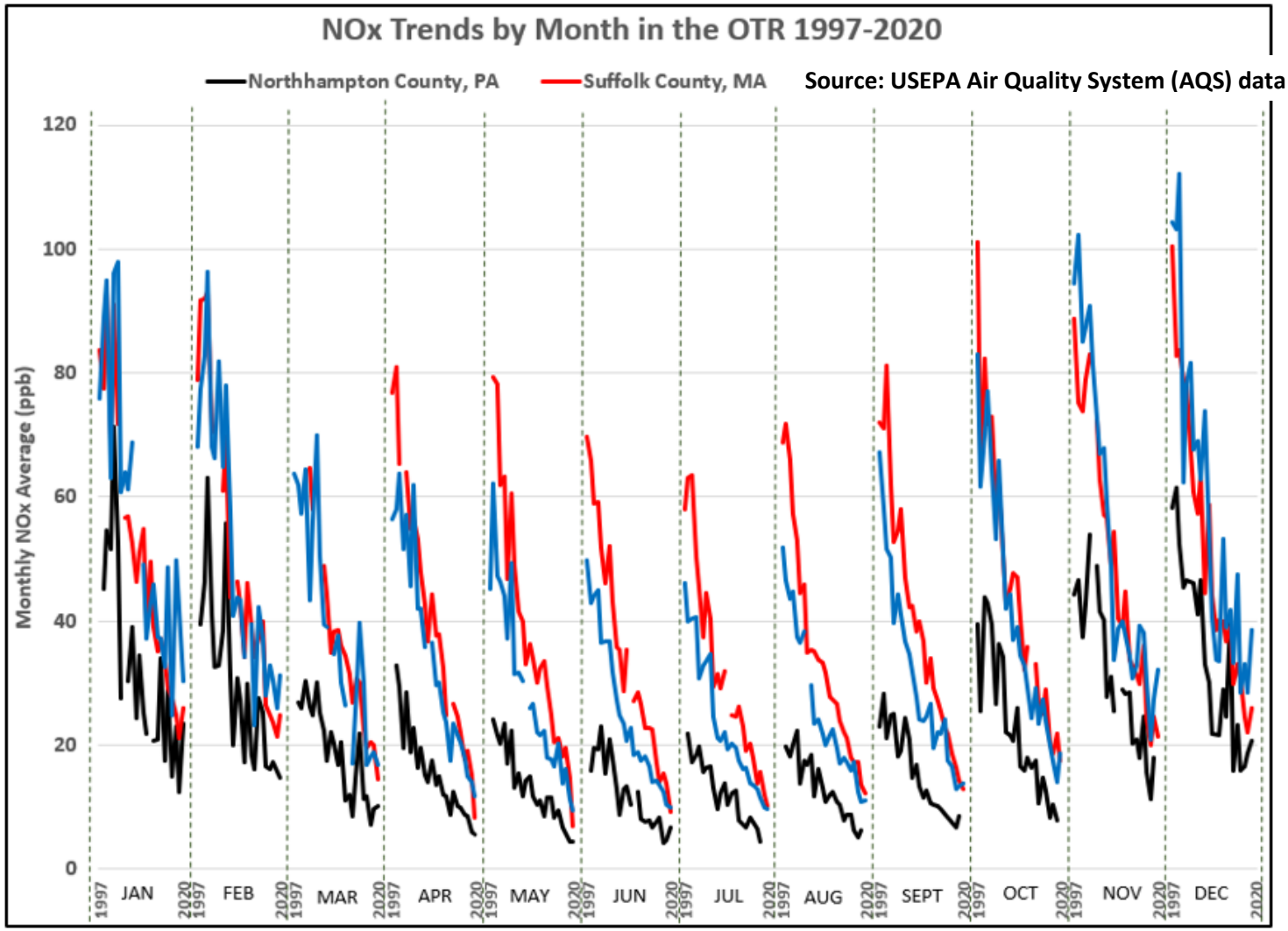


Figure 3-28. 1997-2020 NO_x Trends by Month



4. Summary

There are definite downward trends in overall haze levels at Class I areas in and adjacent to the MANE-VU region. Based on rolling five-year averages demonstrating progress since the 2000-2004 baseline period, Class I areas are currently below the 2019 URP and baseline period levels for the 20 percent clearest visibility days. The trends are mainly driven by large reductions in sulfate light extinction. Levels of nitrate extinction are approaching natural conditions for the 20 percent clearest days; however, percent contribution levels are increasing for the 20 percent most impaired days in recent years as more winter days are in the 20 percent most impaired days mix, especially for the Brigantine and Lye Brook Class I areas. Levels of carbonaceous matter (OCM and LAC) appear to be approaching natural levels at most of the Class I areas. Though states are on track to be below 2028 URPs, current (2014-19) visibility levels are greater than modeled 2028 RPGs and the 2028 RPG is the metric states need to achieve for the second planning period. Continued sulfate and nitrate reductions are primary drivers in continuing to improve visibility.

Reductions in air pollution continue to bring down levels of fine particulate matter in the eastern United States, which in turn are leading to improved visibility at federally protected Class I areas in and adjacent to the MANE-VU region. Significant improvements in visibility at the MANE-VU Class I sites have been observed, and these changes have been largely driven by reductions in sulfate levels.

Large emission reductions of NO_x and sulfur dioxide (SO_2) across the region in response to regional emission reduction requirements for power plants (i.e., NO_x SIP Call, NO_x Reasonably Available Control Technology (RACT), Cross State Air Pollution Rule (CSAPR), 2010 SO_2 National Ambient Air Quality Standard (NAAQS), etc.) is likely a principal driver for these visibility improvements. Reductions have occurred recently as the power sector continued to control or phase out coal plants across the eastern United States in response to competitive pressures from natural gas generation, overall reduced electricity demand, and more stringent requirements to reduce emissions of air toxics (i.e., 2011 Mercury and Air Toxics (MATS) rule).

In addition to addressing emissions from power plants, states across the Northeast have enacted or are in process of enacting low sulfur content requirements for fuel oils, which cover home heating oil (distillate) and residual oils (#4 and #6). At the federal level, USEPA finalized the Tier 3 motor vehicle program in 2014 that includes lowering sulfur content in gasoline. While gasoline combustion is a minor source of SO_2 emissions, the Tier 3 fuel requirements will significantly reduce NO_x emissions from the existing fleet of on-road gasoline vehicles by reducing sulfur poisoning of the catalyst in catalytic converters, thus improving control technology performance. This would lead to lower nitrate levels, most notably during colder weather months when nitrates are more thermally stable. In warmer weather months, NO_x promotes ground-level ozone formation, which in turn can enhance formation of visibility-limiting secondary organic aerosols (Carleton *et al.* 2010). Therefore, lower levels of NO_x because of Tier 3 can also improve visibility by reducing ozone formation that leads to carbonaceous PM.

In summary, the visibility data examined using the 20 percent most impaired and 20 percent clearest days metrics in this report demonstrate that broad, regional efforts to reduce emissions of visibility-impairing pollutants have had a beneficial effect at the region's Class I areas. IMPROVE data trends indicate that states continue to be on track keeping visibility levels significantly below the uniform rate of progress levels. However, further progress is needed to achieve 2028 reasonable progress goals that have been established for the second regional haze implementation planning period.

5. REFERENCES

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Appendix A: Tracking Progress Data for Current Active IMPROVE Monitoring Sites In and Adjacent to the MANE-VU Region

Table A-1. Tracking Progress Data for Acadia National Park (ME) and Brigantine Wilderness (NJ) Class I Areas in the MANE-VU Region (dv)

		20 Percent Clearest Days		20 Percent Most Impaired Days	
Class I Area	Year	Haze Index, Annual	Haze Index, 5-Year Rolling	Haze Index, Annual	Haze Index, Year Rolling
Acadia National Park (ACAD)	2000	8.90	-	20.75	-
	2001	8.87	-	22.37	-
	2002	8.77	-	22.91	-
	2003	8.77	-	22.70	-
	2004	8.56	8.78	21.34	22.01
	2005	7.66	8.53	21.85	22.23
	2006	8.25	8.40	22.69	22.30
	2007	8.28	8.30	20.84	21.88
	2008	7.76	8.10	19.35	21.21
	2009	6.92	7.77	18.17	20.58
	2010	6.71	7.58	17.52	19.71
	2011	7.51	7.44	17.39	18.65
	2012	7.75	7.33	15.81	17.65
	2013	6.25	7.03	15.31	16.84
	2014	7.03	7.05	15.36	16.28
	2015	6.05	6.92	16.07	15.99
	2016	6.08	6.63	13.72	15.26
	2018	7.18	6.52	13.97	14.89
	2018	6.53	6.58	13.58	14.54
	2019	5.95	6.36	13.85	14.24
	2028 RPG		**6.33 RPG**		**13.35 RPG**
	2064 NAT		**4.66 NAT**		**10.39 ER NAT**
Brigantine Wilderness (BRIG)	2000	14.26	-	27.37	-
	2001	13.80	-	27.07	-
	2002	14.83	-	26.53	-
	2003	14.39	-	28.49	-
	2004	14.36	14.33	27.69	27.43
	2005	14.61	14.40	28.81	27.72
	2006	15.35	14.71	26.88	27.68
	2007	12.74	14.29	26.10	27.60
	2008	*	14.26	*	27.37
	2009	12.78	13.87	23.03	26.21
	2010	11.82	13.17	24.51	25.13
	2011	12.92	12.56	22.66	24.08
	2012	11.93	12.36	20.95	22.79
	2013	11.80	12.25	20.12	22.25
	2014	11.66	12.03	21.09	21.87
	2015	11.44	11.95	20.84	21.13
	2016	11.12	11.59	19.18	20.44
	2017	11.36	11.48	18.09	19.86
	2018	10.70	11.26	17.37	19.31
	2019	9.44	10.81	17.19	18.53
	2028 RPG		**10.47 RPG**		**17.97 RPG**
	2064 NAT		**5.52 NAT**		**10.68 ER NAT**

"-" = not applicable; "*" = no data available; "RPG" = Reasonable Progress Goal; "NAT" = Natural Conditions; "ER" = episodic routine

Table A-2. Tracking Progress Data for Great Gulf Wilderness (NH) and Lye Brook Wilderness (VT) Class I Areas in the MANE-VU Region (dv)

		20 Percent Clearest Days		20 Percent Most Impaired Days	
Class I Area	Year	Haze Index, Annual	Haze Index, 5-Year Rolling	Haze Index, Annual	Haze Index, Year Rolling
Great Gulf Wilderness Area (GRGU)	2000	*	-	*	-
	2001	8.26	-	22.47	-
	2002	7.77	-	23.43	-
	2003	6.94	-	20.65	-
	2004	7.61	7.65	20.97	21.88
	2005	6.69	7.46	20.51	21.61
	2006	6.43	7.09	19.74	21.06
	2007	6.86	6.91	21.06	20.59
	2008	6.26	6.77	16.10	19.67
	2009	*	6.56	*	19.35
	2010	*	6.52	*	18.96
	2011	6.39	6.50	17.48	18.21
	2012	5.81	6.16	14.86	16.14
	2013	5.41	5.87	13.87	15.40
	2014	5.75	5.84	15.19	15.35
	2015	4.92	5.66	14.44	15.17
	2016	4.69	5.32	11.23	13.92
	2017	5.22	5.20	11.81	13.31
	2018	4.37	4.99	12.70	13.07
	2019	4.30	4.70	11.47	12.33
	2028 RPG		**5.06 RPG**		**12.00 RPG**
	2064 NAT		**3.73 NAT**		**9.78 ER NAT**
Lye Brook Wilderness Area (LYBR 2000-2011) (LYEB 2012-current)	2000	6.49	-	23.10	-
	2001	6.47	-	25.48	-
	2002	6.43	-	23.46	-
	2003	5.83	-	23.37	-
	2004	6.61	6.37	22.41	23.57
	2005	5.45	6.16	25.92	24.13
	2006	5.24	5.91	21.19	23.27
	2007	5.74	5.78	25.26	23.63
	2008	*	5.76	*	23.69
	2009	4.11	5.14	17.85	22.55
	2010	4.08	4.80	19.09	20.85
	2011	5.40	4.83	18.27	20.12
	2012	5.49	4.77	17.78	18.25
	2013	5.35	4.89	17.32	18.06
	2014	5.00	5.07	16.61	17.81
	2015	5.20	5.29	15.36	17.07
	2016	4.88	5.19	13.42	16.10
	2017	5.43	5.17	13.95	15.33
	2018	4.62	5.03	14.31	14.73
	2019	4.25	4.88	13.28	14.06
	2028 RPG		**3.86 RPG**		**13.68 RPG**
	2064 NAT		**2.79 NAT**		**10.24 ER NAT**

"-" = not applicable; "*" = no data available; "RPG" = Reasonable Progress Goal; "NAT" = Natural Conditions; "ER" = episodic routine

Table A-3. Tracking Progress Data for the Moosehorn Wilderness (ME) Class I Area in the MANE-VU Region (dv)

		20 Percent Clearest Days		20 Percent Most Impaired Days	
Class I Area	Year	Haze Index, Annual	Haze Index, 5-Year Rolling	Haze Index, Annual	Haze Index, Year Rolling
Moosehorn Wilderness Area (MOOS)	2000	8.94	-	19.48	-
	2001	9.31	-	21.30	-
	2002	9.12	-	22.12	-
	2003	9.48	-	20.96	-
	2004	8.93	9.16	19.40	20.65
	2005	7.99	8.97	20.92	20.94
	2006	8.60	8.82	20.72	20.82
	2007	7.79	8.56	18.50	20.10
	2008	7.82	8.23	17.51	19.41
	2009	6.83	7.81	17.01	18.93
	2010	5.98	7.41	16.45	18.04
	2011	6.97	7.08	16.38	17.17
	2012	7.32	6.99	14.74	16.42
	2013	6.55	6.73	14.42	15.80
	2014	6.90	6.74	14.15	15.23
	2015	6.64	6.88	14.53	14.85
	2016	6.09	6.70	12.56	14.08
	2017	6.77	6.59	12.13	13.56
	2018	6.57	6.59	13.23	13.32
	2019	6.31	6.48	12.49	12.99
	2028 RPG		**6.45 RPG**		**13.12 RPG**
	2064 NAT		**5.02 NAT**		**9.98 ER NAT**

"-" = not applicable; "*" = no data available; "RPG" = Reasonable Progress Goal; "NAT" = Natural Conditions; "ER" = episodic routine

Table A-4. Tracking Progress Data for the Dolly Sods Wilderness (WV) Class I Area Adjacent to the MANE-VU Region (dv)

		20 Percent Clearest Days		20 Percent Most Impaired Days	
Class I Area	Year	Haze Index, Annual	Haze Index, 5-Year Rolling	Haze Index, Annual	Haze Index, Year Rolling
Dolly Sods Wilderness (DOSO)	2000	12.96	-	27.72	-
	2001	13.30	-	27.53	-
	2002	11.91	-	27.96	-
	2003	11.54	-	29.33	-
	2004	11.67	12.28	28.91	28.29
	2005	11.91	12.07	30.45	28.84
	2006	10.57	11.52	28.91	29.11
	2007	10.20	11.18	28.15	29.15
	2008	9.44	10.76	24.37	28.16
	2009	8.70	10.16	21.89	26.75
	2010	9.74	9.73	22.68	25.20
	2011	8.75	9.37	23.75	24.17
	2012	9.59	9.25	20.88	22.71
	2013	8.34	9.03	18.83	21.61
	2014	8.52	8.99	19.41	21.11
	2015	5.88	8.22	18.82	20.34
	2016	7.00	7.87	16.76	18.94
	2017	6.47	7.24	16.15	17.99
	2018	5.52	6.68	17.10	17.65
	2019	6.04	6.18	16.34	17.03
	2028 RPG		**7.27 RPG**		**15.09 RPG**
	2064 NAT		**3.64 NAT**		**8.92 ER NAT**

"-" = not applicable; "*" = no data available; "RPG" = Reasonable Progress Goal; "NAT" = Natural Conditions; "ER" = episodic routine

Table A-5. Tracking Progress Data for James River Face Wilderness and Shenandoah National Park (VA) Class I Areas Adjacent to the MANE-VU Region (dv)

		20 Percent Clearest Days		20 Percent Most Impaired Days	
Class I Area	Year	Haze Index, Annual	Haze Index, 5-Year Rolling	Haze Index, Annual	Haze Index, Year Rolling
James River Face (JARI)	2000	*	-	*	-
	2001	14.54	-	28.36	-
	2002	15.65	-	28.91	-
	2003	12.85	-	27.61	-
	2004	13.80	14.21	27.45	28.08
	2005	14.92	14.35	30.32	28.53
	2006	14.75	14.39	28.21	28.50
	2007	13.78	14.02	27.49	28.22
	2008	13.15	14.08	24.01	27.50
	2009	11.55	13.63	22.07	26.42
	2010	13.51	13.35	22.88	24.94
	2011	11.57	12.71	22.93	23.88
	2012	12.12	12.38	19.84	22.35
	2013	9.86	11.72	18.59	21.27
	2014	10.81	11.58	19.14	20.68
	2015	9.76	10.83	18.47	19.80
	2016	9.57	10.42	17.28	18.67
	2017	8.38	9.68	17.26	18.15
	2018	8.82	9.47	17.28	17.89
	2019	8.41	8.99	16.11	17.28
	2028 RPG		**9.36 RPG**		**15.31 RPG**
	2064 NAT		**4.39 NAT**		**9.47 ER NAT**
Shenandoah National Park (SHEN)	2000	11.08	-	27.23	-
	2001	13.21	-	27.62	-
	2002	11.49	-	29.89	-
	2003	9.48	-	27.87	-
	2004	9.55	10.96	29.00	28.32
	2005	10.48	10.84	30.51	28.98
	2006	10.59	10.32	27.75	29.01
	2007	11.13	10.25	28.17	28.66
	2008	8.16	9.98	24.59	28.00
	2009	8.23	9.72	21.20	26.44
	2010	9.79	9.58	22.12	24.77
	2011	7.87	9.04	22.10	23.64
	2012	9.63	8.73	19.30	21.86
	2013	7.50	8.60	18.88	20.72
	2014	8.02	8.56	18.58	20.20
	2015	6.50	7.90	18.65	19.50
	2016	7.32	7.79	16.59	18.40
	2017	6.35	7.14	16.14	17.77
	2018	6.09	6.85	15.37	17.07
	2019	6.44	6.54	15.16	16.38
	2028 RPG		**6.83 RPG**		**14.25 RPG**
	2064 NAT		**3.15 NAT**		**9.52 ER NAT**

"-" = not applicable; "*" = no data available; "RPG" = Reasonable Progress Goal; "NAT" = Natural Conditions; "ER" = episodic routine

Table A-6. Tracking Progress Data for Addison Pinnacle (NY) and Arendtsville (PA) IMPROVE Protocol Sites in the MANE-VU Region (dv)

		20 Percent Clearest Days		20 Percent Most Impaired Days	
Class I Area	Year	Haze Index, Annual	Haze Index, 5-Year Rolling	Haze Index, Annual	Haze Index, Year Rolling
Addison Pinnacle (ADPI)	2000	*	-	*	-
	2001	*	-	*	-
	2002	12.38	-	28.45	-
	2003	11.79	-	27.37	-
	2004	11.18	11.78	26.46	27.43
	2005	11.63	11.75	29.64	27.98
	2006	10.27	11.45	25.79	27.54
	2007	10.65	11.11	26.79	27.21
	2008	10.99	10.94	24.74	26.69
	2009	9.57	10.62	21.94	25.78
	2010	*	*	*	*
	2011	*	*	*	*
	2012	*	*	*	*
	2013	*	*	*	*
	2014	*	*	*	*
	2015	*	*	*	*
	2016	*	*	*	*
	2017	*	*	*	*
	2018	*	*	*	*
	2019	*	*	*	*
	2064 NAT		**4.12 NAT**		**10.48 ER NAT**
Arendtsville (AREN)	2000	*	-	*	-
	2001	*	-	*	-
	2002	15.49	-	29.19	-
	2003	14.32	-	28.68	-
	2004	12.87	14.23	29.44	29.10
	2005	14.41	14.27	30.99	29.58
	2006	13.29	14.08	28.84	29.43
	2007	13.22	13.62	27.51	29.09
	2008	13.69	13.50	26.33	28.62
	2009	11.70	13.26	24.97	27.73
	2010	11.74	12.73	24.25	26.38
	2011	*	*	*	*
	2012	*	*	*	*
	2013	*	*	*	*
	2014	*	*	*	*
	2015	*	*	*	*
	2016	*	*	*	*
	2017	*	*	*	*
	2018	*	*	*	*
	2019	*	*	*	*
	2064 NAT		**4.24 NAT**		**10.17 ER NAT**

"-" = not applicable; "*" = no data available; "NAT" = Natural Conditions; "ER" = episodic routine

Table A-7. Tracking Progress Data for Bridgton (ME) and Casco Bay (ME) IMPROVE Protocol Sites in the MANE-VU Region (dv)

		20 Percent Clearest Days		20 Percent Most Impaired Days	
Class I Area	Year	Haze Index, Annual	Haze Index, 5-Year Rolling	Haze Index, Annual	Haze Index, Year Rolling
Bridgton (BRMA)	2000	*	-	*	-
	2001	*	-	*	-
	2002	9.34	-	22.10	-
	2003	8.92	-	21.92	-
	2004	9.19	9.15	22.31	22.11
	2005	7.77	8.81	21.01	21.84
	2006	8.15	8.67	22.21	21.91
	2007	7.71	8.35	20.64	21.62
	2008	7.88	8.14	18.17	20.87
	2009	6.64	7.63	17.78	19.96
	2010	6.30	7.33	17.15	19.19
	2011	7.33	7.17	17.72	18.29
	2012	7.44	7.12	16.08	17.38
	2013	6.71	6.89	15.60	16.87
	2014	6.93	6.94	15.60	16.43
	2015	6.22	6.93	15.66	16.13
	2016	*	*	*	*
	2017	*	*	*	*
	2018	*	*	*	*
	2019	*	*	*	*
	2064 NAT		**4.65 NAT**		**10.46 ER NAT**
Casco Bay (CABA)	2000	*	-	*	-
	2001	*	-	*	-
	2002	9.84	-	23.58	-
	2003	9.52	-	22.24	-
	2004	10.12	9.82	21.96	22.59
	2005	8.88	9.59	22.15	22.48
	2006	8.98	9.47	22.55	22.49
	2007	8.77	9.25	21.15	22.01
	2008	9.65	9.28	20.34	21.63
	2009	7.75	8.80	19.23	21.08
	2010	7.47	8.52	17.80	20.21
	2011	8.75	8.48	18.19	19.34
	2012	9.17	8.56	17.23	18.56
	2013	7.68	8.16	16.86	17.86
	2014	7.81	8.18	16.65	17.35
	2015	7.67	8.22	17.30	17.25
	2016	7.35	7.94	14.20	16.45
	2017	8.01	7.70	14.81	15.96
	2018	7.41	7.65	15.78	15.75
	2019	7.08	7.50	13.66	15.15
	2064 NAT		**4.83 NAT**		**10.93 ER NAT**

"-" = not applicable; "*" = no data available; "NAT" = Natural Conditions; "ER" = episodic routine

Table A-8. Tracking Progress Data for Cape Cod (MA) and Frostburg Reservoir (MD) IMPROVE Protocol Sites in the MANE-VU Region (dv)

		20 Percent Clearest Days		20 Percent Most Impaired Days	
Class I Area	Year	Haze Index, Annual	Haze Index, 5-Year Rolling	Haze Index, Annual	Haze Index, Year Rolling
Cape Cod (CACO)	2000	*	-	*	-
	2001	*	-	*	-
	2002	11.18	-	23.59	-
	2003	10.94	-	25.59	-
	2004	11.97	11.36	23.74	24.31
	2005	12.12	11.55	24.78	24.43
	2006	10.87	11.42	23.64	24.27
	2007	10.02	11.19	24.71	24.49
	2008	10.82	11.16	20.91	23.56
	2009	9.89	10.74	21.06	23.02
	2010	9.86	10.29	19.64	21.99
	2011	10.35	10.19	19.22	21.11
	2012	9.74	10.13	18.48	19.86
	2013	9.49	9.87	16.93	19.07
	2014	9.12	9.71	16.79	18.21
	2015	8.74	9.49	17.04	17.69
	2016	8.33	9.09	15.09	16.86
	2017	9.59	9.05	15.45	16.26
	2018	9.35	9.03	16.26	16.13
	2019	8.53	8.91	15.74	15.92
	2064 NAT		**5.95 NAT**		**11.00 ER NAT**
Frostburg Reservoir (FRRE)	2000	*	-	*	-
	2001	*	-	*	-
	2002	*	-	*	-
	2003	*	-	*	-
	2004	*	*	*	*
	2005	14.49	*	31.80	*
	2006	13.69	*	29.72	*
	2007	12.82	13.67	27.90	29.81
	2008	12.74	13.44	24.91	28.58
	2009	10.85	12.92	23.68	27.60
	2010	11.81	12.38	24.00	26.04
	2011	11.11	11.87	23.86	24.87
	2012	11.76	11.66	21.04	23.50
	2013	10.57	11.22	21.04	22.73
	2014	10.94	11.24	21.22	22.23
	2015	9.44	10.77	19.84	21.40
	2016	9.46	10.44	17.75	20.18
	2017	9.53	9.99	18.21	19.61
	2018	9.03	9.68	17.67	18.94
	2019	8.98	9.29	17.82	18.26
	2064 NAT		**4.48^ NAT**		**9.61 ER NAT**

"-" = not applicable; "*" = no data available; "NAT" = Natural Conditions; "^" = 2005 NAT first year; "ER" = episodic routine

Table A-9. Tracking Progress Data for Londonderry (NH) and Martha's Vineyard (MA) IMPROVE Protocol Sites in the MANE-VU Region (dv)

		20 Percent Clearest Days		20 Percent Most Impaired Days	
Class I Area	Year	Haze Index, Annual	Haze Index, 5-Year Rolling	Haze Index, Annual	Haze Index, Year Rolling
Londonderry (LOND)	2000	*	-	*	-
	2001	*	-	*	-
	2002	*	-	*	-
	2003	*	-	*	-
	2004	*	*	*	*
	2005	*	*	*	*
	2006	*	*	*	*
	2007	*	*	*	*
	2008	*	*	*	*
	2009	*	*	*	*
	2010	*	*	*	*
	2011	9.84	*	19.89	*
	2012	9.34	*	18.39	*
	2013	8.17	9.12	18.28	18.85
	2014	8.33	8.92	17.82	18.59
	2015	7.98	8.73	17.99	18.47
	2016	7.79	8.32	16.02	17.70
	2017	8.72	8.20	16.88	17.40
	2018	7.87	8.14	16.50	17.04
	2019	7.61	8.00	15.26	16.53
	2064 NAT		**5.00^ NAT**		**10.45^ ER NAT**
Martha's Vineyard (MAVI)	2000	*	-	*	-
	2001	*	-	*	-
	2002	*	-	*	-
	2003	11.83	-	26.56	-
	2004	12.25	*	24.38	*
	2005	12.31	12.13	25.70	25.55
	2006	11.22	11.90	24.90	25.38
	2007	10.46	11.62	23.66	25.04
	2008	10.77	11.40	22.55	24.24
	2009	9.94	10.94	22.00	23.76
	2010	9.98	10.48	21.05	22.83
	2011	11.29	10.49	20.86	22.02
	2012	9.93	10.38	18.54	21.00
	2013	8.92	10.01	19.41	20.37
	2014	10.23	10.07	17.74	19.52
	2015	10.14	10.10	19.06	19.12
	2016	9.42	9.73	16.45	18.24
	2017	10.03	9.75	16.74	17.88
	2018	8.73	9.71	16.43	17.29
	2019	8.65	9.39	16.01	16.94
	2064 NAT		**6.11~ NAT**		**11.11~ ER NAT**

"-" = not applicable; "*" = no data available; "NAT" = Natural Conditions; "^" = 2011 NAT first year; "~" = 2003 NAT first year; "ER" = episodic routine

Table A-10. Tracking Progress Data for M.K. Goddard (PA) and Mohawk Mt. (CT) IMPROVE Protocol Sites in the MANE-VU Region (dv)

		20 Percent Clearest Days		20 Percent Most Impaired Days	
Class I Area	Year	Haze Index, Annual	Haze Index, 5-Year Rolling	Haze Index, Annual	Haze Index, Year Rolling
M.K. Goddard. (MKGO)	2000	*	-	*	-
	2001	*	-	*	-
	2002	14.75	-	28.74	-
	2003	13.76	-	27.76	-
	2004	13.76	14.09	27.85	28.11
	2005	14.78	14.26	31.11	28.86
	2006	13.02	14.01	27.83	28.66
	2007	12.91	13.65	28.07	28.52
	2008	13.30	13.55	25.70	28.11
	2009	11.81	13.16	25.50	27.64
	2010	11.54	12.52	25.82	26.58
	2011	*	*	*	*
	2012	*	*	*	*
	2013	*	*	*	*
	2014	*	*	*	*
	2015	*	*	*	*
	2016	*	*	*	*
	2017	*	*	*	*
	2018	*	*	*	*
	2019	*	*	*	*
	2064 NAT		**4.52 NAT**		**10.18 ER NAT**
Mohawk Mt. (MOMO)	2000	*	-	*	-
	2001	*	-	*	-
	2002	10.34	-	25.59	-
	2003	9.31	-	25.53	-
	2004	9.85	9.83	25.96	25.69
	2005	8.87	9.59	27.24	26.08
	2006	8.39	9.35	24.93	25.85
	2007	7.88	8.86	26.69	26.07
	2008	*	8.75	*	26.21
	2009	6.97	8.03	20.56	24.86
	2010	6.71	7.49	20.64	23.20
	2011	8.06	7.40	20.37	22.06
	2012	7.50	7.31	19.08	20.16
	2013	6.70	7.19	18.01	19.73
	2014	7.35	7.26	16.60	18.94
	2015	6.08	7.14	17.45	18.30
	2016	6.30	6.79	14.75	17.18
	2017	6.19	6.53	15.06	16.37
	2018	6.03	6.39	14.92	15.76
	2019	5.46	6.01	14.44	15.33
	2064 NAT		**3.67 NAT**		**10.90 ER NAT**

"-" = not applicable; "*" = no data available; "NAT" = Natural Conditions; "ER" = episodic routine

Table A-11. Tracking Progress Data for New York City - IS52 and Pack Monadnock Summit (NH) IMPROVE Protocol Sites in the MANE-VU Region (dv)

		20 Percent Clearest Days		20 Percent Most Impaired Days	
Class I Area	Year	Haze Index, Annual	Haze Index, 5-Year Rolling	Haze Index, Annual	Haze Index, Year Rolling
New York City - IS52 (NEYO)	2000	*	-	*	-
	2001	*	-	*	-
	2002	*	-	*	-
	2003	*	-	*	-
	2004	*	*	*	*
	2005	16.53	*	30.15	*
	2006	14.94	*	29.44	*
	2007	15.27	15.58	29.88	29.82
	2008	15.79	15.63	26.46	28.98
	2009	14.47	15.40	26.52	28.49
	2010	*	*	*	*
	2011	*	*	*	*
	2012	*	*	*	*
	2013	*	*	*	*
	2014	*	*	*	*
	2015	*	*	*	*
	2016	*	*	*	*
	2017	*	*	*	*
	2018	*	*	*	*
	2019	*	*	*	*
	2064 NAT		**5.52^ NAT**		**10.86 ER NAT**
Pack Monadnock Summit (PACK)	2000	*	-	*	-
	2001	*	-	*	-
	2002	*	-	*	-
	2003	*	-	*	-
	2004	*	*	*	*
	2005	*	*	*	*
	2006	*	*	*	*
	2007	*	*	*	*
	2008	6.56	*	18.81	*
	2009	4.82	*	18.20	*
	2010	5.14	5.51	18.79	18.60
	2011	5.63	5.54	17.87	18.42
	2012	5.55	5.54	17.24	18.18
	2013	5.12	5.25	15.95	17.61
	2014	4.88	5.26	16.25	17.22
	2015	4.57	5.15	15.66	16.60
	2016	4.57	4.94	12.87	15.60
	2017	5.27	4.88	12.71	14.69
	2018	4.21	4.70	13.28	14.15
	2019	3.99	4.52	12.87	13.48
	2064 NAT		**3.17~ NAT**		**9.55 ER NAT**

"-" = not applicable; "*" = no data available; "NAT" = Natural Conditions; "^" = 2005 NAT first year; "~" = 2008 NAT first year; "ER" = episodic routine

Table A-12. Tracking Progress Data for Penobscot Nation (ME) and Proctor Maple R. F. (VT) IMPROVE Protocol Sites in the MANE-VU Region (dv)

		20 Percent Clearest Days		20 Percent Most Impaired Days	
Class I Area	Year	Haze Index, Annual	Haze Index, 5-Year Rolling	Haze Index, Annual	Haze Index, Year Rolling
Penobscot Nation (PENO 2006-current)	2000	*	-	*	-
	2001	*	-	*	-
	2002	*	-	*	-
	2003	*	-	*	-
	2004	*	-	*	-
	2005	*	-	*	-
	2006	9.18	-	21.63	-
	2007	8.37	-	20.41	-
	2008	8.52	8.69	19.23	20.42
	2009	7.55	8.41	19.25	20.13
	2010	7.24	8.17	17.75	19.65
	2011	8.38	8.01	17.97	18.92
	2012	8.50	8.04	16.35	18.11
	2013	8.19	7.97	16.20	17.50
	2014	7.77	8.02	15.97	16.85
	2015	6.96	7.96	17.73	16.84
	2016	6.74	7.63	15.22	16.29
	2017	8.11	7.55	14.55	15.93
	2018	7.45	7.41	15.80	15.85
	2019	6.75	7.20	14.33	15.53
	2064 NAT		**4.62^ NAT**		**10.34 ER NAT**
Proctor Maple R.F. (PMRF)	2000	*	-	*	-
	2001	*	-	*	-
	2002	8.67	-	25.34	-
	2003	7.82	-	23.25	-
	2004	8.26	8.25	24.13	24.24
	2005	7.94	8.17	25.36	24.52
	2006	7.97	8.13	21.36	23.89
	2007	7.71	7.94	23.56	23.53
	2008	7.58	7.89	19.63	22.81
	2009	6.27	7.49	18.61	21.70
	2010	6.77	7.26	18.90	20.41
	2011	7.82	7.23	19.57	20.06
	2012	6.40	6.97	17.14	18.77
	2013	6.48	6.75	16.16	18.08
	2014	6.54	6.80	16.78	17.71
	2015	5.72	6.59	16.69	17.27
	2016	5.65	6.15	13.18	15.99
	2017	6.07	6.09	13.10	15.18
	2018	5.56	5.91	14.66	14.88
	2019	5.31	5.66	13.17	14.16
	2064 NAT		**3.86 NAT**		**10.29 ER NAT**

"-" = not applicable; "*" = no data available; "NAT" = Natural Conditions; "^" = 2006 NAT first year; "ER" = episodic routine

Table A-13. Tracking Progress Data for Presque Isle (ME) and Quabbin Summit (MA) IMPROVE Protocol Sites in the MANE-VU Region (dv)

		20 Percent Clearest Days		20 Percent Most Impaired Days	
Class I Area	Year	Haze Index, Annual	Haze Index, 5-Year Rolling	Haze Index, Annual	Haze Index, Year Rolling
Presque Isle (PRIS)	2000	*	-	*	-
	2001	*	-	*	-
	2002	9.39	-	21.95	-
	2003	9.53	-	19.49	-
	2004	9.52	9.48	20.04	20.49
	2005	8.80	9.31	19.33	20.20
	2006	9.37	9.32	20.47	20.26
	2007	8.24	9.09	17.53	19.37
	2008	8.21	8.83	17.75	19.03
	2009	8.40	8.61	17.58	18.53
	2010	6.81	8.21	16.16	17.90
	2011	8.25	7.99	16.65	17.14
	2012	7.85	7.91	15.00	16.63
	2013	7.20	7.70	15.02	16.08
	2014	8.39	7.70	15.28	15.62
	2015	6.66	7.67	15.34	15.46
	2016	7.26	7.47	14.23	14.97
	2017	7.68	7.44	13.44	14.66
	2018	6.33	7.26	14.69	14.60
	2019	6.72	6.93	13.36	14.21
	2064 NAT		**4.91 NAT**		**10.24 ER NAT**
Quabbin Summit (QURE)	2000	*	-	*	-
	2001	*	-	*	-
	2002	9.83	-	24.91	-
	2003	9.51	-	24.70	-
	2004	10.06	9.80	24.51	24.71
	2005	9.11	9.63	26.40	25.13
	2006	8.50	9.40	24.71	25.05
	2007	8.32	9.10	25.06	25.08
	2008	*	9.00	*	25.17
	2009	7.46	8.35	20.44	24.15
	2010	6.82	7.77	20.67	22.72
	2011	7.74	7.58	19.51	21.42
	2012	7.45	7.37	18.74	19.84
	2013	6.41	7.17	17.75	19.42
	2014	6.64	7.01	16.81	18.69
	2015	6.41	6.93	17.89	18.14
	2016	*	*	*	*
	2017	*	*	*	*
	2018	*	*	*	*
	2019	*	*	*	*
	2064 NAT		**3.92 NAT**		**10.81 ER NAT**

"-" = not applicable; "*" = no data available; "NAT" = Natural Conditions; "ER" = episodic routine

Table A-14. Tracking Progress Data for the Washington (DC) IMPROVE Protocol Site Adjacent to the MANE-VU Region (dv)

		20 Percent Clearest Days		20 Percent Most Impaired Days	
Class I Area	Year	Haze Index, Annual	Haze Index, 5-Year Rolling	Haze Index, Annual	Haze Index, Year Rolling
Washington D.C. (WASH)	2000	17.83	-	27.48	-
	2001	17.10	-	28.36	-
	2002	17.92	-	28.87	-
	2003	16.79	-	28.27	-
	2004	16.29	17.19	28.97	28.39
	2005	17.71	17.16	31.24	29.14
	2006	17.29	17.20	27.68	29.01
	2007	16.80	16.98	28.68	28.97
	2008	16.30	16.88	26.86	28.69
	2009	15.01	16.62	24.08	27.71
	2010	*	16.35	*	26.83
	2011	14.29	15.60	22.86	25.62
	2012	13.25	14.71	21.71	23.88
	2013	*	14.18	*	22.88
	2014	12.69	13.41	22.54	22.37
	2015	*	*	*	*
	2016	*	*	*	*
	2017	*	*	*	*
	2018	*	*	*	*
	2019	*	*	*	*
	2064 NAT		**5.52 NAT**		**9.85 ER NAT**

"-" = not applicable; "*" = no data available; "NAT" = Natural Conditions; "ER" = episodic routine

Table A-15. Tracking Progress Data for the Quaker City (OH) IMPROVE Protocol Site Adjacent to the MANE-VU Region (dv)

		20 Percent Clearest Days		20 Percent Most Impaired Days	
Class I Area	Year	Haze Index, Annual	Haze Index, 5-Year Rolling	Haze Index, Annual	Haze Index, Year Rolling
Quaker City (QUCI)	2000	*	-	*	-
	2001	*	-	*	-
	2002	15.59	-	29.77	-
	2003	15.30	-	29.55	-
	2004	14.67	15.19	30.12	29.81
	2005	16.09	15.41	31.57	30.25
	2006	14.75	15.28	28.86	29.97
	2007	14.71	15.10	29.24	29.87
	2008	14.04	14.85	25.81	29.12
	2009	13.02	14.52	24.82	28.06
	2010	13.99	14.10	26.38	27.02
	2011	12.80	13.71	25.11	26.27
	2012	12.24	13.22	22.22	24.87
	2013	12.12	12.83	22.66	24.24
	2014	12.47	12.72	23.11	23.90
	2015	11.53	12.23	22.13	23.05
	2016	10.51	11.77	19.85	22.00
	2017	10.17	11.36	19.52	21.46
	2018	11.07	11.15	18.95	20.71
	2019	10.33	10.72	19.06	19.90
	2064 NAT		**4.96 NAT**		**9.77 ER NAT**

"-" = not applicable; "*" = no data available; "NAT" = Natural Conditions; "ER" = episodic routine

Appendix B: Species Light Extinction Data for Current Active IMPROVE Monitoring Sites In and Adjacent to the MANE-VU Region

Table B-1. Observed Light Extinction Conditions for the Acadia National Park (ME) MANE-VU Class I Area

Year	Sulfate (Mm^{-1})	Nitrate (Mm^{-1}))	Organic Mass Carbon (Mm^{-1})	Light Absorbing Carbon (LAC or EC) (Mm^{-1})	Coarse Mass (Mm^{-1})	Sea Salt (Mm^{-1})	Soil (Mm^{-1})	Total PM@ (Mm^{-1})
20 PERCENT CLEAREST DAYS								
2000	7.2439	0.9890	2.2073	1.0977	0.6710	0.2676	0.0982	12.5746
2001	7.5656	1.3663	1.8168	0.8588	0.6108	0.1218	0.1346	12.4748
2002	6.2921	1.0140	2.4590	0.8563	0.8157	0.6305	0.0969	12.1646
2003	6.8416	1.0701	2.0937	0.7825	0.6141	0.6702	0.1005	12.1727
2004	5.8580	0.9467	2.6046	0.7523	0.8663	0.5067	0.1235	11.6581
2005	4.7447	0.9704	1.8038	0.7750	0.7140	0.8166	0.0732	9.8977
2006	5.7911	0.9134	2.0078	0.9063	0.8187	0.6178	0.0758	11.1310
2007	5.9094	0.7130	2.3377	0.7633	0.7959	0.3754	0.1028	10.9975
2008	4.9094	0.6604	1.9764	0.5716	0.9105	0.8242	0.0898	9.9423
2009	3.9262	0.5181	1.5387	0.4616	0.9874	0.5966	0.0904	8.1191
2010	3.8472	0.6466	1.6922	0.5004	0.5350	0.4318	0.0746	7.7278
2011	4.6437	0.5931	1.8658	0.5420	0.8809	0.7508	0.0495	9.3258
2012	4.9138	0.6765	2.0322	0.6118	1.0204	0.5447	0.0951	9.8945
2013	3.5974	0.5339	1.2331	0.3073	0.5955	0.5328	0.0421	6.8422
2014	4.3119	0.6779	1.5715	0.3670	0.8943	0.5999	0.0466	8.4690
2015	2.6593	0.5998	1.4613	0.2484	0.8013	0.6041	0.0331	6.4073
2016	2.7208	0.5094	1.5919	0.3522	0.7841	0.4607	0.0391	6.4582
2017	3.5016	0.7208	2.3469	0.6753	0.9776	0.3367	0.0581	8.6169
2018	2.7723	0.6757	1.4215	0.5064	0.7853	1.0822	0.0491	7.2925
2019	2.6318	0.5760	1.5758	0.4333	0.6015	0.3350	0.0312	6.1846
20 PERCENT MOST IMPAIRED DAYS								
2000	48.4979	8.4336	7.2967	4.1520	1.9028	1.2459	0.2887	71.8176
2001	73.2714	6.3115	9.8357	4.0405	1.3606	0.0236	0.5719	95.4153
2002	74.4633	7.4757	9.3296	3.7231	1.4681	0.3109	0.7489	97.5196
2003	82.8832	5.1382	10.3711	4.2866	1.3472	0.0646	0.4282	104.5190
2004	62.9697	6.6607	7.2555	3.2798	1.2953	1.0110	0.3848	82.8569
2005	70.5598	4.3467	7.0237	3.7250	1.2205	0.4651	0.2172	87.5579
2006	70.2979	7.5744	7.0839	3.5330	2.2396	1.0120	0.3092	92.0501
2007	57.9373	5.0296	7.9271	3.2620	1.8317	1.1123	0.3166	77.4166
2008	45.5628	3.5388	6.7849	2.2689	1.9068	0.5328	0.3039	60.8989
2009	43.8824	3.4504	5.5392	2.2404	1.4246	0.4638	0.3398	57.3407
2010	37.0754	3.5319	7.8980	2.4852	1.7852	0.4855	0.3996	53.6609
2011	31.1686	3.1597	7.0250	2.4614	2.0424	0.8137	0.1557	46.8265
2012	22.4020	4.3239	5.7956	2.0093	1.7397	1.3158	0.2204	37.8066
2013	21.8019	3.7479	4.7924	1.9000	1.8805	1.1469	0.1791	35.4487
2014	19.3692	5.4096	5.3878	1.8853	2.1834	1.5683	0.1777	35.9814
2015	21.4853	5.2711	7.6988	2.0343	1.7263	1.2249	0.2076	39.6482
2016	13.3955	4.6563	5.7005	1.5548	1.7320	1.1553	0.1437	28.3381
2017	12.6150	5.1885	7.0210	1.7494	2.3115	1.7149	0.1777	30.7780
2018	12.2702	5.4425	5.0004	1.9403	1.4664	1.6080	0.1572	27.8850
2019	12.3636	5.9139	6.5420	2.2294	1.9484	1.1959	0.1817	30.3749

"@" = does not include Rayleigh (12 Mm^{-1})

Table B-2. Observed Light Extinction Conditions for the Brigantine Wilderness Area (NJ) MANE-VU Class I Area

Year	Sulfate (Mm^{-1})	Nitrate (Mm^{-1}))	Organic Mass Carbon (Mm^{-1})	Light Absorbing Carbon (LAC or EC) (Mm^{-1})	Coarse Mass (Mm^{-1})	Sea Salt (Mm^{-1})	Soil (Mm^{-1})	Total PM@ (Mm^{-1})
20 PERCENT CLEAREST DAYS								
2000	14.8238	3.6542	4.6951	2.9656	3.4484	0.7103	0.2252	30.5226
2001	13.7510	3.4354	4.3173	2.3960	3.7181	0.4069	0.2474	28.2721
2002	16.3451	3.6267	4.3113	2.0506	3.9049	2.0065	0.2334	32.4786
2003	15.1058	3.9268	4.0418	1.9022	2.8311	2.6278	0.1906	30.6260
2004	13.8696	4.4112	5.3658	2.7658	2.2370	1.2595	0.2807	30.1895
2005	15.7543	3.9352	3.3387	2.1872	2.8512	3.4870	0.1678	31.7215
2006	16.1510	4.1794	3.9553	2.0306	5.3474	2.6397	0.2519	34.5552
2007	11.2823	3.2614	3.2743	1.6435	2.3860	1.9732	0.2112	24.0319
2008	*	*	*	*	*	*	*	*
2009	10.9321	2.8349	3.8262	1.6765	2.5362	2.0940	0.2574	24.1573
2010	8.8392	2.6038	3.8829	1.8747	2.7450	0.9082	0.2386	21.0923
2011	9.9082	3.6809	3.3135	1.6273	4.0391	1.9930	0.1506	24.7126
2012	8.4524	2.9757	3.3331	1.3942	3.3176	1.5212	0.1470	21.1413
2013	8.5972	2.8276	3.6730	1.5700	2.5344	1.4887	0.1325	20.8234
2014	8.0833	2.5614	4.5244	1.2381	2.7491	1.3747	0.1385	20.6695
2015	6.2453	2.6372	3.6758	1.1527	3.5153	2.1706	0.1648	19.5617
2016	6.3094	2.2466	2.9277	0.8905	4.6521	1.4024	0.1265	18.5552
2017	6.3476	2.5019	4.1128	1.3472	3.2181	1.7228	0.1425	19.3928
2018	5.9055	2.5561	2.7823	1.2534	3.0266	1.6183	0.1200	17.2621
2019	4.4244	2.4699	2.8084	1.3795	1.4058	1.3539	0.0937	13.9356
20 PERCENT MOST IMPAIRED DAYS								
2000	111.7086	13.2827	13.5226	6.7326	3.8412	0.3462	0.5193	149.9532
2001	109.3284	16.2179	11.6909	5.8471	6.1491	0.0272	0.6750	149.9355
2002	111.5146	9.9718	13.1074	4.7817	3.4526	0.0049	0.9796	143.8127
2003	138.1686	14.1055	12.7253	5.8170	3.0298	0.1735	0.6977	174.7173
2004	124.4343	10.0838	13.9639	4.6505	3.1954	0.7008	1.0301	158.0589
2005	148.1647	8.8207	12.3468	5.7592	3.2587	0.4506	0.6081	179.4088
2006	106.3302	9.4834	11.3070	5.7187	8.9091	0.9038	0.6277	143.2799
2007	102.9291	7.6154	10.0880	4.8659	3.4114	0.9830	0.6211	130.5139
2008	*	*	*	*	*	*	*	*
2009	58.3008	14.0115	8.8714	4.2879	4.0958	0.5384	0.6764	90.7822
2010	64.1135	19.8793	10.9749	4.8308	7.0200	0.6283	0.7222	108.1690
2011	53.1299	13.2064	9.6229	3.9417	6.9547	1.1175	0.2801	88.2533
2012	38.0020	14.7369	9.2022	4.0501	4.4206	0.8079	0.3397	71.5594
2013	33.8086	16.0339	7.0515	3.5416	3.0877	1.0351	0.2369	64.7952
2014	37.5657	29.0515	10.8042	4.4723	4.8486	1.4178	0.2801	88.4403
2015	29.7893	18.7241	11.3917	4.0414	4.7592	1.4490	0.3801	70.5349
2016	19.9051	19.7135	7.9937	3.7230	5.8627	0.8746	0.3208	58.3934
2017	16.7380	15.4306	8.8659	3.5555	5.2505	0.9267	0.1911	50.9582
2018	15.7846	15.9544	6.1791	3.0416	3.7680	1.3227	0.2358	46.2863
2019	14.5921	19.6939	6.7020	3.4653	2.0893	0.8191	0.2528	47.6145

"*" = no data available; "@" = does not include Rayleigh (12 Mm^{-1})

Table B-3. Observed Light Extinction Conditions for the Great Gulf Wilderness Area (NH) MANE-VU Class I Area

Year	Sulfate (Mm^{-1})	Nitrate (Mm^{-1}))	Organic Mass Carbon (Mm^{-1})	Light Absorbing Carbon (LAC or EC) (Mm^{-1})	Coarse Mass (Mm^{-1})	Sea Salt (Mm^{-1})	Soil (Mm^{-1})	Total PM@ (Mm^{-1})
20 PERCENT CLEAREST DAYS								
2000	*	*	*	*	*	*	*	*
2001	6.4643	1.1261	2.1295	0.8689	1.1306	0.0493	0.1617	11.9304
2002	5.9630	1.0314	2.0081	0.8356	0.6854	0.3935	0.0607	10.9777
2003	4.8105	0.6938	1.8576	0.8166	0.9618	0.0462	0.0691	9.2556
2004	5.8231	0.8862	2.0356	0.7826	0.7848	0.1797	0.1227	10.6146
2005	4.9606	0.7958	1.5668	0.7495	0.6082	0.1230	0.0505	8.8543
2006	4.7361	0.4188	1.5973	0.6683	0.7403	0.0730	0.0818	8.3155
2007	5.2079	0.6450	1.4722	0.6859	0.7000	0.1614	0.0980	8.9704
2008	4.1777	0.5729	1.4414	0.4709	0.7601	0.2762	0.0868	7.7861
2009	*	*	*	*	*	*	*	*
2010	*	*	*	*	*	*	*	*
2011	3.9855	0.6828	1.6364	0.5368	0.8527	0.3130	0.0472	8.0544
2012	3.5133	0.6748	1.4012	0.4949	0.6135	0.1974	0.0656	6.9606
2013	3.5433	0.5099	0.9524	0.3053	0.6614	0.3016	0.0431	6.3168
2014	3.9499	0.6105	1.3963	0.4815	0.4897	0.0938	0.0459	7.0676
2015	2.6693	0.5148	1.4270	0.2617	0.5017	0.0420	0.0264	5.4429
2016	2.3030	0.6382	1.1407	0.2984	0.5188	0.1261	0.0327	5.0579
2017	3.0619	0.6171	1.3255	0.4418	0.4000	0.1018	0.0386	5.9866
2018	1.9074	0.3547	1.1808	0.3911	0.5545	0.1205	0.0252	4.5343
2019	1.9963	0.6121	0.7960	0.4195	0.4074	0.1890	0.0391	4.4594
20 PERCENT MOST IMPAIRED DAYS								
2000	*	*	*	*	*	*	*	*
2001	78.2944	3.0570	9.1867	3.7371	2.4170	0.0227	0.4523	97.1673
2002	100.1793	2.4723	10.7277	3.7306	2.0905	0.0711	0.6003	119.8719
2003	58.1345	2.5496	10.5478	3.6373	2.6763	0.0035	0.3945	77.9433
2004	65.7948	2.8332	9.8118	3.3510	2.1133	0.3024	0.5231	84.7297
2005	59.0981	1.3483	7.3579	3.2399	1.8591	0.1350	0.2231	73.2613
2006	60.0020	1.9604	6.4616	2.8349	2.2355	0.0866	0.3374	73.9183
2007	58.9391	1.6376	10.5126	3.4490	2.4657	0.1926	0.4336	77.6301
2008	30.2044	1.1744	5.4478	1.8138	1.4153	0.0276	0.2960	40.3795
2009	*	*	*	*	*	*	*	*
2010	*	*	*	*	*	*	*	*
2011	34.7101	2.2661	8.1632	2.4865	1.8618	0.2278	0.1653	49.8808
2012	22.5650	1.5174	6.8358	1.9920	2.1838	0.1123	0.2317	35.4380
2013	19.8868	2.9073	4.9679	1.6316	1.7137	0.1683	0.2204	31.4960
2014	25.3918	2.4169	5.0876	1.7147	1.7690	0.2179	0.1899	36.7877
2015	20.1602	3.4500	6.4735	1.8760	1.4266	0.2133	0.1866	33.7861
2016	11.3886	2.1854	3.9049	1.1997	1.4883	0.1432	0.1630	20.4730
2017	12.1416	2.3728	5.7004	1.5520	1.4882	0.1781	0.1454	23.5784
2018	12.1842	4.5896	5.8376	1.8922	1.6028	0.2371	0.1750	26.5186
2019	10.1775	3.1769	4.5950	1.7120	1.3764	0.1871	0.1336	21.3585

"*" = no data available; "@" = does not include Rayleigh (11 Mm^{-1})

Table B-4. Observed Light Extinction Conditions for the Lye Brook Wilderness Area^ (VT) MANE-VU Class I Area

Year	Sulfate (Mm^{-1})	Nitrate (Mm^{-1}))	Organic Mass Carbon (Mm^{-1})	Light Absorbing Carbon (LAC or EC) (Mm^{-1})	Coarse Mass (Mm^{-1})	Sea Salt (Mm^{-1})	Soil (Mm^{-1})	Total PM@ (Mm^{-1})
20 PERCENT CLEAREST DAYS								
2000	5.0730	1.2224	1.1102	0.5864	0.3690	0.0141	0.0787	8.4537
2001	4.3964	1.2348	1.2440	0.6783	0.5800	0.0107	0.1613	8.3056
2002	4.6585	1.1722	1.2096	0.5562	0.5116	0.0731	0.0579	8.2390
2003	3.6867	0.8746	1.1944	0.5886	0.6148	0.0541	0.0549	7.0682
2004	4.3933	1.2637	1.6766	0.5782	0.4973	0.1027	0.1148	8.6265
2005	3.7873	0.8479	0.7910	0.4881	0.5808	0.0300	0.0557	6.5808
2006	3.3859	0.7785	0.8306	0.4587	0.5574	0.0733	0.0629	6.1473
2007	4.1401	0.5893	0.9304	0.4850	0.5311	0.1317	0.0712	6.8789
2008	*	*	*	*	*	*	*	*
2009	2.2098	0.7777	0.3783	0.2772	0.3799	0.1260	0.0578	4.2067
2010	2.1616	0.6283	0.7178	0.2853	0.3021	0.0485	0.0643	4.2080
2011	3.3050	0.9908	1.0028	0.4270	0.4547	0.1268	0.0433	6.3502
2012	3.2847	0.9485	1.1227	0.5641	0.4243	0.0964	0.0511	6.4919
2013	3.0485	0.7958	1.1521	0.3481	0.6484	0.2108	0.0478	6.2515
2014	2.5889	0.7431	1.3781	0.3925	0.6074	0.1360	0.0369	5.8830
2015	2.5698	0.7208	1.5549	0.3717	0.5963	0.2239	0.0590	6.0963
2016	2.1129	1.0996	1.0990	0.3044	0.6968	0.0952	0.0437	5.4515
2017	2.5184	1.0784	1.6167	0.4661	0.6342	0.0818	0.0805	6.4761
2018	1.7638	0.7862	1.4058	0.4796	0.4175	0.0774	0.0381	4.9685
2019	1.9748	0.7051	0.8306	0.4342	0.2900	0.0949	0.0358	4.3654
20 PERCENT MOST IMPAIRED DAYS								
2000	68.7784	9.3691	8.9556	4.8968	1.5933	0.0209	0.3470	93.9611
2001	113.5720	6.6982	9.7213	4.3009	1.8725	0.0291	0.6378	136.8317
2002	82.3920	11.5951	10.2339	4.0980	1.3150	0.0442	0.6132	110.2914
2003	86.8995	8.1352	11.0648	4.4938	1.8842	0.1923	0.4617	113.1314
2004	73.3012	7.4419	8.2774	3.2225	1.4424	0.1721	0.6564	94.5139
2005	119.1209	2.5625	9.4428	4.1880	2.0173	0.2031	0.3828	137.9173
2006	61.1557	6.7590	7.6585	3.4686	1.8053	0.1588	0.3959	81.4018
2007	99.1510	4.3900	13.4957	4.7442	3.0736	0.1345	0.6583	125.6473
2008	*	*	*	*	*	*	*	*
2009	38.3424	6.7383	5.4013	2.0802	1.5245	0.5294	0.4336	55.0498
2010	48.9262	3.8690	8.5482	3.0050	1.3671	0.0675	0.4620	66.2449
2011	38.4088	4.6949	7.4059	2.6808	1.3462	0.1505	0.2222	54.9093
2012	30.5210	9.6101	5.7988	2.6883	1.6259	0.2118	0.2668	50.7226
2013	28.9599	7.9744	5.8887	2.2408	1.8681	0.2242	0.2551	47.4111
2014	24.2942	9.0156	5.3153	2.0819	1.9914	0.2328	0.2585	43.1897
2015	18.5534	9.3539	5.2495	1.9788	1.0403	0.3941	0.1819	36.7520
2016	12.5572	10.1097	3.5438	1.5143	1.3625	0.2643	0.1812	29.5329
2017	10.8510	11.3285	5.2294	1.8197	1.3505	0.2528	0.1361	30.9680
2018	12.9088	9.9879	5.5527	2.1473	1.3879	0.2830	0.1696	32.4370
2019	10.7641	8.7040	4.6302	2.1205	1.1162	0.2257	0.1423	27.7028

"*" = no data available; "@" = does not include Rayleigh (11 Mm^{-1});
"^" = merged LYBR (2000-2011) and LYEB (2012-current) data

Table B-5. Observed Light Extinction Conditions for the Moosehorn Wilderness Area (ME) MANE-VU Class I Area

Year	Sulfate (Mm^{-1})	Nitrate (Mm^{-1}))	Organic Mass Carbon (Mm^{-1})	Light Absorbing Carbon (LAC or EC) (Mm^{-1})	Coarse Mass (Mm^{-1})	Sea Salt (Mm^{-1})	Soil (Mm^{-1})	Total PM@ (Mm^{-1})
20 PERCENT CLEAREST DAYS								
2000	6.6094	1.1516	3.0241	1.2397	0.9853	0.0436	0.0933	13.1471
2001	7.0210	1.2883	3.0124	1.0359	0.9001	0.1404	0.1360	13.5341
2002	6.5543	1.0383	3.0820	1.0036	1.0919	0.2597	0.1245	13.1543
2003	7.3850	0.9131	3.0920	0.9067	1.2369	0.3470	0.1041	13.9848
2004	5.7625	0.9065	3.1237	0.9300	1.1010	0.7105	0.1144	12.6485
2005	5.1411	0.7229	2.2331	0.8519	0.7050	0.8046	0.0784	10.5369
2006	5.4998	0.9418	2.8619	1.1318	0.6747	0.7096	0.1060	11.9256
2007	5.5015	0.6425	1.9018	0.6390	0.7789	0.3474	0.1051	9.9162
2008	4.9058	0.5831	2.0750	0.6781	0.9991	0.6877	0.1256	10.0546
2009	4.0301	0.5086	1.6421	0.4299	0.6257	0.6457	0.0794	7.9616
2010	2.9271	0.4116	1.5581	0.4693	0.4481	0.4170	0.0802	6.3114
2011	3.9249	0.3987	2.0636	0.5066	0.8260	0.4426	0.0325	8.1948
2012	4.4018	0.5129	2.0315	0.5243	0.8596	0.5161	0.0943	8.9404
2013	3.5665	0.5318	1.6561	0.4143	0.6694	0.5175	0.0448	7.4003
2014	4.0176	0.4524	2.0136	0.4123	0.7870	0.3383	0.0606	8.0817
2015	2.9793	0.4800	2.1457	0.3508	0.7836	0.7284	0.0397	7.5075
2016	2.8048	0.6860	1.3279	0.2047	0.7386	0.6593	0.0433	6.4646
2017	3.0473	0.6140	2.4057	0.5582	0.7249	0.3768	0.0754	7.8024
2018	2.8920	0.6387	1.5495	0.4286	0.7352	1.0528	0.0540	7.3508
2019	2.7834	0.4937	1.8790	0.4789	0.6408	0.5700	0.0374	6.8832
20 PERCENT MOST IMPAIRED DAYS								
2000	40.6148	7.3681	7.5082	3.7488	2.0787	1.0254	0.2444	62.5885
2001	64.7383	5.6566	9.6352	3.5389	1.6920	0.0234	0.4239	85.7083
2002	72.6980	5.3515	10.8759	3.4497	1.4912	0.0695	0.4568	94.3925
2003	62.8914	4.4503	10.0547	3.7341	2.0093	0.1218	0.2876	83.5492
2004	45.7411	4.5381	7.2289	2.2583	1.5301	1.5701	0.3805	63.2471
2005	60.0160	3.5937	8.3036	3.4497	1.1093	0.6235	0.2168	77.3125
2006	55.3450	4.8091	6.9353	2.7994	1.3327	0.8269	0.2530	72.3014
2007	39.4883	3.5534	7.2203	2.4658	1.3275	0.8751	0.2594	55.1897
2008	36.7279	2.2045	6.4084	1.9022	1.3762	0.4464	0.2597	49.3253
2009	37.1510	2.2145	5.8883	2.0699	1.2384	0.2041	0.3682	49.1345
2010	31.2618	2.8187	7.1016	2.2234	1.3960	0.2501	0.3697	45.4213
2011	26.4268	3.0111	6.5973	2.3142	1.4287	1.1761	0.1463	41.1004
2012	21.0786	2.9904	5.3479	1.6203	1.2499	0.6737	0.1881	33.1489
2013	19.7829	2.9134	4.9315	1.5250	1.2490	0.8278	0.1750	31.4045
2014	18.0345	2.7000	5.4235	1.6450	1.7365	0.7363	0.1536	30.4295
2015	19.0876	3.5576	5.5928	1.6121	1.1762	1.1180	0.2080	32.3524
2016	12.7132	3.7279	4.2231	1.3392	1.1608	0.8114	0.1402	24.1160
2017	10.5651	3.5222	4.6255	1.2530	1.2337	1.1486	0.1325	22.4806
2018	11.5664	5.0154	5.4448	1.9072	1.1105	1.3821	0.1665	26.5929
2019	11.5130	3.8086	5.2917	1.7687	1.0800	0.6359	0.1446	24.2425

"@" = does not include Rayleigh (12 Mm^{-1})

Table B-6. Observed Light Extinction Conditions for the Dolly Sods Wilderness Area (WV) Nearby Adjacent Class I Area

Year	Sulfate (Mm^{-1})	Nitrate (Mm^{-1}))	Organic Mass Carbon (Mm^{-1})	Light Absorbing Carbon (LAC or EC) (Mm^{-1})	Coarse Mass (Mm^{-1})	Sea Salt (Mm^{-1})	Soil (Mm^{-1})	Total PM@ (Mm^{-1})
20 PERCENT CLEAREST DAYS								
2000	14.1466	4.0176	6.5973	2.8846	0.7419	0.1281	0.2106	28.7267
2001	17.9991	2.8831	4.6931	2.1210	0.7378	0.0141	0.1950	28.6431
2002	13.1993	2.9989	4.6255	1.9693	0.7351	0.0028	0.1443	23.6752
2003	12.9810	3.0857	4.4461	1.6669	0.6758	0.0656	0.1626	23.0838
2004	13.4115	2.5299	4.0154	1.6233	0.7774	0.4166	0.1786	22.9527
2005	13.7662	3.2482	3.5989	1.8871	0.8640	0.1212	0.1588	23.6444
2006	12.0237	1.6111	2.9423	1.5956	0.8240	0.1772	0.1714	19.3452
2007	10.9418	1.7498	3.2278	1.4795	0.8306	0.2100	0.1889	18.6285
2008	9.7196	2.0432	2.3644	1.0493	0.7962	0.3067	0.1588	16.4381
2009	8.3081	1.5507	2.4941	1.0434	0.7285	0.1285	0.2595	14.5128
2010	10.0016	2.1692	3.4043	1.3171	0.7944	0.0642	0.2051	17.9559
2011	7.7774	1.5901	2.8769	1.0764	0.8510	0.3453	0.1047	14.6219
2012	9.3727	1.9137	2.7927	1.2251	0.9676	0.0776	0.1834	16.5328
2013	8.0718	1.5874	2.2204	0.9367	0.7561	0.0835	0.0959	13.7516
2014	7.4931	1.8611	2.3603	0.9700	0.8653	0.1416	0.1192	13.8107
2015	4.1304	0.8187	1.8949	0.5658	0.7754	0.1075	0.0884	8.3811
2016	5.5703	1.3965	2.0647	0.6652	0.7795	0.0845	0.0947	10.6555
2017	4.1534	1.3632	2.1916	0.7762	0.8081	0.0619	0.0817	9.4361
2018	3.3867	1.1409	1.5782	0.6440	0.6778	0.1009	0.0503	7.5788
2019	4.0730	1.2365	1.7522	0.9073	0.4516	0.0905	0.0499	8.5609
20 PERCENT MOST IMPAIRED DAYS								
2000	141.5192	2.1099	7.8060	4.8605	1.7264	0.0271	0.4600	158.5091
2001	154.5992	2.1851	7.8786	3.5032	1.2588	0.0284	0.7117	170.1650
2002	150.0593	2.6829	10.2265	3.8450	1.3325	0.0055	0.7638	168.9155
2003	171.0568	1.6116	11.1697	4.4499	0.7911	0.0045	0.5357	189.6192
2004	169.3490	1.5754	9.7011	3.1170	1.0405	0.2883	1.0374	186.1087
2005	190.9884	1.6732	8.2384	3.9760	1.8064	0.1128	0.5083	207.3035
2006	168.7131	1.7941	8.8231	3.7962	1.0891	0.1492	0.6420	185.0067
2007	151.8244	2.2808	11.4575	3.5240	1.9955	0.0670	0.8320	171.9812
2008	94.4189	2.8867	8.3019	2.6324	1.8719	0.0825	0.7432	110.9375
2009	68.9218	1.3986	6.3392	2.2077	1.5237	0.0071	0.6529	81.0510
2010	77.8422	2.2409	8.1699	2.4250	1.3044	0.0094	0.7305	92.7223
2011	88.6493	3.1410	8.2432	2.8790	1.7493	0.2489	0.3625	105.2732
2012	57.9241	2.5758	7.0945	2.3103	1.9001	0.2145	0.4910	72.5102
2013	44.6409	5.5172	5.6007	2.1222	1.2681	0.1556	0.2406	59.5453
2014	45.4693	7.2939	5.3741	2.1244	1.4915	0.1668	0.2355	62.1554
2015	41.8182	4.7027	7.0139	2.1832	1.8248	0.1247	0.3119	57.9794
2016	30.1309	6.3747	5.2023	1.7298	1.9187	0.1482	0.2416	45.7463
2017	22.0722	8.4504	6.7183	2.4042	1.7919	0.0597	0.2137	41.7105
2018	26.2649	8.9698	6.2841	2.6593	1.7892	0.1365	0.2974	46.4011
2019	26.9976	5.4644	6.1639	2.1832	1.5735	0.1262	0.2450	42.7537

"@" = does not include Rayleigh (10 Mm^{-1})

Table B-7. Observed Light Extinction Conditions for the Shenandoah National Park (VA) Nearby Adjacent Class I Area

Year	Sulfate (Mm^{-1})	Nitrate (Mm^{-1}))	Organic Mass Carbon (Mm^{-1})	Light Absorbing Carbon (LAC or EC) (Mm^{-1})	Coarse Mass (Mm^{-1})	Sea Salt (Mm^{-1})	Soil (Mm^{-1})	Total PM@ (Mm^{-1})
20 PERCENT CLEAREST DAYS								
2000	8.7478	4.6604	4.0378	2.0622	1.4201	0.0906	0.1602	21.1790
2001	15.7978	5.3540	3.1117	1.7873	1.3521	0.2586	0.2044	27.8660
2002	11.9042	4.8729	2.7816	1.6172	0.9004	0.0029	0.1368	22.2160
2003	10.0164	2.9020	2.2700	1.3118	1.0800	0.1302	0.1665	17.8768
2004	9.7242	2.9751	2.2549	1.2500	0.7637	0.2556	0.1252	17.3488
2005	11.5988	2.9367	2.7523	1.6925	0.8282	0.1313	0.1311	20.0708
2006	10.8099	3.2486	2.3501	1.5255	1.1004	0.2713	0.2052	19.5111
2007	12.1544	4.3317	2.1840	1.3783	0.8723	0.1863	0.1395	21.2465
2008	8.0929	2.3305	1.5283	0.8868	0.7935	0.1485	0.1268	13.9073
2009	7.7142	1.7652	1.9921	0.9887	1.0924	0.0972	0.1407	13.7905
2010	8.3517	3.4914	2.7915	1.2714	1.1434	0.0751	0.1637	17.2882
2011	6.5673	2.1707	1.7210	0.8535	1.0937	0.2929	0.0727	12.7718
2012	8.6585	3.1769	2.2517	1.0074	1.0954	0.1083	0.1496	16.4479
2013	5.6372	2.4554	1.6530	0.6622	0.8900	0.2996	0.1150	11.7124
2014	6.2681	2.2664	1.9677	0.8285	1.1921	0.1635	0.1031	12.7893
2015	3.8239	1.9364	2.2123	0.6580	1.0629	0.0848	0.0534	9.8318
2016	5.5528	1.9586	2.1164	0.6997	1.0231	0.0488	0.0932	11.4926
2017	3.8136	1.3365	2.3997	0.7464	0.8401	0.0676	0.0598	9.2636
2018	3.5086	1.7945	1.8406	0.6840	0.7503	0.1823	0.0678	8.8282
2019	3.8257	1.6176	2.2284	0.9154	0.5669	0.1720	0.0539	9.3799
20 PERCENT MOST IMPAIRED DAYS								
2000	128.8990	4.1850	9.9459	5.3869	2.0290	0.0284	0.3600	150.8343
2001	143.4537	9.0001	7.7466	4.2740	1.8318	0.0304	0.4454	166.7820
2002	176.1417	5.4536	11.2035	4.6183	2.9405	0.0055	1.1210	201.4840
2003	143.9188	5.3701	10.6380	4.7023	1.6874	0.0043	0.4480	166.7688
2004	156.8712	6.0322	10.0209	4.9937	1.7256	0.3596	0.9235	180.9266
2005	192.8233	4.3379	8.7925	4.6373	2.0647	0.3389	0.5038	213.4984
2006	143.1303	3.0866	9.5239	4.3166	1.9407	0.3166	0.6003	162.9150
2007	143.0214	4.0684	13.2888	4.5619	2.3397	0.2650	0.7244	168.2697
2008	89.6640	6.1538	10.3181	3.6208	2.0745	0.2069	0.7028	112.7409
2009	60.3784	3.8315	6.5886	3.0711	1.9642	0.2288	0.5177	76.5802
2010	65.4576	8.3506	7.9447	2.9117	2.3196	0.0023	0.5464	87.5328
2011	68.3673	3.9443	7.9373	2.8746	2.7379	0.2975	0.3384	86.4972
2012	45.0159	4.5070	6.0342	2.4316	1.9784	0.4315	0.4152	60.8138
2013	39.4577	10.4940	4.6677	2.1982	1.4645	0.2447	0.1881	58.7150
2014	37.7059	8.9706	5.2984	2.3515	1.7870	0.2155	0.2264	56.5552
2015	35.3857	7.4756	8.3309	2.7946	1.9578	0.1964	0.2586	56.3996
2016	25.1219	9.4588	5.5815	1.9341	2.0337	0.1534	0.1871	44.4705
2017	19.9275	11.0874	6.6848	2.3080	1.5854	0.2021	0.1781	41.9733
2018	17.6990	11.6624	5.1310	1.9663	1.2511	0.2042	0.2439	38.1579
2019	17.7215	10.9684	4.7996	2.0774	1.2452	0.2064	0.1828	37.2012

"@" = does not include Rayleigh (10 Mm^{-1})

Table B-8. Observed Light Extinction Conditions for the James River Face Wilderness Area (VA) Nearby Adjacent Class I Area

Year	Sulfate (Mm^{-1})	Nitrate (Mm^{-1}))	Organic Mass Carbon (Mm^{-1})	Light Absorbing Carbon (LAC or EC) (Mm^{-1})	Coarse Mass (Mm^{-1})	Sea Salt (Mm^{-1})	Soil (Mm^{-1})	Total PM@ (Mm^{-1})
20 PERCENT CLEAREST DAYS								
2000	*	*	*	*	*	*	*	*
2001	19.1849	3.2609	5.3709	2.8101	1.2455	0.0531	0.2245	32.1499
2002	21.1568	4.9388	6.2412	3.4439	1.3101	0.0039	0.2379	37.3326
2003	14.0850	3.8128	4.5797	2.4597	1.1918	0.0287	0.2739	26.4316
2004	15.4764	2.9258	6.0497	3.1613	1.1898	0.2229	0.2445	29.2706
2005	19.9807	4.2811	5.2626	3.2265	1.4257	0.1126	0.2319	34.5212
2006	19.2788	3.4986	5.5706	3.4102	1.8087	0.1551	0.2657	33.9877
2007	17.3316	3.2157	4.3385	2.7048	1.4582	0.2023	0.2249	29.4760
2008	15.3003	3.0229	4.7469	2.6927	1.2672	0.1033	0.2097	27.3430
2009	10.9888	2.2523	3.8284	2.0831	1.5694	0.1648	0.2033	21.0900
2010	16.4704	3.0192	4.5629	2.1453	1.4140	0.0464	0.3205	27.9787
2011	12.3627	1.8692	3.7655	1.7429	1.6762	0.2397	0.1593	21.8155
2012	11.2247	2.3930	5.3282	2.3958	1.7214	0.1250	0.2383	23.4263
2013	8.0644	1.7259	3.5406	1.4275	0.9973	0.2212	0.1725	16.1496
2014	9.6828	1.5492	4.0243	1.7648	1.7273	0.1115	0.1411	19.0011
2015	5.8387	1.7649	4.5823	1.7035	1.7368	0.1577	0.1371	15.9209
2016	6.6056	1.9722	3.8130	1.4122	1.3947	0.0954	0.1169	15.4099
2017	4.9494	1.4940	3.0558	1.2448	1.4754	0.0561	0.1301	12.4057
2018	5.5900	1.1057	3.5380	1.4845	1.2259	0.1670	0.1311	13.2422
2019	4.9313	1.4294	3.2676	1.7417	0.8344	0.0618	0.1240	12.3902
20 PERCENT MOST IMPAIRED DAYS								
2000	*	*	*	*	*	*	*	*
2001	132.2904	7.2127	16.8323	6.9203	2.9931	0.5025	0.7988	167.5500
2002	148.0798	4.0817	15.0645	5.7830	2.8611	0.1352	1.0157	177.0209
2003	124.7295	4.8802	14.7736	6.4411	2.8455	0.0041	0.4914	154.1654
2004	122.2393	3.6224	15.3622	5.8388	2.1932	0.3523	0.9054	150.5136
2005	174.5107	3.7972	14.2471	8.2945	3.5191	0.1969	0.4817	205.0473
2006	134.4870	2.9221	15.0747	6.9537	2.5464	0.2995	0.6027	162.8861
2007	125.5670	3.6713	15.0670	6.3978	2.5319	0.2789	0.7232	154.2371
2008	77.6731	4.1059	13.0174	5.7342	2.4304	0.2376	0.6638	103.8623
2009	63.0029	2.5947	10.2159	4.2880	2.3932	0.1162	0.5421	83.1530
2010	63.8056	4.7471	13.0557	5.2532	2.6968	0.0144	0.6889	90.2616
2011	66.4581	5.5837	11.9324	5.0031	2.2932	0.3106	0.3567	91.9379
2012	40.0424	4.2036	11.4557	5.0445	1.9707	0.1656	0.4609	63.3435
2013	37.5307	3.8115	8.6118	3.6434	0.8789	0.1950	0.2939	54.9652
2014	36.9775	8.8556	7.3489	3.6913	1.4973	0.1731	0.1957	58.7394
2015	31.4050	5.2430	10.1810	4.1842	2.2657	0.1426	0.2614	53.6831
2016	24.0117	6.1615	10.3791	3.9140	1.6937	0.1437	0.2418	46.5456
2017	21.5483	5.9999	11.8928	4.0705	2.1686	0.0999	0.2612	46.0413
2018	20.2305	9.5833	10.7866	4.4612	1.4543	0.2043	0.3008	47.0210
2019	19.5729	4.7328	9.2179	4.0741	1.3377	0.1722	0.2862	39.3937

"*" = no data available; "@" = does not include Rayleigh (11 Mm^{-1})

Table B-9. Observed Light Extinction Conditions for the Addison Pinnacle (NY) MANE-VU IMPROVE Protocol Site

Year	Sulfate (Mm^{-1})	Nitrate (Mm^{-1}))	Organic Mass Carbon (Mm^{-1})	Light Absorbing Carbon (LAC or EC) (Mm^{-1})	Coarse Mass (Mm^{-1})	Sea Salt (Mm^{-1})	Soil (Mm^{-1})	Total PM@ (Mm^{-1})
20 PERCENT CLEAREST DAYS								
2000	*	*	*	*	*	*	*	*
2001	*	*	*	*	*	*	*	*
2002	14.3098	3.2439	3.2420	1.6765	1.1586	0.0475	0.1581	23.8365
2003	12.0673	3.5573	3.5365	1.6258	0.8857	0.1424	0.1445	21.9594
2004	10.3916	3.0171	3.3263	1.6408	0.9852	0.4677	0.1308	19.9594
2005	12.9827	3.2517	2.6764	1.8089	0.9346	0.1856	0.1189	21.9587
2006	9.0989	1.7265	3.2227	1.5076	1.2961	0.2365	0.2099	17.2982
2007	9.6633	2.5217	2.9100	1.4816	1.2204	0.1937	0.1669	18.1576
2008	10.1652	2.6421	3.5225	1.5237	1.2474	0.1716	0.2107	19.4831
2009	8.8203	1.4799	2.3712	1.0268	1.2121	0.1999	0.1353	15.2455
2010	*	*	*	*	*	*	*	*
2011	*	*	*	*	*	*	*	*
2012	*	*	*	*	*	*	*	*
2013	*	*	*	*	*	*	*	*
2014	*	*	*	*	*	*	*	*
2015	*	*	*	*	*	*	*	*
2016	*	*	*	*	*	*	*	*
2017	*	*	*	*	*	*	*	*
2018	*	*	*	*	*	*	*	*
2019	*	*	*	*	*	*	*	*
20 PERCENT MOST IMPAIRED DAYS								
2000	*	*	*	*	*	*	*	*
2001	*	*	*	*	*	*	*	*
2002	147.2118	10.2574	12.4725	5.7629	2.1695	0.0054	0.8373	178.7168
2003	131.6619	8.4282	11.4617	5.0231	1.9470	0.0545	0.5337	159.1101
2004	120.6700	5.7827	8.9527	4.6278	1.6514	0.2745	0.6340	142.5931
2005	170.1929	9.0535	9.2288	5.5677	1.8844	0.3189	0.4781	196.7243
2006	108.4861	5.3583	8.9684	4.5444	2.0983	0.1980	0.5306	130.1843
2007	120.4900	6.4069	11.7953	5.5383	2.9194	0.1520	0.7114	148.0134
2008	89.3493	8.7862	9.1523	4.4104	2.1151	0.1321	0.6253	114.5707
2009	61.6627	10.7476	6.4110	3.2622	1.8475	0.1468	0.5140	84.5919
2010	*	*	*	*	*	*	*	*
2011	*	*	*	*	*	*	*	*
2012	*	*	*	*	*	*	*	*
2013	*	*	*	*	*	*	*	*
2014	*	*	*	*	*	*	*	*
2015	*	*	*	*	*	*	*	*
2016	*	*	*	*	*	*	*	*
2017	*	*	*	*	*	*	*	*
2018	*	*	*	*	*	*	*	*
2019	*	*	*	*	*	*	*	*

"*" = no data available; "@" = does not include Rayleigh (11 Mm^{-1})

Table B-10. Observed Light Extinction Conditions for the Arendtsville (PA) MANE-VU IMPROVE Protocol Site

Year	Sulfate (Mm^{-1})	Nitrate (Mm^{-1}))	Organic Mass Carbon (Mm^{-1})	Light Absorbing Carbon (LAC or EC) (Mm^{-1})	Coarse Mass (Mm^{-1})	Sea Salt (Mm^{-1})	Soil (Mm^{-1})	Total PM@ (Mm^{-1})
20 PERCENT CLEAREST DAYS								
2000	*	*	*	*	*	*	*	*
2001	*	*	*	*	*	*	*	*
2002	22.0022	6.4678	4.5852	2.4352	1.3356	0.0395	0.2230	37.0884
2003	16.1986	6.2926	4.8707	2.3333	1.5366	0.0830	0.2085	31.5232
2004	12.0715	5.0880	4.4856	2.1399	1.4076	0.4677	0.1880	25.8484
2005	17.9307	6.9589	3.6971	2.7031	1.5183	0.5123	0.1592	33.4796
2006	15.0883	3.6052	3.6534	2.2960	2.0266	0.3328	0.3637	27.3660
2007	14.0387	4.4303	3.8319	2.2713	2.0327	0.4273	0.1952	27.2274
2008	16.3690	4.6788	3.9762	1.9267	1.5260	0.4150	0.2849	29.1767
2009	11.9705	2.5735	3.4752	1.5925	1.4796	0.3480	0.2354	21.6748
2010	11.1675	3.0761	3.5510	1.6060	1.8222	0.1833	0.2213	21.6273
2011	*	*	*	*	*	*	*	*
2012	*	*	*	*	*	*	*	*
2013	*	*	*	*	*	*	*	*
2014	*	*	*	*	*	*	*	*
2015	*	*	*	*	*	*	*	*
2016	*	*	*	*	*	*	*	*
2017	*	*	*	*	*	*	*	*
2018	*	*	*	*	*	*	*	*
2019	*	*	*	*	*	*	*	*
20 PERCENT MOST IMPAIRED DAYS								
2000	*	*	*	*	*	*	*	*
2001	*	*	*	*	*	*	*	*
2002	153.4380	15.3681	15.1674	5.7473	2.8931	0.3890	1.2543	194.2572
2003	126.3764	29.2450	12.3877	6.1613	2.7975	0.6718	0.5454	178.1851
2004	139.8009	25.8959	13.7780	6.2432	2.8723	1.0920	0.7680	190.4503
2005	167.7738	27.4705	11.2578	6.5765	3.4616	0.9172	0.6263	218.0837
2006	129.2889	22.5271	13.3141	6.8782	2.7275	0.9273	0.5206	176.1837
2007	114.5123	16.4667	12.6944	5.9311	3.2036	0.5699	0.5886	153.9665
2008	84.6370	28.9720	10.4722	5.4979	2.7605	1.0262	0.6206	133.9864
2009	68.0285	30.3833	8.8085	4.8030	2.1924	0.6942	0.5800	115.4898
2010	64.7452	23.1160	10.7114	4.5343	3.2007	0.3598	0.6412	107.3086
2011	*	*	*	*	*	*	*	*
2012	*	*	*	*	*	*	*	*
2013	*	*	*	*	*	*	*	*
2014	*	*	*	*	*	*	*	*
2015	*	*	*	*	*	*	*	*
2016	*	*	*	*	*	*	*	*
2017	*	*	*	*	*	*	*	*
2018	*	*	*	*	*	*	*	*
2019	*	*	*	*	*	*	*	*

"*" = no data available; "@" = does not include Rayleigh (11 Mm^{-1})

Table B-11. Observed Light Extinction Conditions for the Bridgton (ME) MANE-VU IMPROVE Protocol Site

Year	Sulfate (Mm^{-1})	Nitrate (Mm^{-1}))	Organic Mass Carbon (Mm^{-1})	Light Absorbing Carbon (LAC or EC) (Mm^{-1})	Coarse Mass (Mm^{-1})	Sea Salt (Mm^{-1})	Soil (Mm^{-1})	Total PM@ (Mm^{-1})
20 PERCENT CLEAREST DAYS								
2000	*	*	*	*	*	*	*	*
2001	*	*	*	*	*	*	*	*
2002	6.5068	1.1147	3.3996	1.3354	0.9291	0.2309	0.0941	13.6107
2003	6.4513	0.9757	2.5871	1.0466	0.8844	0.5976	0.1004	12.6430
2004	6.4566	1.3435	2.9691	1.1354	0.7100	0.4664	0.1437	13.2247
2005	5.3204	0.8802	1.9260	0.9305	0.6332	0.2303	0.0673	9.9879
2006	5.9962	0.7028	2.0918	0.8815	0.8410	0.2012	0.1347	10.8493
2007	5.2315	0.6149	1.8749	0.8460	0.8070	0.2139	0.1307	9.7189
2008	4.8453	0.7733	2.3597	0.8825	0.8528	0.2418	0.1466	10.1022
2009	3.3433	0.5732	1.9008	0.7066	0.7854	0.1462	0.0558	7.5112
2010	3.2480	0.4166	1.8345	0.6461	0.5718	0.0909	0.0893	6.8972
2011	4.2680	0.4760	2.4528	0.7117	0.7644	0.1871	0.0491	8.9091
2012	4.4539	0.6537	2.2453	0.7930	0.8536	0.1320	0.0927	9.2241
2013	3.8550	0.5873	1.7434	0.5043	0.6199	0.3390	0.0412	7.6900
2014	4.1292	0.4561	2.3145	0.5896	0.6553	0.0670	0.0715	8.2832
2015	3.0030	0.4985	1.9250	0.4655	0.7191	0.0961	0.0490	6.7562
2016	*	*	*	*	*	*	*	*
2017	*	*	*	*	*	*	*	*
2018	*	*	*	*	*	*	*	*
2019	*	*	*	*	*	*	*	*
20 PERCENT MOST IMPAIRED DAYS								
2000	*	*	*	*	*	*	*	*
2001	*	*	*	*	*	*	*	*
2002	75.9993	4.6227	10.3022	4.2093	1.2230	0.0045	0.5019	96.8629
2003	66.1309	6.3634	12.9541	5.2657	1.7869	0.0033	0.3822	92.8865
2004	75.5098	5.3729	9.7986	3.7952	1.4997	0.4360	0.6473	97.0594
2005	56.1510	3.5421	9.3708	4.4523	1.1666	0.2547	0.2688	75.2064
2006	67.8324	4.6819	11.2145	5.6335	1.5411	0.2219	0.3744	91.4997
2007	50.7814	4.2968	9.8587	4.0063	2.2934	0.3049	0.3600	71.9015
2008	37.4506	2.2429	7.3768	3.1380	1.6719	0.1206	0.4236	52.4244
2009	37.8962	3.3005	6.9534	3.1104	1.4412	0.1219	0.4170	53.2407
2010	34.1361	1.6121	8.2309	2.7274	1.5370	0.0379	0.4545	48.7359
2011	32.0726	2.8399	8.5669	2.9070	1.5154	0.2808	0.1833	48.3659
2012	22.5613	2.8876	8.2610	3.1499	1.5317	0.3435	0.2514	38.9864
2013	21.4136	5.5048	7.0842	2.7930	0.7902	0.5277	0.2440	38.3575
2014	21.8151	4.3202	6.6720	2.7339	0.9275	0.3897	0.1780	37.0364
2015	19.2372	5.5637	8.2345	2.5014	1.6630	0.3806	0.2191	37.7994
2016	*	*	*	*	*	*	*	*
2017	*	*	*	*	*	*	*	*
2018	*	*	*	*	*	*	*	*
2019	*	*	*	*	*	*	*	*

"*" = no data available; "@" = does not include Rayleigh (12 Mm^{-1})

Table B-12. Observed Light Extinction Conditions for the Casco Bay (ME) MANE-VU IMPROVE Protocol Site

Year	Sulfate (Mm^{-1})	Nitrate (Mm^{-1}))	Organic Mass Carbon (Mm^{-1})	Light Absorbing Carbon (LAC or EC) (Mm^{-1})	Coarse Mass (Mm^{-1})	Sea Salt (Mm^{-1})	Soil (Mm^{-1})	Total PM@ (Mm^{-1})
20 PERCENT CLEAREST DAYS								
2000	*	*	*	*	*	*	*	*
2001	*	*	*	*	*	*	*	*
2002	6.9717	1.3286	3.3737	1.4910	1.1093	0.4593	0.2577	14.9912
2003	7.0204	1.0527	3.0516	1.3818	1.0457	0.4674	0.1226	14.1422
2004	7.2197	1.2592	3.5968	1.4790	1.1877	0.8551	0.1411	15.7387
2005	6.3643	0.9904	2.6444	1.4617	0.7411	0.4118	0.1010	12.7146
2006	5.9500	0.9737	2.7449	1.4267	1.1580	0.4858	0.1161	12.8552
2007	6.0368	0.8225	2.6782	1.1812	0.9444	0.4763	0.0981	12.2376
2008	6.6669	1.2631	3.1171	1.2708	1.1315	0.9036	0.1327	14.4858
2009	3.7985	0.8163	2.6830	1.0390	0.9768	0.4165	0.0829	9.8129
2010	3.7638	0.4194	2.6770	0.9572	0.9017	0.3750	0.1072	9.2011
2011	5.6074	0.6563	2.7696	1.1589	1.2815	0.5014	0.0765	12.0515
2012	5.4883	0.9129	3.3724	1.3128	1.5722	0.4018	0.1052	13.1656
2013	4.1198	0.8417	2.4618	0.8302	0.9247	0.4673	0.0450	9.6906
2014	4.6067	0.6526	2.6086	0.7785	1.0936	0.3798	0.0845	10.2041
2015	3.6036	0.6904	2.6868	0.8427	1.2129	0.5999	0.0736	9.7100
2016	3.3965	0.7968	2.3699	0.7629	1.0312	0.5289	0.0506	8.9366
2017	4.0325	0.9554	2.7486	0.9078	1.0970	0.6043	0.0944	10.4400
2018	2.9129	1.0379	2.2403	1.0662	1.0722	0.7452	0.0711	9.1458
2019	2.9283	0.7743	2.2982	0.8868	0.6831	0.7598	0.0501	8.3807
20 PERCENT MOST IMPAIRED DAYS								
2000	*	*	*	*	*	*	*	*
2001	*	*	*	*	*	*	*	*
2002	69.2842	8.8081	15.9070	6.2515	2.6307	0.8533	0.7234	104.4582
2003	63.8771	6.6185	13.8836	6.1549	2.3605	0.3447	0.4605	93.6999
2004	55.8988	10.6492	10.6811	5.1528	2.2638	1.3565	0.6218	86.6239
2005	58.8241	8.0369	8.9060	5.5807	1.4236	1.5530	0.2471	84.5714
2006	67.2244	6.2489	9.2800	5.2440	1.9696	0.9007	0.3554	91.2229
2007	50.8797	7.0599	11.0686	4.9112	2.2263	1.3366	0.3433	77.8256
2008	45.8481	4.3289	9.5686	4.2622	2.3503	0.7397	0.3481	67.4459
2009	42.3892	4.2860	8.4970	3.8310	1.6904	0.9254	0.4635	62.0826
2010	34.0139	3.3665	9.6907	4.2010	2.2984	0.4011	0.5065	54.4781
2011	28.7485	3.7704	10.6488	4.2323	2.8348	0.8661	0.1521	51.2529
2012	20.2141	7.1320	9.6302	3.9995	2.7225	1.5139	0.1934	45.4056
2013	21.5208	6.8882	9.4878	4.0167	1.4140	1.2256	0.1893	44.7422
2014	18.3033	7.0615	9.1231	3.9035	2.2854	1.2878	0.1762	42.1407
2015	19.6484	7.6407	11.5699	4.2706	1.9182	0.9283	0.1974	46.1735
2016	10.8934	6.0665	7.8178	3.1584	1.9723	0.9847	0.1597	31.0528
2017	11.3610	6.2870	9.0874	3.2891	1.7264	1.5419	0.1776	33.4704
2018	11.1586	8.8717	9.8376	4.2489	2.3050	1.3567	0.1649	37.9434
2019	9.8909	3.9494	8.6214	3.9807	1.5145	0.8218	0.1629	28.9416

"*" = no data available; "@" = does not include Rayleigh (12 Mm^{-1})

Table B-13. Observed Light Extinction Conditions for the Cape Cod (MA) MANE-VU IMPROVE Protocol Site

Year	Sulfate (Mm^{-1})	Nitrate (Mm^{-1}))	Organic Mass Carbon (Mm^{-1})	Light Absorbing Carbon (LAC or EC) (Mm^{-1})	Coarse Mass (Mm^{-1})	Sea Salt (Mm^{-1})	Soil (Mm^{-1})	Total PM@ (Mm^{-1})
20 PERCENT CLEAREST DAYS								
2000	*	*	*	*	*	*	*	*
2001	*	*	*	*	*	*	*	*
2002	8.7183	2.1123	2.7332	1.0693	2.1392	1.7875	0.1288	18.6888
2003	7.9934	1.8886	2.6160	0.9503	2.4574	2.0636	0.1029	18.0722
2004	9.3367	2.1563	3.1652	1.1716	2.2252	3.0661	0.1319	21.2530
2005	9.0531	2.0156	3.0087	1.1159	2.6698	3.8321	0.1087	21.8038
2006	8.2121	1.4494	2.4948	0.8715	2.0135	2.5928	0.1341	17.7680
2007	6.4979	1.5679	2.3042	0.6978	1.6533	2.5264	0.0759	15.3235
2008	7.3679	1.8205	3.1270	0.9675	2.1612	2.0988	0.1357	17.6786
2009	6.3511	1.5907	2.0891	0.6154	1.4596	2.9063	0.0988	15.1110
2010	5.2692	1.2610	2.6414	0.8289	2.0712	2.8219	0.1077	15.0012
2011	6.5535	1.4917	2.5496	0.8673	1.9673	2.7183	0.1103	16.2580
2012	5.5078	1.5293	2.7486	0.7840	1.8231	2.1637	0.0718	14.6283
2013	4.6562	1.3485	2.4598	0.7863	2.2242	2.4919	0.0898	14.0566
2014	4.7730	1.1507	2.3014	0.5282	1.9366	2.2738	0.0768	13.0405
2015	4.2916	1.1158	2.2686	0.4204	1.9361	2.0517	0.0575	12.1417
2016	3.6306	1.2773	1.6470	0.4767	1.6836	2.3156	0.0596	11.0903
2017	4.4140	1.8383	2.6438	0.7300	2.1798	2.2958	0.0753	14.1769
2018	4.4035	1.3435	2.3138	0.8130	2.5469	2.0698	0.0839	13.5745
2019	3.4045	1.4681	2.0156	0.5899	1.6761	2.3154	0.0647	11.5343
20 PERCENT MOST IMPAIRED DAYS								
2000	*	*	*	*	*	*	*	*
2001	*	*	*	*	*	*	*	*
2002	73.2399	10.0071	9.5210	3.7644	3.2254	0.4950	0.5689	100.8217
2003	108.1193	5.9113	13.5769	4.8970	3.5191	0.9021	0.6221	137.5478
2004	81.3048	4.9970	9.6704	3.7600	3.3094	0.9293	0.7269	104.6977
2005	102.4779	4.9417	9.3678	4.3730	2.5936	1.0497	0.4102	125.2139
2006	74.8545	6.3326	10.4942	4.5837	2.7414	1.1746	0.4423	100.6235
2007	90.6716	6.7007	9.5946	4.2273	2.6075	0.7524	0.5214	115.0756
2008	50.7998	6.0937	7.7092	2.5787	2.6986	1.7387	0.4788	72.0976
2009	54.6003	6.1389	6.8661	3.0727	1.9646	1.2261	0.5746	74.4434
2010	41.6831	6.8354	9.2487	2.8273	3.2183	1.5315	0.5190	65.8633
2011	35.2372	5.4837	9.4345	3.2965	2.8684	1.7919	0.2128	58.3250
2012	30.8188	7.0575	8.5350	3.1935	2.3216	1.2936	0.2866	53.5067
2013	24.4594	5.7499	6.5457	2.2643	2.7331	1.8551	0.3440	43.9514
2014	20.6290	8.0132	6.1066	2.4060	3.4617	2.1057	0.2038	42.9261
2015	22.5081	7.7088	7.1359	2.2879	2.6067	1.7823	0.4237	44.4534
2016	15.5484	5.8914	6.5655	2.0725	3.2928	1.8171	0.2110	35.3986
2017	15.4223	5.6156	7.3429	2.1609	3.2469	2.3151	0.1751	36.2789
2018	16.3759	6.8511	9.3192	2.8217	3.8885	1.6296	0.2485	41.1346
2019	14.8456	6.4738	9.1148	2.8239	2.8605	1.7609	0.2695	38.1490

"*" = no data available; "@" = does not include Rayleigh (12 Mm^{-1})

Table B-14. Observed Light Extinction Conditions for the Frostburg Reservoir (MD) MANE-VU IMPROVE Protocol Site

Year	Sulfate (Mm^{-1})	Nitrate (Mm^{-1}))	Organic Mass Carbon (Mm^{-1})	Light Absorbing Carbon (LAC or EC) (Mm^{-1})	Coarse Mass (Mm^{-1})	Sea Salt (Mm^{-1})	Soil (Mm^{-1})	Total PM@ (Mm^{-1})
20 PERCENT CLEAREST DAYS								
2000	*	*	*	*	*	*	*	*
2001	*	*	*	*	*	*	*	*
2002	*	*	*	*	*	*	*	*
2003	*	*	*	*	*	*	*	*
2004	*	*	*	*	*	*	*	*
2005	19.5307	4.6939	3.8228	2.7718	1.4485	0.1692	0.2050	32.6420
2006	16.6169	3.4710	3.8400	2.5899	1.7274	0.1224	0.3124	28.6799
2007	15.7978	2.4874	3.3963	2.2525	1.5201	0.1794	0.2561	25.8895
2008	15.2038	3.3614	3.4822	1.9813	1.4243	0.0867	0.2515	25.7913
2009	12.4382	1.8374	2.1476	1.3663	1.0161	0.0913	0.1622	19.0590
2010	13.3502	2.7730	3.0765	1.7378	1.5518	0.1217	0.2502	22.8612
2011	11.5495	2.4756	2.9537	1.4885	1.1988	0.3958	0.1254	20.1872
2012	11.2503	2.9650	3.4149	1.8485	2.1214	0.1353	0.2560	21.9914
2013	9.8060	2.4969	2.3486	1.1689	1.9725	0.2133	0.1410	18.1471
2014	10.0682	2.6941	2.9209	1.4022	1.9191	0.2274	0.1654	19.3973
2015	7.3375	2.3083	3.1229	1.4135	1.0481	0.0730	0.1190	15.4223
2016	7.0219	2.1840	3.0797	1.2238	1.6037	0.1125	0.1258	15.3514
2017	7.2708	2.3975	2.9038	1.1779	1.2158	0.0879	0.0997	15.1535
2018	6.0902	2.4698	2.5948	1.3251	1.0301	0.2306	0.1241	13.8646
2019	6.3612	1.7088	2.8446	1.4271	1.2500	0.1240	0.1143	13.8301
20 PERCENT MOST IMPAIRED DAYS								
2000	*	*	*	*	*	*	*	*
2001	*	*	*	*	*	*	*	*
2002	*	*	*	*	*	*	*	*
2003	*	*	*	*	*	*	*	*
2004	*	*	*	*	*	*	*	*
2005	218.6769	2.2453	9.4548	4.9361	2.0187	0.0245	0.6899	238.0461
2006	172.8702	2.4451	10.3833	4.4489	2.2564	0.0502	0.7350	193.1891
2007	143.4868	2.7350	10.8874	4.4373	2.5379	0.0835	0.6873	164.8552
2008	93.0224	4.4962	9.0923	3.6639	2.3965	0.0576	0.7588	113.4876
2009	78.9589	7.4247	7.2391	3.4051	1.9697	0.0632	0.5959	99.6566
2010	82.8160	5.7517	9.0004	3.4297	2.1124	0.0166	0.6817	103.8085
2011	88.3061	3.9633	8.9770	3.2757	2.4857	0.1679	0.2922	107.4678
2012	52.0661	6.8132	6.7866	3.3068	2.8818	0.2161	0.4164	72.4870
2013	48.9757	10.4874	6.6976	3.2476	3.0203	0.2165	0.2340	72.8790
2014	46.1406	16.3683	5.3425	3.3970	2.4002	0.1714	0.2649	74.0850
2015	41.5633	7.9025	7.9334	3.3281	2.1576	0.1647	0.2880	63.3374
2016	29.6051	9.1957	5.5015	2.3814	2.1103	0.1558	0.2037	49.1535
2017	26.0703	13.8708	7.4232	3.2851	2.1588	0.1754	0.2177	53.2013
2018	25.2100	11.8123	6.3574	3.4087	2.0830	0.1979	0.2157	49.2850
2019	26.1313	13.1462	5.8778	2.9393	1.5902	0.2507	0.2103	50.1457

"*" = no data available; "@" = does not include Rayleigh (11 Mm^{-1})

Table B-15. Observed Light Extinction Conditions for the Londonderry (NH) MANE-VU IMPROVE Protocol Site

Year	Sulfate (Mm^{-1})	Nitrate (Mm^{-1}))	Organic Mass Carbon (Mm^{-1})	Light Absorbing Carbon (LAC or EC) (Mm^{-1})	Coarse Mass (Mm^{-1})	Sea Salt (Mm^{-1})	Soil (Mm^{-1})	Total PM@ (Mm^{-1})
20 PERCENT CLEAREST DAYS								
2000	*	*	*	*	*	*	*	*
2001	*	*	*	*	*	*	*	*
2002	*	*	*	*	*	*	*	*
2003	*	*	*	*	*	*	*	*
2004	*	*	*	*	*	*	*	*
2005	*	*	*	*	*	*	*	*
2006	*	*	*	*	*	*	*	*
2007	*	*	*	*	*	*	*	*
2008	*	*	*	*	*	*	*	*
2009	*	*	*	*	*	*	*	*
2010	*	*	*	*	*	*	*	*
2011	6.2645	1.1709	4.0150	1.7625	1.2097	0.3493	0.1037	14.8757
2012	5.4793	1.2984	3.5015	1.4822	1.4031	0.3723	0.1040	13.6407
2013	4.3779	0.9793	2.6627	1.0693	1.0926	0.5664	0.0834	10.8316
2014	4.6697	0.8976	3.2118	1.1417	1.2596	0.3351	0.1018	11.6173
2015	4.1106	0.8347	2.8049	0.9961	1.1157	0.3105	0.1129	10.2853
2016	3.6141	0.9369	2.5247	0.9780	1.4608	0.3658	0.0859	9.9662
2017	4.0964	1.4122	3.3031	1.2478	1.4828	0.3975	0.0903	12.0300
2018	3.2567	1.1490	2.6598	1.2755	1.1608	0.5961	0.0702	10.1682
2019	2.7970	1.1362	2.6764	1.3056	1.0993	0.4594	0.0655	9.5394
20 PERCENT MOST IMPAIRED DAYS								
2000	*	*	*	*	*	*	*	*
2001	*	*	*	*	*	*	*	*
2002	*	*	*	*	*	*	*	*
2003	*	*	*	*	*	*	*	*
2004	*	*	*	*	*	*	*	*
2005	*	*	*	*	*	*	*	*
2006	*	*	*	*	*	*	*	*
2007	*	*	*	*	*	*	*	*
2008	*	*	*	*	*	*	*	*
2009	*	*	*	*	*	*	*	*
2010	*	*	*	*	*	*	*	*
2011	37.1126	4.4598	13.9113	4.4975	2.2160	0.4737	0.2557	62.9266
2012	26.4690	6.7072	11.3191	4.4694	2.2691	0.6138	0.3828	52.2306
2013	26.6229	8.7824	9.9717	4.1445	1.9351	0.5319	0.2373	52.2258
2014	21.8842	10.0899	9.4488	4.5110	2.0099	0.5356	0.2746	48.7539
2015	21.4511	11.1478	10.5983	4.2550	2.1171	0.5301	0.3321	50.4316
2016	13.4719	8.5233	10.4587	4.4889	1.8319	0.6106	0.2105	39.5959
2017	12.7247	10.4952	11.8638	4.7629	2.3379	0.9828	0.1981	43.3653
2018	11.2977	12.2384	10.0658	4.8137	2.2880	0.9919	0.1944	41.8898
2019	10.2199	8.0677	9.2241	4.4135	2.0308	0.6953	0.2214	34.8726

"*" = no data available; "@" = does not include Rayleigh (12 Mm^{-1})

Table B-16. Observed Light Extinction Conditions for the Martha's Vineyard (MA) MANE-VU IMPROVE Protocol Site

Year	Sulfate (Mm^{-1})	Nitrate (Mm^{-1}))	Organic Mass Carbon (Mm^{-1})	Light Absorbing Carbon (LAC or EC) (Mm^{-1})	Coarse Mass (Mm^{-1})	Sea Salt (Mm^{-1})	Soil (Mm^{-1})	Total PM@ (Mm^{-1})
20 PERCENT CLEAREST DAYS								
2000	*	*	*	*	*	*	*	*
2001	*	*	*	*	*	*	*	*
2002	*	*	*	*	*	*	*	*
2003	10.8222	2.0740	3.7599	1.2498	1.9621	1.1291	0.1424	21.1395
2004	9.3018	2.4877	3.4634	1.4371	2.3856	2.9856	0.1487	22.2098
2005	10.8933	2.3023	2.3525	1.2992	2.0316	3.5102	0.1185	22.5076
2006	8.8065	1.8137	2.6572	1.2203	2.0339	2.2347	0.1251	18.8913
2007	6.9478	1.8565	2.1894	0.8402	2.3056	2.2860	0.1126	16.5380
2008	8.0043	1.9408	2.3850	0.9749	2.0102	2.1225	0.1534	17.5911
2009	6.3300	1.4967	2.1481	0.8140	2.0975	2.1173	0.1216	15.1251
2010	5.4134	1.3882	2.6449	0.8812	2.1720	2.6969	0.1266	15.3232
2011	7.2447	1.8620	3.0244	0.8444	2.8517	3.2222	0.1170	19.1664
2012	5.7813	1.5651	2.7404	0.8143	2.2629	1.8954	0.1025	15.1619
2013	4.0052	1.3179	1.9339	0.6963	3.0522	2.0821	0.0828	13.1703
2014	5.6109	1.9058	2.3256	0.7689	2.8817	2.3271	0.1140	15.9340
2015	4.6062	1.2953	2.2204	0.5726	4.5833	2.3162	0.0879	15.6819
2016	4.2220	1.5061	1.8954	0.5895	3.6326	1.8536	0.0767	13.7759
2017	5.0410	1.9351	2.5496	0.7648	2.5959	2.3530	0.0841	15.3236
2018	3.6614	1.4187	1.8624	0.7916	1.8117	2.4686	0.0816	12.0962
2019	3.4493	1.6408	1.7239	0.6868	1.7498	2.5624	0.0605	11.8734
20 PERCENT MOST IMPAIRED DAYS								
2000	*	*	*	*	*	*	*	*
2001	*	*	*	*	*	*	*	*
2002	*	*	*	*	*	*	*	*
2003	120.2975	7.3178	12.5998	4.7506	1.2200	0.0041	0.4570	146.6469
2004	87.7116	7.7489	8.7028	2.9345	2.7427	1.4765	0.7323	112.0492
2005	110.1817	7.2776	6.9393	4.2756	3.2671	1.9928	0.4428	134.3769
2006	89.9496	8.9973	9.6157	3.3616	3.6038	3.9033	0.5283	119.9595
2007	77.4298	7.0162	6.8309	3.3648	3.7850	1.4439	0.4881	100.3585
2008	60.4868	7.7358	10.0101	3.1372	3.3516	2.0663	0.5264	87.3141
2009	57.4253	8.6667	7.8092	3.1878	3.0916	2.3927	0.6340	83.2074
2010	45.8534	10.8577	9.3774	3.3440	3.6400	2.1978	0.6899	75.9602
2011	50.1773	7.4570	10.9220	2.9341	4.3905	3.1288	0.2688	79.2784
2012	29.6598	9.0649	7.1249	2.5529	3.8045	2.1061	0.3039	54.6169
2013	30.7035	10.4202	7.6676	2.8394	4.9670	2.8485	0.3710	59.8172
2014	21.4909	9.5212	5.7282	2.1990	6.7941	2.8552	0.2383	48.8269
2015	27.9163	11.3054	8.7854	2.4459	5.1995	2.4494	0.2853	58.3871
2016	15.2560	8.2512	6.2948	1.9496	6.9511	3.5886	0.2223	42.5137
2017	16.4017	8.0259	7.5927	2.0761	5.7839	3.8699	0.1996	43.9499
2018	16.8400	8.6023	7.6507	2.6359	4.0877	2.9993	0.2338	43.0496
2019	15.7592	8.8639	7.3764	2.4264	3.1873	2.7464	0.2689	40.6284

"*" = no data available; "@" = does not include Rayleigh (12 Mm^{-1})

Table B-17. Observed Light Extinction Conditions for the M.K. Goddard (PA) MANE-VU IMPROVE Protocol Site

Year	Sulfate (Mm^{-1})	Nitrate (Mm^{-1}))	Organic Mass Carbon (Mm^{-1})	Light Absorbing Carbon (LAC or EC) (Mm^{-1})	Coarse Mass (Mm^{-1})	Sea Salt (Mm^{-1})	Soil (Mm^{-1})	Total PM@ (Mm^{-1})
20 PERCENT CLEAREST DAYS								
2000	*	*	*	*	*	*	*	*
2001	*	*	*	*	*	*	*	*
2002	17.7122	6.0997	5.2179	2.7078	1.2241	0.0033	0.1928	33.1580
2003	13.3865	6.1889	5.4603	2.6730	1.3967	0.2096	0.2142	29.5292
2004	14.3822	5.4775	5.1188	2.5964	1.1767	0.4740	0.1987	29.4243
2005	18.4982	5.3294	5.2542	2.9640	1.7132	0.3384	0.1862	34.2836
2006	13.1529	3.5211	4.4659	2.9140	1.5649	0.4755	0.2693	26.3636
2007	12.3619	4.4558	4.4874	2.6555	1.3001	0.4348	0.1908	25.8862
2008	13.6642	4.5931	5.0039	2.4250	1.1841	0.2529	0.2546	27.3777
2009	11.1118	2.4858	4.3083	2.0400	1.3470	0.2770	0.1891	21.7589
2010	9.4091	2.7387	4.7290	2.4187	1.2865	0.3600	0.2448	21.1867
2011	*	*	*	*	*	*	*	*
2012	*	*	*	*	*	*	*	*
2013	*	*	*	*	*	*	*	*
2014	*	*	*	*	*	*	*	*
2015	*	*	*	*	*	*	*	*
2016	*	*	*	*	*	*	*	*
2017	*	*	*	*	*	*	*	*
2018	*	*	*	*	*	*	*	*
2019	*	*	*	*	*	*	*	*
20 PERCENT MOST IMPAIRED DAYS								
2000	*	*	*	*	*	*	*	*
2001	*	*	*	*	*	*	*	*
2002	129.8110	22.3573	13.8993	6.4218	2.9646	0.1019	0.7833	176.3393
2003	114.3294	17.8439	15.1810	7.2518	2.3014	0.2166	0.5042	157.6283
2004	120.9804	12.8055	15.5130	7.5364	2.4426	0.6810	0.8159	160.7748
2005	188.5080	8.6301	14.9874	8.2395	2.9933	0.3292	0.6331	224.3205
2006	125.5225	11.6779	12.2245	6.8135	2.3211	0.4571	0.6365	159.6531
2007	123.1580	13.7453	13.6989	7.6191	2.6344	0.3726	0.8732	162.1015
2008	83.6967	21.0123	12.8935	6.0036	2.1773	0.3635	0.6744	126.8214
2009	76.7694	25.9253	10.9102	5.4190	2.0997	0.3851	0.6125	122.1211
2010	84.5229	16.9171	14.9315	5.7700	1.9958	0.3151	0.6972	125.1497
2011	*	*	*	*	*	*	*	*
2012	*	*	*	*	*	*	*	*
2013	*	*	*	*	*	*	*	*
2014	*	*	*	*	*	*	*	*
2015	*	*	*	*	*	*	*	*
2016	*	*	*	*	*	*	*	*
2017	*	*	*	*	*	*	*	*
2018	*	*	*	*	*	*	*	*
2019	*	*	*	*	*	*	*	*

"*" = no data available; "@" = does not include Rayleigh (11 Mm^{-1})

Table B-18. Observed Light Extinction Conditions for the Mohawk Mt. (CT) MANE-VU IMPROVE Protocol Site

Year	Sulfate (Mm^{-1})	Nitrate (Mm^{-1}))	Organic Mass Carbon (Mm^{-1})	Light Absorbing Carbon (LAC or EC) (Mm^{-1})	Coarse Mass (Mm^{-1})	Sea Salt (Mm^{-1})	Soil (Mm^{-1})	Total PM@ (Mm^{-1})
20 PERCENT CLEAREST DAYS								
2000	*	*	*	*	*	*	*	*
2001	*	*	*	*	*	*	*	*
2002	9.3532	2.3162	2.8952	1.4436	1.2737	0.0992	0.1617	17.5429
2003	8.0144	1.5965	2.7895	1.2836	0.7407	0.0873	0.1418	14.6537
2004	8.1904	2.1376	2.9937	1.2570	0.8491	0.4916	0.1467	16.0660
2005	7.5203	1.5636	2.3574	1.2520	0.9531	0.2256	0.1157	13.9876
2006	6.5565	1.3116	2.4017	1.1065	0.9348	0.1889	0.1432	12.6431
2007	6.2404	0.9544	1.9199	0.9959	0.8145	0.2144	0.1082	11.2477
2008	*	*	*	*	*	*	*	*
2009	4.1491	1.0581	1.7300	0.8088	1.1085	0.3136	0.0724	9.2406
2010	3.9627	1.1592	1.8881	0.7093	0.7556	0.1923	0.1383	8.8055
2011	5.5822	1.6276	2.2673	0.9437	0.9948	0.2398	0.0714	11.7268
2012	5.1647	1.5193	1.8940	0.7863	0.7572	0.2612	0.0963	10.4791
2013	4.2424	1.1461	1.7616	0.6410	0.7125	0.2032	0.0626	8.7695
2014	4.6490	1.4651	2.1135	0.7509	1.2191	0.1324	0.0607	10.3906
2015	3.0929	1.0114	1.8668	0.6171	0.7940	0.1185	0.0733	7.5740
2016	3.1386	1.1654	1.9228	0.6367	0.8212	0.1955	0.0683	7.9485
2017	3.2054	1.2010	1.7936	0.6363	0.7471	0.0984	0.0599	7.7416
2018	2.6493	1.1174	1.8794	0.7766	0.7000	0.2174	0.0561	7.3961
2019	2.5231	1.0199	1.5570	0.7353	0.3364	0.2338	0.0398	6.4453
20 PERCENT MOST IMPAIRED DAYS								
2000	*	*	*	*	*	*	*	*
2001	*	*	*	*	*	*	*	*
2002	103.2350	10.7503	12.9688	5.3793	1.9452	0.2029	0.6463	135.1277
2003	97.5035	12.8803	13.3995	6.0738	1.9694	1.7684	0.6417	134.2367
2004	113.1590	5.7663	18.7812	4.2017	1.2830	0.1861	0.9481	144.3253
2005	139.6234	5.4332	10.8384	5.6316	1.7436	0.2100	0.4968	163.9770
2006	97.1985	6.7073	13.0157	5.5117	2.0676	0.1991	0.5624	125.2623
2007	119.5890	5.0466	13.8510	5.0686	2.7964	0.1488	0.6771	147.1776
2008	*	*	*	*	*	*	*	*
2009	51.4179	8.6118	8.2499	3.2522	1.5945	0.0924	0.5494	73.7682
2010	48.2256	7.5110	10.5350	4.2409	2.1052	0.1055	0.4898	73.2129
2011	42.4310	9.9903	8.8258	3.8366	2.5608	0.5142	0.2496	68.4083
2012	32.7642	12.1586	7.7623	3.6010	1.7111	0.3630	0.2891	58.6492
2013	29.6422	9.1534	6.8698	3.0807	1.6771	0.3101	0.2035	50.9369
2014	22.5380	9.9614	5.4641	2.6257	1.9128	0.3220	0.2680	43.0921
2015	23.1169	12.4729	7.3603	3.0285	1.6005	0.2052	0.2590	48.0433
2016	14.8916	9.8774	5.8499	2.3449	1.5072	0.2266	0.2266	34.9243
2017	13.0906	10.4739	7.0073	2.5747	1.5889	0.3014	0.1761	35.2129
2018	13.0432	10.2438	6.7802	3.1292	1.1828	0.2905	0.1982	34.8678
2019	13.0575	9.8299	5.6924	2.5640	0.7483	0.2518	0.2080	32.3520

"*" = no data available; "@" = does not include Rayleigh (11 Mm^{-1})

Table B-19. Observed Light Extinction Conditions for the New York City - IS52 MANE-VU IMPROVE Protocol Site

Year	Sulfate (Mm^{-1})	Nitrate (Mm^{-1}))	Organic Mass Carbon (Mm^{-1})	Light Absorbing Carbon (LAC or EC) (Mm^{-1})	Coarse Mass (Mm^{-1})	Sea Salt (Mm^{-1})	Soil (Mm^{-1})	Total PM@ (Mm^{-1})
20 PERCENT CLEAREST DAYS								
2000	*	*	*	*	*	*	*	*
2001	*	*	*	*	*	*	*	*
2002	*	*	*	*	*	*	*	*
2003	*	*	*	*	*	*	*	*
2004	*	*	*	*	*	*	*	*
2005	16.9244	5.5845	5.5949	8.9965	3.0185	0.8983	0.4210	41.4381
2006	13.2596	2.6846	5.7483	6.9929	3.2383	0.6564	0.4800	33.0599
2007	12.5377	4.0225	5.5480	7.5357	3.8317	0.6193	0.4388	34.5337
2008	13.7515	5.0618	5.6993	8.5164	2.7126	0.7443	0.5144	37.0003
2009	11.6988	2.7621	5.3155	6.9155	2.9724	0.7023	0.4660	30.8326
2010	*	*	*	*	*	*	*	*
2011	*	*	*	*	*	*	*	*
2012	*	*	*	*	*	*	*	*
2013	*	*	*	*	*	*	*	*
2014	*	*	*	*	*	*	*	*
2015	*	*	*	*	*	*	*	*
2016	*	*	*	*	*	*	*	*
2017	*	*	*	*	*	*	*	*
2018	*	*	*	*	*	*	*	*
2019	*	*	*	*	*	*	*	*
20 PERCENT MOST IMPAIRED DAYS								
2000	*	*	*	*	*	*	*	*
2001	*	*	*	*	*	*	*	*
2002	*	*	*	*	*	*	*	*
2003	*	*	*	*	*	*	*	*
2004	*	*	*	*	*	*	*	*
2005	129.8135	30.5782	16.5392	19.5396	6.0493	1.3022	1.0386	204.8606
2006	108.5090	32.7655	18.8468	20.5385	6.0325	1.3506	1.2369	189.2798
2007	112.1046	33.7063	22.1802	17.6117	6.1403	1.1367	1.1768	194.0567
2008	63.7089	28.6829	15.9758	17.9593	4.8101	1.1140	1.0550	133.3060
2009	58.3701	34.7332	15.6586	17.8630	5.7128	1.5618	1.2219	135.1214
2010	*	*	*	*	*	*	*	*
2011	*	*	*	*	*	*	*	*
2012	*	*	*	*	*	*	*	*
2013	*	*	*	*	*	*	*	*
2014	*	*	*	*	*	*	*	*
2015	*	*	*	*	*	*	*	*
2016	*	*	*	*	*	*	*	*
2017	*	*	*	*	*	*	*	*
2018	*	*	*	*	*	*	*	*
2019	*	*	*	*	*	*	*	*

"*" = no data available; "@" = does not include Rayleigh (12 Mm^{-1})

Table B-20. Observed Light Extinction Conditions for the Pack Monadnock Summit (NY) MANE-VU IMPROVE Protocol Site

Year	Sulfate (Mm^{-1})	Nitrate (Mm^{-1}))	Organic Mass Carbon (Mm^{-1})	Light Absorbing Carbon (LAC or EC) (Mm^{-1})	Coarse Mass (Mm^{-1})	Sea Salt (Mm^{-1})	Soil (Mm^{-1})	Total PM@ (Mm^{-1})
20 PERCENT CLEAREST DAYS								
2000	*	*	*	*	*	*	*	*
2001	*	*	*	*	*	*	*	*
2002	*	*	*	*	*	*	*	*
2003	*	*	*	*	*	*	*	*
2004	*	*	*	*	*	*	*	*
2005	*	*	*	*	*	*	*	*
2006	*	*	*	*	*	*	*	*
2007	*	*	*	*	*	*	*	*
2008	4.3131	0.8160	1.6656	0.6319	0.8070	0.1731	0.0897	8.4963
2009	2.3170	0.4759	1.4107	0.4830	0.4112	0.1952	0.0639	5.3569
2010	2.7436	0.5448	1.5079	0.4668	0.4713	0.1038	0.0716	5.9098
2011	3.1593	0.4990	1.8138	0.6292	0.6312	0.0588	0.0587	6.8498
2012	3.4098	0.6552	1.2654	0.5682	0.4384	0.1979	0.0604	6.5952
2013	3.0724	0.5540	1.1161	0.4599	0.4193	0.2254	0.0392	5.8863
2014	2.7088	0.5690	1.3191	0.3650	0.3930	0.2808	0.0300	5.6655
2015	2.2442	0.4814	1.3628	0.3782	0.4183	0.0606	0.0335	4.9790
2016	1.8194	0.5932	1.3948	0.4004	0.6169	0.1107	0.0341	4.9693
2017	2.3033	0.8320	1.6444	0.6696	0.4862	0.0822	0.0443	6.0619
2018	1.7448	0.5221	1.1231	0.4814	0.3540	0.1016	0.0226	4.3496
2019	1.5126	0.4746	1.0503	0.5491	0.3336	0.0888	0.0227	4.0317
20 PERCENT MOST IMPAIRED DAYS								
2000	*	*	*	*	*	*	*	*
2001	*	*	*	*	*	*	*	*
2002	*	*	*	*	*	*	*	*
2003	*	*	*	*	*	*	*	*
2004	*	*	*	*	*	*	*	*
2005	*	*	*	*	*	*	*	*
2006	*	*	*	*	*	*	*	*
2007	*	*	*	*	*	*	*	*
2008	45.6744	2.2798	7.6391	2.6080	1.9859	0.1071	0.4340	60.7284
2009	41.0632	4.3599	6.8705	2.4180	1.2633	0.0502	0.4680	56.4931
2010	42.6229	2.8880	9.6986	2.7737	1.6214	0.0121	0.4556	60.0723
2011	34.7469	3.7279	7.9896	2.5159	1.8217	0.1841	0.1988	51.1849
2012	28.7522	6.3031	7.3021	2.9854	1.6094	0.1769	0.3262	47.4554
2013	25.0046	5.6610	5.7007	2.0013	1.5955	0.1832	0.2720	40.4182
2014	23.3051	6.7493	6.3602	2.5225	1.3944	0.2197	0.2525	40.8038
2015	20.5674	7.8123	7.2712	2.2022	0.7914	0.2907	0.2180	39.1532
2016	11.4898	6.8528	4.8263	1.7434	1.0864	0.3050	0.1608	26.4645
2017	10.7531	5.8733	5.5644	1.8492	1.4027	0.2246	0.1479	25.8150
2018	10.3652	8.3139	5.5022	2.2869	1.4957	0.3305	0.2086	28.5031
2019	11.0020	5.9188	5.6641	2.3711	0.9203	0.2712	0.1557	26.3031

"*" = no data available; "@" = does not include Rayleigh (11 Mm^{-1})

Table B-21. Observed Light Extinction Conditions for the Penobscot Nation (ME) MANE-VU IMPROVE Protocol Site

Year	Sulfate (Mm^{-1})	Nitrate (Mm^{-1}))	Organic Mass Carbon (Mm^{-1})	Light Absorbing Carbon (LAC or EC) (Mm^{-1})	Coarse Mass (Mm^{-1})	Sea Salt (Mm^{-1})	Soil (Mm^{-1})	Total PM@ (Mm^{-1})
20 PERCENT CLEAREST DAYS								
2000	*	*	*	*	*	*	*	*
2001	*	*	*	*	*	*	*	*
2002	*	*	*	*	*	*	*	*
2003	*	*	*	*	*	*	*	*
2004	*	*	*	*	*	*	*	*
2005	*	*	*	*	*	*	*	*
2006	6.3117	0.9210	2.6610	1.4045	1.3422	0.5202	0.1660	13.3264
2007	5.4866	0.6090	2.7115	1.1489	0.7900	0.4125	0.1342	11.2927
2008	5.2648	0.7396	2.6271	1.2742	1.1349	0.5205	0.1387	11.6998
2009	3.8265	0.6526	2.3481	0.9930	1.2474	0.2427	0.1308	9.4410
2010	3.8102	0.4320	2.2784	0.8915	0.9777	0.3284	0.1058	8.8240
2011	5.1089	0.5069	2.7476	1.0301	1.5062	0.3117	0.0849	11.2962
2012	4.6924	0.7005	2.6865	1.0140	1.4501	0.9624	0.1152	11.6211
2013	4.4052	0.7072	2.3957	0.9256	2.0916	0.3450	0.1286	10.9990
2014	4.3162	0.5338	2.6455	0.8321	1.5159	0.1684	0.0628	10.0746
2015	2.8211	0.5757	2.4916	0.6927	1.2763	0.3106	0.0742	8.2422
2016	2.9048	0.6724	1.9979	0.6864	1.0099	0.4040	0.0748	7.7503
2017	3.9128	0.7030	2.9301	0.9145	1.8129	0.2182	0.1365	10.6281
2018	2.7058	0.8160	2.3286	1.0555	1.2940	0.8356	0.1082	9.1437
2019	2.6590	0.5239	2.1095	0.8009	1.1006	0.4957	0.0683	7.7580
20 PERCENT MOST IMPAIRED DAYS								
2000	*	*	*	*	*	*	*	*
2001	*	*	*	*	*	*	*	*
2002	*	*	*	*	*	*	*	*
2003	*	*	*	*	*	*	*	*
2004	*	*	*	*	*	*	*	*
2005	*	*	*	*	*	*	*	*
2006	54.2902	6.1871	12.0260	5.1180	2.5701	0.4812	0.3503	81.0229
2007	45.0437	4.7104	11.5241	4.6615	2.0867	0.5693	0.4162	69.0119
2008	41.8376	3.6042	9.1363	3.5124	1.8692	0.4160	0.4026	60.7782
2009	42.9295	2.8994	9.2038	3.8523	2.5998	0.3168	0.4614	62.2631
2010	32.2375	2.6895	9.4570	3.5303	3.0941	0.4451	0.5589	52.0124
2011	28.3054	4.3608	10.3519	3.6923	3.1311	0.9585	0.1951	50.9951
2012	22.2367	4.1332	8.2475	3.3043	2.1857	0.5449	0.2418	40.8941
2013	20.2761	5.0171	8.0937	3.3028	3.3908	0.8357	0.3129	41.2291
2014	18.5569	5.1216	8.8551	3.5798	2.7076	0.7840	0.2139	39.8189
2015	21.0195	6.8324	12.1692	4.5952	3.5474	0.6117	0.3022	49.0776
2016	13.4935	6.0678	9.5284	4.4487	2.6923	0.9024	0.2787	37.4117
2017	11.3638	4.5102	8.8266	3.9176	2.6212	0.7811	0.2438	32.2643
2018	13.4989	7.0044	9.4979	4.5984	2.5127	0.8806	0.1714	38.1643
2019	10.2384	5.4813	9.1679	4.8008	1.8311	0.6248	0.1952	32.3395

"*" = no data available; "@" = does not include Rayleigh (12 Mm^{-1})

Table B-22. Observed Light Extinction Conditions for the Proctor Maple R.F. (VT) MANE-VU IMPROVE Protocol Site

Year	Sulfate (Mm^{-1})	Nitrate (Mm^{-1}))	Organic Mass Carbon (Mm^{-1})	Light Absorbing Carbon (LAC or EC) (Mm^{-1})	Coarse Mass (Mm^{-1})	Sea Salt (Mm^{-1})	Soil (Mm^{-1})	Total PM@ (Mm^{-1})
20 PERCENT CLEAREST DAYS								
2000	*	*	*	*	*	*	*	*
2001	*	*	*	*	*	*	*	*
2002	5.9488	1.4018	3.0953	1.1501	1.1571	0.1783	0.1033	13.0348
2003	5.3978	0.9670	2.7246	1.0366	0.6116	0.2143	0.0839	11.0358
2004	5.6241	1.3382	2.7812	1.0793	0.7034	0.3640	0.1134	12.0037
2005	5.4871	1.2700	2.4577	1.2398	0.8252	0.1872	0.0779	11.5449
2006	5.0904	0.9190	2.7036	1.1789	1.1897	0.2374	0.1095	11.4285
2007	5.1846	1.3521	2.2895	0.9050	0.5334	0.3441	0.1075	10.7161
2008	5.0932	1.0848	2.2435	0.6846	1.0269	0.2432	0.1113	10.4876
2009	3.6918	0.6024	1.9927	0.6681	0.7540	0.1458	0.0734	7.9282
2010	3.9128	0.9372	2.2889	0.7910	0.5350	0.2666	0.1139	8.8452
2011	5.3599	0.8719	2.5922	0.7943	1.0853	0.2028	0.0720	10.9783
2012	3.6687	0.7775	1.8291	0.5613	0.8108	0.3887	0.0748	8.1110
2013	4.0806	0.8304	1.7347	0.6038	0.7588	0.2549	0.0606	8.3238
2014	4.1222	0.7259	1.8746	0.6909	0.7842	0.1444	0.0656	8.4078
2015	3.0275	0.7021	1.9620	0.3982	0.6255	0.0920	0.0433	6.8508
2016	2.6504	0.9036	1.6867	0.4434	0.7424	0.2113	0.0489	6.6867
2017	3.1405	0.9037	2.0984	0.6265	0.6749	0.0460	0.0542	7.5442
2018	2.6437	0.7774	1.7149	0.6749	0.5140	0.1448	0.0421	6.5118
2019	2.4596	0.6706	1.6640	0.5543	0.5234	0.1895	0.0408	6.1022
20 PERCENT MOST IMPAIRED DAYS								
2000	*	*	*	*	*	*	*	*
2001	*	*	*	*	*	*	*	*
2002	104.8198	11.5481	11.8546	4.7046	1.8691	0.1002	0.6445	135.5408
2003	78.4745	7.0667	12.4771	4.4437	1.6196	0.0036	0.4369	104.5221
2004	89.4194	10.2047	10.5420	4.2480	1.5028	0.2338	0.6930	116.8438
2005	111.4801	2.5834	10.8225	4.5692	1.4637	0.1580	0.3496	131.4265
2006	60.9977	6.2781	8.1045	3.6542	1.5455	0.2338	0.3676	81.1814
2007	80.1652	6.7358	11.3978	4.4210	0.8979	0.1461	0.5172	104.2810
2008	49.4072	3.5024	7.9083	2.8364	1.6318	0.0417	0.4539	65.7817
2009	42.4721	5.5101	7.1810	2.6571	1.5976	0.1242	0.3963	59.9384
2010	41.4445	4.2640	9.6326	3.1345	0.8242	0.0539	0.4324	59.7860
2011	38.7429	10.8606	10.3541	3.2674	1.6970	0.3583	0.2304	65.5108
2012	28.2410	5.8490	6.7864	2.7267	1.7321	0.1910	0.2374	45.7635
2013	24.6318	6.5487	6.1294	2.1358	1.4845	0.1438	0.1854	41.2594
2014	28.3320	6.5607	6.0054	2.2980	1.6692	0.1854	0.2025	45.2532
2015	23.8389	8.0092	7.6172	2.3635	1.3712	0.4130	0.2085	43.8214
2016	13.7575	5.4084	4.6847	1.8682	1.3822	0.1444	0.1836	27.4291
2017	11.0288	7.2261	5.9499	2.0340	1.3384	0.1673	0.1528	27.8973
2018	13.3450	11.9288	5.8180	2.5046	0.9469	0.2983	0.1485	34.9901
2019	10.6217	9.0287	4.7384	2.0514	0.9338	0.2415	0.1136	27.7290

"*" = no data available; "@" = does not include Rayleigh (11 Mm^{-1})

Table B-23. Observed Light Extinction Conditions for the Presque Isle (ME) MANE-VU IMPROVE Protocol Site

Year	Sulfate (Mm^{-1})	Nitrate (Mm^{-1}))	Organic Mass Carbon (Mm^{-1})	Light Absorbing Carbon (LAC or EC) (Mm^{-1})	Coarse Mass (Mm^{-1})	Sea Salt (Mm^{-1})	Soil (Mm^{-1})	Total PM@ (Mm^{-1})
20 PERCENT CLEAREST DAYS								
2000	*	*	*	*	*	*	*	*
2001	*	*	*	*	*	*	*	*
2002	6.0901	0.7359	3.2724	1.4467	1.8093	0.0368	0.3474	13.7386
2003	5.3617	0.6920	3.4593	1.9003	2.1466	0.2825	0.2750	14.1174
2004	5.9751	0.8713	3.0309	1.8203	1.8130	0.4302	0.2017	14.1424
2005	5.5373	0.6303	2.6188	1.6274	1.3859	0.4887	0.1444	12.4329
2006	5.9251	0.6172	3.1068	1.6328	2.0148	0.2532	0.2110	13.7609
2007	5.3524	0.4205	2.2781	1.0287	1.4070	0.3224	0.1541	10.9632
2008	4.8733	0.4654	2.3033	0.9115	1.8232	0.2663	0.1988	10.8420
2009	4.9813	0.8105	2.2257	1.1078	1.5624	0.3810	0.1772	11.2459
2010	3.2246	0.3181	1.9121	0.6511	1.3050	0.3750	0.1558	7.9417
2011	4.9538	0.5305	2.5015	0.8497	1.6678	0.3191	0.1139	10.9362
2012	4.2667	0.5303	2.3279	0.9150	1.5563	0.3455	0.1403	10.0820
2013	3.4235	0.4123	2.0976	0.6348	1.5787	0.4709	0.0874	8.7052
2014	4.7842	0.6336	2.4693	0.9183	1.8361	0.4225	0.1376	11.2014
2015	2.5756	0.4277	2.1263	0.5518	1.5566	0.2870	0.1027	7.6277
2016	2.8498	0.5620	2.3831	0.8328	1.7029	0.3653	0.1041	8.7999
2017	3.0695	0.6813	2.6322	0.9161	1.9994	0.2201	0.2000	9.7186
2018	2.2955	0.3979	1.6334	0.9825	1.0238	0.5156	0.0967	6.9454
2019	2.5165	0.4812	1.9277	0.9994	1.4065	0.2784	0.0997	7.7095
20 PERCENT MOST IMPAIRED DAYS								
2000	*	*	*	*	*	*	*	*
2001	*	*	*	*	*	*	*	*
2002	64.0137	8.5786	13.8518	4.7774	2.3260	0.3196	0.6348	94.5019
2003	39.0918	4.0396	12.1778	4.5100	2.8718	0.0536	0.4769	63.2215
2004	49.7447	4.6336	9.6007	4.2843	3.0337	0.3795	0.5872	72.2636
2005	44.7608	4.2051	8.5332	4.2178	2.2284	0.2958	0.3398	64.5810
2006	50.4603	4.8491	10.5366	4.4455	2.6688	0.2545	0.3547	73.5696
2007	28.7081	3.7584	7.7462	3.3510	2.8901	0.4123	0.4485	47.3147
2008	33.6567	3.1295	8.7899	3.6653	2.8253	0.1368	0.4211	52.6246
2009	33.7238	2.8002	7.3336	2.6634	3.4513	0.3525	0.4861	50.8111
2010	25.5356	2.8443	8.4364	2.4975	2.6212	0.3421	0.5356	42.8127
2011	24.0169	3.5503	8.1989	2.9378	2.8120	0.7784	0.2446	42.5389
2012	17.1378	3.2180	6.7956	2.5305	3.4225	0.4228	0.3526	33.8798
2013	17.3155	4.0673	6.8311	2.9541	2.8665	0.4179	0.2929	34.7454
2014	19.4462	3.4689	5.9225	3.0727	2.6671	0.5378	0.2430	35.3581
2015	18.0160	4.1418	6.8330	2.3292	3.6389	0.5180	0.2959	35.7728
2016	12.6632	4.6483	5.8637	2.5892	3.8842	0.6259	0.3514	30.6259
2017	10.2545	3.7968	6.0526	2.8590	3.3117	0.7195	0.3024	27.2965
2018	11.7671	5.9081	7.5026	3.8421	2.5564	0.4774	0.2943	32.3480
2019	8.9149	5.9650	5.9164	3.8187	1.9755	0.6883	0.2272	27.5060

"*" = no data available; "@" = does not include Rayleigh (12 Mm^{-1})

Table B-24. Observed Light Extinction Conditions for the Quabbin Summit (MA) MANE-VU IMPROVE Protocol Site

Year	Sulfate (Mm^{-1})	Nitrate (Mm^{-1}))	Organic Mass Carbon (Mm^{-1})	Light Absorbing Carbon (LAC or EC) (Mm^{-1})	Coarse Mass (Mm^{-1})	Sea Salt (Mm^{-1})	Soil (Mm^{-1})	Total PM@ (Mm^{-1})
20 PERCENT CLEAREST DAYS								
2000	*	*	*	*	*	*	*	*
2001	*	*	*	*	*	*	*	*
2002	8.7360	1.4980	3.1423	1.4287	1.0350	0.0682	0.1367	16.0449
2003	8.1240	1.3764	2.7190	1.3321	1.0553	0.4162	0.1203	15.1433
2004	8.4933	2.0595	3.1251	1.1864	0.8605	0.6640	0.1592	16.5479
2005	8.1678	1.4947	2.5061	1.3084	0.7654	0.3605	0.0996	14.7023
2006	6.8134	0.9413	2.4860	1.1023	1.0471	0.3127	0.1578	12.8606
2007	6.3782	0.8752	2.5085	1.1659	0.8128	0.3377	0.1115	12.1898
2008	*	*	*	*	*	*	*	*
2009	4.4180	1.1751	2.5844	0.9510	0.7106	0.3178	0.0958	10.2527
2010	4.4277	0.8346	2.0701	0.8020	0.5855	0.1490	0.1004	8.9692
2011	4.9204	0.9940	2.6365	0.9750	0.9782	0.2626	0.0770	10.8437
2012	4.9341	1.0878	2.2377	0.8340	0.7773	0.2506	0.0777	10.1993
2013	3.6430	0.8781	1.8449	0.6616	0.6905	0.3824	0.0608	8.1614
2014	3.6155	0.7482	2.6904	0.8088	0.7503	0.1924	0.0674	8.8730
2015	3.2001	0.7587	2.4806	0.6919	0.7758	0.1779	0.0547	8.1397
2016	*	*	*	*	*	*	*	*
2017	*	*	*	*	*	*	*	*
2018	*	*	*	*	*	*	*	*
2019	*	*	*	*	*	*	*	*
20 PERCENT MOST IMPAIRED DAYS								
2000	*	*	*	*	*	*	*	*
2001	*	*	*	*	*	*	*	*
2002	87.5615	13.5877	13.5346	5.8099	2.0144	0.3988	0.6542	123.5613
2003	95.9812	8.6454	14.3193	5.6276	1.8462	0.0036	0.5139	126.9373
2004	99.2982	6.1668	11.7721	4.6397	1.3856	0.3633	0.8338	124.4595
2005	123.9746	5.4925	12.7811	5.5915	1.0014	0.1662	0.5204	149.5277
2006	89.3196	7.1143	14.2509	5.5725	1.9501	0.2324	0.5624	119.0022
2007	96.5809	5.0212	13.0335	5.5507	2.0740	0.1952	0.6265	123.0821
2008	*	*	*	*	*	*	*	*
2009	51.1634	7.4767	9.0318	3.7350	1.3693	0.0305	0.5207	73.3275
2010	50.5061	7.4740	11.8326	4.3023	1.2107	0.0678	0.5802	75.9738
2011	38.3809	5.3707	11.0617	3.8056	1.9313	0.2922	0.2500	61.0924
2012	30.5335	10.1828	9.0695	3.9060	1.8711	0.3922	0.2695	56.2245
2013	26.5061	9.1901	9.1149	3.3680	1.1220	0.3286	0.2333	49.8631
2014	21.9011	9.1925	7.2063	3.2608	1.5754	0.3099	0.2563	43.7023
2015	23.5191	12.8911	9.8819	3.4958	1.5852	0.2679	0.2317	51.8728
2016	*	*	*	*	*	*	*	*
2017	*	*	*	*	*	*	*	*
2018	*	*	*	*	*	*	*	*
2019	*	*	*	*	*	*	*	*

"*" = no data available; "@" = does not include Rayleigh (11 Mm^{-1})

Table B-25. Observed Light Extinction Conditions for the Washington (DC) MANE-VU IMPROVE Protocol Site

Year	Sulfate (Mm^{-1})	Nitrate (Mm^{-1}))	Organic Mass Carbon (Mm^{-1})	Light Absorbing Carbon (LAC or EC) (Mm^{-1})	Coarse Mass (Mm^{-1})	Sea Salt (Mm^{-1})	Soil (Mm^{-1})	Total PM@ (Mm^{-1})
20 PERCENT CLEAREST DAYS								
2000	20.2290	8.3613	8.1563	7.8486	2.9868	0.2903	0.4916	48.3639
2001	21.8856	6.4138	6.9678	5.2682	2.5693	0.4244	0.4576	43.9868
2002	24.7875	7.7029	7.3664	5.3982	2.3853	0.4245	0.4397	48.5045
2003	18.7825	8.9710	6.6378	5.2137	2.3440	0.1197	0.4276	42.4963
2004	15.9874	6.9398	6.7776	5.1714	3.2455	0.9924	0.4796	39.5935
2005	21.0992	7.5743	6.4890	7.3366	3.6654	1.0452	0.4160	47.6257
2006	16.8418	6.3650	8.2168	9.2784	3.4092	0.7547	0.5817	45.4476
2007	18.7606	5.7842	6.3020	7.1679	2.9891	0.5558	0.4960	42.0557
2008	16.5293	6.2891	6.4253	6.3233	2.7337	0.8000	0.6174	39.7181
2009	16.1941	3.3231	4.7106	5.8078	2.4292	0.4784	0.4419	33.3851
2010	*	*	*	*	*	*	*	*
2011	11.9330	3.9007	5.5201	5.0175	2.9507	0.7124	0.3664	30.4009
2012	11.8355	2.8581	4.1455	3.6473	2.8459	0.4337	0.3679	26.1339
2013	*	*	*	*	*	*	*	*
2014	9.4982	2.9110	5.4467	3.2020	2.1887	0.5367	0.3278	24.1112
2015	*	*	*	*	*	*	*	*
2016	*	*	*	*	*	*	*	*
2017	*	*	*	*	*	*	*	*
2018	*	*	*	*	*	*	*	*
2019	*	*	*	*	*	*	*	*
20 PERCENT MOST IMPAIRED DAYS								
2000	101.8412	19.3286	15.1918	10.2366	2.4995	0.3616	0.6862	150.1454
2001	112.1808	22.1919	15.8360	10.8048	2.9061	0.1285	0.6833	164.7314
2002	138.3024	8.0661	19.2023	7.7938	3.5035	0.0094	1.3091	178.1866
2003	122.8629	16.7564	17.2556	8.9322	2.4289	0.0811	0.8751	169.1922
2004	127.1481	20.8400	17.8102	7.9071	3.7415	1.0427	1.2851	179.7747
2005	173.6003	19.9834	14.6740	12.6823	4.1659	0.6717	0.8080	226.5856
2006	112.5069	12.1191	14.0867	12.5614	4.0453	0.8565	0.8573	157.0333
2007	134.2265	10.9336	15.5780	11.1395	3.3508	0.5042	0.9441	176.6768
2008	95.1768	13.1989	14.8612	11.4457	4.2110	0.6096	1.2040	140.7072
2009	65.1122	12.0976	9.9592	9.4338	3.4932	0.6374	0.8232	101.5566
2010	*	*	*	*	*	*	*	*
2011	47.2417	15.5062	12.0078	9.9480	3.4113	0.5644	0.5456	89.2249
2012	33.6438	22.0119	9.2653	8.1660	3.0924	0.9071	0.5153	77.6019
2013	*	*	*	*	*	*	*	*
2014	35.1024	30.6659	9.9955	6.8273	2.8687	1.1537	0.5077	87.1213
2015	*	*	*	*	*	*	*	*
2016	*	*	*	*	*	*	*	*
2017	*	*	*	*	*	*	*	*
2018	*	*	*	*	*	*	*	*
2019	*	*	*	*	*	*	*	*

"*" = no data available; "@" = does not include Rayleigh (12 Mm^{-1})

Table B-26. Observed Light Extinction Conditions for the Quaker City (OH) Nearby Adjacent IMPROVE Protocol Site

Year	Sulfate (Mm^{-1})	Nitrate (Mm^{-1}))	Organic Mass Carbon (Mm^{-1})	Light Absorbing Carbon (LAC or EC) (Mm^{-1})	Coarse Mass (Mm^{-1})	Sea Salt (Mm^{-1})	Soil (Mm^{-1})	Total PM@ (Mm^{-1})
20 PERCENT CLEAREST DAYS								
2000	*	*	*	*	*	*	*	*
2001	*	*	*	*	*	*	*	*
2002	20.5021	6.5356	5.1468	2.7708	1.6979	0.1220	0.2376	37.0128
2003	17.6515	7.5608	5.5429	2.8919	2.0305	0.0030	0.2955	35.9762
2004	17.1741	6.7031	4.4364	2.2990	1.7848	0.3877	0.2755	33.0607
2005	23.3790	5.9021	4.4962	3.0408	2.1995	0.2783	0.2602	39.5560
2006	19.4179	4.3872	4.2179	2.6986	2.1460	0.2141	0.2285	33.3102
2007	18.1715	5.3346	4.3119	2.5535	2.0699	0.3296	0.2729	33.0439
2008	17.1187	3.6323	4.3403	2.1668	2.4037	0.1282	0.3142	30.1041
2009	15.3529	2.8048	3.2733	1.7114	2.5106	0.1752	0.2954	26.1237
2010	15.8395	3.1055	4.6230	2.3837	3.3120	0.2014	0.3712	29.8364
2011	12.0258	3.8813	4.1104	2.1617	2.5419	0.5807	0.1825	25.4842
2012	12.0549	3.0941	3.6715	1.8241	2.6965	0.1402	0.2874	23.7686
2013	12.0585	3.0855	3.0215	1.6305	2.7867	0.1984	0.2033	22.9844
2014	12.0703	3.7801	3.3463	1.9473	2.4510	0.1887	0.2086	23.9924
2015	9.4963	2.5841	4.4384	1.9158	2.3409	0.1248	0.2370	21.1371
2016	8.2828	2.5227	3.1935	1.3246	2.5283	0.1005	0.1318	18.0842
2017	7.2834	2.6762	3.3910	1.5753	1.9262	0.0667	0.1337	17.0525
2018	8.2044	3.0168	4.0251	2.0282	1.8785	0.1455	0.1914	19.4899
2019	6.8427	2.3064	3.8247	2.0517	1.8751	0.1212	0.2049	17.2268
20 PERCENT MOST IMPAIRED DAYS								
2000	*	*	*	*	*	*	*	*
2001	*	*	*	*	*	*	*	*
2002	174.6730	7.9584	11.2093	5.0152	1.9320	0.0056	0.9305	201.7239
2003	165.8683	6.4209	10.7639	5.9894	1.9306	0.6483	0.5785	192.1999
2004	181.6486	3.1243	12.1142	5.6321	2.6744	0.2931	1.2210	206.7077
2005	208.8227	5.5600	9.0612	5.9709	3.6493	0.1465	0.6316	233.8422
2006	155.3690	3.6090	10.8931	5.4906	3.0936	0.1042	0.6713	179.2308
2007	159.5456	4.9584	10.5730	5.5973	4.1370	0.1145	1.0374	185.9632
2008	100.2149	10.7560	10.1620	4.8675	3.4314	0.1683	0.7921	130.3922
2009	80.3296	17.5275	8.1141	4.4812	2.6654	0.1453	0.6228	113.8858
2010	94.1996	22.7671	9.1139	4.5689	2.9586	0.0998	0.6599	134.3678
2011	90.5283	11.2599	7.7036	3.8591	3.2474	0.2704	0.3223	117.1910
2012	56.1394	11.7765	7.0154	4.0644	3.4367	0.3290	0.4387	83.2001
2013	51.2245	25.6599	6.2777	3.5775	2.6427	0.4484	0.2872	90.1178
2014	46.6566	30.8552	7.0661	4.4335	2.6618	0.4846	0.3386	92.4964
2015	45.9649	20.6321	9.0459	4.6403	3.0543	0.3390	0.3691	84.0457
2016	27.9322	23.1119	6.2211	3.0956	2.6071	0.2519	0.2140	63.4337
2017	26.6334	20.4893	8.0184	4.0430	2.4108	0.1671	0.2628	62.0248
2018	21.8111	24.1239	6.0530	3.7373	2.1138	0.3905	0.2207	58.4503
2019	19.7012	26.2278	5.9964	3.6004	1.5845	0.4609	0.2096	57.7807

"*" = no data available; "@" = does not include Rayleigh (11 Mm^{-1})

Appendix C: Baseline and Current Visibility Species Trends Plots for Current Active IMPROVE Monitoring Sites In and Adjacent to the MANE-VU Region

Figure C-1. Presque Isle, ME Species Percent Contribution to Baseline (2002-04) and Current (2015-19) Haze Index Levels

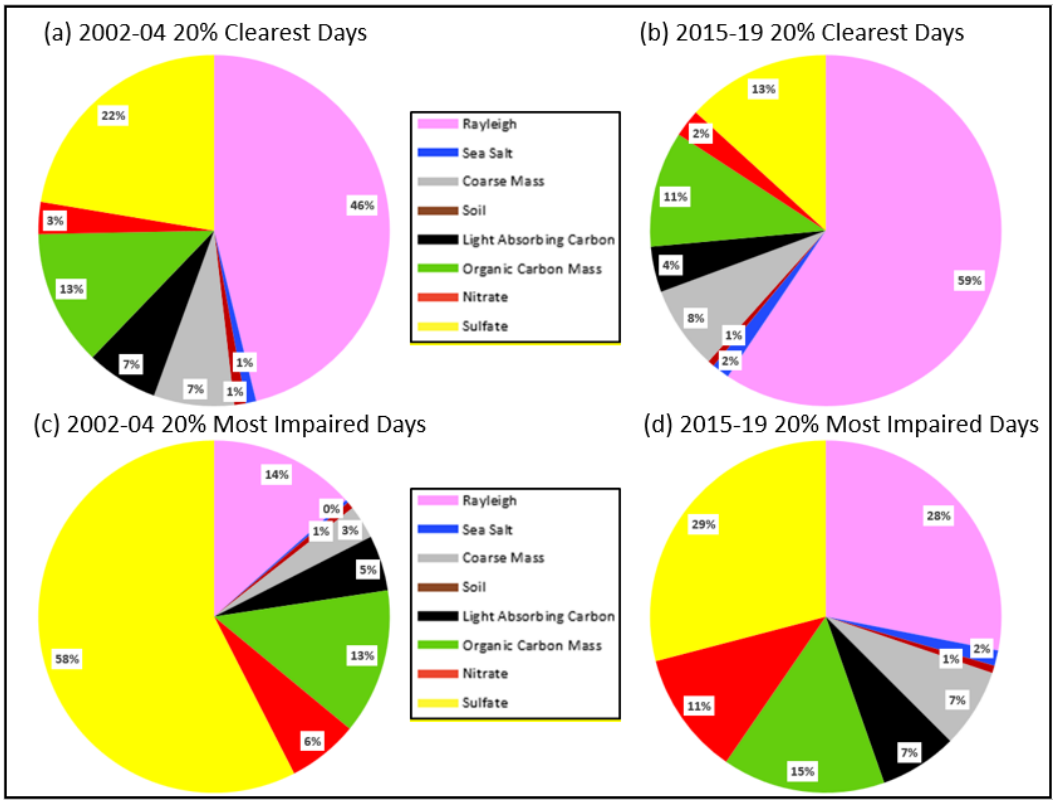


Figure C-2. Penobscot Nation, ME Species Percent Contribution to Baseline (2006-08) and Current (2015-19) Haze Index Levels

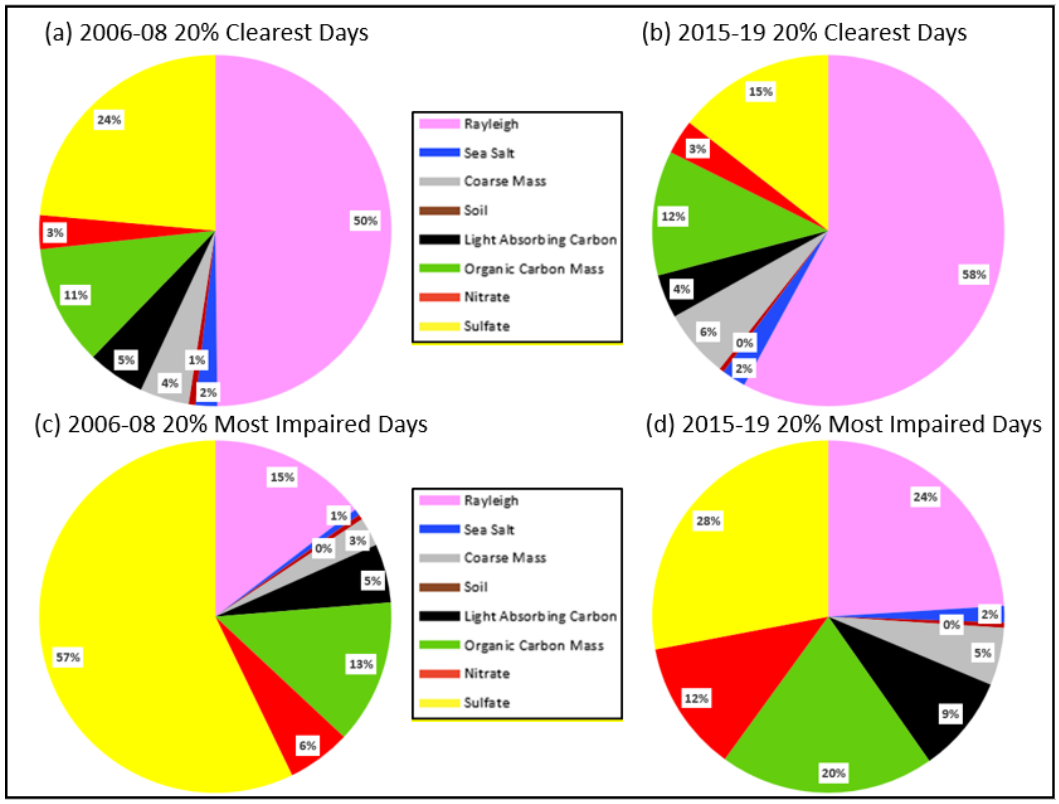


Figure C-3. Casco Bay, ME Species Percent Contribution to Baseline (2002-04) and Current (2015-19) Haze Index Levels

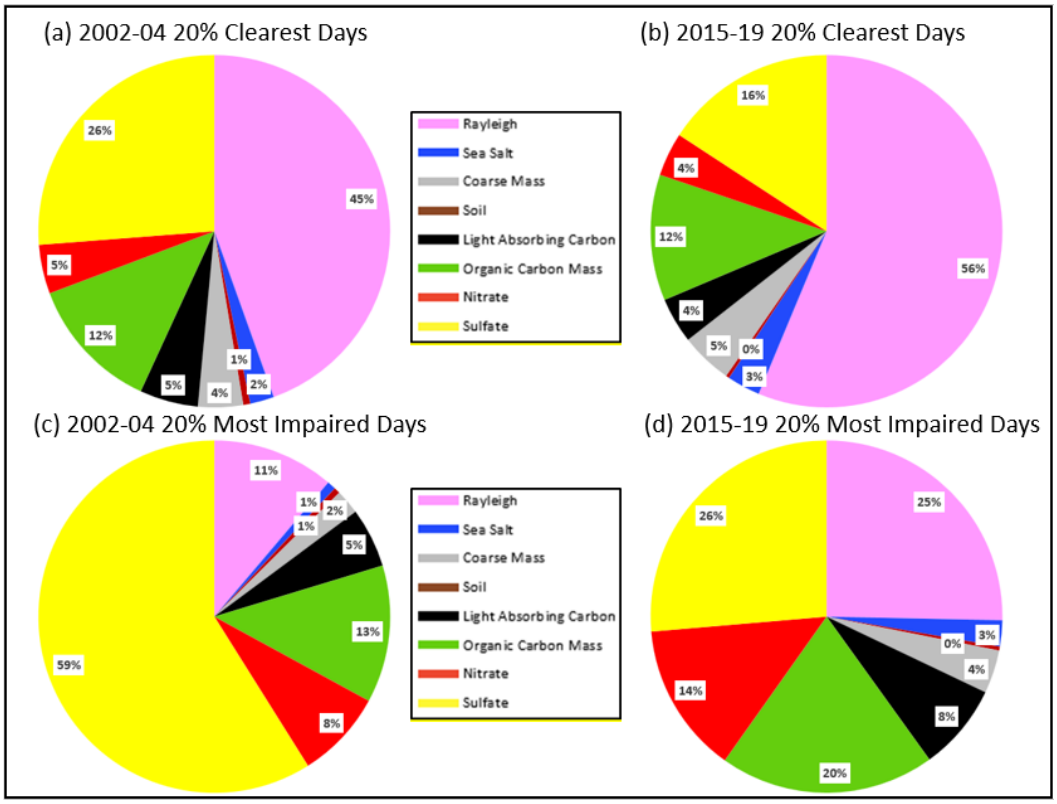


Figure C-4. Proctor Maple R.F., VT Species Percent Contribution to Baseline (2002-04) and Current (2015-19) Haze Index Levels

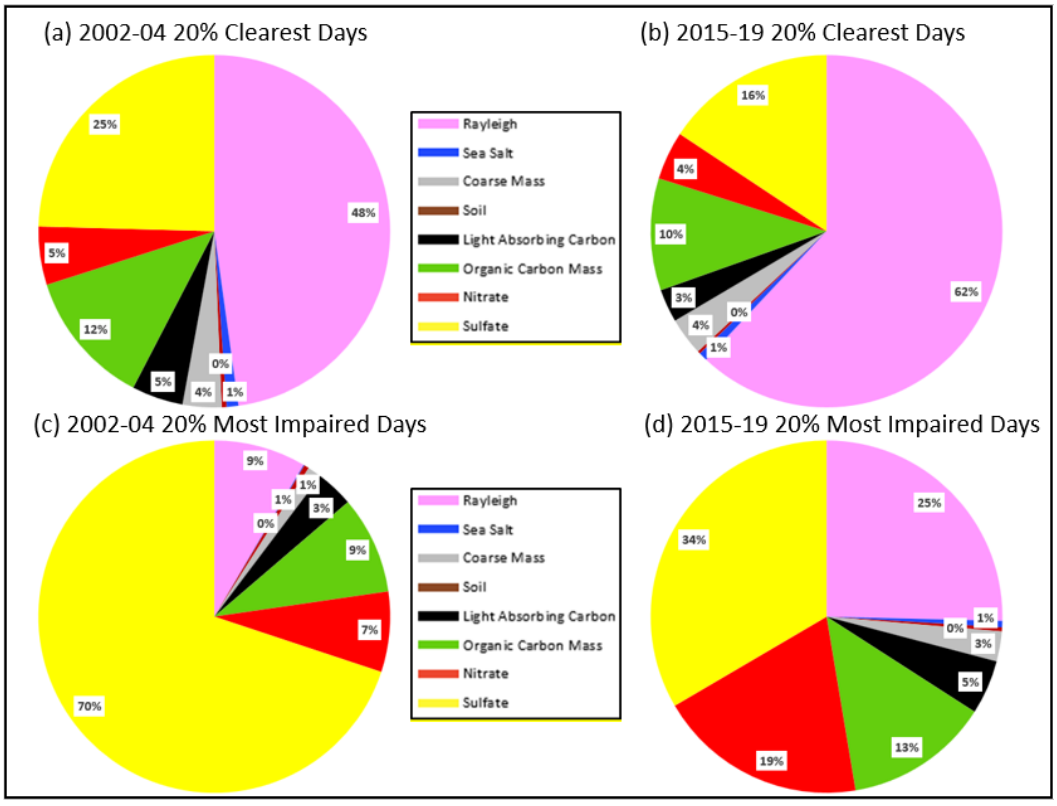


Figure C-5. Londonderry, NH Species Percent Contribution to Baseline (2011-13) and Current (2015-19) Haze Index Levels

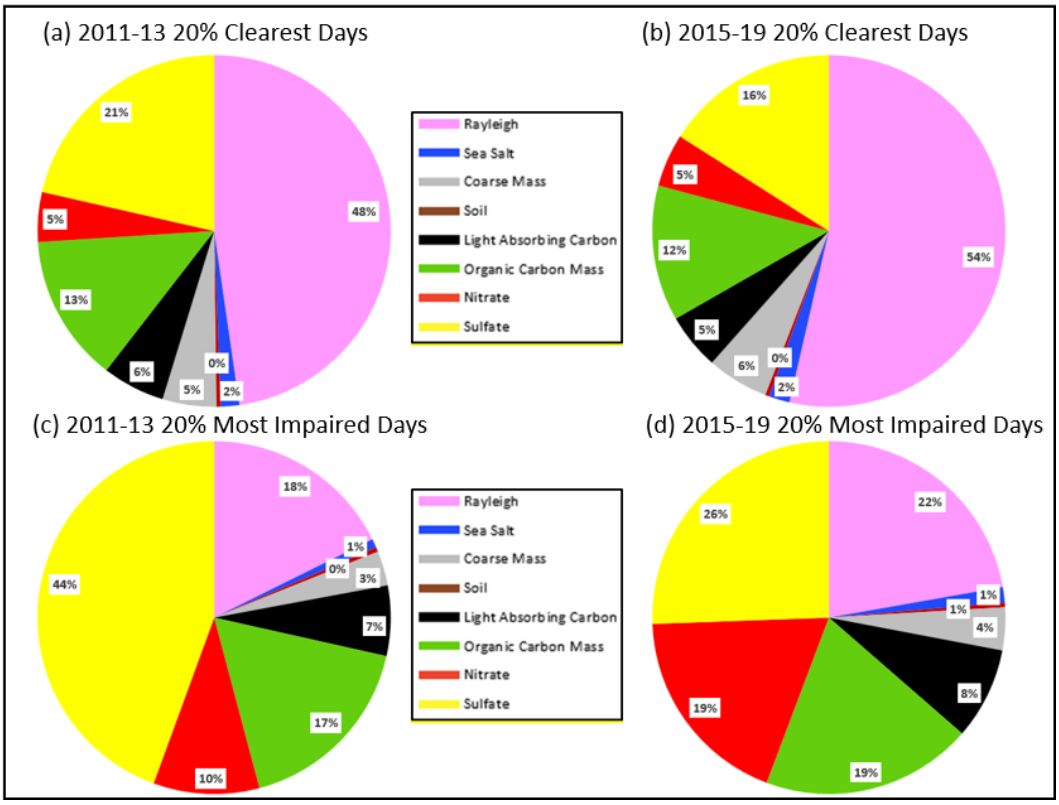


Figure C-6. Pack Monadnock Summit, NH Species Percent Contribution to Baseline (2008-10) and Current (2015-19) Haze Index Levels

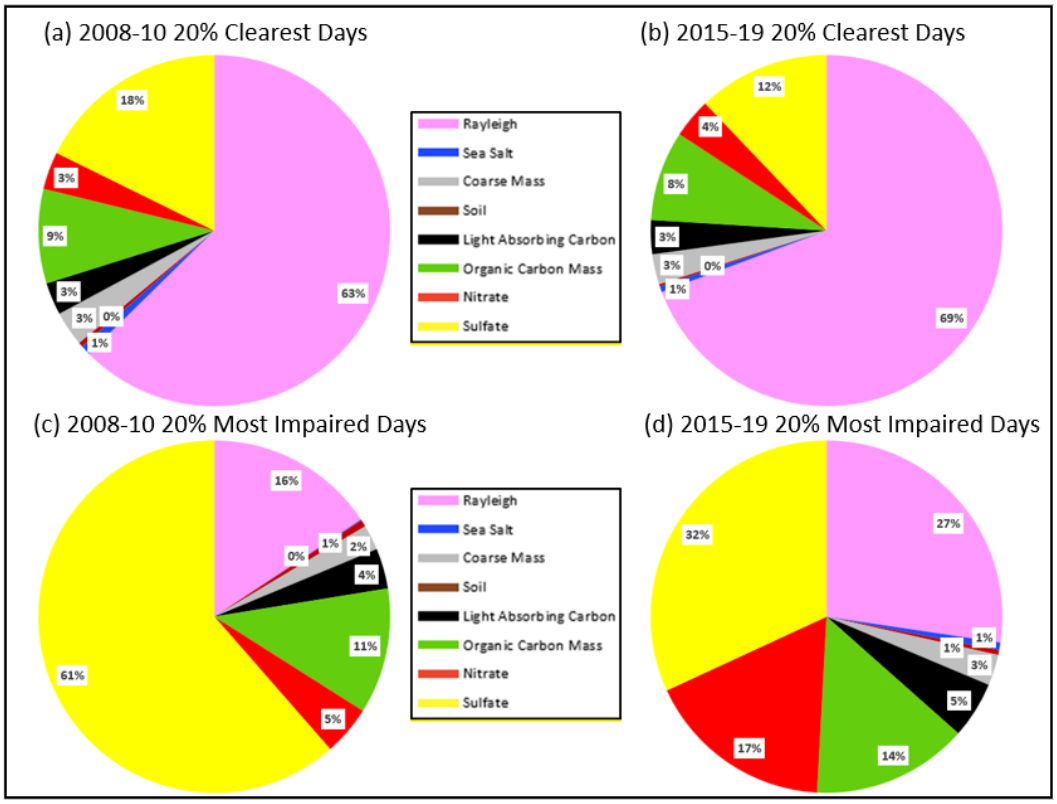


Figure C-7. Mohawk Mt., CT Species Percent Contribution to Baseline (2002-04) and Current (2015-19) Haze Index Levels

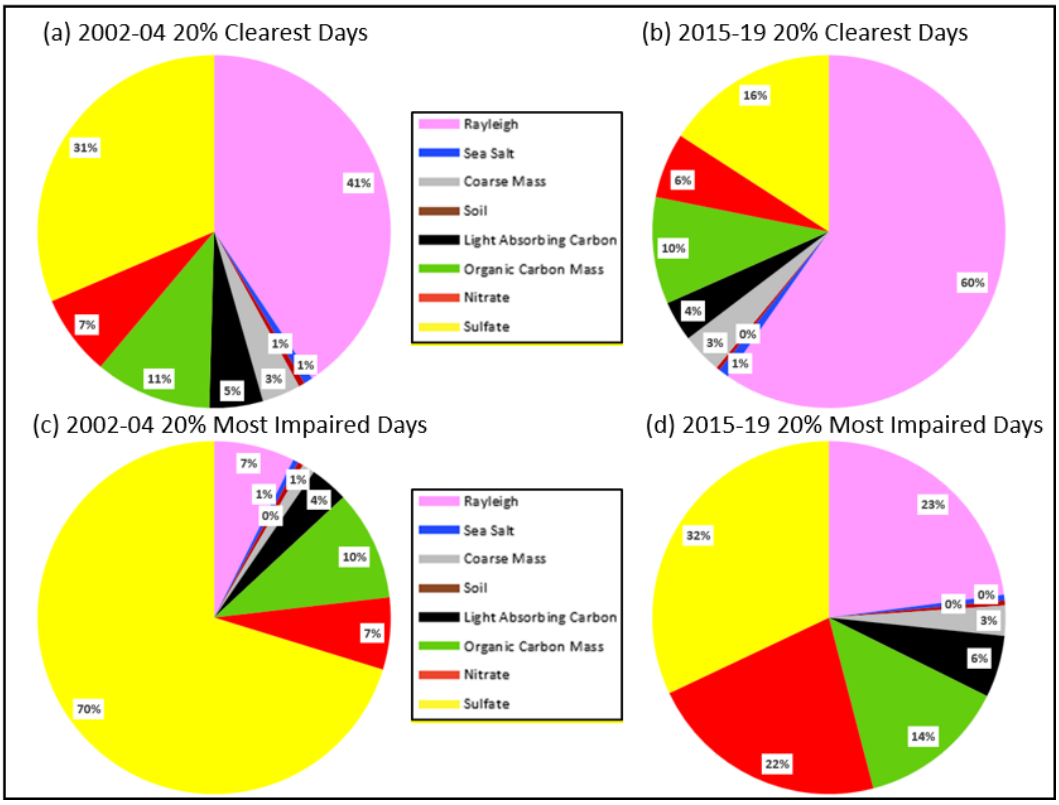


Figure C-8. Cape Cod, MA Species Percent Contribution to Baseline (2002-04) and Current (2015-19) Haze Index Levels

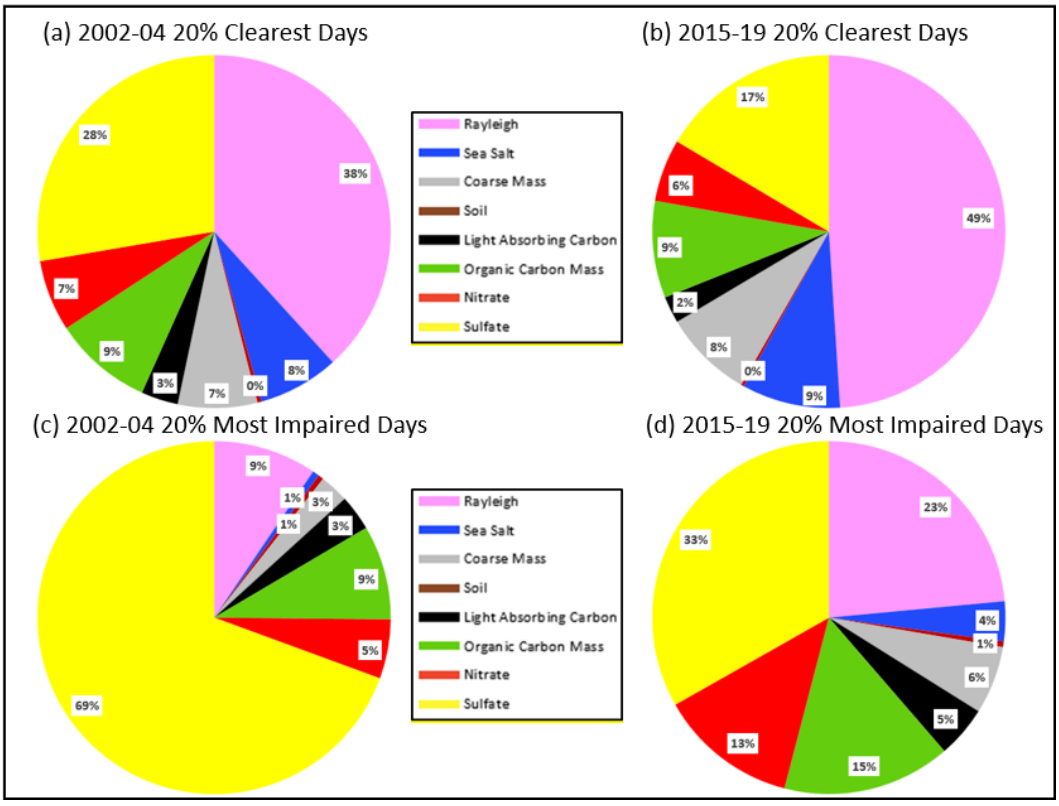


Figure C-9. Martha's Vineyard, MA Species Percent Contribution to Baseline (2003-05) and Current (2015-19) Haze Index Levels

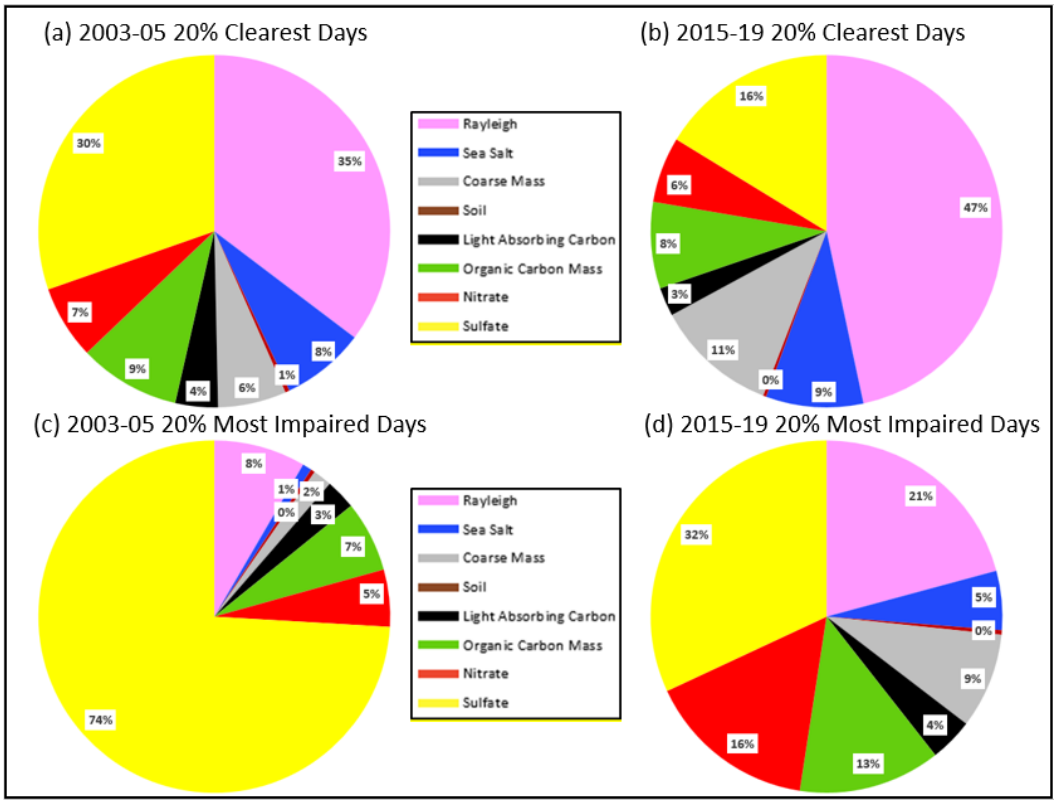


Figure C-10. Frostburg Reservoir, MD Species Percent Contribution to Baseline (2005-07) and Current (2015-19) Haze Index Levels

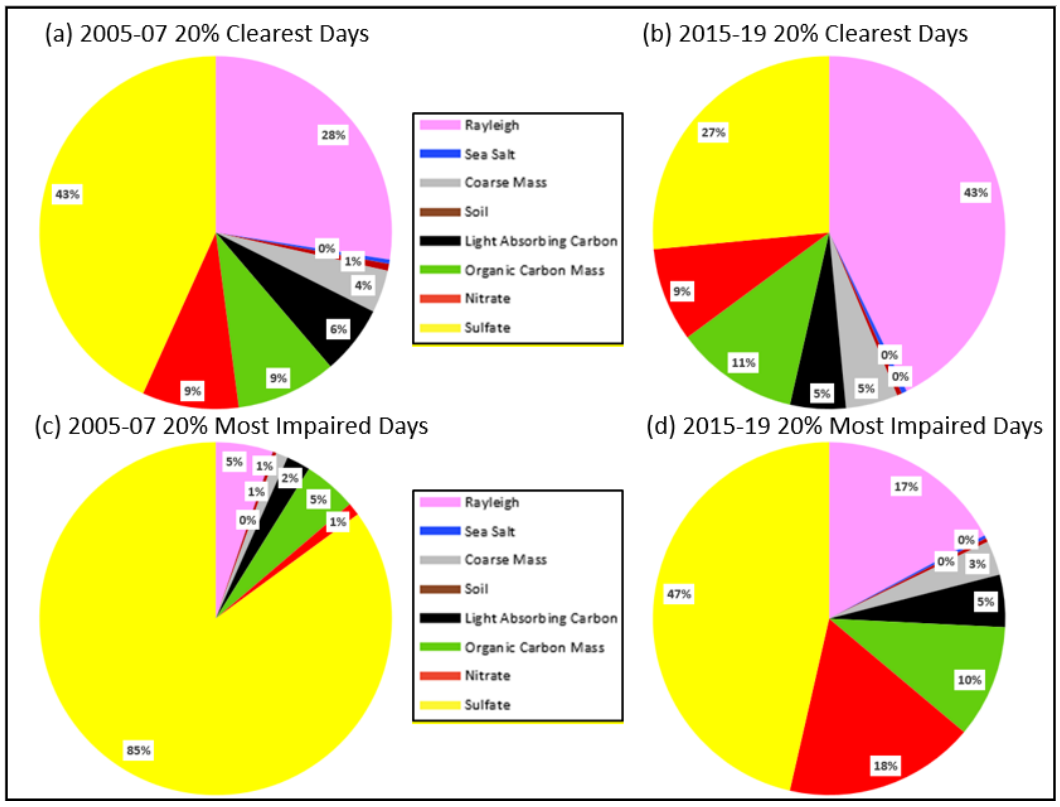
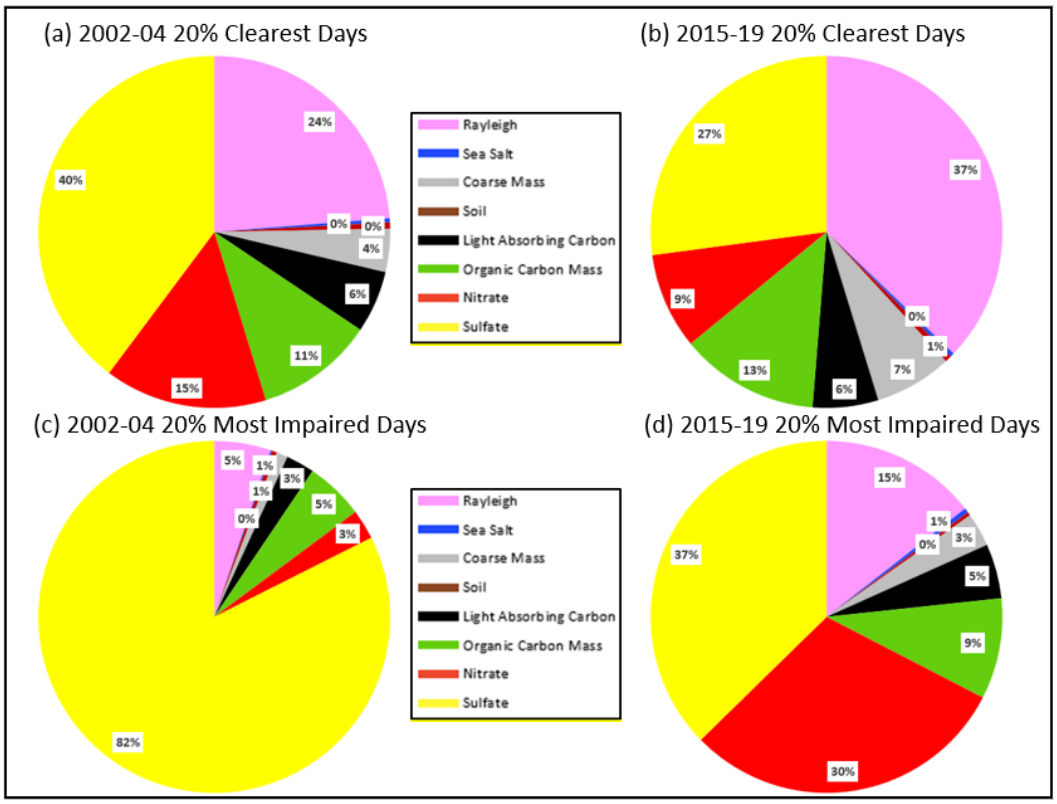


Figure C-11. Quaker City, OH Species Percent Contribution to Baseline (2002-04) and Current (2015-19) Haze Index Levels



Appendix D: Annual Visibility Species Trends Plots for Current Active IMPROVE Monitoring Sites In and Adjacent to the MANE-VU Region

Figure D-1. Presque Isle, ME Individual Species Contribution to Annual Haze Index Levels on 20 Percent Clearest and Most Impaired Visibility Days

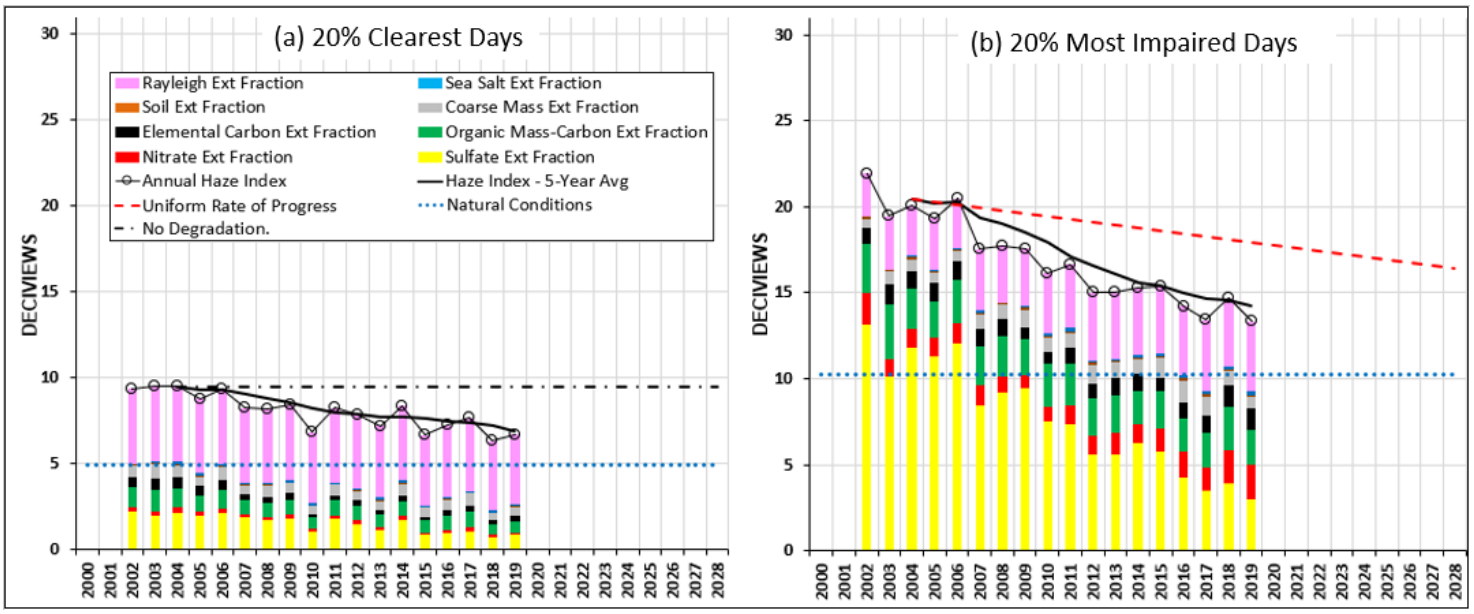


Figure D-2. Penobscot Nation, ME Individual Species Contribution to Annual Haze Index Levels on 20 Percent Clearest and Most Impaired Visibility Days

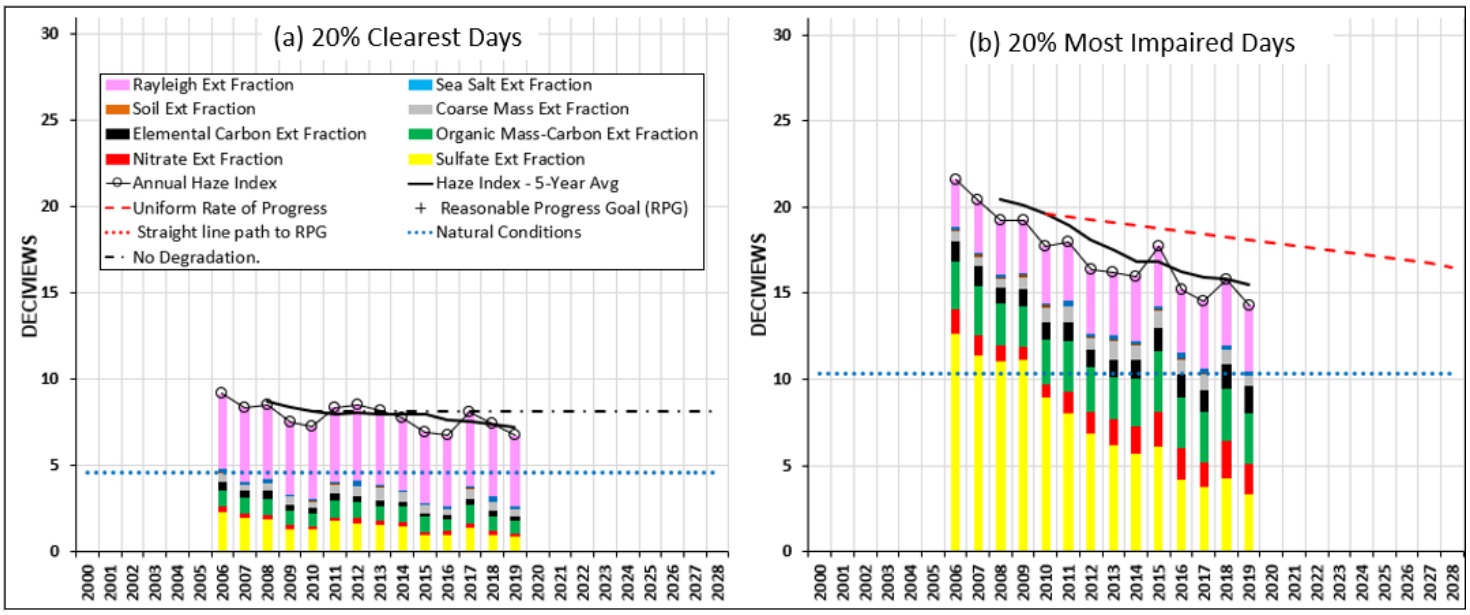


Figure D-3. Casco Bay, ME Individual Species Contribution to Annual Haze Index Levels on 20 Percent Clearest and Most Impaired Visibility Days

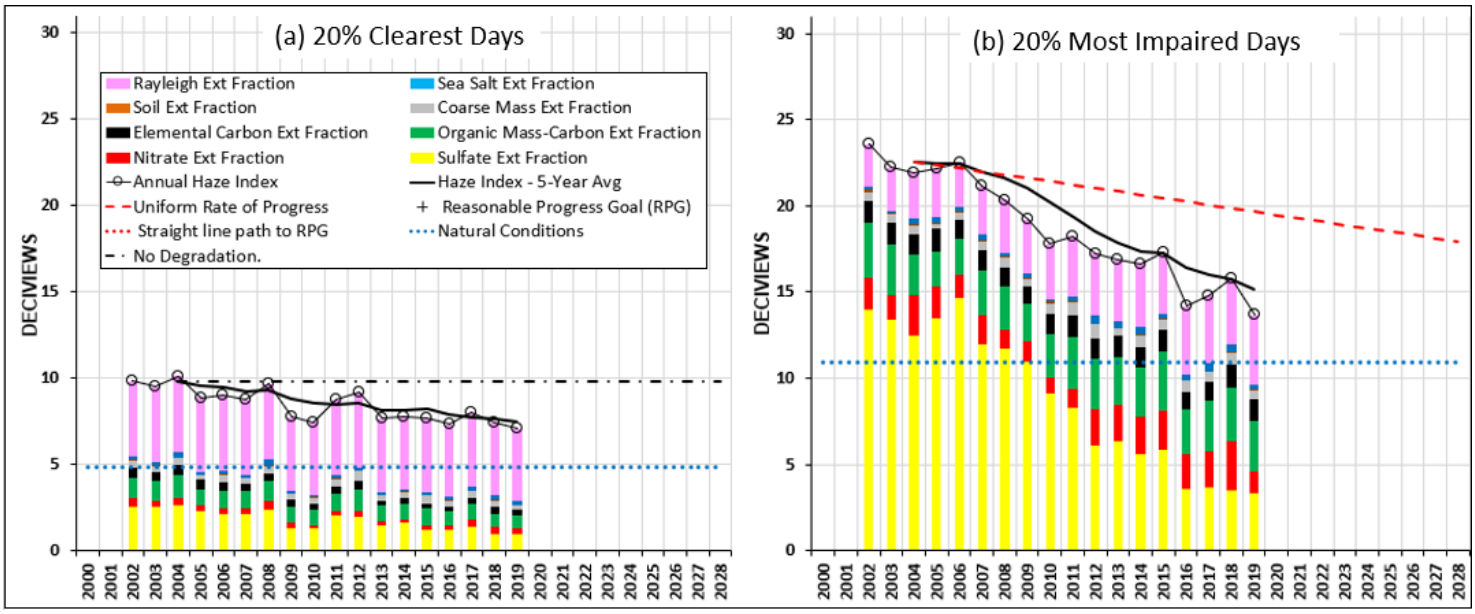


Figure D-4. Proctor Maple R.F., VT Individual Species Contribution to Annual Haze Index Levels on 20 Percent Clearest and Most Impaired Visibility Days

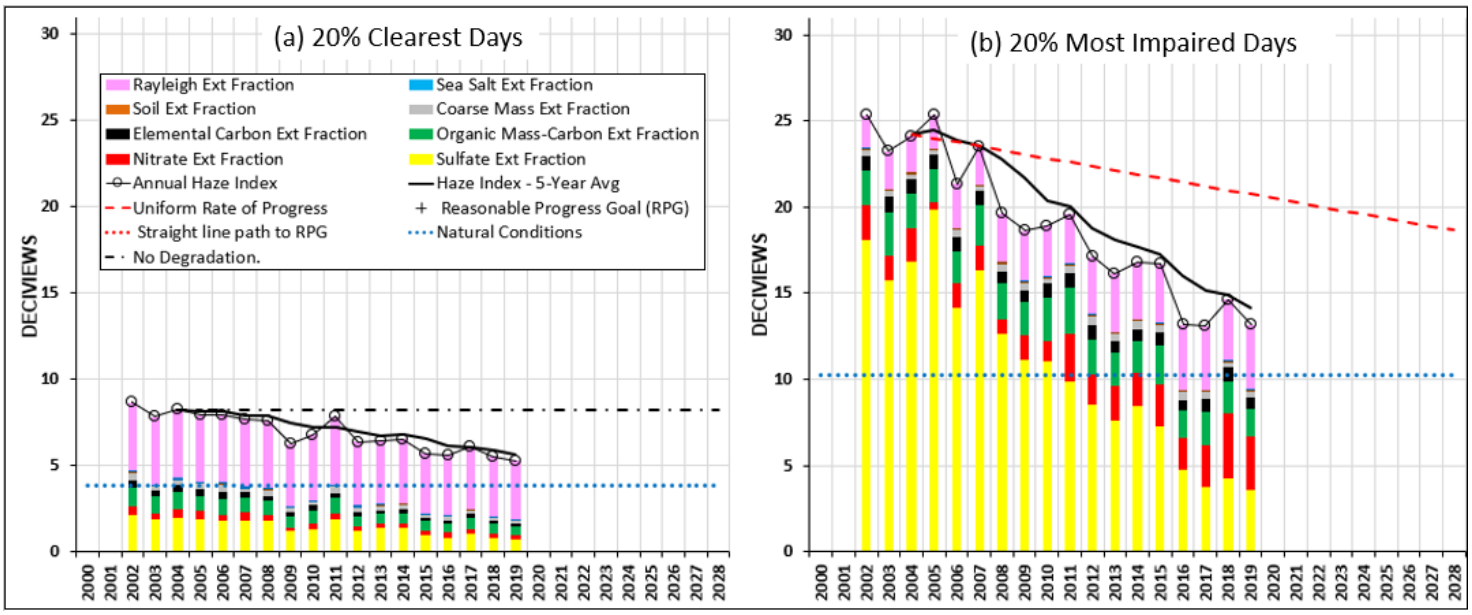


Figure D-5. Londonderry, NH Individual Species Contribution to Annual Haze Index Levels on 20 Percent Clearest and Most Impaired Visibility Days

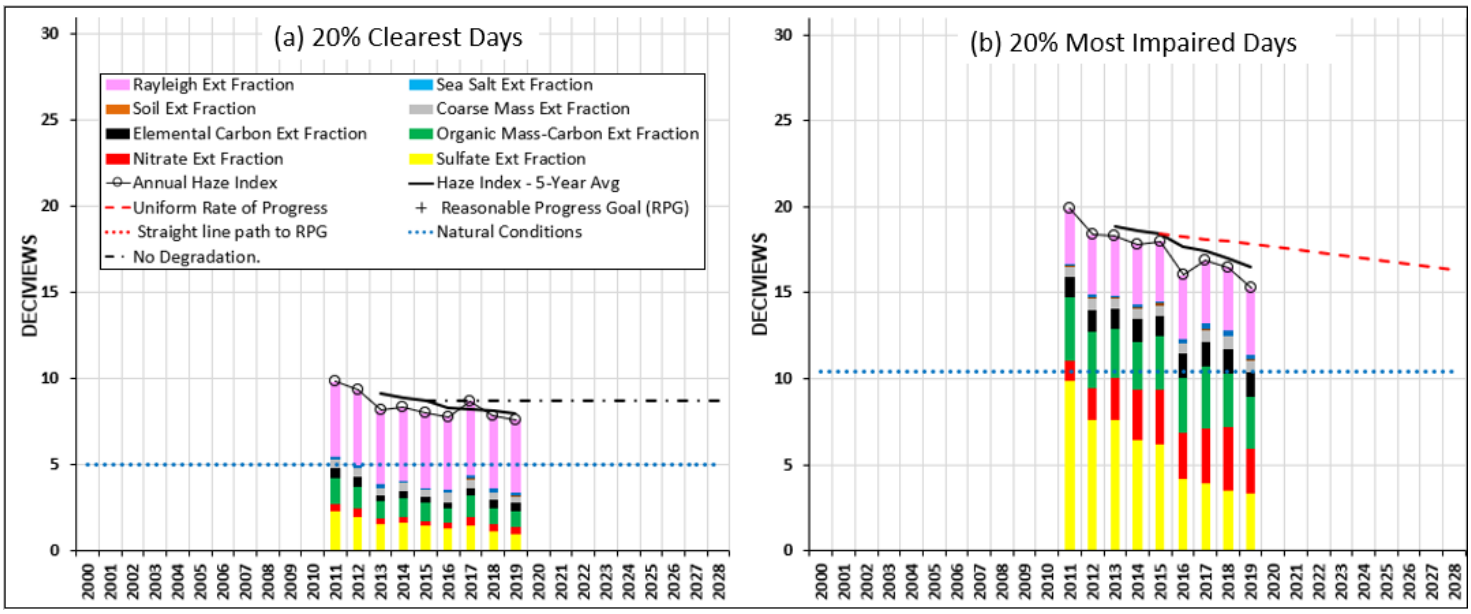


Figure D-6. Pack Monadnock Summit, NH Individual Species Contribution to Annual Haze Index Levels on 20 Percent Clearest and Most Impaired Visibility Days

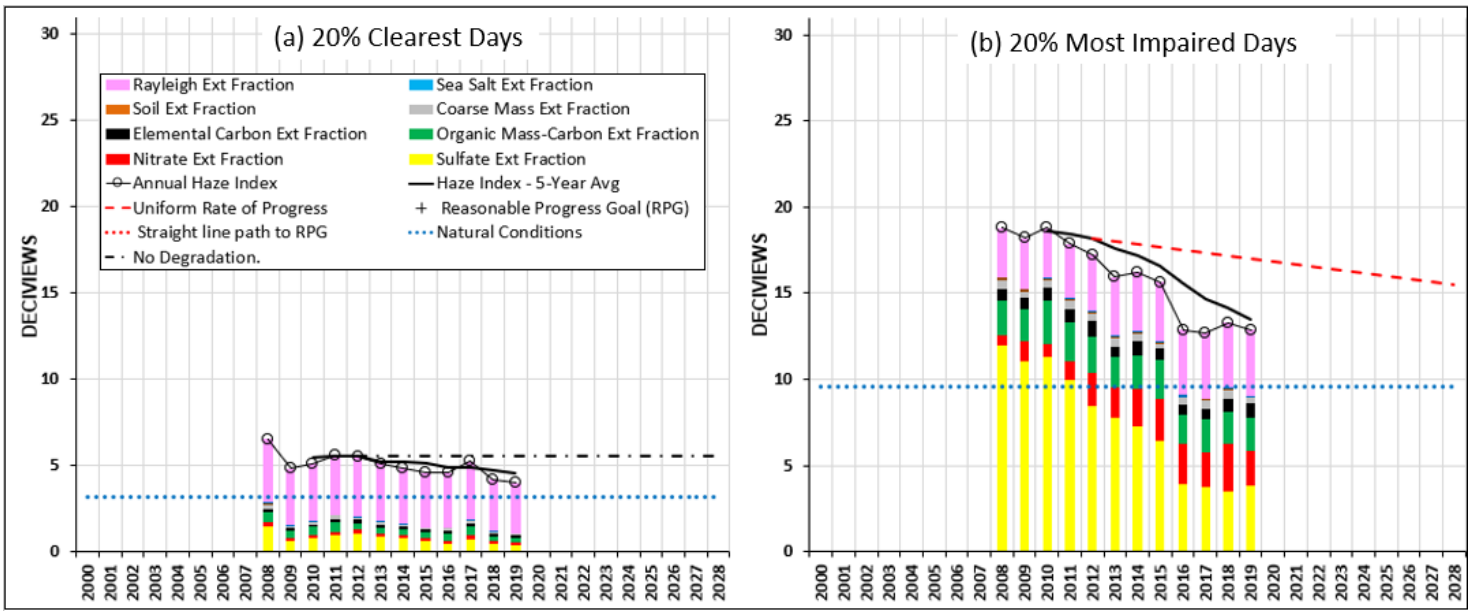


Figure D-7. Mohawk Mt., CT Individual Species Contribution to Annual Haze Index Levels on 20 Percent Clearest and Most Impaired Visibility Days

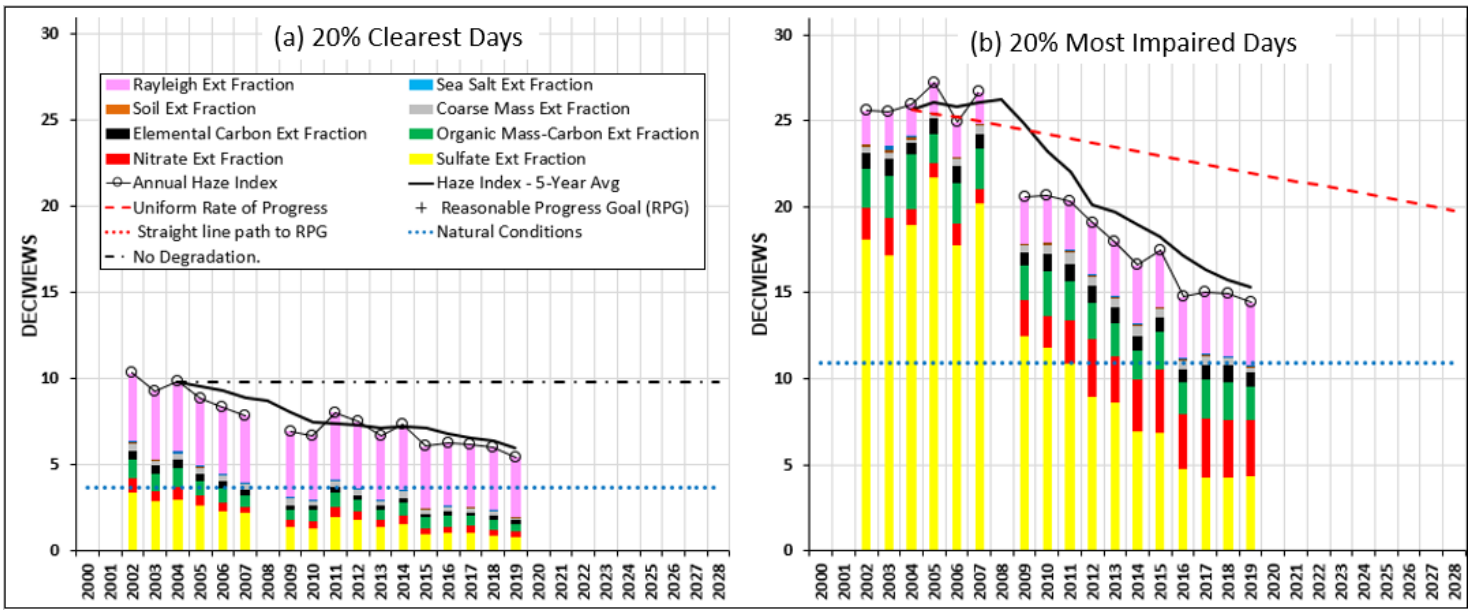


Figure D-8. Cape Cod, MA Individual Species Contribution to Annual Haze Index Levels on 20 Percent Clearest and Most Impaired Visibility Days

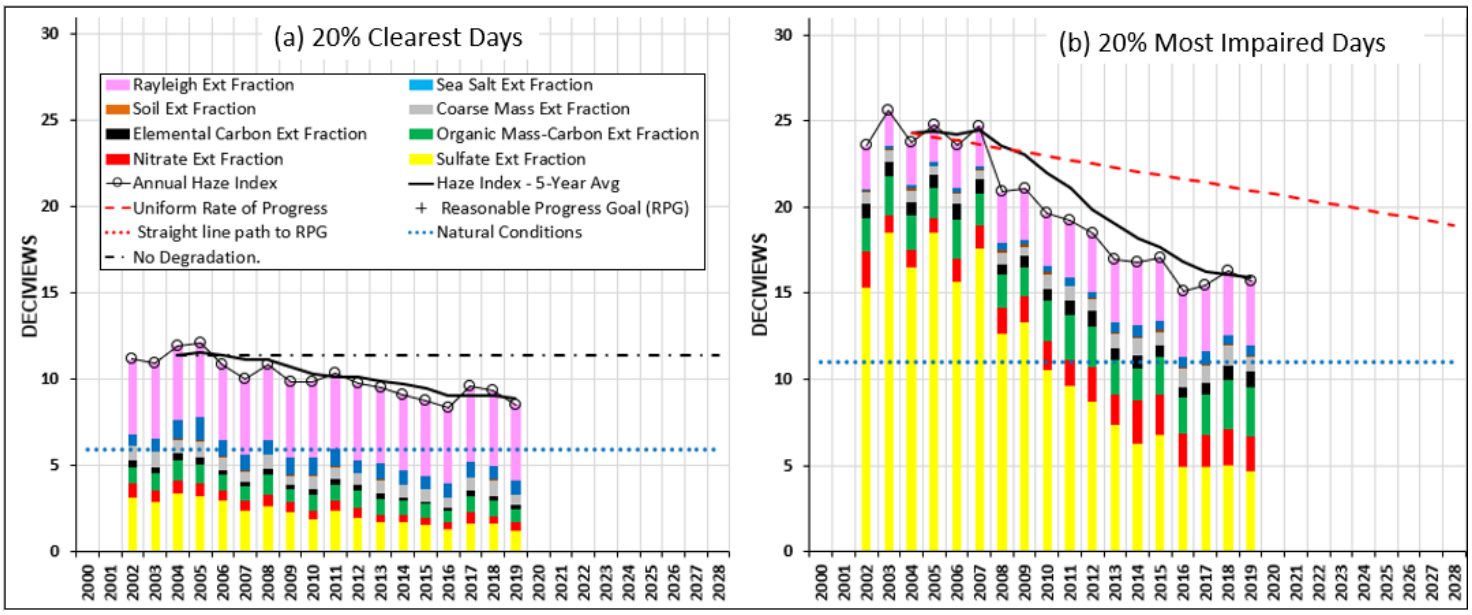


Figure D-9. Martha's Vineyard, MA Individual Species Contribution to Annual Haze Index Levels on 20 Percent Clearest and Most Impaired Visibility Days

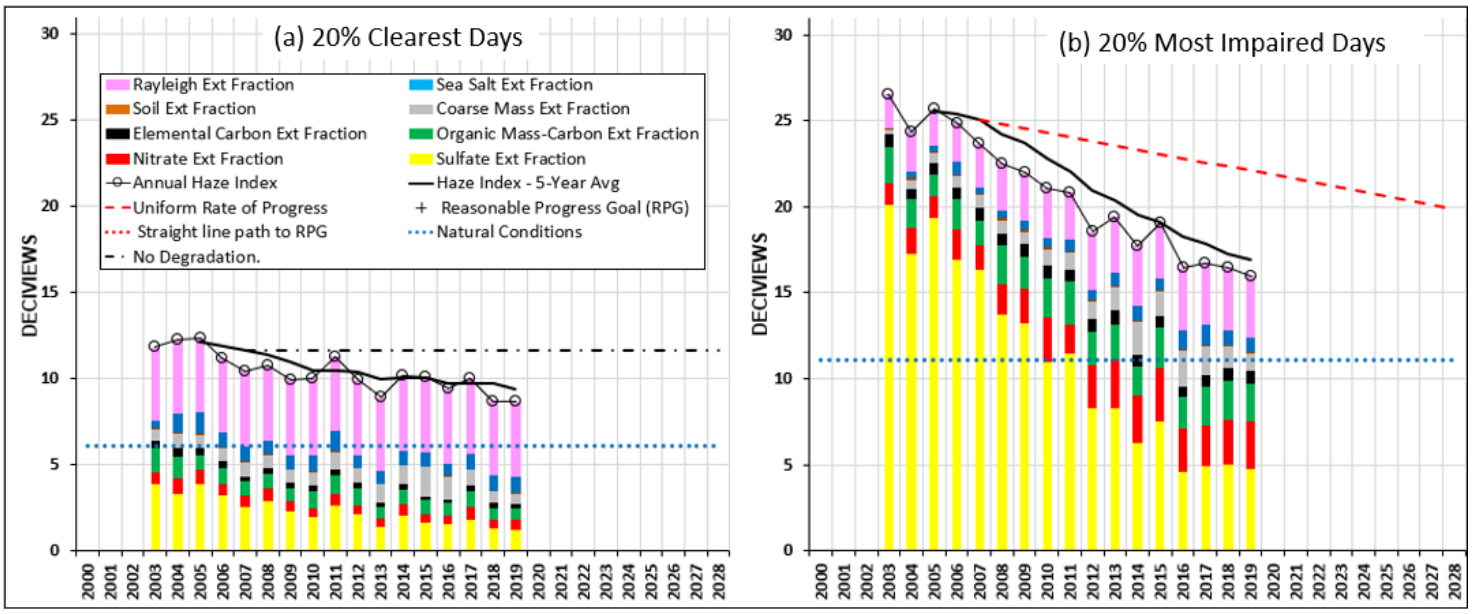


Figure D-10. Frostburg Reservoir, MD Individual Species Contribution to Annual Haze Index Levels on 20 Percent Clearest and Most Impaired Visibility Days

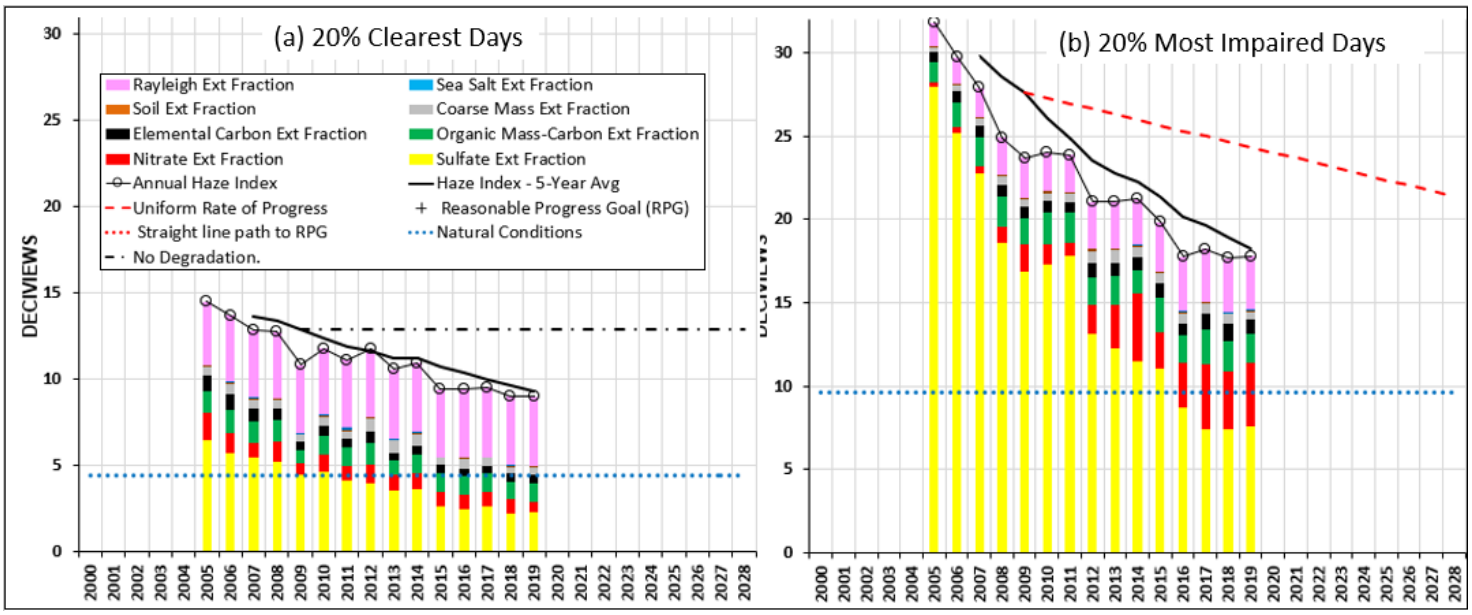
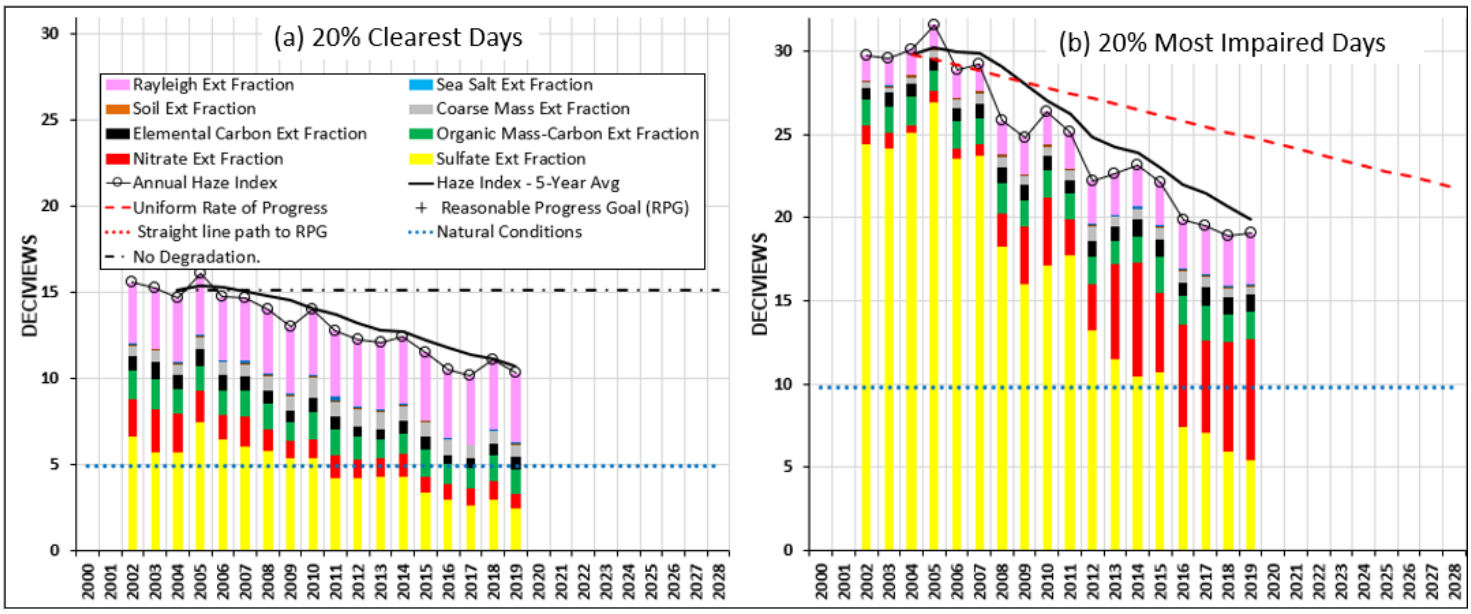


Figure D-11. Quaker City, OH Individual Species Contribution to Annual Haze Index Levels on 20 Percent Clearest and Most Impaired Visibility Days



Appendix E: Seasonal Trend Plots of 20 Percent Most Impaired Days for Current Active IMPROVE Monitoring Sites In and Adjacent to the MANE-VU Region

Figure E-1. Seasonal Breakdown of 20 Percent Most Impaired Visibility Days for Maine and Vermont IMPROVE Protocol Sites

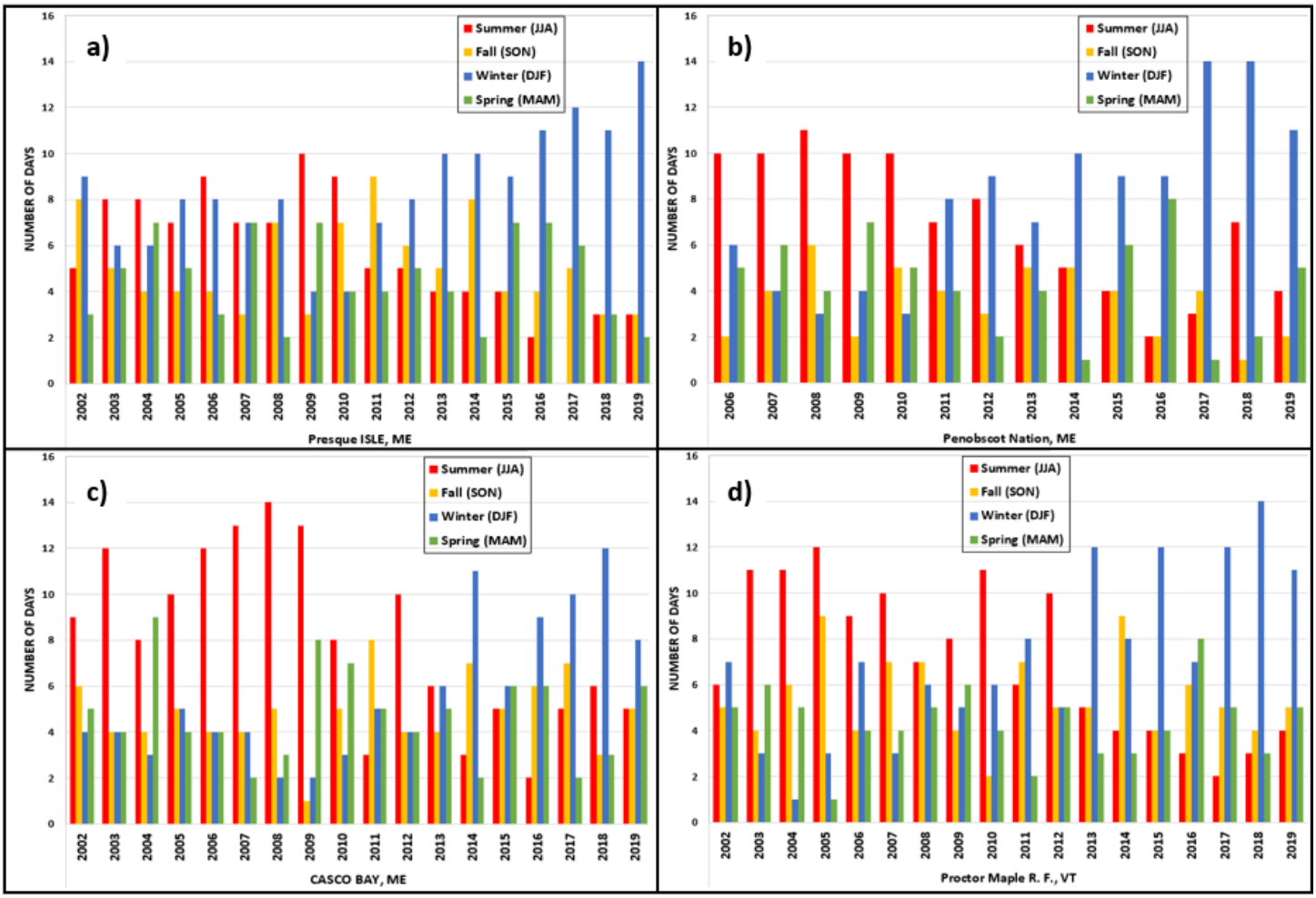


Figure E-2. Seasonal Breakdown of 20 Percent Most Impaired Visibility Days for New Hampshire, Connecticut and Cape Cod, MA IMPROVE Protocol Sites

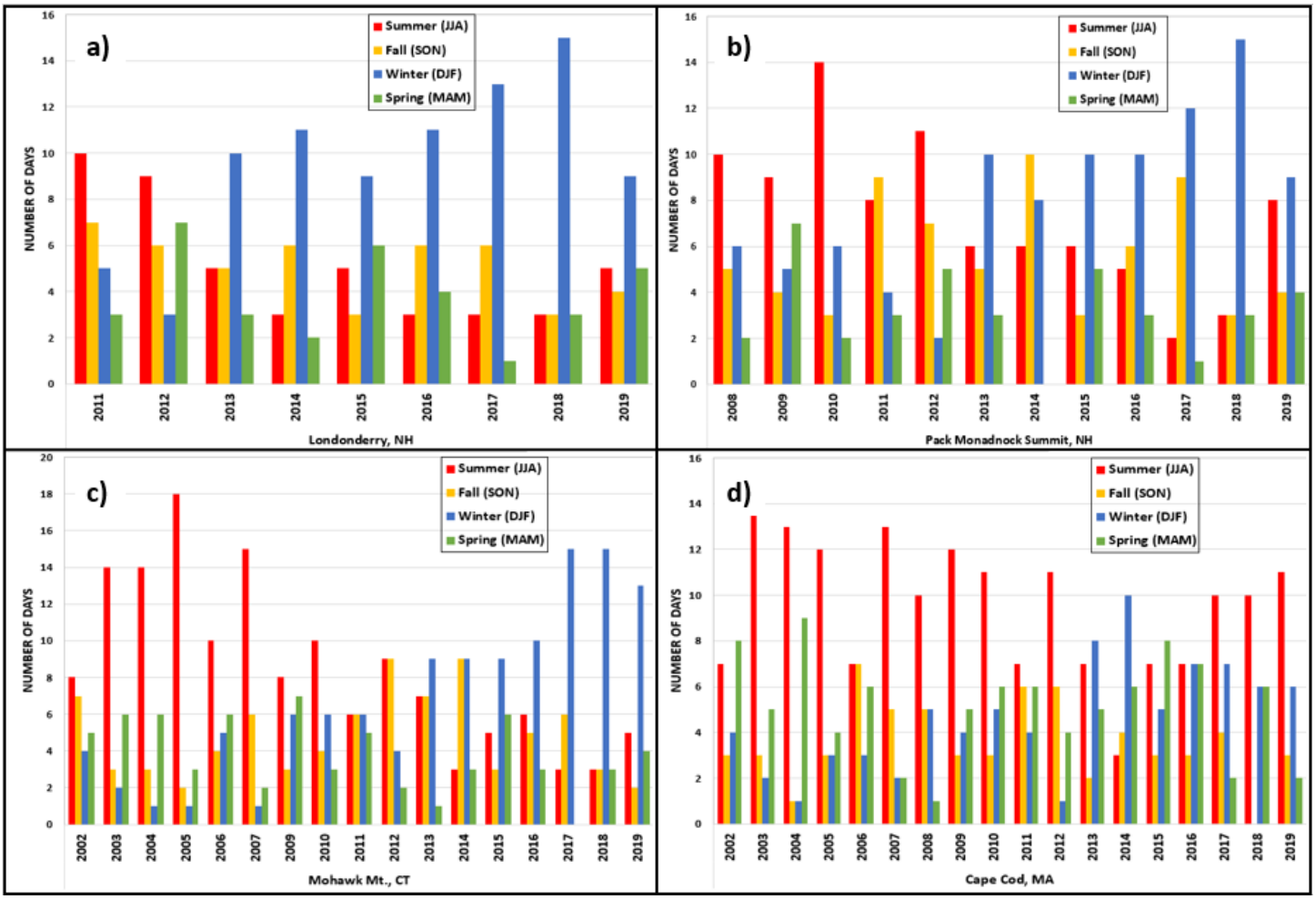
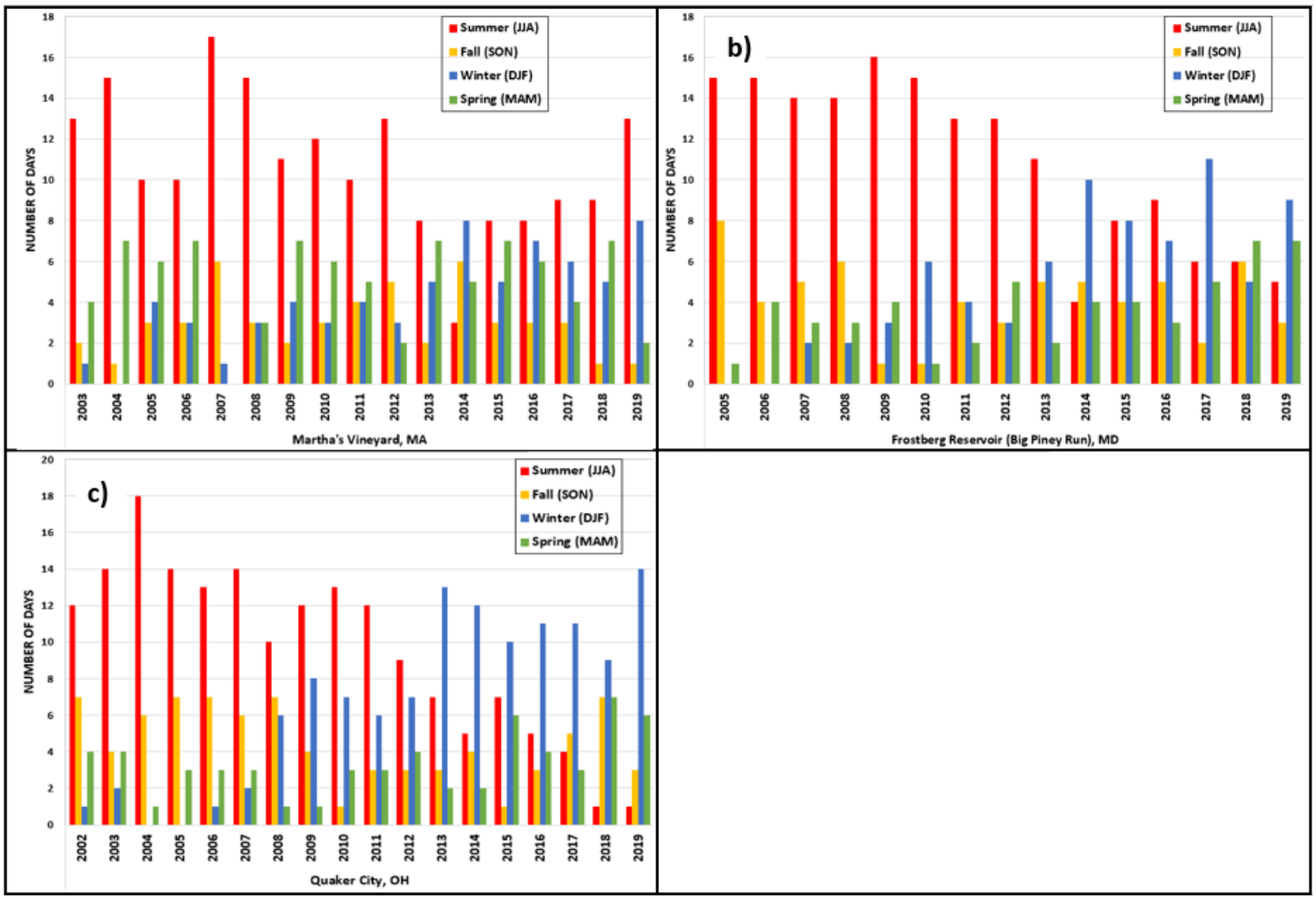


Figure E-3. Seasonal Breakdown of 20 Percent Most Impaired Visibility Days for Maryland, Ohio and Martha's Vineyard, MA and Vermont IMPROVE Protocol Sites



APPENDIX C

2016 MANE-VU Source Contribution Modeling Report

CALPUFF Modeling of Large Electrical Generating Units and Industrial Sources

April 4, 2017

MANE - VU

Mid-Atlantic/Northeast Visibility Union

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Acknowledgments

This study was made possible through the meteorological modeling efforts Dan Riley of the Vermont Department of Environmental Conservation (VTDEC) , analysis and report drafting efforts of Jessica Dunbar, David Healy, and Jeff Underhill of the New Hampshire Department of Environmental Services (NHDES), the dispersion modeling efforts of NHDES interns Anthony Picone and Maxwell Tuttle, and efforts from members of the MANE-VU Technical Support Committee (and others) who provided comment on the technical analysis and the report.

Executive Summary

New Hampshire Department of Environmental Services (NHDES) in conjunction with Vermont Department of Environmental Conservation (VTDEC) carried out air pollution transport modeling with the CALPUFF dispersion model, which was used to simulate sulfate and nitrate formation and transport in the Mid-Atlantic Northeast Visibility Union (MANE-VU) and nearby regions. This modeling effort focused on electric generating units (EGUs) and large industrial and institutional sources in the eastern and central United States. NHDES and VTDEC used the CALMET, CALPUFF and CALPOST programs to estimate pollutant concentrations and visibility impacts at eleven Class I areas in the northeastern U.S. Both groups completed different steps throughout the dispersion modeling process with quality assurance steps carried out by both parties.

The VTDEC developed meteorological inputs for CALPUFF through the use of observation-based National Weather Service (NWS) inputs and application of CALMET. The resulting meteorological files were provided to NHDES, who developed hourly and annual sulfur dioxide and nitrogen oxide emissions inputs for CALPUFF. Emissions inputs for EGUs were derived from continuous emissions monitoring system (CEMS) data files. NHDES chose to model 95th percentile daily emissions in order to represent high end emission days but at the same time eliminate outlying high emissions due to occasional events such as start-ups and shut downs. Annual emissions were also modeled to provide a sense of how the predicted visibility impacts differ, especially for units that are infrequently operated. Emissions for industrial and institutional units were derived from reported annual emissions adjusted to a typical hourly emission estimate based on emission unit operational statistics.

Calculated 95th percentile 2011 and 2015 EGU emissions for sulfur dioxide (SO_2) and nitrogen oxides (NO_X) were modeled for each day of the year to assess the maximum 24-hour impact to each of eleven Class I areas located in the northeastern United States. Similarly, annual 2011 and 2015 emissions were modeled by NHDES for the entire year for each Class I area. This process was carried out for each of the provided years of meteorology (2002, 2011, and 2015). The industrial and institutional typical hourly emission sources (2011 emissions) were modeled with 2002, 2011 and 2015 meteorology. The results (including 24-hour maximum sulfate [SO_4] and nitrate [NO_3] concentrations, extinction, and deciviews), were used to rank emission units by their extinction value at each Class I area.

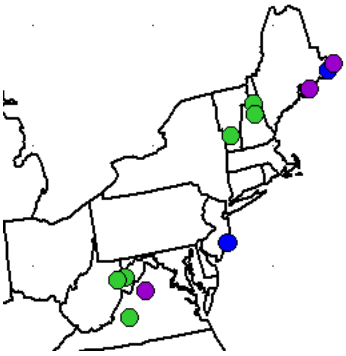
The resulting ranking tables revealed Ohio as the top contributing state to visibility impact at all Class I areas using 2011 95th percentile EGU emissions with meteorology from years 2002 and 2011. Ohio was also one of the top contributing states using 2015 meteorology. The results described in this report will assist MANE-VU and its member states in reaching the federal Regional Haze rule goal of improving visibility to natural/ambient levels at Class I areas. It should be noted that this analysis is intended to be a qualitative screening tool, to be used in conjunction with other techniques (e.g. emission to distance ratios and back-trajectory analyses), to rank emissions sources for further consideration as part of the larger MANE-VU consultation process.

1.0 Introduction

This report summarizes 2016 NHDES and VTDEC modeling of point source contributions to visibility impacts at federal Class I areas in and near the MANE-VU region (Figure 1). The federal Regional Haze rule seeks to improve and protect visibility at Class I areas nation-wide (Figure 2). This 2016 modeling effort builds on the 2002 point source contribution modeling performed by MANE-VU for the member states' State Implementation Plan (SIP) submittals for the first planning period (the time period between SIP submittal and the end of 2018). This modeling uses the CALPUFF modeling system with meteorological fields covering most of the eastern United States. The specific objective of the NHDES CALPUFF modeling was to quantify and rank the relative impact of the sulfate and nitrate components of regional haze attributable to sulfur dioxide and nitrogen oxide emissions from individual large stationary point sources.

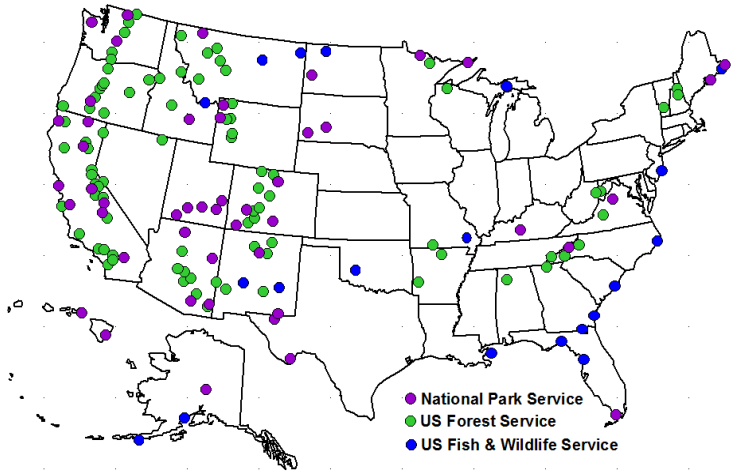
The 2016 modeling was performed for specific Class I area receptor locations in and near the MANE-VU Regional Planning Organization (RPO). Two emissions years were analyzed: 2011 and 2015 with three years of meteorological data: 2002, 2011, and 2015. Emissions and meteorology for 2011 was selected to be consistent with EPA and MANE-VU modeling platforms that are being used for current rulemaking and state SIP efforts. 2015 was selected to represent a recent EGU fleet year.

Figure 1: MANE-VU and Nearby Federal Class I National Parks and Wilderness Areas



MANE-VU and Nearby Class I Areas	
Maine:	Acadia, Campobello, Moosehorn
New Hampshire:	Great Gulf, Presidential-Dry River
Vermont:	Lye Brook
New Jersey:	Brigantine
West Virginia:	Dolly Sods, Otter Creek
Virginia:	James River Face, Shenandoah

Figure 2: Nationwide Federal Class I National Parks and Wilderness Areas



2.0 CALPUFF Modeling System

CALPUFF is a Lagrangian modeling system included in EPA's Guideline on Air Quality Models (GAQM) as a recommended model for long-range transport, specifically to address the impacts of emissions from Prevention of Significant Deterioration (PSD) sources in Class I areas (note: EPA's most recent GAQM, effective May 22, 2017, no longer recommends one specific model for this purpose). CALPUFF simulates atmospheric transport, transformation, and dispersion through the treatment of air pollutant emissions from stacks or area sources as a series of discrete puffs. Each puff is tracked individually by the model until it leaves the modeling domain, and the contribution of each puff to receptor concentrations (or deposition fluxes) is calculated separately and can be used to create individual source impacts, or summed in different ways to create total impacts over source groups based on the user's choices.

The CALPUFF modeling system includes numerous related programs used to create inputs for the model and to extract and analyze model outputs. One key related program is CALMET, which is the meteorological processor that creates three-dimensional wind fields for the dispersion model CALPUFF. Another key related program is CALPOST, which performs a number of output post-processing functions.

CALPUFF has seen wide use across the United States, providing estimated concentration and visibility impacts in Class I areas for numerous PSD applications for new power plants and other PSD sources. The use of CALPUFF for regional modeling at the scale of this contribution assessment (where transport distances exceed 1000 kilometers in some cases) has not been as widespread, and its performance at distances beyond 300 kilometers is subject to some uncertainty. The Interagency Workgroup on Air Quality Modeling (IWAQM) Phase II Report (USEPA, 1998) suggested, based on an analysis of the CAPTEX tracer study, that under-prediction of horizontal dispersion at greater than 300 kilometer transport distances could lead to an over-prediction of surface concentrations using CALPUFF. For the present study, this uncertainty is addressed through the emphasis on model performance (compared to measured data) documented in the 2006 MANE-VU modeling report, *Contributions to Regional Haze in the Northeast and Mid-Atlantic United States* (NESCAUM 31 August 2006). Further, the modeling results from this exercise will simply identify units that might undergo a more rigorous analysis for reasonable measures for visibility improvement.

The CALPUFF modeling system was developed by Earth Tech and is now maintained and updated by Exponent Engineering and Scientific Consulting, and is publicly available. Model and support program executables, a graphical user interface, model and support program source code, examples, and users' guides are available either through a link provided on EPA's web site www.epa.gov/ttn/scram or directly from Exponent at http://www.src.com/.

The CALMET meteorological processor is a key component of the CALPUFF modeling system. Its primary purpose is to prepare meteorological inputs for running CALPUFF, consisting nominally of three-dimensional wind fields, two-dimensional gridded derived boundary layer parameter fields (e.g. mixing depth, friction velocity, Monin Obukhov length, etc.), and two-dimensional gridded fields of surface measurements and precipitation rates (for use in calculating wet

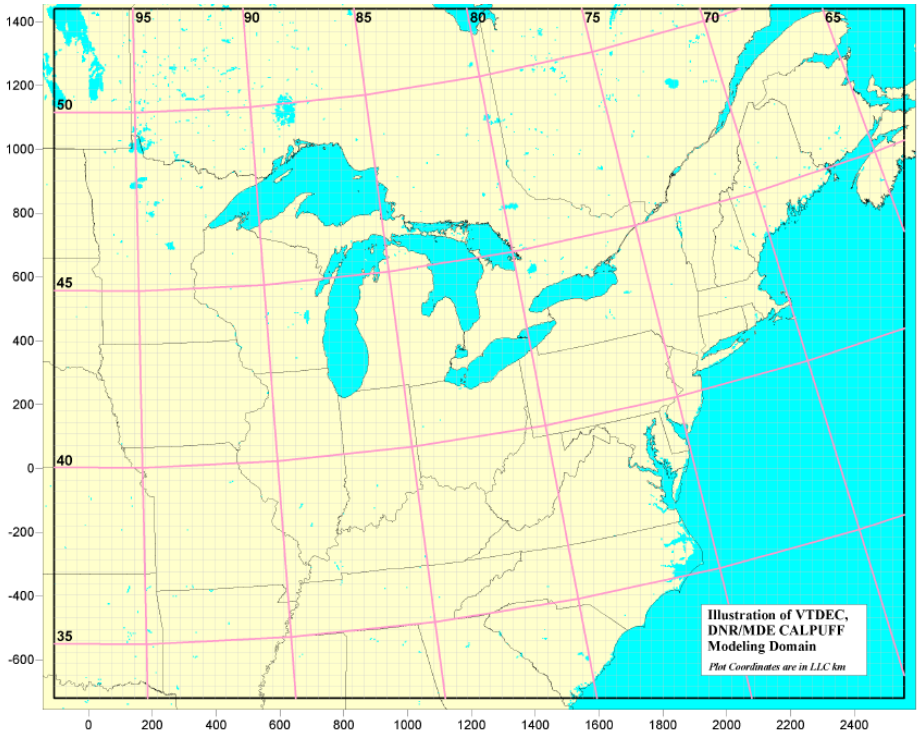
deposition fluxes). Inputs to CALMET consist of geophysical data (land use, terrain) and observations in the form of surface measurements, precipitation rates, and upper air rawinsonde soundings.

2.1. The NHDES/VTDEC CALPUFF Modeling Platform Description

Version 7.2.1 (Level 150816) of CALPUFF is an updated version of the model used for this exercise (Exponent 2011). This update includes changes to roadway inputs and the capability to use receptor group names. Output post processing was performed with CALPOST Version 7.1.0 (Level 141010) and meteorology was generated with CALMET Version 6.334 (Level 110421) (Scire, Robe, Fernau and Yamartino 1998). Modeling methodologies in this 2016 study generally replicate what was done for the regional haze SIP work for the first planning period.

The MANE-VU CALPUFF and CALMET modeling domains use a Lambert Conformal Conic (LCC) projection consistent with the RPO modeling projections; namely, an origin of 40.0 degrees N and 97.0 degrees W and matching parallels of latitude at 33.0 and 45.0 degrees N. The vertical extent of the domain is set at approximately 3 km with different resolutions depending on the platform. Grid resolution for the VTDEC CALMET platform was set at 36 kilometers, which resulted in a grid size of 74 by 60 cells. The vertical grid structure for the NH/VT platform consisted of eight levels, specified to allow accurate representation of atmospheric conditions in the surface level, transition level, and the free atmosphere. A depiction of the domain used in these analyses is shown in Figure 3.

Figure 3: MANE-VU (NH/VT) Modeling Domain



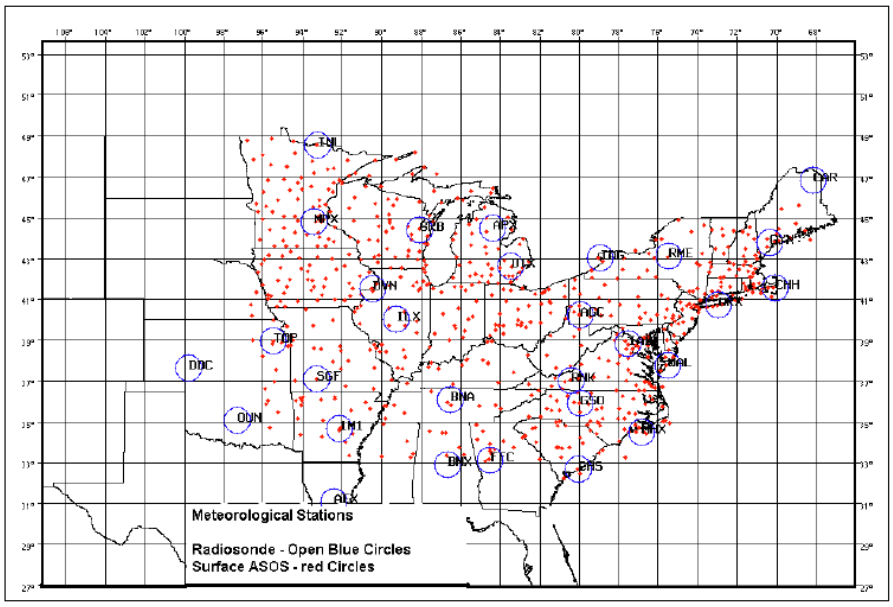
2.2 CALMET Meteorological Modeling

VTDEC developed meteorological inputs for CALPUFF through the use of observation-based inputs (i.e., rawinsonde and surface measurements) from the National Weather Service (NWS) and application of CALMET. VTDEC previously developed CALMET files for the year 2002 with a 2003 beta test version of CALMET. The 2002 meteorological fields were used as-is for a portion of this 2016 CALPUFF modeling exercise. In addition, new meteorological fields were developed for 2011 and 2015 with CALMET 6.334 for the 2016 modeling exercise. In all cases, meteorology files include entire calendar years and reflect the domain shown in Figure 3.

A detailed description of the methodologies that VTDEC used to generate the 2002 meteorological fields can be found in Section D.2.2 of Appendix D to NESCAUM's 2006 MANE-VU modeling report, *Contributions to Regional Haze in the Northeast and Mid-Atlantic United States*.[1] For this 2016 modeling effort, VTDEC used similar methodologies to generate the 2011 and 2015 meteorological fields.

Meteorological data inputs for 2002 consisted of 684 surface stations, 27 radiosonde stations for upper air representation, 1037 precipitation measurement sites, and 5 overwater (buoy) sites (see Figure 4). For 2011 and 2015, data from 1,203 surface and precipitation sites and 27 radiosonde stations were used. The surface station data was extracted from the integrated surface hourly observations (ISHO) dataset compiled by the National Climatic Data Center (NCDC). For all three of the meteorological years, data was extracted and processed in four quarters to allow for reasonable CALMET run times.

Figure 4: Surface (ASOS), and Upper Air (Radiosonde), Stations used in the 2002 CALMET runs



[1] This report, *Contributions to Regional Haze in the Northeast and Mid-Atlantic United States,* may be found on the NESCAUM website at: http://www.nescaum.org/documents/contributions-to-regional-haze-in-the-northeast-and-mid-atlantic--united-states/.

The CALMET modeling system uses a set of programs for preprocessing geophysical data such as land use and terrain elevations for the modeling domain. Figures 5 and 6 show example QA/QC plots of the terrain and land use output from these preprocessors. From this information, CALMET produces related physical fields that are necessary for the CALPUFF pollutant predictions including surface roughness, albedo, Bowen ratio, soil heat flux, and leaf area index. Figures 7 and 8 portray fields of surface roughness and leaf area index for the domain.

Figure 5: Plot of Smoothed Terrain Heights (m) Used in the VTDEC CALMET Modeling

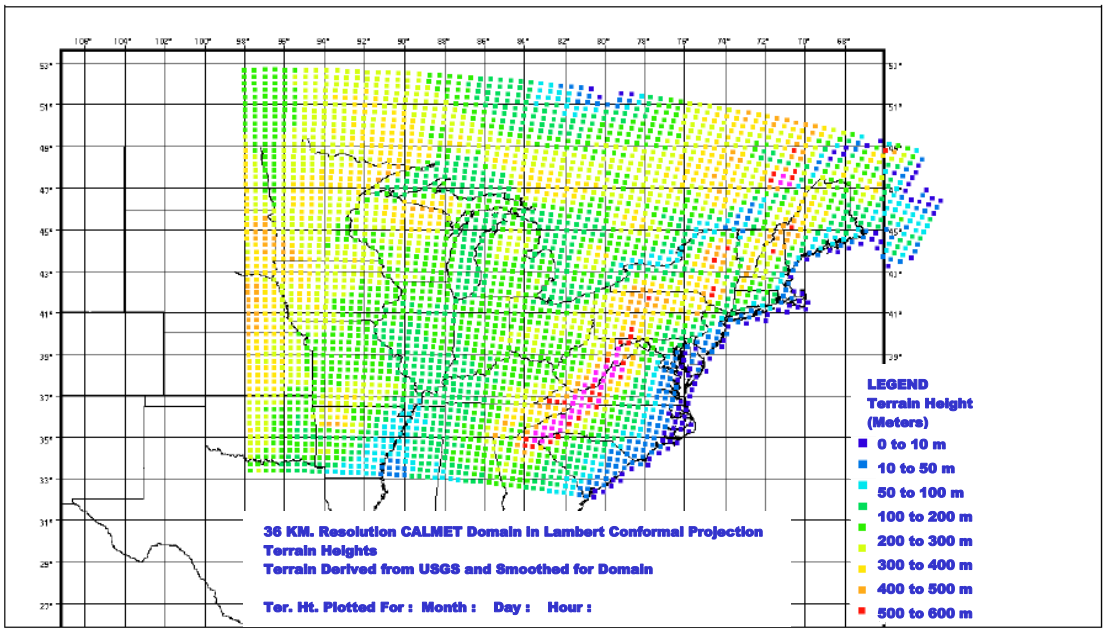


Figure 6: Plot of Land Use Used in the VTDEC CALMET Modeling

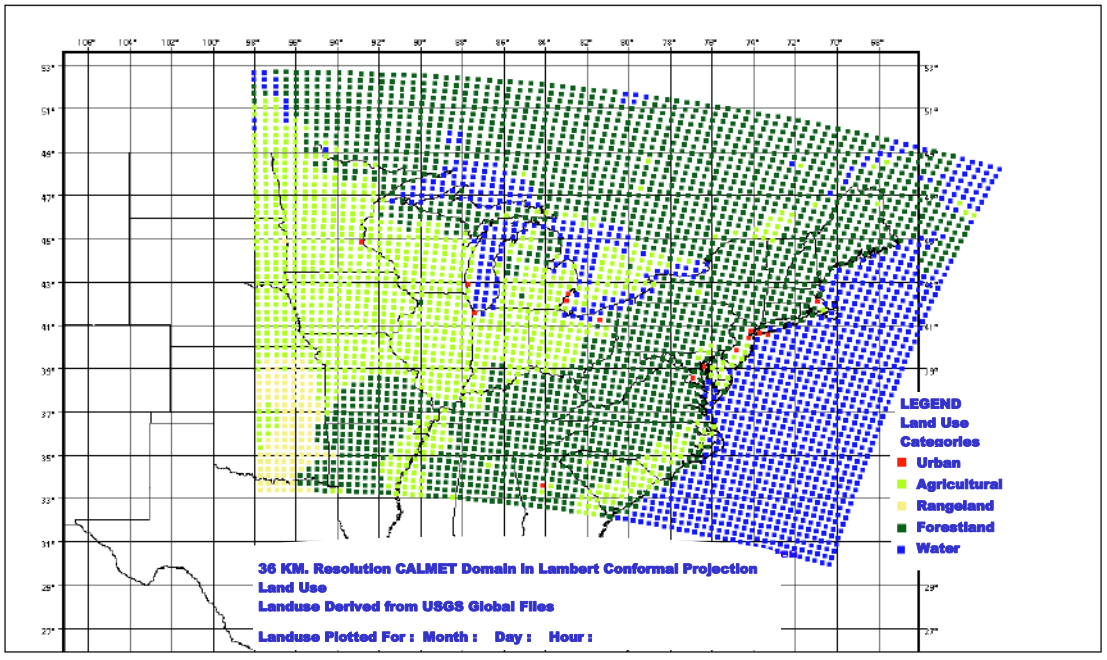


Figure 7: Plot of Surface Roughness Used in the VTDEC CALMET Modeling

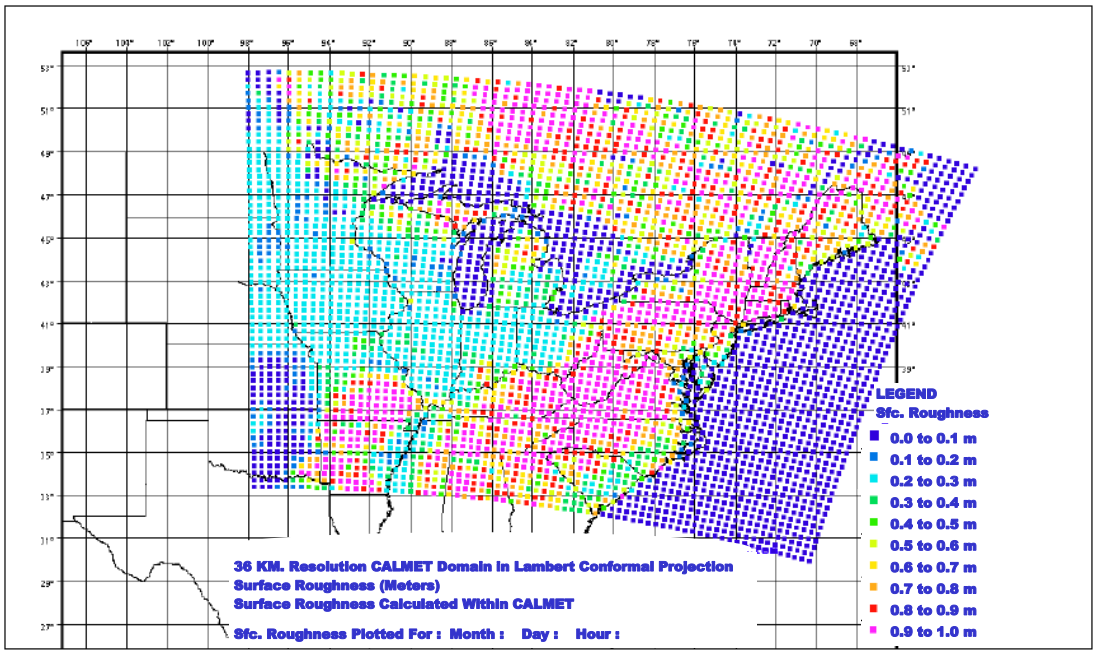
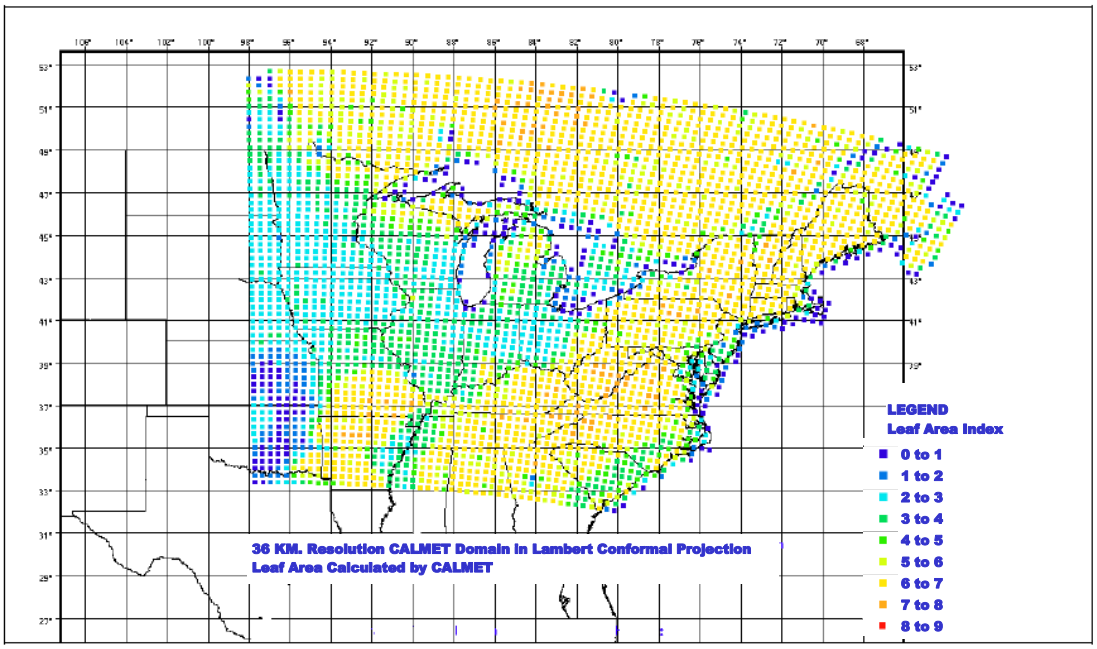


Figure 8: Plot of Leaf Area Index Used in the VTDEC CALMET modeling



VTDEC performed visual spot checks during the processing of the 2011 and 2015 meteorology, including visual plots to ensure that all components of the CALMET modeling system were working correctly. Examples of VTDEC's QA/QC plots are shown in Figures 9 through 12.

Figure 9: QA/QC Plot of Rainfall (mm/hr) for April 1, 2011, Hour 1

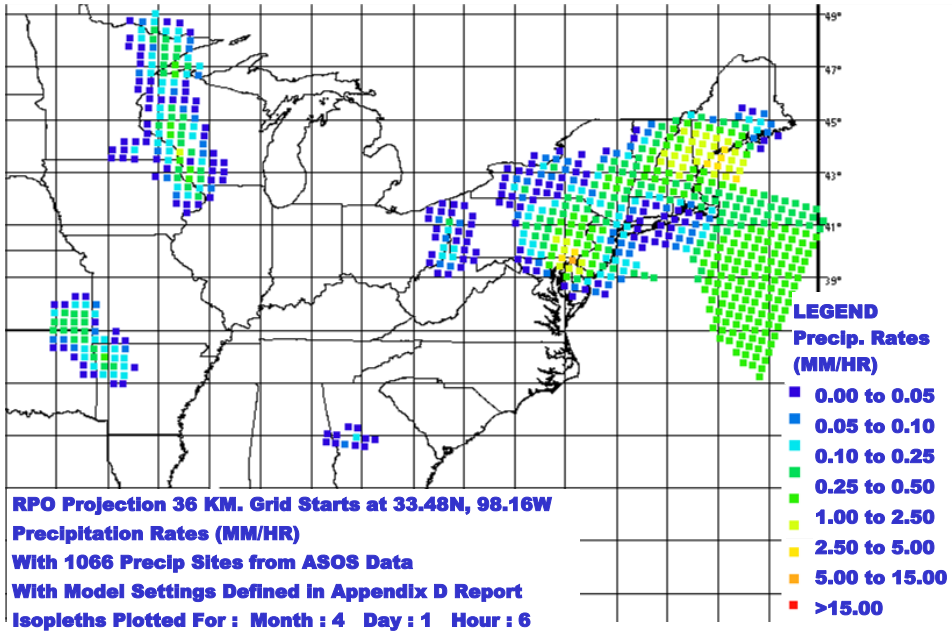


Figure 10: QA/QC Plot of Rainfall (mm/hr) for April 1, 2011, Hour 19

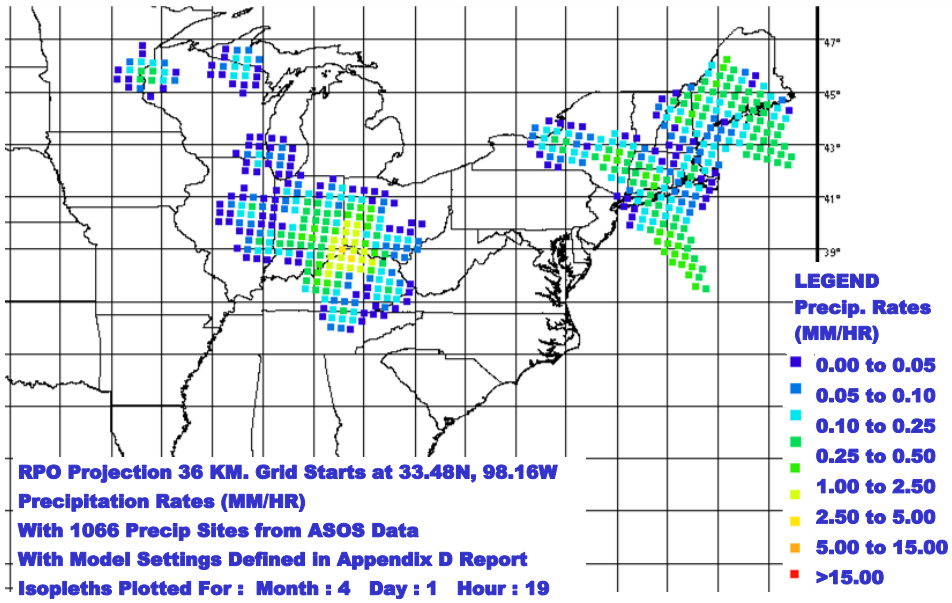


Figure 11: QA/QC Plot of Wind Speed and Direction for April 1, 2011, Hour 1, Model Level 3

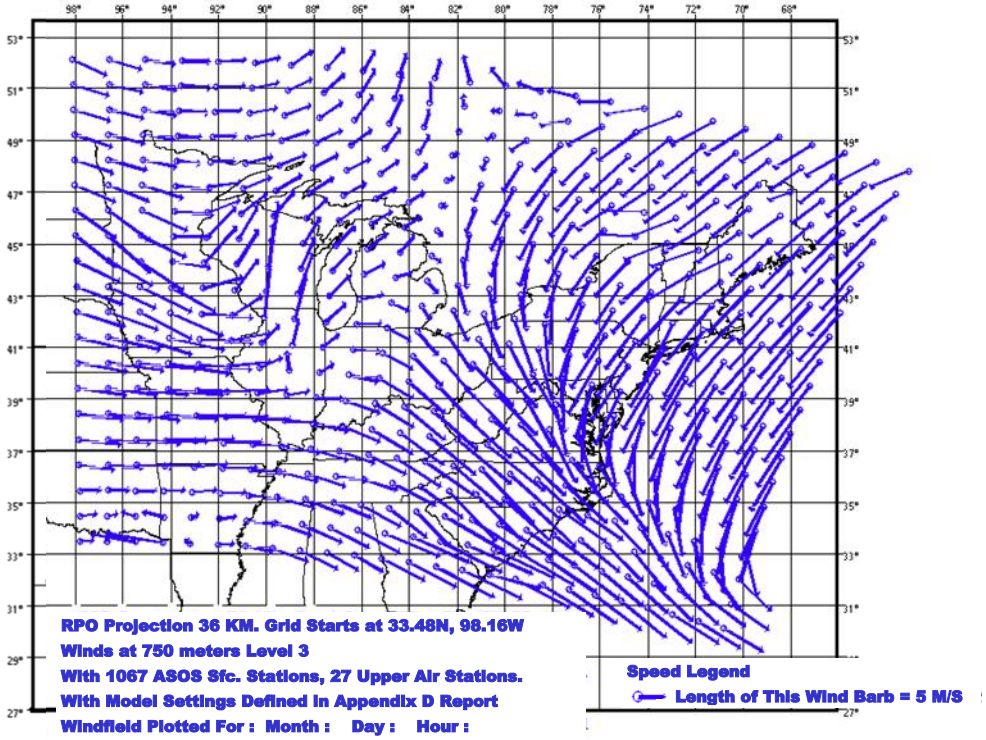
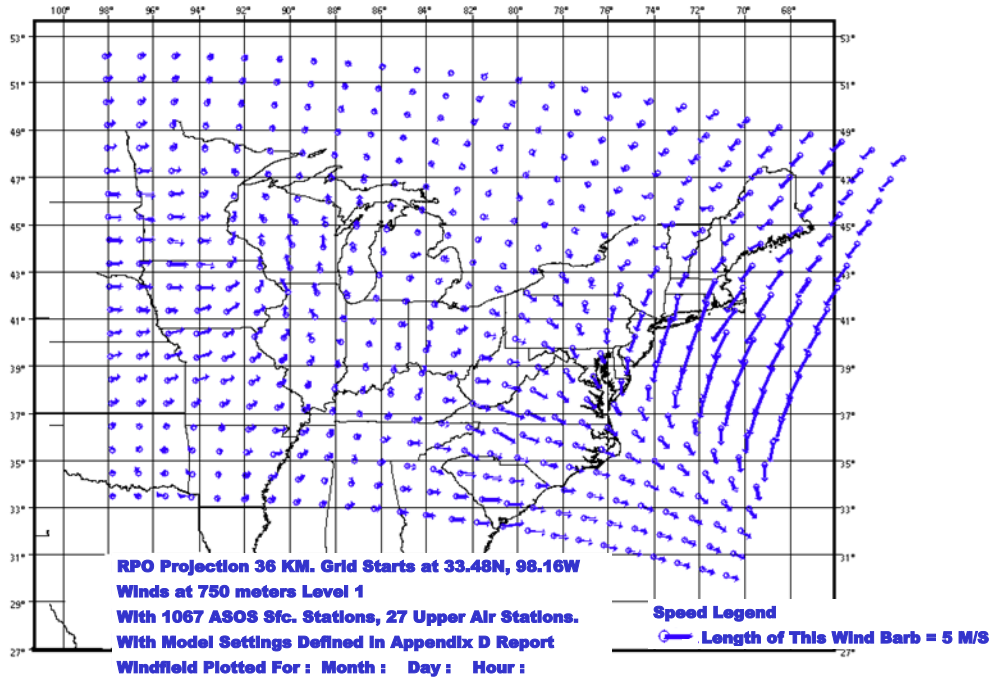


Figure 12: QA/QC Plot of Wind Speed and Direction for April 1, 2011, Hour 1, Model Level 1



2.3 Model Performance

Appendix D to NESCAUM's 2006 MANE-VU modeling report, *Contributions to Regional Haze in the Northeast and Mid-Atlantic United States* NESCAUM (2006), documents model performance for CALPUFF modeling with 2002 continuous emissions monitoring system (CEMS)-based emissions and CALMET 2002 meteorology. This analysis is not reproduced in this report, but serves as justification for using similar model options and methodologies in the current 2016 modeling exercise. Based on the conclusions from the model performance analysis in the 2006 NESCAUM report, the VTDEC CALPUFF modeling platform appears to be performing well enough to be used, at least in a relative sense, for replicating visibility impacts at northeastern Class I areas from modeled SO_2 and NO_X emissions.

3.0 2016 MANE-VU Modeling Methodology

3.1 Emission Source Selection

Over the past ten years, there have been a number of SO_2 emission reduction programs that have resulted in visibility improvements. Federal measures, including the Clean Air Interstate Rule (CAIR), the Cross State Air Pollution Rule (CSAPR), Boiler MACT, MATS, BART, and advancements in the economical production of natural gas are expected to reduce SO_2 emissions by almost 70**%** in the eastern U.S. from 2002 to 2018. Because of this, there are fewer high emitting units remaining since many have applied emission controls or have shut down, and those that are still operating tend to operate fewer hours per year. EPA estimates that CSAPR (and other state rules) reduced EGU SO_2 emissions by 73% between 2005 and 2014.

For the 2016 modeling effort, the MANE-VU Technical Support Committee (TSC) provided a preliminary list of EGU sources. This list was based on an enhanced Q/d analysis considering recent SO_2 emissions in the eastern United States and an analysis that adjusted previous 2002 MANE-VU CALPUFF modeling by applying a ratio of 2011 to 2002 SO_2 emissions (MANE-VU Technical Support Committee 6 April 2016). This list of sources was then enhanced by including the top five SO_2 and NO_X emission sources for 2011 for each state included in the modeling domain.

Once the list of EGUs for 2016 CALPUFF modeling was developed, 2011 and 2015 95^{th} percentile and annual emissions for these sources were processed as described below. As mentioned earlier, the year 2011 was selected for current CALPUFF work to be consistent with the base year being used in EPA and OTC/MANE-VU photochemical modeling for regional haze (projected year 2028) and other efforts. The year 2015 was added to the analysis in order to represent the most recent available year, which recognizes changes in emission controls, fuel changes, changes in operations, and facility shutdowns that may have occurred since base year 2011.

The MANE-VU TSC also identified 82 industrial and institutional facilities located within the CALPUFF modeling domain that either have emissions similar in magnitude to the EGUs modeled in this exercise, or are close enough to a Class I area that they would have the potential for visibility impacts.

3.2 Development of CALPUFF Model Inputs

The following sections describe the CALPUFF model input development in further detail. A total of 311 EGU stacks and 82 industrial facilities were included in this modeling analysis.

EGU Emission Rates

Because fewer high emitting EGU units are operating as base-loaded units, this 2016 CALPUFF modeling effort shifts from modeling annual emissions to a focus on peak actual operating conditions to determine potential effects on Class I area visibility. Daily EGU emissions (tons per day) were obtained from EPA's Clean Air Markets Division (CAMD) database and processed to determine the 95^{th} percentile daily SO_2 and NO_X emissions for a number of electric generating units for the years 2011 and 2015. This database compiles all data from the EPA Air Markets

Program Database - https://ampd.epa.gov/ampd/ (US EPA 2015). The emissions can also be found at the EPA FTP site (ftp://ftp.epa.gov/dmdnload/emissions/daily/quarterly/). The emissions data downloaded from the EPA was in quarterly format but was saved by NHDES in an annual by-state spreadsheet format. From these annual state-by-state spreadsheets, maximums, averages, and 95th percentiles were calculated for each modeled facility. 95th percentile daily emissions were divided by 24 to obtain an hourly emission rate for input into the CALPUFF model.

The 95th percentile was selected to remove the influence of start-up and shut-down operations or other atypical outlier emissions events. However, the 95th percentile was felt to be representative of the emissions that could be expected on the highest typical operation days. Since the emission units could operate at any time of the year, they were modeled using 95th percentile emissions for all days of the year to identify the maximum potential 24-hour impact on the eleven modeled Class I areas. Thus, the model output represents the impact of a specific emission unit operating with worst case actual emissions for that year. This is a conservative (i.e. high bound) approach because it assumes that the modeled EGUs are emitting at the 95th percentile rate every day of the year. For the EGUs, 2011 annualized emissions were also modeled as a point of comparison with the 2011 95th percentile daily emissions.

2011 annual emissions for each modeled EGU were taken directly from MARAMA's 2011 Beta modeling emissions inventory. Since the CALPUFF model allows emissions inputs of tons per year, the annual emission rates were entered directly into the model in those units. The model then assumes that those emissions are distributed evenly throughout the year.

Figure 13 shows the 2011 and 2015 95th percentile daily SO_2 and NO_X emissions that were used in the modeling.

Industrial/Institutional Source Emission Rates

Because EPA CAMD does not track industrial and institutional source emissions on an hourly basis, another method was applied for calculating industrial source SO_2 and NO_X emissions. For this task, annual emissions were obtained from the MARAMA 2011 Beta base year emission inventory. Operating hours per year for each source were also obtained from the MARAMA inventory. Typical hourly emission rates for each device were produced by dividing annual emissions by the number of hours operated in 2011. Emissions from individual units were combined when vented through a common stack and then stacks with resulting 2011 SO_2 emissions of greater than 200 pounds per hour were included in a **Large Emitting Stack** category for CALPUFF modeling. Large emitting stacks comprise 80 stacks at 60 (out of the 82 total) industrial/institutional facilities.

Because 22 of the 82 facilities identified by MANE-VU for CALPUFF modeling were not included in the Large Emitting Stack category, another category was developed to model facility-wide emissions where no specific stack produced a large amount of emissions. In this category, **Accumulated Emissions**, facility-wide emissions for each of the 22 facilities not represented in the Large Emitting Stack category were modeled as hypothetically exhausting through a single stack. The stack used in each of these cases was the stack that exhausts the greatest portion of

the applicable facility's emissions. Additional Accumulated Emission sources included units located at 9 of the facilities already represented with a Large Emitting Stack, but which still had a large amount of emissions not being represented by a modeled stack. In these cases, the remaining emissions not already represented by a Large Emitting Stack were accumulated and hypothetically exhausted through a single dominant stack not already being modeled.

Much like the conservative nature of using the 95th percentile emissions for EGU units, combining emissions from multiple units through a common stack assumes that all units run at the same time and adds a peak potential emission perspective to the analysis. Typical hourly SO_2 and NO_X emission rates for the industrial/institutional facilities are shown in Figure 14. The methodology for filling missing hourly operations data is provided in Appendix D.2.

Figure 13: 2011 and 2015 95th Percentile Daily SO_2 Emissions (a) and 2011 and 2015 95th Percentile Daily NO_X Emissions (b) for the EGUs

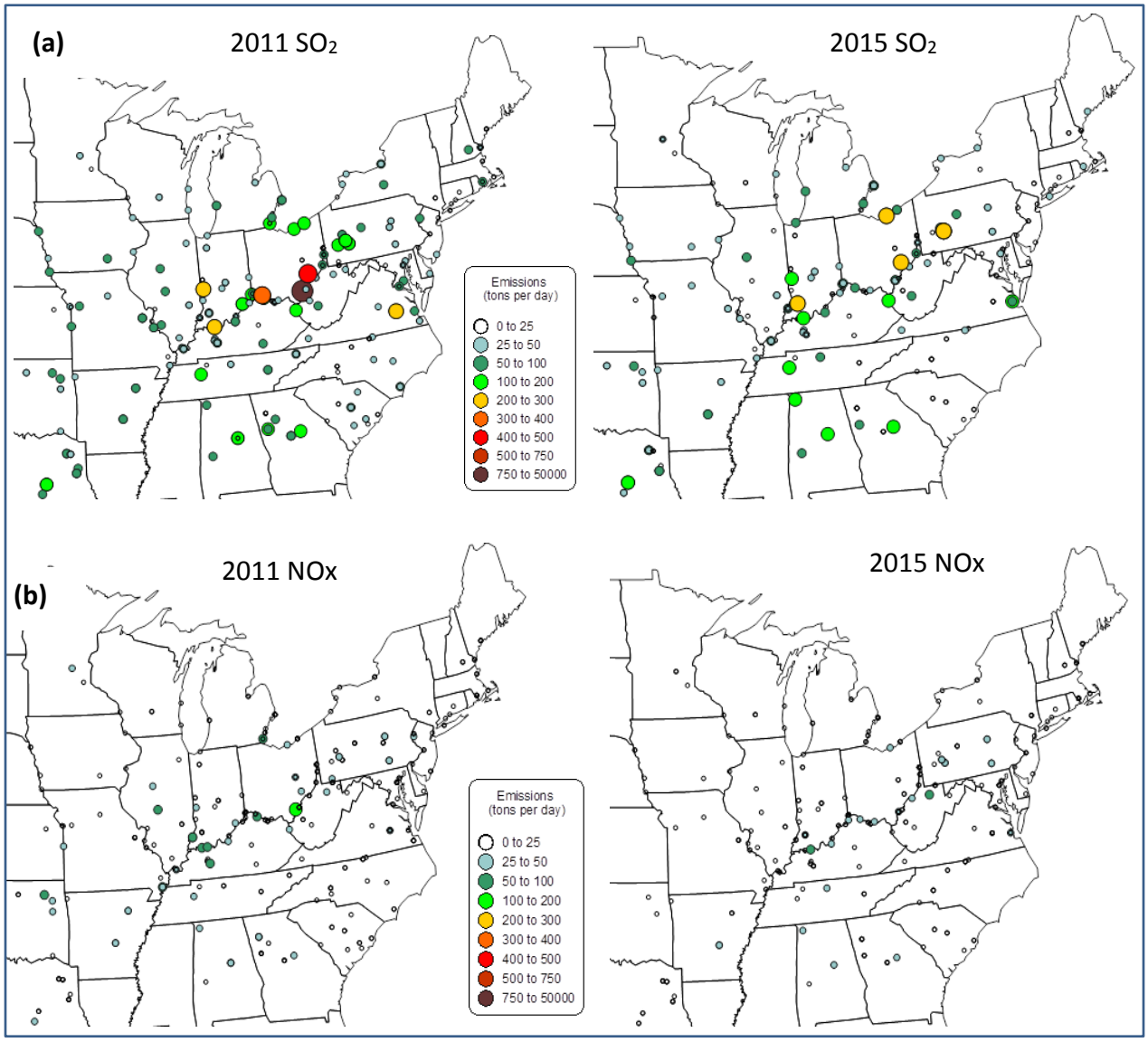
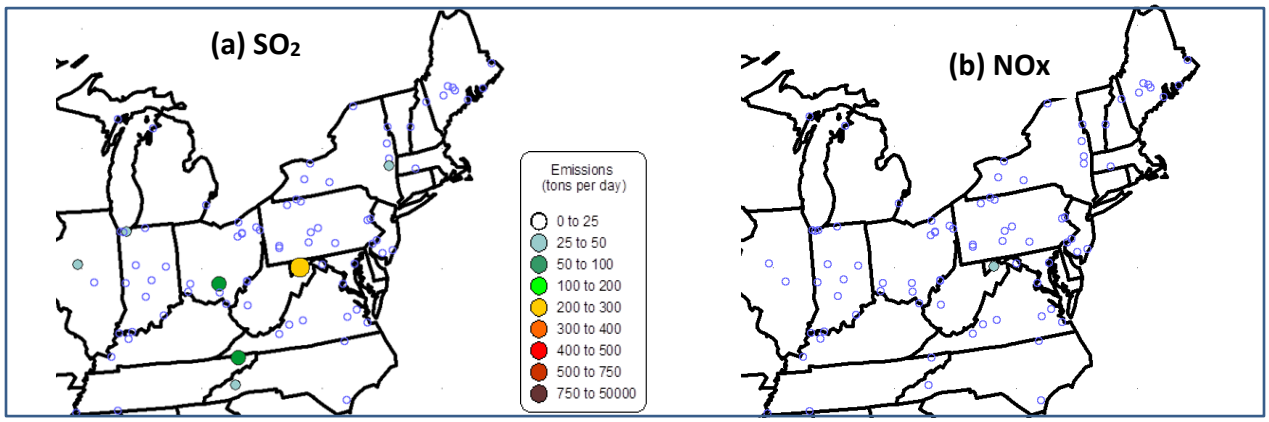


Figure 14: 2011 Hourly SO_2 Emissions (a) and 2011 Hourly NO_X Emissions (b) for the Industrial Facilities



Industrial and institutional emissions modeled as Large Emitting Stacks and Small Accumulated Emissions reflect over 99% of the SO_2 emissions from the 82 MANE-VU selected facilities, and more than 94% of the NO_X emissions.

Stack Parameters

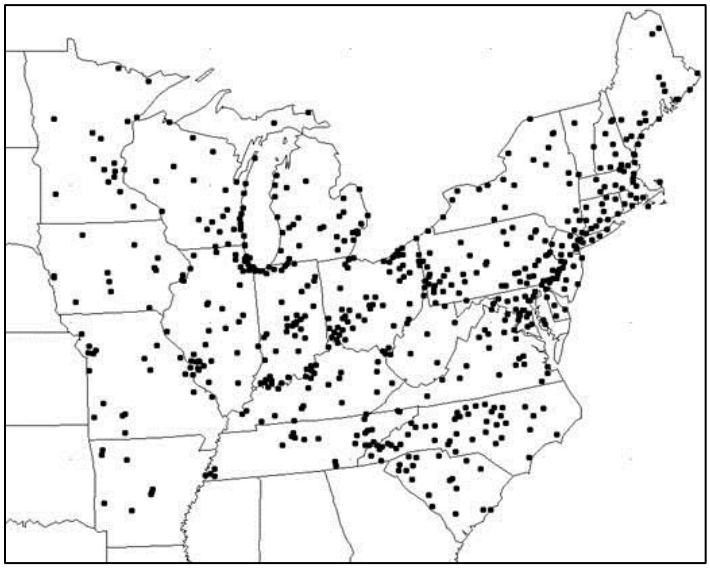
Stack parameters (stack height, diameter, exit velocity, exhaust temperature, and coordinates) were obtained from the MARAMA 2011 Beta modeling inventory (McDill, McCusker and Sabo 2016), NHDES used Google Earth to estimate base elevations using the latitude/longitude coordinates provided in the MARAMA inventory. A FORTRAN program was used to convert the latitude/longitude coordinates into X,Y coordinates consistent with the Lambert Conformal projection of the CALPUFF modeling platform. In some cases, several units emit through a single stack. In these instances, NHDES grouped these units to the one stack adding their emission values together to create a single model run for that stack.

When the stack parameters or annual emissions for the EGU units were not found in the MARAMA Beta Inventory and/or when 95th emissions were not found in the CAMD database, assumptions and/or data alterations were made. All assumptions were documented and can be found in Appendix D**.**

Background Ozone Data

The MESOPUFF II chemistry scheme used in the CALPUFF modeling requires the specification of an ozone background level. For each of the meteorological years modeled, hourly background ozone data was compiled and input into the model by means of an external hourly ozone data file. Hourly ozone data sets for calendar years 2002, 2011 and 2015 were downloaded from EPA's Technology Transfer Network Air Quality System - https://www.epa.gov/aqs (US EPA n.d.). 2002 ozone data was gathered from 425 stations; 615 stations were used for 2011, and 604 stations were used for 2015. Figure 15 displays the stations that were used to gather the 2015 background hourly ozone data.

Figure 15: Ozone Monitoring Stations Used for 2015 Background Hourly Ozone Data



Meteorology

Meteorology files for the years of 2002, 2011, and 2015 were created by VTDEC using methodology the described in Section 2.2.

3.2 Modeling Phases

2016 CALPUFF modeling was performed in a total of seven phases to include different combinations of emission type (EGU 95th percentile or annual, industrial typical), emission years (2011 or 2015) and meteorological data (2002, 2011, or 2015). A summary of the emission sources that were included in each modeling phase can be found in Appendix A. Each individual phase is described in more detail below (the number of stacks modeled in each phase is shown in parentheses):

Phase I: A comprehensive list of all EGU emissions sources selected for 2016 CALPUFF modeling were modeled using 2011 95th percentile SO_2 and NO_X emissions, 2002 meteorology, and 2002 ozone background data. This phase was used as a screening test of sources to determine which sources should undergo further analyses. **(308 Stacks)**[2]

Phase II: A subset of EGU sources from Phase I were remodeled using 2011 annual emissions (rather than the 95th percentile), 2002 meteorology, and 2002 ozone background data. It was expected that the results would differ significantly from Phase I in some cases because many sources do not run every day. **(81 Stacks)**

Phase III: A subset of EGUs was modeled that had modeled Phase I visibility extinctions at any Class I area of one inverse megameters (Mm^{-1}) or more (and had not shut down by

[2] One stack is equal to one modeling run

2016). Phase III used 2011 meteorology, 2011 ozone background data, and 2011 95th SO_2 and NO_X percentile emissions. These runs serve as the base for MANE-VU analyses. **(163 Stacks)**

Phase IV: This phase is similar to Phase II, using 2011 annual emissions but with 2011 meteorology. This phase compared with Phase II allows a comparison of meteorology changes occurring between 2002 and 2011. **(127 Stacks)**

Phase V: This phase used 2015 meteorology and 2011 95th percentile SO_2 and NO_X emissions. This phase, when compared with Phases I and III serves as a comparison of meteorology changes occurring between 2002, 2011 and 2015. **(132 Stacks)**

Phase VI: The sixth phase of modeling pairs 2015 meteorology with 2015 95th percentile SO_2 and NO_X emissions to reflect most recent conditions. This phase includes the same sources modeled in Phase IV minus sources that have shut down or otherwise reduced SO_2 emissions to levels below 10 lb/hr. This phase, when compared to Phase V serves as a comparison of emissions changes occurring between 2011 and 2015. **(159 Stacks)**

Phase VII: The seventh phase of modeling pairs 2002, 2011 and 2015 meteorology with 2011 estimated daily industrial and institutional SO_2 and NO_X emissions. This phase includes two groupings of facilities; the first includes **Large Emitting Stacks** consisting of industrial/institutional stacks with 200 lb/hr and greater of SO_2 emissions. The second includes **Accumulated Emissions** consisting of facility-wide emissions (not included in the Large Stacks category). The groupings include consideration of not just large emitting stacks, but also over 99% of the SO_2 emissions at 82 industrial/institutional facilities. **(139 Stacks)**

3.3 Output Processing

Once the dispersion modeling with CALPUFF was completed, the CALPOST post-processor was used to extract predicted sulfate and nitrate concentrations for a set of receptors covering eleven Class I areas in and near the MANE-VU region. The CALPOST output data is then imported into an Excel output processing spreadsheet created by NHDES that automatically finds the maximum 24-hour sulfate and nitrate modeling concentration for each of the eleven selected Class I areas.

A routine programmed into the Excel spreadsheet mathematically converts predicted sulfate concentrations to ammonium sulfate concentrations, and nitrate concentrations to ammonium nitrate concentrations. The spreadsheet also calculates an estimated change in light extinction for each modeled emission source based on its predicted ammonium sulfate and ammonium nitrate impacts at each Class I area. These calculations are based on FLAG guidance equations for reconstructed light extinction. Additional spreadsheet calculations include emission source relative visibility changes in deciviews for the 20% best and 20% worst visibility days for each Class I area. Average 20% best and 20% worst visibility extinction values were derived from 2011 IMPROVE data for each Class I area (note: On January 10, 2017, EPA published a final rule regarding amendments to state plans for protection of visibility (82 FR 3078). This rule

incorporates a new methodology based on the 20% "most impaired" days. EPA also published an associated draft guidance for the second implementation period of the regional haze rule. However, EPA has not finalized this draft guidance. Therefore this 2016 CALPUFF analysis was based on the 20% "worst days" metric.). Visibility in deciviews was calculated with and without the modeled extinction increment, and the difference between the two provided an estimate for changes in deciviews under different visibility conditions. It should be noted that the methodology of using 95th percentile emissions produces a very conservative (i.e. high bound) impact assessment representing potential impact when certain conditions combine. The modeling results are even more conservative in that the 95th percentile daily NO_X emissions and 95th percentile daily SO_2 emissions may occur on different operational days for each EGU. Yet it is assumed in the modeling that both occur every day of the year so all meteorological conditions are considered with peak emissions.

Calculations for visibility extinction and deciviews can be found in Appendix E.

3.4 Quality Assurance

NHDES carried out quality assurance for every step of the modeling process. A second, and in some cases third, analyst reviewed and reproduced modeling input files and results. All modeling parameters and emissions were cross referenced for consistency.

To ensure accurate emissions, the ratio of annual emissions in tons per year divided by 365 was compared to 95th percentile emissions in tons per day (see equation below). By definition, the 95th percentile is the value below which 95 percent of the values lie; five percent of the values are above the 95th percentile. Therefore, the average daily emissions calculated from the annual emissions should never be greater than the 95th percentile. That is, the ratio derived from the equation below should be less than 1.00. When the ratio was above 1.00 or emissions seemed unrealistically high or low, analysts checked the 95th emissions and annual emissions for accuracy.

$$[(\text{Annual Emission Value}/365)] / (95^{th}\ \text{Percentile Emission Value}) = X$$

Once all emissions and stack parameters were collected and organized, analysts entered these parameters into the input files with which CALPUFF is run. To confirm that this information and the meteorological data were entered correctly, a secondary analyst checked all input files completed by the first analyst. For some CALPUFF runs, one staff member acted as the primary analyst; for other runs, the staff members switched roles. In this manner, analysts did a fairly equal amount of run production and quality assurance.

With modeling runs complete, staff reviewed the results and looked for unexpectedly high or low values. Where outputs were questioned, the runs were redone. Furthermore, to catch any lingering mistakes in input files, output calculations, or other parts of the process, a third staff member independently recreated and reran all EGU modeling runs, compared the results with the original outputs, and corrected some minor differences. For the industrial runs, all runs were not redone, but input files were recreated and checked against the original files.

4.0 2016 MANE-VU Modeling Results

This report section provides an overview of modeling results. Because of the large number of emission sources, scenarios, and Class I areas, there are many ways to review the results. This report focuses on basic reporting of the modeling performed. Future report addendums can be added to consider additional analyses. A complete list of modeling results for all sources and modeling phases can be found in Appendix F.

Section 4.1 below provides tables of top-ten 2011 and 2015 EGU emission sources and top-five 2011 ICI sources impacting each of the eleven regional Class I areas. Section 4.2 provides the top 25 impacting EGUs and ICI facilities for five MANE-VU and two nearby Class I areas in a graphical format; section 4.3 presents comparative information regarding 95th percentile and annual emissions; section 4.4 examines effects of meteorology; and section 4.5 presents visibility impacts to MANE-VU Class I areas by state.

4.1 2011 Top-10 Visibility Impacting Units to Regional Class I Areas

Tables 1 through 33 below list the top 10 contributors to the Class I areas modeled in Phases I, III, V, VI and VII (phases can be referenced in section 3.2). Rankings for the different phases are divided into three tables for each Class I area as follows.

The first table in each set gives the top 10 contributors based on maximum impacts among Phases I, III, and V; each of these phases represent 2011 95th percentile emissions impacts, but differ in the year of meteorology (2002, 2011, or 2015). For comparison, this table also provides modeling results (shown in red text) from Phase VI: 2015 95th percentile emissions with 2015 meteorology.

The second table in each set presents rankings based on modeling with 2015 emissions for all meteorology years. Note that only the 2015 meteorology year is based on modeled outputs (Phase VI); extinction values for the 2002 and 2011 meteorology years are estimated using emissions ratios. This table also compares these 2015 results to the maximum 2011 95th percentile emission impacts (shown in red text) among the three years of meteorology. This table is organized similarly to the first table, except that rankings are by impacts given 2015 emissions rather than 2011 emissions; likewise, the results for the top 10 2015 contributors are compared to those facilities' maximum 2011 impacts, rather than vice versa.

The third table includes the top five ICI facilities modeled with 2011 typical emissions for all three years of meteorology (Phase VII). All three tables also provide the distance of each top ranking facility from the relevant Class I area.

To clarify how contributing facilities are ranked, the maximum values upon which each are ranked are bolded in blue font. The emission sources are in descending order according to the maximum visibility extinction for each 95th percentile emission source over three years of meteorology. For example, Table 1 shows that the Kyger Creek facility had the highest rank for Acadia for 2011 95th percentile emissions. This facility had a maximum predicted extinction value of 22.1 inverse megameters (Mm^{-1}), which occurred for the 2002 meteorological year. The Muskingum River facility ranked second based on a maximum predicted extinction of 9.4 Mm^{-1}, which also occurred for the 2002 meteorological year. Chesterfield Power Station ranked

third based on a maximum predicted extinction of 9.3 Mm^{-1}, which occurred for the 2015 meteorological year. Walter C Beckford Generating Station (Unit 6) ranked 10th based on a predicted maximum extinction of 6.3 Mm^{-1}, which occurred for the 2002 meteorology year.

Acadia, ME

Table 1: 2011 Acadia National Park Top-10 Visibility Impairing EGU Point Sources

	Facility Info				Extinction Value (Mm^{-1})				
Rank	State	Facility	ORIS ID	Unit IDs	2002 Met 2011 95th	2011 Met 2011 95th	2015 Met 2011 95th	2015 Met 2015 95th	Distance (mi)
1	OH	Kyger Creek	2876	1,2,3,4,5	**22.1**	19.8	13.9	1.2	806
2	OH	Muskingum River	2872	1,2,3,4	**9.4**	7.5	4.8	2.3	762
3	VA	Chesterfield Power Station	3797	5	6.2	7.4	**9.3**	0.2	677
4	MA	Brayton Point	1619	3	6.4	**8.9**	5.8	0.8	234
5	NH	Merrimack	2364	2	**8.7**	8.3	8.2	1.7	180
6	MI	Monroe	1733	1,2	4.6	4.3	**7.2**	0.4	778
7	OH	Avon Lake Power Plant	2836	12	5.2	4.8	**7.1**	9.1	723
8	PA	Homer City	3122	2	**6.6**	2.9	3.0	8.1	616
9	PA	Homer City	3122	1	**6.6**	2.9	3.0	9.3	616
10	OH	Walter C Beckford Generating Station	0	6	**6.3**	5.9	4.7	--	904

Table 2: 2015 Acadia National Park Top-10 Visibility Impairing EGU Point Sources

	Facility Info				Extinction Value (Mm^{-1})				
Rank	State	Facility	ORIS ID	Unit IDs	Estimated 2002 Met 2015 95th	Estimated 2011 Met 2015 95th	Modeled 2015 Met 2015 95th	Maximum 2002,11,15 Met 2011 95th	Distance (mi)
1	PA	Homer City	3122	1	**9.3**	4.0	4.2	6.6	616
2	OH	Avon Lake Power Plant	2836	12	6.7	6.2	**9.1**	7.1	723
3	PA	Homer City	3122	2	**8.1**	3.6	3.7	6.6	616
4	ME	William F Wyman	1507	4	**5.6**	3.5	4.9	2.7	102
5	OH	Muskingum River	2872	5	**4.6**	3.5	2.3	2.9	762
6	VA	Yorktown Power Station	3809	3	**4.4**	3.2	4.1	1.3	652
7	MA	Brayton Point	1619	4	2.6	**4.3**	2.8	1.4	234
8	PA	Shawville	3131	3,4	**3.3**	2.2	1.6	3.5	560
9	MA	Canal Station	1599	1	2.5	**3.0**	2.0	2.0	210
10	NH	Newington	8002	1	**2.8**	2.5	2.8	2.7	152

Table 3: 2011 Acadia National Park Top-5 Visibility Impairing Industrial/Institutional Sources

	Facility Info				Extinction Value (Mm^{-1})			
Rank	State	Facility	ORIS ID	Unit IDs	2002 Met 2011 Emis	2011 Met 2011 Emis	2015 Met 2011 Emis	Distance (mi)
1	ME	The Jackson Laboratory	7945211	All	**9.0**	5.7	5.8	4
2	MD	Luke Paper Company	7763811	All	5.1	4.4	**5.2**	648
3	ME	Sappi - Somerset	8200111	All	1.4	1.6	**2.0**	72
4	ME	Woodland Pulp LLC	5974211	All	0.8	**1.8**	1.5	71
5	NY	Lafarge Building Materials Inc.	8105211	All	**1.7**	1.5	1.0	306

Brigantine, NJ

Table 4: 2011 Brigantine National Wildlife Area Top-10 Visibility Impairing EGU Point Sources

	Facility Info				Extinction Value (Mm^{-1})				
Rank	State	Facility	ORIS ID	Unit IDs	2002 Met 2011 95th	2011 Met 2011 95th	2015 Met 2011 95th	2015 Met 2015 95th	Distance (mi)
1	OH	Kyger Creek	2876	1,2,3,4,5	**41.7**	32.5	18.1	2.3	417
2	OH	Muskingum River	2872	1,2,3,4	9.8	**17.7**	8.3	4.4	390
3	VA	Chesterfield Power Station	3797	5	14.3	**16.4**	12.1	0.5	217
4	NJ	B L England	2378	1	**12.0**	4.2	2.4	--	17
5	OH	Walter C Beckford Generating Station	0	6	**8.8**	6.8	5.0	--	532
6	MD	Chalk Point	1571	1,2	4.2	5.0	**7.9**	1.5	138
7	VA	Yorktown Power Station	3809	1,2	5.6	5.6	**7.6**	7.0	189
8	WV	Harrison Power Station	0	1 (25%), 2 (20%)	1.3	**6.7**	1.9	7.0	319
9	PA	Homer City	3122	2	3.9	5.5	**6.2**	8.1	267
10	NJ	B L England	2378	2,3	**6.1**	1.9	1.2	5.6	17

Table 5: 2015 Brigantine Top-10 Visibility Impairing EGU Point Sources

	Facility Info				Extinction Value (Mm^{-1})				
Rank	State	Facility	ORIS ID	Unit IDs	Estimated 2002 Met 2015 95th	Estimated 2011 Met 2015 95th	Modeled 2015 Met 2015 95th	Maximum 2002,11,15 Met 2011 95th	Distance (mi)
1	VA	Yorktown Power Station	3809	3	9.5	6.9	**10.9**	3.3	189
2	PA	Homer City	3122	1	5.8	8.3	**9.2**	6.0	267
3	PA	Homer City	3122	2	5.0	7.3	**8.1**	6.2	267
4	OH	Muskingum River	2872	5	4.9	**7.7**	3.8	4.8	390
5	WV	Harrison Power Station	0	1 (25%), 2 (20%)	1.3	**7.0**	2.0	6.7	319
6	VA	Yorktown Power Station	3809	1,2	5.1	5.1	**7.0**	7.6	189
7	OH	Avon Lake Power Plant	2836	12	3.5	6.4	**6.7**	5.2	429
8	NJ	B L England	2378	2,3	**5.6**	1.7	1.1	6.1	17
9	OH	Muskingum River	2872	1,2,3,4	2.5	**4.4**	2.1	17.7	390
10	PA	Montour	3149	1	1.4	**4.4**	4.2	4.8	167

Table 6: 2011 Brigantine Top-5 Visibility Impairing Industrial/Institutional Sources

	Facility Info				Extinction Value (Mm^{-1})			
Rank	State	Facility	ORIS ID	Unit IDs	2002 Met 2011 Emis	2011 Met 2011 Emis	2015 Met 2011 Emis	Distance (mi)
1	MD	Luke Paper Company	7763811	All	7.0	**12.5**	7.9	250
2	MD	Sparrows Point, LLC	8239711	All	0.8	**2.5**	1.5	114
3	TN	Eastman Chemical Company	3982311	All	1.4	1.0	**2.2**	488
4	VA	Smurfit Stone Container Corp - West Point	4182011	All	1.3	**2.1**	1.7	185
5	NJ	Atlantic County Utilities Authority Landfill	8093211	All	0.9	**1.7**	0.6	9

Lye Brook, VT

Table 7: 2011 Lye Brook Top-10 Visibility Impairing EGU Point Sources

	Facility Info				Extinction Value (Mm^{-1})				
Rank	State	Facility	ORIS ID	Unit IDs	2002 Met 2011 95th	2011 Met 2011 95th	2015 Met 2011 95th	2015 Met 2015 95th	Distance (mi)
1	OH	Kyger Creek	2876	1,2,3,4,5	20.4	**25.7**	22.0	1.2	556
2	OH	Muskingum River	2872	1,2,3,4	**11.4**	6.7	9.5	2.8	510
3	NH	Merrimack	2364	2	5.5	**11.0**	2.3	3.3	79
4	VA	Chesterfield Power Station	3797	5	3.5	4.2	**7.7**	0.2	459
5	OH	Walter C Beckford Generating Station	0	6	**7.7**	6.0	5.6	--	652
6	PA	Homer City	3122	2	**6.0**	6.3	5.7	7.7	365
7	PA	Homer City	3122	1	5.9	**6.2**	5.6	8.6	365
8	NY	Cayuga Operating Company, LLC	0	1 (33%), 2 (33%)	2.2	**5.8**	2.6	1.9	186
9	OH	Avon Lake Power Plant	2836	12	3.4	5.2	**5.6**	7.2	474
10	NH	Merrimack	2364	1	2.7	**5.3**	1.1	1.3	79

Table 8: 2015 Lye Brook Top-10 Visibility Impairing EGU Point Sources

	Facility Info				Extinction Value (Mm^{-1})				
Rank	State	Facility	ORIS ID	Unit IDs	Estimated 2002 Met 2015 95th	Estimated 2011 Met 2015 95th	Modeled 2015 Met 2015 95th	Maximum 2002,11,15 Met 2011 95th	Distance (mi)
1	PA	Homer City	3122	1	8.3	**8.6**	7.9	6.2	365
2	PA	Homer City	3122	2	7.3	**7.7**	6.9	6.3	365
3	OH	Avon Lake Power Plant	2836	12	4.3	6.7	**7.2**	5.6	474
4	OH	Muskingum River	2872	5	**5.6**	3.7	5.1	3.4	510
5	VA	Yorktown Power Station	3809	3	2.1	3.1	**5.0**	1.5	446
6	ME	William F Wyman	1507	4	0.8	**4.6**	1.7	2.3	151
7	NH	Merrimack	2364	2	1.6	**3.3**	0.7	11.0	79
8	PA	Keystone	3136	1	2.7	**3.2**	2.8	4.2	366
9	KY	Big Sandy	1353	BSU1,BSU2	2.2	2.9	**3.1**	3.6	607
10	PA	Keystone	3136	2	2.6	**3.1**	2.7	4.2	366

Table 9: 2011 Lye Brook Top-5 Visibility Impairing Industrial/Institutional Sources

	Facility Info				Extinction Value (Mm^{-1})			
Rank	State	Facility	ORIS ID	Unit IDs	2002 Met 2011 Emis	2011 Met 2011 Emis	2015 Met 2011 Emis	Distance (mi)
1	MD	Luke Paper Company	7763811	All	7.2	9.5	**10.8**	401
2	NY	Lafarge Building Materials Inc.	8105211	All	3.0	**8.1**	2.8	59
3	NY	Finch Paper LLC	8325211	All	5.2	**7.6**	4.6	33
4	ME	Sappi - Somerset	8200111	All	0.5	**1.8**	1.0	201
5	IN	Arcelormittal Burns Harbor Inc.	7376511	All	0.8	**1.5**	0.8	727

Moosehorn, ME

Table 10: 2011 Moosehorn Top-10 Visibility Impairing EGU Point Sources

	Facility Info				Extinction Value (Mm^{-1})				
Rank	State	Facility	ORIS ID	Unit IDs	2002 Met 2011 95th	2011 Met 2011 95th	2015 Met 2011 95th	2015 Met 2015 95th	Distance (mi)
1	OH	Kyger Creek	2876	1,2,3,4,5	**17.6**	16.2	16.0	0.9	869
2	MI	Monroe	1733	1,2	4.8	4.7	**7.9**	0.5	832
3	VA	Chesterfield Power Station	3797	5	5.7	5.3	**7.9**	0.2	744
4	MA	Brayton Point	1619	3	**7.0**	6.6	4.3	0.6	301
5	OH	Muskingum River	2872	1,2,3,4	**6.5**	4.7	4.4	1.6	823
6	OH	Walter C Beckford Generating Station	0	6	5.4	**5.9**	3.0	--	964
7	NH	Merrimack	2364	2	5.5	5.3	**5.8**	1.0	244
8	OH	Avon Lake Power Plant	2836	12	**5.2**	3.5	4.6	6.8	779
9	IN	Rockport	6166	MB1,MB2	**4.1**	2.8	2.5	2.8	1,129
10	PA	Homer City	3122	2	**3.9**	3.0	2.6	4.8	678

Table 11: 2015 Moosehorn Top-10 Visibility Impairing EGU Point Sources

	Facility Info				Extinction Value (Mm^{-1})				
Rank	State	Facility	ORIS ID	Unit IDs	Estimated 2002 Met 2015 95th	Estimated 2011 Met 2015 95th	Modeled 2015 Met 2015 95th	Maximum 2002,11,15 Met 2011 95th	Distance (mi)
1	OH	Avon Lake Power Plant	2836	12	**6.8**	4.5	6.0	5.2	779
2	PA	Homer City	3122	1	**5.6**	4.2	3.7	3.8	678
3	ME	William F Wyman	1507	4	**5.1**	3.6	3.2	2.5	166
4	PA	Homer City	3122	2	**4.8**	3.7	3.3	3.9	678
5	VA	Yorktown Power Station	3809	3	**4.4**	2.3	3.5	1.4	719
6	MA	Brayton Point	1619	4	3.4	**3.6**	2.0	1.2	301
7	OH	Muskingum River	2872	5	**3.2**	2.1	2.1	2.0	823
8	MA	Canal Station	1599	1	2.3	**2.8**	1.6	1.9	277
9	IN	Rockport	6166	MB1,MB2	**2.8**	1.9	1.7	4.1	1,129
10	MA	Canal Station	1599	2	2.2	**2.8**	1.3	1.5	277

Table 12: 2011 Moosehorn Top-5 Visibility Impairing Industrial/Institutional Sources

	Facility Info				Extinction Value (Mm^{-1})			
Rank	State	Facility	ORIS ID	Unit IDs	2002 Met 2011 Emis	2011 Met 2011 Emis	2015 Met 2011 Emis	Distance (mi)
1	ME	Woodland Pulp LLC	5974211	All	**5.7**	3.4	3.5	10
2	MD	Luke Paper Company	7763811	All	3.8	**4.5**	3.3	712
3	ME	Sappi - Somerset	8200111	All	**1.6**	1.1	0.8	117
4	NY	Lafarge Building Materials Inc.	8105211	All	**1.2**	1.0	0.7	369
5	OH	P. H. Glatfelter Company - Chillicothe Facility	8131111	All	**1.1**	0.7	0.7	892

Campobello/Roosevelt International Park, ME/NS

Table 13: 2011 Campobello/Roosevelt International Park Top-10 Visibility Impairing EGU Point Sources

	Facility Info				Extinction Value (Mm^{-1})				
Rank	State	Facility	ORIS ID	Unit IDs	2002 Met 2011 95th	2011 Met 2011 95th	2015 Met 2011 95th	2015 Met 2015 95th	Distance (mi)
1	OH	Kyger Creek	2876	1,2,3,4,5	**17.6**	16.8	14.3	0.9	880
2	VA	Chesterfield Power Station	3797	5	5.3	5.0	**8.2**	0.2	750
3	MA	Brayton Point	1619	3	**7.9**	5.3	4.1	0.7	305
4	MI	Monroe	1733	1,2	4.1	3.8	**7.4**	0.4	847
5	OH	Muskingum River	2872	1,2,3,4	**6.8**	4.8	3.7	1.7	835
6	OH	Walter C Beckford Generating Station	0	6	5.2	**5.4**	3.0	--	977
7	NH	Merrimack	2364	2	**5.2**	5.1	4.6	1.0	254
8	OH	Avon Lake Power Plant	2836	12	**4.6**	2.7	4.3	5.9	794
9	IN	Rockport	6166	MB1,MB2	**3.9**	2.6	2.3	2.7	1,142
10	OH	Eastlake	0	5	3.0	2.7	**3.6**	--	760

Table 14: 2015 Campobello Top-10 Visibility Impairing EGU Point Sources

	Facility Info				Extinction Value (Mm^{-1})				
Rank	State	Facility	ORIS ID	Unit IDs	Estimated 2002 Met 2015 95th	Estimated 2011 Met 2015 95th	Modeled 2015 Met 2015 95th	Maximum 2002,11,15 Met 2011 95th	Distance (mi)
1	OH	Avon Lake Power Plant	2836	12	**5.9**	3.5	5.6	4.6	794
2	PA	Homer City	3122	1	**5.1**	3.7	3.4	3.6	690
3	VA	Yorktown Power Station	3809	3	**4.5**	2.5	3.7	1.4	724
4	PA	Homer City	3122	2	**4.5**	3.3	3.0	3.6	690
5	ME	William F Wyman	1507	4	**4.2**	3.3	2.6	2.1	176
6	MA	Brayton Point	1619	4	**3.7**	3.4	1.9	1.2	305
7	OH	Muskingum River	2872	5	**3.3**	2.2	1.7	2.1	835
8	MA	Canal Station	1599	1	**2.9**	2.4	1.9	2.0	279
9	PA	Shawville	3131	3,4	**2.7**	1.9	1.2	2.8	633
10	IN	Rockport	6166	MB1,MB2	**2.7**	1.8	1.5	3.9	1,142

Table 15: 2011 Campobello Top-5 Visibility Impairing Industrial/Institutional Sources

	Facility Info				Extinction Value (Mm^{-1})			
Rank	State	Facility	ORIS ID	Unit IDs	2002 Met 2011 Emis	2011 Met 2011 Emis	2015 Met 2011 Emis	Distance (mi)
1	MD	Luke Paper Company	7763811	All	4.0	**4.0**	3.0	722
2	ME	Woodland Pulp LLC	5974211	All	**2.7**	1.7	2.4	29
3	ME	Sappi - Somerset	8200111	All	**2.3**	1.4	0.9	132
4	NY	Lafarge Building Materials Inc.	8105211	All	**1.3**	1.0	0.7	380
5	OH	P. H. Glatfelter Company - Chillicothe Facility	8131111	All	**1.1**	0.6	0.6	904

Great Gulf, NH

Table 16: 2011 Great Gulf Top-10 Visibility Impairing EGU Point Sources

	Facility Info				Extinction Value (Mm^{-1})				
Rank	State	Facility	ORIS ID	Unit IDs	2002 Met 2011 95th	2011 Met 2011 95th	2015 Met 2011 95th	2015 Met 2015 95th	Distance (mi)
1	OH	Kyger Creek	2876	1,2,3,4,5	18.7	**21.2**	12.7	1.4	673
2	NH	Merrimack	2364	2	3.3	**7.2**	6.4	2.9	81
3	OH	Muskingum River	2872	1,2,3,4	6.4	**7.2**	5.0	1.8	627
4	OH	Avon Lake Power Plant	2836	12	3.9	**7.1**	5.1	8.9	579
5	MI	Monroe	1733	1,2	3.6	**5.7**	5.1	0.5	632
6	PA	Homer City	3122	2	4.2	3.7	**5.3**	6.4	482
7	PA	Homer City	3122	1	4.2	3.6	**5.3**	7.3	482
8	OH	Eastlake	0	5	2.7	**5.1**	3.5	--	546
9	IN	Wabash River Gen Station	1010	2,3,4,5,6	3.6	3.3	**4.5**	2.6	893
10	OH	Walter C Beckford Generating Station	0	6	4.4	**4.5**	3.0	--	766

Table 17: 2015 Great Gulf Top-10 Visibility Impairing EGU Point Sources

	Facility Info				Extinction Value (Mm^{-1})				
Rank	State	Facility	ORIS ID	Unit IDs	Estimated 2002 Met 2015 95th	Estimated 2011 Met 2015 95th	Modeled 2015 Met 2015 95th	Maximum 2002,11,15 Met 2011 95th	Distance (mi)
1	OH	Avon Lake Power Plant	2836	12	5.0	**8.9**	6.4	7.1	579
2	PA	Homer City	3122	1	5.8	5.1	**7.3**	5.3	482
3	PA	Homer City	3122	2	5.1	4.5	**6.4**	5.3	482
4	ME	William F Wyman	1507	4	2.9	**4.1**	2.7	1.9	66
5	OH	Muskingum River	2872	5	3.2	**3.6**	2.4	2.2	627
6	VA	Yorktown Power Station	3809	3	2.1	1.4	**3.6**	1.1	560
7	KY	Big Sandy	1353	BSU1,BSU2	2.2	**2.9**	1.7	2.6	726
8	NH	Merrimack	2364	2	1.3	**2.9**	2.6	7.2	81
9	WV	Harrison Power Station	0	1 (25%), 2 (20%)	1.0	**2.8**	1.3	2.7	578
10	GA	Harllee Branch	709	3&4	**2.8**	0.9	1.6	3.2	1,003

Table 18: 2011 Great Gulf Top-5 Visibility Impairing Industrial/Institutional Sources

	Facility Info				Extinction Value (Mm^{-1})			
Rank	State	Facility	ORIS ID	Unit IDs	2002 Met 2011 Emis	2011 Met 2011 Emis	2015 Met 2011 Emis	Distance (mi)
1	MD	Luke Paper Company	7763811	All	4.6	5.8	**6.9**	522
2	ME	Sappi - Somerset	8200111	All	0.5	**3.1**	0.7	84
3	NY	Finch Paper LLC	8325211	All	0.5	**1.7**	1.3	137
4	NY	Lafarge Building Materials Inc.	8105211	All	1.4	0.9	**1.4**	179
5	ME	Verso Paper - Androscoggin Mill	7764711	All	0.4	**1.4**	0.2	52

Presidential Range/Dry River, NH

Table 19: 2011 Presidential Range/Dry River Top-10 Visibility Impairing EGU Point Sources

	Facility Info				Extinction Value (Mm^{-1})				
Rank	State	Facility	ORIS ID	Unit IDs	2002 Met 2011 95th	2011 Met 2011 95th	2015 Met 2011 95th	2015 Met 2015 95th	Distance (mi)
1	OH	Kyger Creek	2876	1,2,3,4,5	18.7	**21.9**	14.2	1.4	666
2	NH	Merrimack	2364	2	4.9	**7.9**	7.0	3.1	72
3	OH	Avon Lake Power Plant	2836	12	4.0	**7.3**	5.8	9.2	574
4	OH	Muskingum River	2872	1,2,3,4	7.3	**7.1**	5.0	1.8	619
5	MI	Monroe	1733	1,2	3.9	**6.0**	5.2	0.5	627
6	PA	Homer City	3122	2	4.6	3.9	**5.4**	6.5	475
7	PA	Homer City	3122	1	4.6	3.8	**5.3**	7.4	475
8	OH	Eastlake	0	5	2.7	**5.3**	3.9	--	540
9	OH	Walter C Beckford Generating Station	0	6	**4.8**	4.3	3.7	--	759
10	IN	Wabash River Gen Station	1010	2,3,4,5,6	3.6	3.6	**4.6**	2.6	887

Table 20: 2015 Presidential Top-10 Visibility Impairing EGU Point Sources

	Facility Info				Extinction Value (Mm^{-1})				
Rank	State	Facility	ORIS ID	Unit IDs	Estimated 2002 Met 2015 95th	Estimated 2011 Met 2015 95th	Modeled 2015 Met 2015 95th	Maximum 2002,11,15 Met 2011 95th	Distance (mi)
1	OH	Avon Lake Power Plant	2836	12	5.0	**9.2**	7.3	7.3	574
2	PA	Homer City	3122	1	6.3	5.3	**7.4**	5.3	475
3	PA	Homer City	3122	2	5.6	4.7	**6.5**	5.4	475
4	ME	William F Wyman	1507	4	3.9	**4.2**	3.3	2.0	65
5	VA	Yorktown Power Station	3809	3	2.4	1.5	**3.7**	1.1	551
6	OH	Muskingum River	2872	5	3.6	**3.6**	2.4	2.2	619
7	NH	Merrimack	2364	2	2.0	**3.1**	2.8	7.9	72
8	KY	Big Sandy	1353	BSU1, BSU2	2.3	**3.1**	1.8	3.6	718
9	IN	Rockport	6166	MB1,MB2	2.0	**3.0**	1.4	4.2	924
10	WV	Harrison Power Station	0	1 (25%), 2 (20%)	1.1	**3.0**	1.3	2.8	995

Table 21: 2011 Presidential Top-5 Visibility Impairing Industrial/Institutional Sources

	Facility Info				Extinction Value (Mm^{-1})			
Rank	State	Facility	ORIS ID	Unit IDs	2002 Met 2011 Emis	2011 Met 2011 Emis	2015 Met 2011 Emis	Distance (mi)
1	MD	Luke Paper Company	7763811	All	5.5	6.4	**7.3**	514
2	ME	Sappi - Somerset	8200111	All	0.5	**3.5**	1.2	90
3	NY	Finch Paper LLC	8325211	All	0.5	**2.1**	1.3	130
4	NY	Lafarge Building Materials Inc.	8105211	All	**1.8**	1.1	1.5	171
5	IN	Arcelormittal Burns Harbor Inc.	7376511	All	0.4	1.0	**1.2**	818

Dolly Sods, WV

Table 22: 2011 Dolly Sods Top-10 Visibility Impairing EGU Point Sources

	Facility Info				Extinction Value (Mm^{-1})				
Rank	State	Facility	ORIS ID	Unit IDs	2002 Met 2011 95th	2011 Met 2011 95th	2015 Met 2011 95th	2015 Met 2015 95th	Distance (mi)
1	OH	Kyger Creek	2876	1,2,3,4,5	**77.3**	61.3	49.4	5.1	150
2	OH	Muskingum River	2872	1,2,3,4	24.3	18.2	**25.0**	6.3	130
3	OH	Walter C Beckford Generating Station	0	6	**14.4**	11.2	7.4	--	266
4	PA	Cheswick	8226	1	**12.1**	11.0	9.3	4.1	106
5	KY	Big Sandy	1353	BSU1, BSU2	**11.8**	11.0	8.1	10.3	187
6	PA	Homer City	3122	2	**11.3**	11.2	9.4	14.3	102
7	PA	Homer City	3122	1	**11.2**	11.0	9.2	16.3	102
8	IN	Wabash River Gen Station	1010	2,3,4,5,6	9.2	**11.1**	9.0	6.3	433
9	MI	Monroe	1733	1,2	8.1	11.0	**11.0**	1.1	288
10	OH	Avon Lake Power Plant	2836	12	10.5	7.8	**10.8**	13.7	222

Table 23: 2015 Dolly Sods Top-10 Visibility Impairing EGU Point Sources

	Facility Info				Extinction Value (Mm^{-1})				
Rank	State	Facility	ORIS ID	Unit IDs	Estimated 2002 Met 2015 95th	Estimated 2011 Met 2015 95th	Modeled 2015 Met 2015 95th	Maximum 2002,11,15 Met 2011 95th	Distance (mi)
1	PA	Homer City	3122	1	**16.3**	16.1	13.5	11.2	102
2	PA	Homer City	3122	2	**14.3**	14.2	11.9	11.3	102
3	OH	Avon Lake Power Plant	2836	12	13.4	9.9	**13.7**	10.8	222
4	OH	Muskingum River	2872	5	10.5	7.5	**12.2**	7.6	130
5	WV	Harrison Power Station	0	1 (25%), 2 (20%)	**11.4**	9.1	9.7	10.8	58
6	KY	Big Sandy	1353	BSU1,BSU 2	**10.3**	9.6	7.0	11.8	187
7	WV	Kammer	3947	1,2,3	6.2	**7.4**	7.2	7.7	96
8	OH	Conesville	2840	5,6	3.0	3.5	**7.0**	8.2	165
9	OH	Gen J M Gavin	8102	1	**6.8**	5.1	6.5	5.0	149
10	OH	Muskingum River	2872	1,2,3,4	6.1	4.6	**6.3**	25.0	130

Table 24: 2011 Dolly Sods Top-5 Visibility Impairing Industrial/Institutional Sources

	Facility Info				Extinction Value (Mm^{-1})			
Rank	State	Facility	ORIS ID	Unit IDs	2002 Met 2011 Emis	2011 Met 2011 Emis	2015 Met 2011 Emis	Distance (mi)
1	MD	Luke Paper Company	7763811	All	54.3	52.6	**89.6**	33
2	TN	Eastman Chemical Company	3982311	All	3.1	**4.0**	3.6	247
3	OH	P. H. Glatfelter Company - Chillicothe Facility	8131111	All	2.3	2.3	**2.7**	195
4	PA	USS/Clairton Works	8204511	All	1.4	1.5	**2.3**	92
5	IN	Arcelormittal Burns Harbor Inc.	7376511	All	1.6	**1.9**	1.4	448

Otter Creek, WV

Table 25: 2011 Otter Creek Top-10 Visibility Impairing EGU Point Sources

	Facility Info				Extinction Value (Mm^{-1})				
Rank	State	Facility	ORIS ID	Unit IDs	2002 Met 2011 95th	2011 Met 2011 95th	2015 Met 2011 95th	2015 Met 2015 95th	Distance (mi)
1	OH	Kyger Creek	2876	1,2,3,4,5	**76.6**	70.3	51.7	4.9	134
2	OH	Muskingum River	2872	1,2,3,4	**34.2**	19.7	24.0	8.7	117
3	OH	Walter C Beckford Generating Station	0	6	14.3	**15.0**	8.5	--	251
4	PA	Homer City	3122	2	**14.0**	13.1	8.4	17.6	107
5	PA	Homer City	3122	1	**13.8**	12.8	8.2	20.0	107
6	PA	Cheswick	8226	1	**13.5**	12.1	9.2	5.1	106
7	KY	Big Sandy	1353	BSU1, BSU2	12.3	**12.7**	9.6	11.1	171
8	MI	Monroe	1733	1,2	9.3	**12.0**	11.4	1.1	279
9	IN	Wabash River Gen Station	1010	2,3,4,5,6	9.7	**11.5**	9.2	6.5	419
10	OH	Avon Lake Power Plant	2836	12	**11.3**	8.5	11.3	14.2	215

Table 26: 2015 Otter Creek Top-10 Visibility Impairing EGU Point Sources

	Facility Info				Extinction Value (Mm^{-1})				
Rank	State	Facility	ORIS ID	Unit IDs	Estimated 2002 Met 2015 95th	Estimated 2011 Met 2015 95th	Modeled 2015 Met 2015 95th	Maximum 2002,11,15 Met 2011 95th	Distance (mi)
1	PA	Homer City	3122	1	**20.0**	18.6	11.9	13.8	107
2	PA	Homer City	3122	2	**17.6**	16.5	10.5	14.0	107
3	OH	Muskingum River	2872	5	**15.1**	8.7	11.5	9.4	117
4	OH	Avon Lake Power Plant	2836	12	**14.2**	10.7	14.1	11.3	215
5	WV	Harrison Power Station	0	1 (25%), 2 (20%)	**11.2**	9.9	11.0	10.6	46
6	KY	Big Sandy	1353	BSU1,BSU2	10.7	**11.1**	8.3	12.7	171
7	OH	Muskingum River	2872	1,2,3,4	**8.7**	5.0	6.1	34.2	117
8	WV	Kammer	3947	1,2,3	6.1	6.5	**8.5**	8.8	86
9	OH	Gen J M Gavin	8102	1	**7.6**	6.1	7.1	5.4	134
10	OH	Conesville	2840	5,6	2.8	4.0	**7.2**	8.4	145

Table 27: 2011 Otter Creek Top-5 Visibility Impairing Industrial/Institutional Sources

	Facility Info				Extinction Value (Mm^{-1})			
Rank	State	Facility	ORIS ID	Unit IDs	2002 Met 2011 Emis	2011 Met 2011 Emis	2015 Met 2011 Emis	Distance (mi)
1	MD	Luke Paper Company	7763811	All	46.7	30.9	**50.2**	45
2	TN	Eastman Chemical Company	3982311	All	3.4	4.3	**3.5**	234
3	OH	P. H. Glatfelter Company - Chillicothe Facility	8131111	All	2.2	2.5	**2.6**	181
4	PA	USS/Clairton Works	8204511	All	1.9	1.1	**2.2**	91
5	IN	Arcelormittal Burns Harbor Inc.	7376511	All	1.8	**2.0**	1.5	435

James River Face, VA

Table 28: 2011 James River Face Top-10 Visibility Impairing EGU Point Sources

	Facility Info				Extinction Value (Mm^{-1})				
Rank	State	Facility	ORIS ID	Unit IDs	2002 Met 2011 95th	2011 Met 2011 95th	2015 Met 2011 95th	2015 Met 2015 95th	Distance (mi)
1	OH	Kyger Creek	2876	1,2,3,4,5	32.9	**80.7**	57.0	4.1	172
2	OH	Muskingum River	2872	1,2,3,4	20.2	20.8	**32.4**	7.6	184
3	VA	Chesterfield Power Station	3797	5	16.1	**18.5**	12.1	0.6	113
4	OH	Walter C Beckford Generating Station	0	6	15.8	12.4	**17.2**	--	281
5	PA	Homer City	3122	2	3.8	**9.7**	7.1	12.1	202
6	PA	Homer City	3122	1	3.7	**9.6**	7.0	13.8	202
7	OH	Muskingum River	2872	5	5.5	5.6	**9.1**	14.9	184
8	GA	Harllee Branch	709	3&4	**9.0**	3.9	4.6	7.9	373
9	KY	Big Sandy	1353	BSU1, BSU2	7.4	**9.0**	4.3	7.6	178
10	OH	Avon Lake Power Plant	2836	12	**8.9**	5.5	6.5	11.4	304

Table 29: 2015 James River Face Top-10 Visibility Impairing EGU Point Sources

	Facility Info				Extinction Value (Mm^{-1})				
Rank	State	Facility	ORIS ID	Unit IDs	Estimated 2002 Met 2015 95th	Estimated 2011 Met 2015 95th	Modeled 2015 Met 2015 95th	Maximum 2002,11,15 Met 2011 95th	Distance (mi)
1	OH	Muskingum River	2872	5	9.0	9.1	**14.9**	9.1	184
2	PA	Homer City	3122	1	5.3	**13.8**	10.0	9.6	202
3	PA	Homer City	3122	2	4.7	**12.1**	8.8	9.7	202
4	OH	Avon Lake Power Plant	2836	12	**11.4**	7.1	8.3	8.9	304
5	GA	Harllee Branch	709	3&4	**7.9**	3.4	4.0	9.0	373
6	KY	Big Sandy	1353	BSU1,BSU2	6.3	**7.6**	3.7	9.0	178
7	OH	Muskingum River	2872	1,2,3,4	4.7	4.9	**7.6**	32.4	184
8	WV	Harrison Power Station	0	1 (25%), 2 (20%)	6.9	4.2	**7.1**	6.7	133
9	VA	Yorktown Power Station	3809	3	4.8	**6.8**	3.8	2.1	166
10	OH	Gen J M Gavin	8102	1	3.1	**6.6**	6.0	5.7	172

Table 30: 2011 James River Face Top-5 Visibility Impairing Industrial/Institutional Sources

	Facility Info				Extinction Value (Mm^{-1})			
Rank	State	Facility	ORIS ID	Unit IDs	2002 Met 2011 Emis	2011 Met 2011 Emis	2015 Met 2011 Emis	Distance (mi)
1	MD	Luke Paper Company	7763811	All	**21.3**	4.3	9.8	132
2	VA	Gp Big Island LLC	4183311	All	12.7	**13.6**	11.5	6
3	OH	P. H. Glatfelter Company - Chillicothe Facility	8131111	All	2.0	2.4	**3.3**	225
4	TN	Eastman Chemical Company	3982311	All	2.7	**2.8**	2.5	186
5	IN	Arcelormittal Burns Harbor Inc.	7376511	All	1.0	**1.8**	1.0	496

Shenandoah National Park, VA

Table 31: 2011 Shenandoah National Park Top-10 Visibility Impairing EGU Point Sources

	Facility Info				Extinction Value (Mm^{-1})				
Rank	State	Facility	ORIS ID	Unit IDs	2002 Met 2011 95th	2011 Met 2011 95th	2015 Met 2011 95th	2015 Met 2015 95th	Distance (mi)
1	OH	Kyger Creek	2876	1,2,3,4,5	61.7	46.4	**62.6**	3.2	191
2	OH	Muskingum River	2872	1,2,3,4	24.9	28.1	**32.9**	7.8	185
3	VA	Chesterfield Power Station	3797	5	19.7	**23.6**	20.2	0.6	94
4	OH	Walter C Beckford Generating Station	0	6	**17.3**	11.1	10.0	--	307
5	MI	Monroe	1733	1,2	5.7	**14.8**	8.1	1.3	350
6	MD	Chalk Point	1571	1,2	7.8	10.8	**11.7**	2.0	109
7	IN	Wabash River Gen Station	1010	2,3,4,5,6	7.6	**11.6**	6.5	6.6	478
8	PA	Homer City	3122	2	7.6	7.9	**9.4**	12.0	156
9	OH	W H Zimmer Generating Station	6019	1	**9.3**	6.8	5.5	6.9	302
10	OH	Muskingum River	2872	5	7.2	8.3	**9.3**	15.2	185

Table 32: 2015 Shenandoah National Park Top-10 Visibility Impairing EGU Point Sources

	Facility Info				Extinction Value (Mm^{-1})				
Rank	State	Facility	ORIS ID	Unit IDs	Estimated 2002 Met 2015 95th	Estimated 2011 Met 2015 95th	Modeled 2015 Met 2015 95th	Maximum 2002,11,15 Met 2011 95th	Distance (mi)
1	OH	Muskingum River	2872	5	11.8	13.6	**15.2**	9.3	185
2	PA	Homer City	3122	1	11.0	11.5	**13.6**	9.2	156
3	PA	Homer City	3122	2	9.7	10.2	**12.0**	9.4	156
4	OH	Avon Lake Power Plant	2836	12	10.6	8.3	**11.9**	9.2	285
5	VA	Yorktown Power Station	3809	3	8.4	**10.5**	5.2	3.3	142
6	OH	Muskingum River	2872	1,2,3,4	5.9	6.6	**7.8**	32.9	185
7	KY	Big Sandy	1353	BSU1,BSU2	**7.4**	6.0	4.9	8.8	214
8	WV	Harrison Power Station	0	1 (25%), 2 (20%)	6.4	5.3	**7.0**	6.6	117
9	OH	W H Zimmer Generating Station	6019	1	**6.9**	5.1	4.1	9.3	302
10	PA	Brunner Island	3140	1,2	2.9	**6.9**	5.7	6.9	164

Table 33: 2011 Shenandoah Top-5 Visibility Impairing Industrial/Institutional Sources

	Facility Info				Extinction Value (Mm^{-1})			
Rank	State	Facility	ORIS ID	Unit IDs	2002 Met 2011 Emis	2011 Met 2011 Emis	2015 Met 2011 Emis	Distance (mi)
1	MD	Luke Paper Company	7763811	All	28.4	24.8	**32.7**	84
2	OH	P. H. Glatfelter Company - Chillicothe Facility	8131111	All	3.6	2.5	**3.7**	242
3	TN	Eastman Chemical Company	3982311	All	2.7	2.7	**2.8**	245
4	MD	Sparrows Point, LLC	8239711	All	1.4	2.3	**2.0**	135
5	WV	Capitol Cement - Essroc Martinsburg	4987611	All	**2.2**	1.9	1.2	87

*Note: Top 100 contributors to each Class I areas can be found in Appendix B.
**Note: All distances of EGUs to Class I areas can be found in Appendix C.

4.2 Top 25 2011 and 2015 Visibility Impacting EGU Units to Five MANE-VU and Two Nearby Class I Areas

Figures 16-25 below display the top 25 EGU contributors to five MANE-VU Class I areas (Acadia, Brigantine, Great Gulf, Lye Brook, and Moosehorn) with modeled 2011 and 2015 95th percentile emissions. Figures 26-29 exhibit only MANE-VU EGU stack impacts on two nearby Class I areas (Dolly Sods and Shenandoah). As described in Section 4.1, only 2015 meteorology was modeled with 2015 95th percentile emissions; estimates for 2002 and 2011 meteorology with 2015 95th percentile emissions were calculated based on ratios determined with 2011 emission modeling.

Each Class I area has two graphs, each of which represent a different emission year (2011 and 2015). This is done to highlight changes that occurred in actual emissions between the two years. The top 25 EGUs impacting each Class I area are sorted from the maximum on the left to the 25th maximum on the right.

The three colors in the graphs represent the range in predicted impacts due to the three years of meteorology. Colors represent the maximum (green), mid-range (red), and minimum (blue) impacts, but the year in which these occur may differ by facility and are not specified in the graph. That is, the green part of the bar always depicts the maximum impact for a given source, but that maximum impact may be based on 2002 meteorology for one source and based on 2011 meteorology for another source. The intent of the charts is not to point out the years of maximum impact, but to illustrate the range of impacts among the three years.

The closer these three colors are bunched, the less the variation due to meteorology; the more spread out, the greater the difference between the years of meteorology. As an example, for 2011 95th percentile emissions impacts at Acadia, Kyger Creek had a fair amount of variation between the meteorological years. The maximum predicted extinction was about 22 Mm^{-1} (for 2002, shown by green part of the bar), the minimum predicted extinction for the three years was about 14 Mm^{-1} (for 2015, shown by the blue part of the bar), and the mid-range of the three years was about 20 Mm^{-1} (for 2011, shown by the red part of the bar).

Figure 16: Acadia Top 25 Visibility Impacting 2011 EGU Units

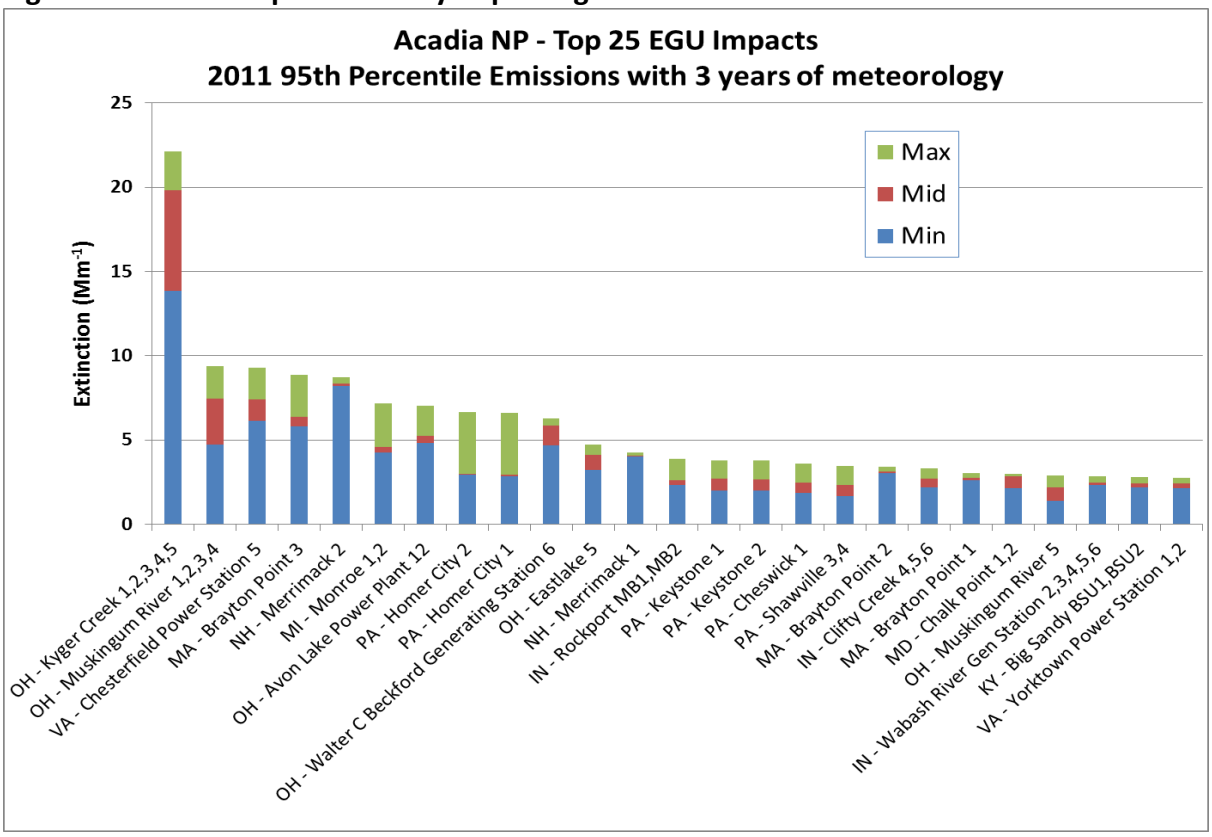


Figure 17: Acadia Top 25 Visibility Impacting 2015 EGU Units

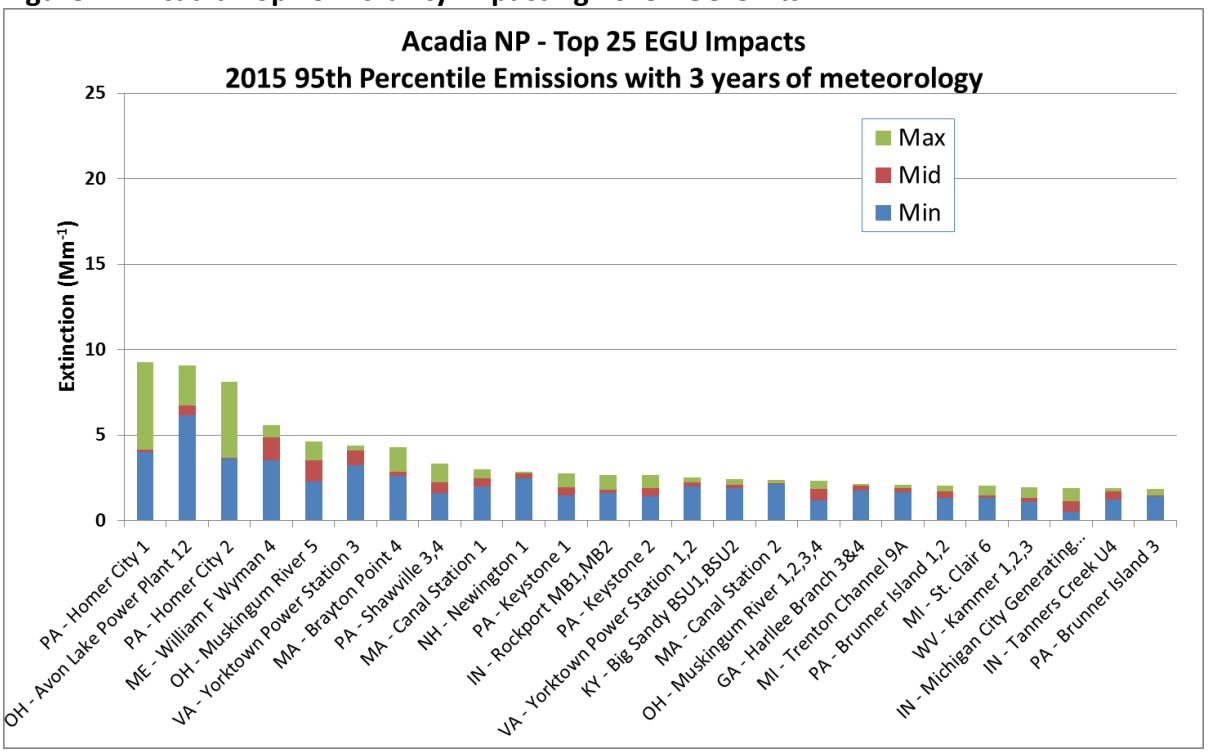


Figure 18: Brigantine Top 25 Visibility Impacting 2011 EGU Units

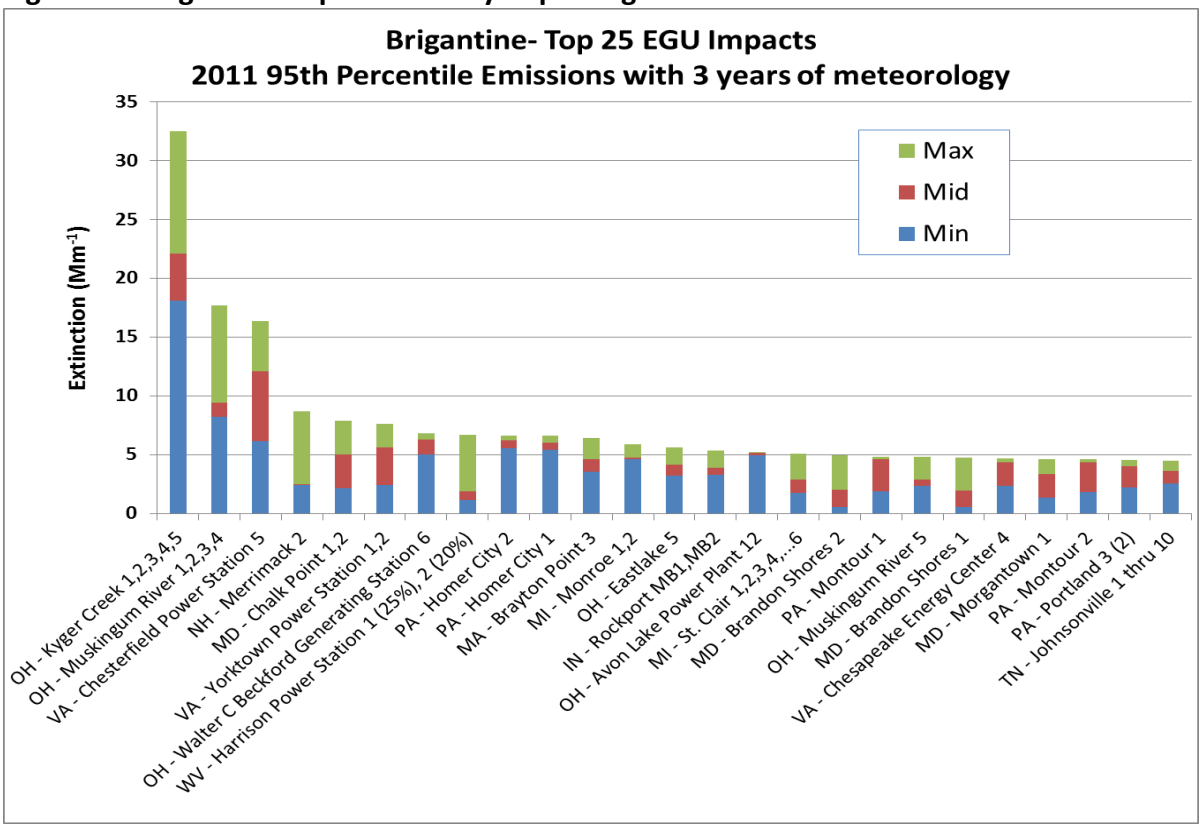


Figure 19: Brigantine Top 25 Visibility Impacting 2015 EGU Units

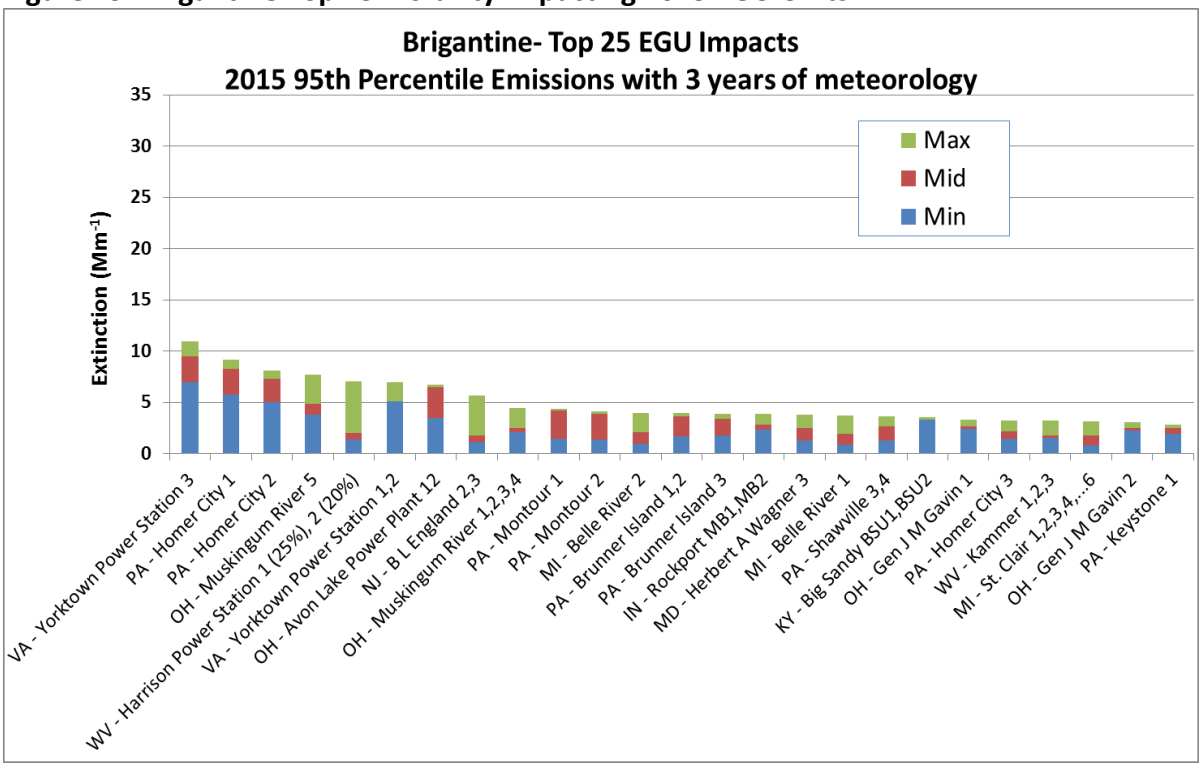


Figure 20: Great Gulf Top 25 Visibility Impacting 2011 EGU Units

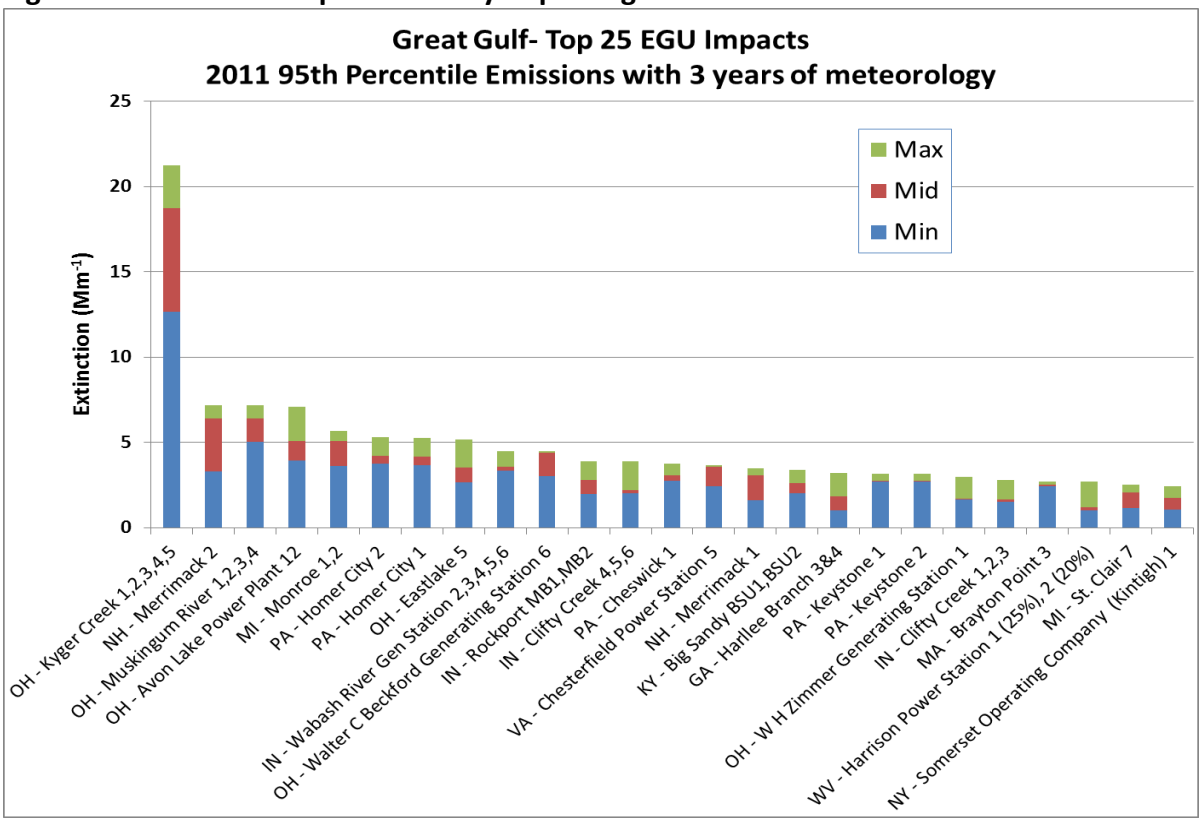


Figure 21: Great Gulf Top 25 Visibility Impacting 2015 EGU Units

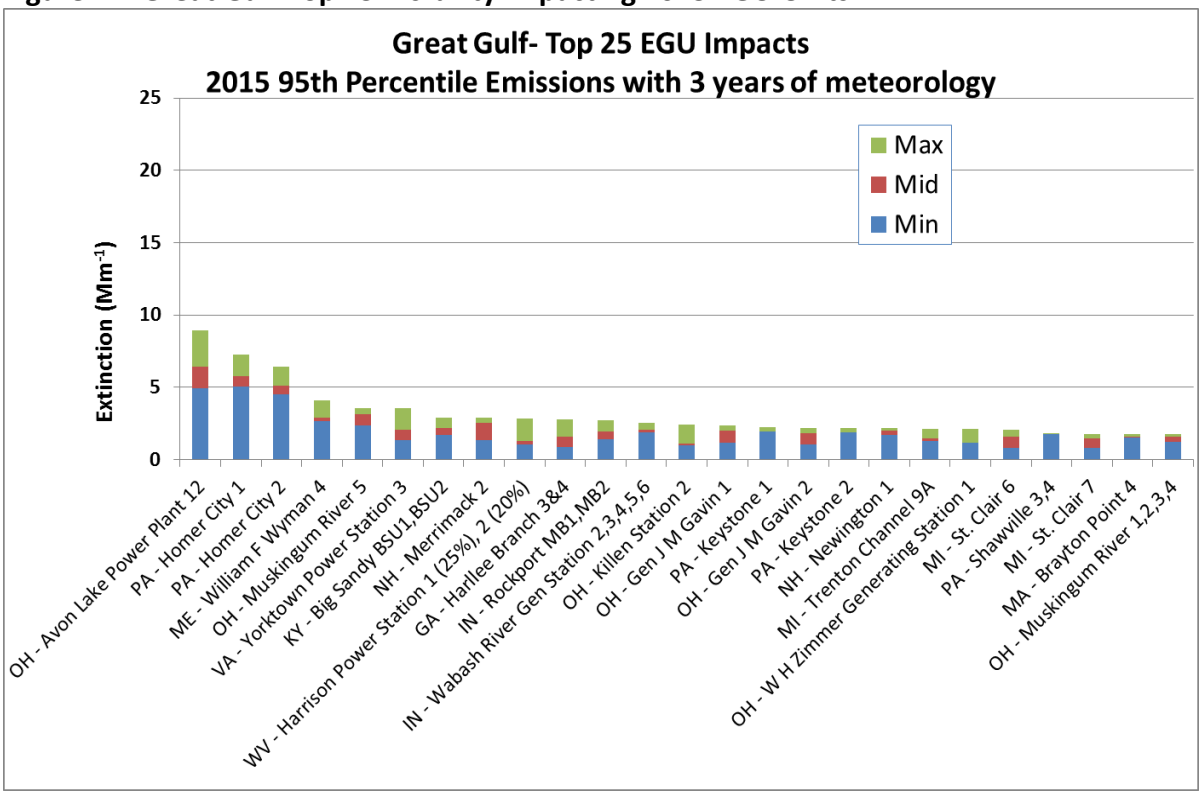


Figure 22: Lye Brook Top 25 Visibility Impacting 2011 EGU Units

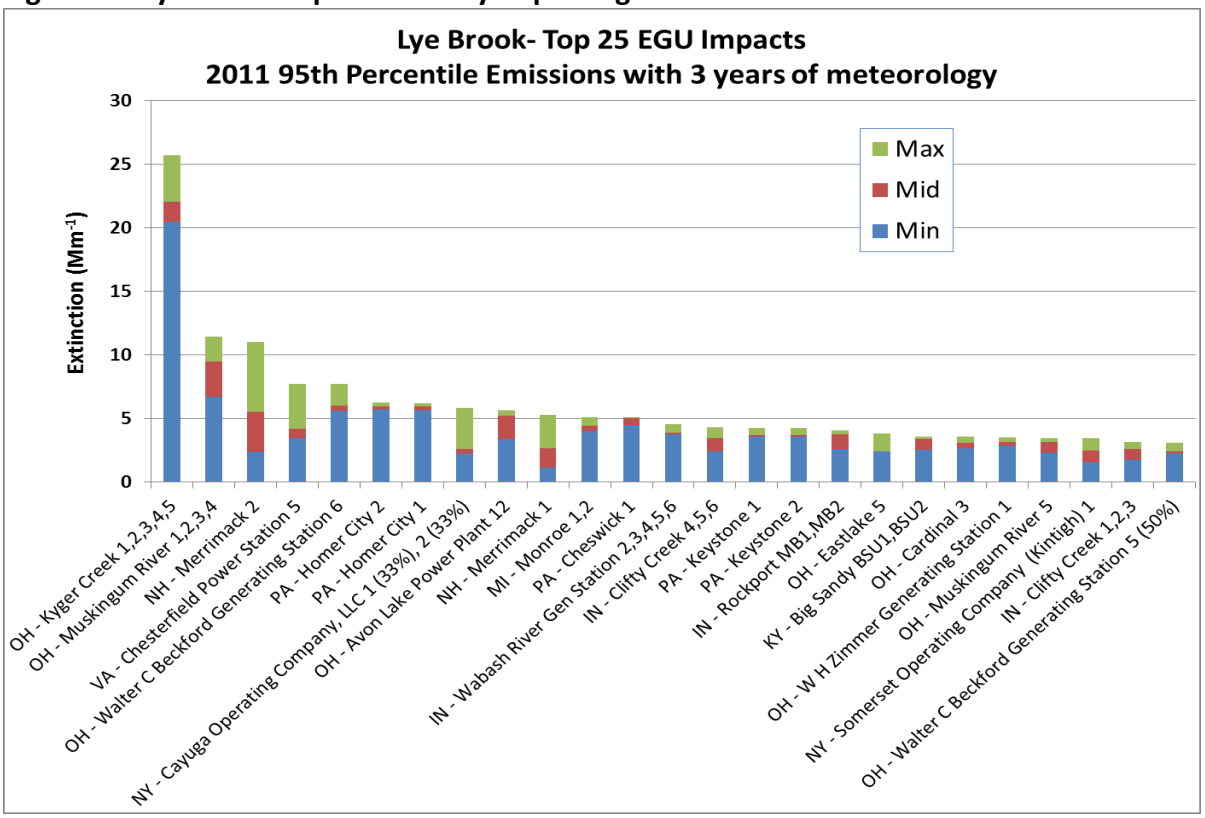


Figure 23: Lye Brook Top 25 Visibility Impacting 2015 EGU Units

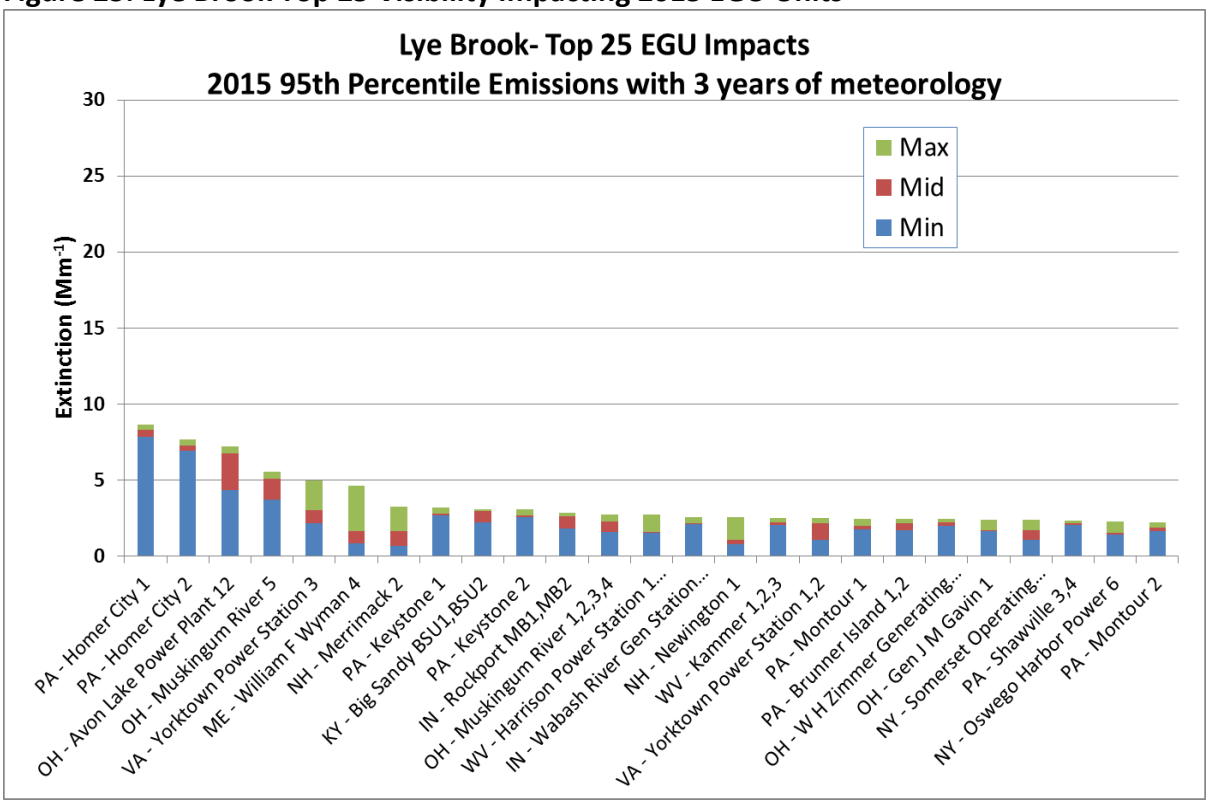


Figure 24: Moosehorn Top 25 Visibility Impacting 2011 EGU Units

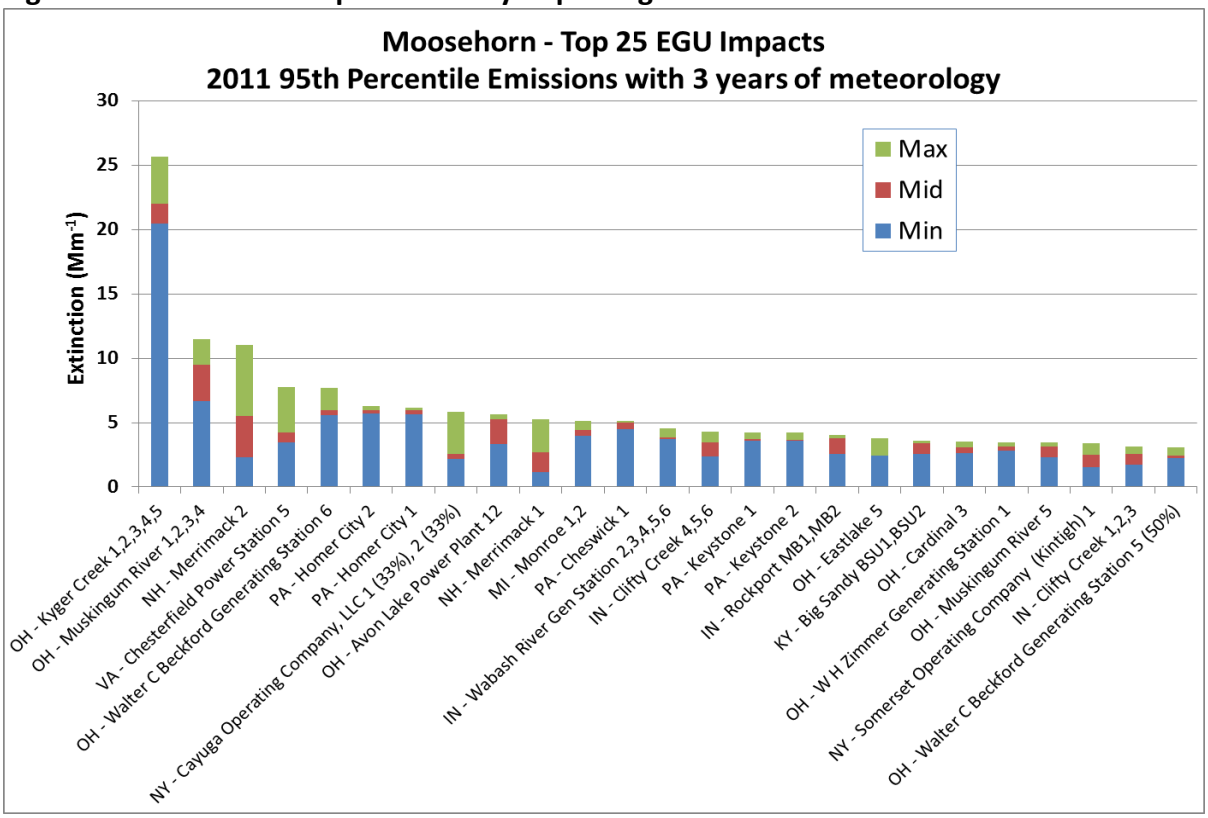


Figure 25: Moosehorn Top 25 Visibility Impacting 2015 EGU Units

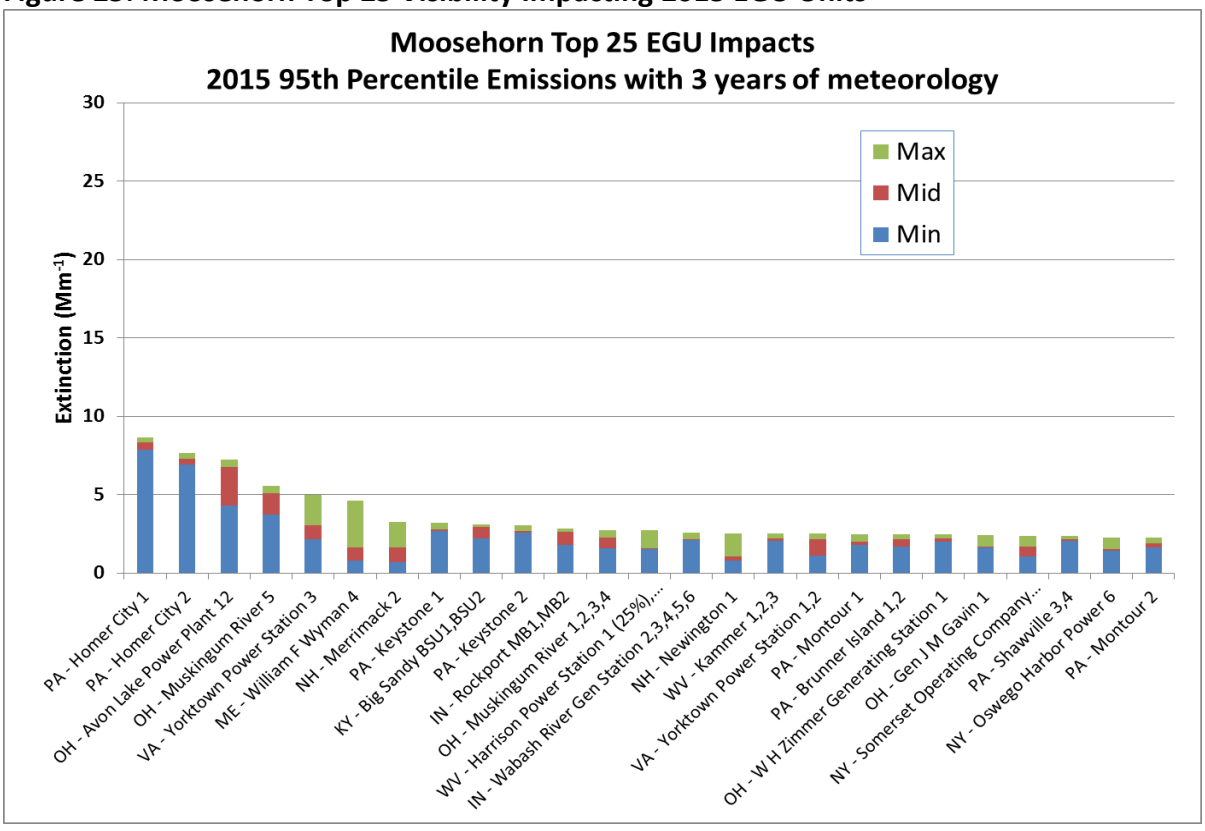


Figure 26: Dolly Sods Top 25 Visibility Impacting 2011 MANE-VU EGU Units

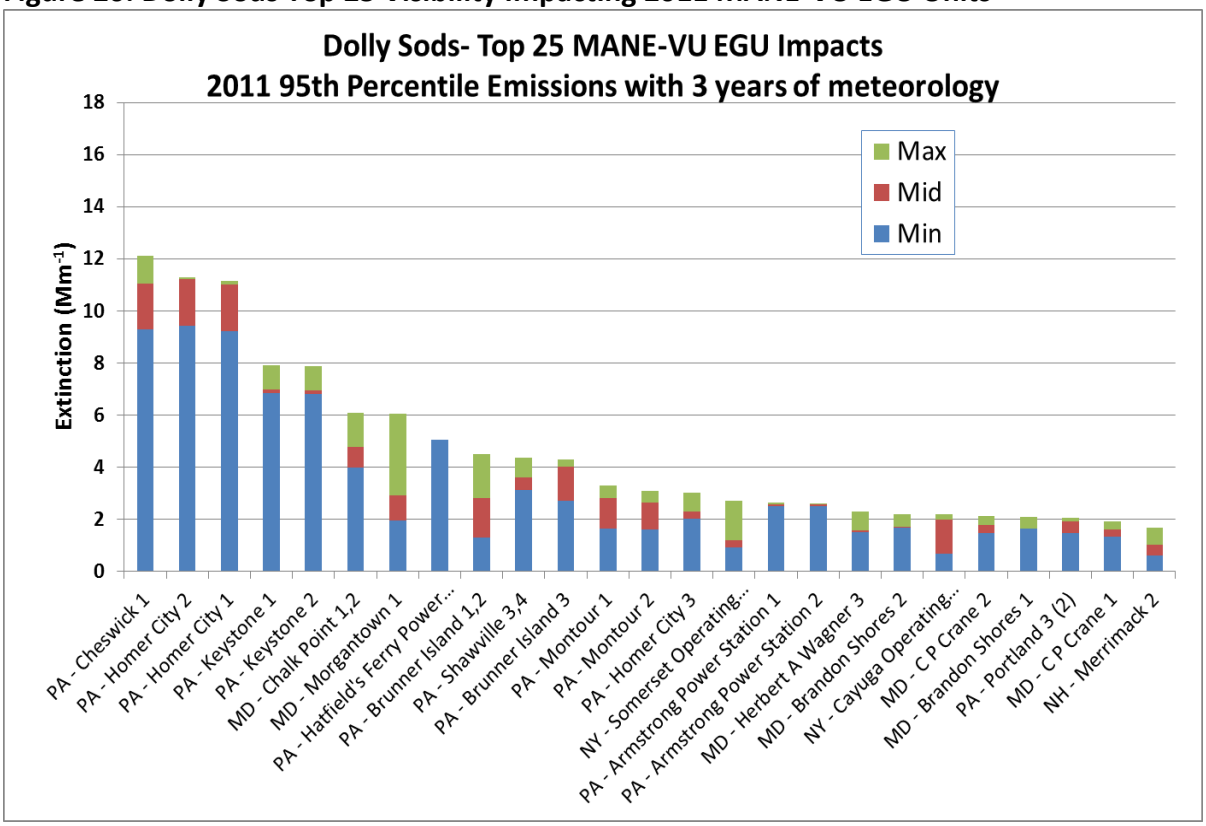


Figure 27: Dolly Sods Top 25 Visibility Impacting 2015 MANE-VU EGU Units

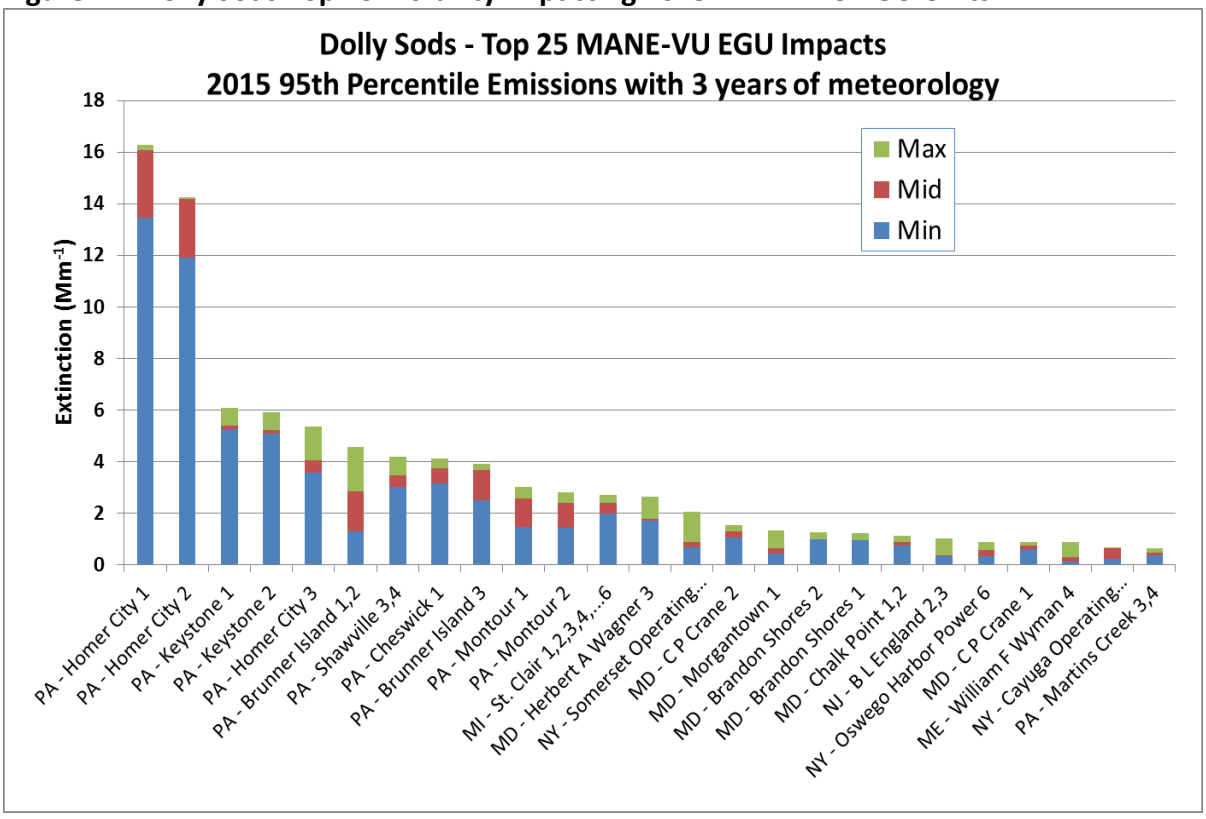


Figure 28: Shenandoah Top 25 Visibility Impacting 2011 MANE-VU EGU Units

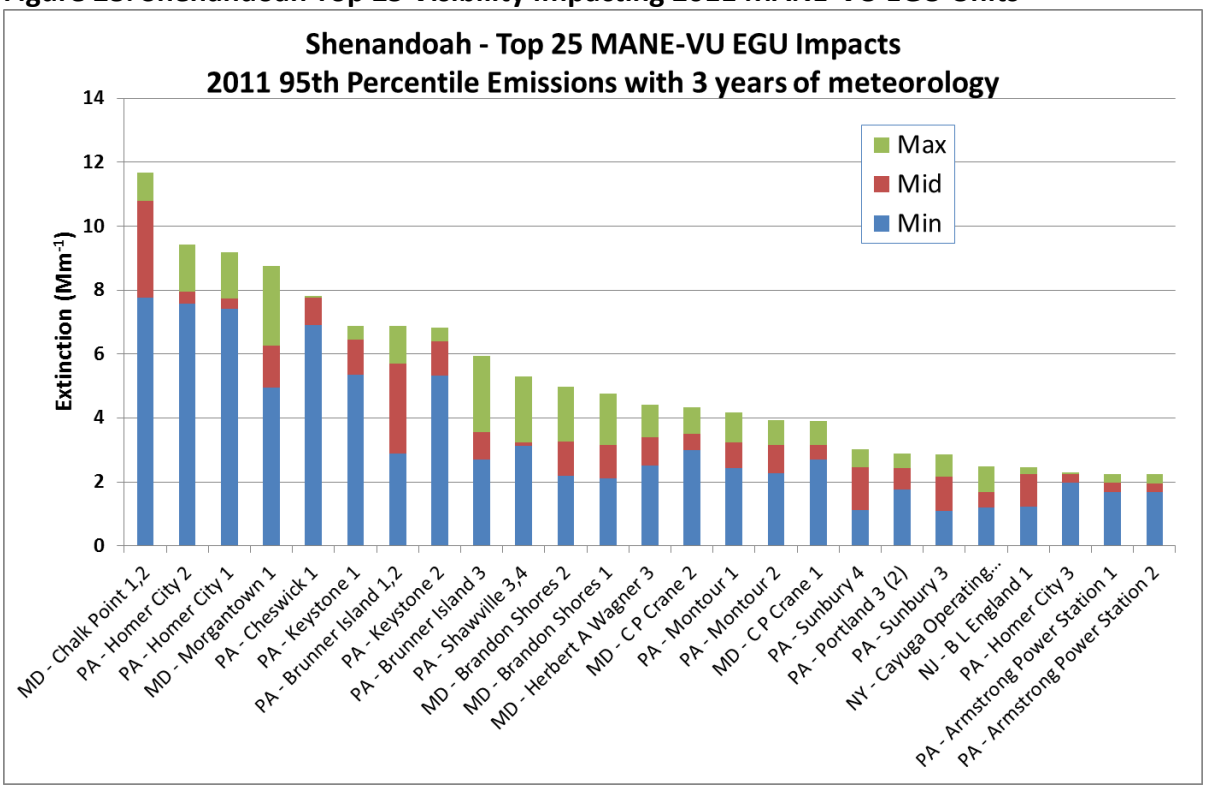


Figure 29: Shenandoah Top 25 Visibility Impacting 2015 MANE-VU EGU Units

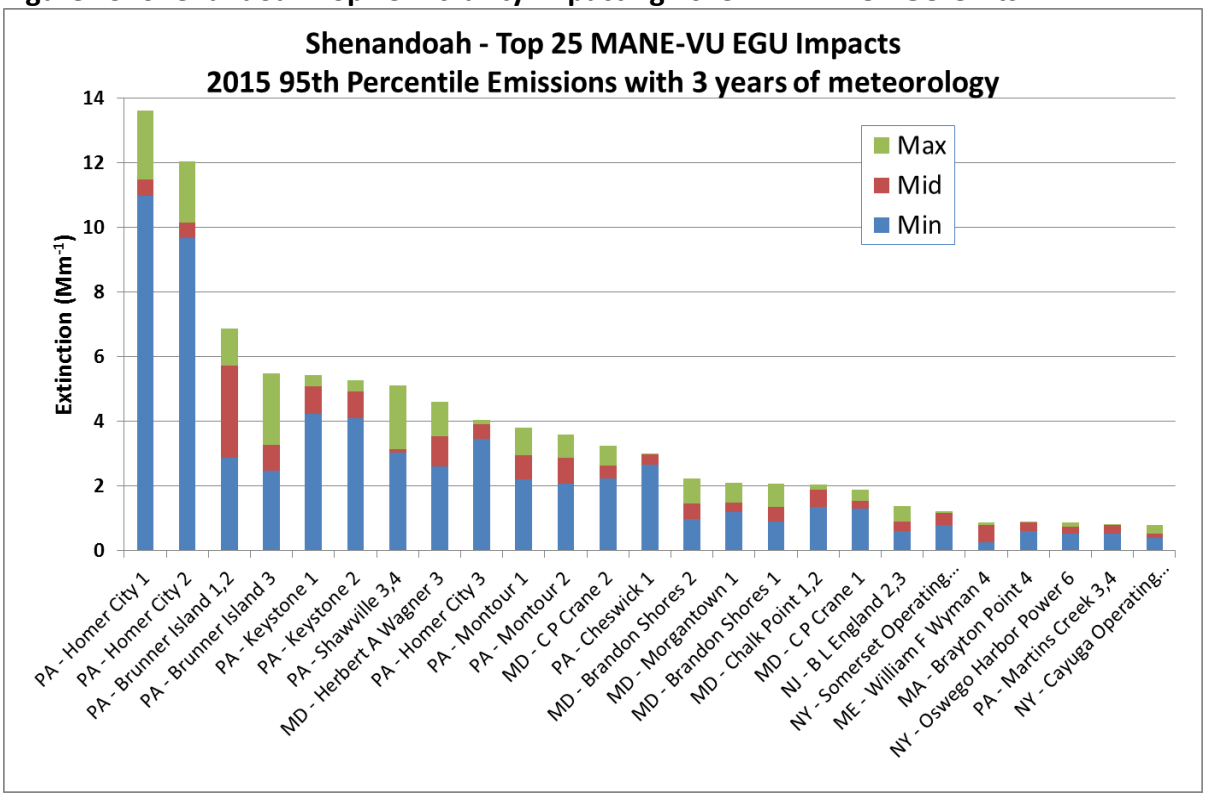


Table 34 provides a ranking of modeled EGU stacks with 2015 95th percentile emissions that considers impacts to all seven MANE-VU Class I areas. Each stack receives one point for each Class I area for which it has a modeled visibility extinction of 1.0 Mm^{-1} or greater. Since there are three years of meteorology, a stack may receive a maximum score of 21 if it has modeled visibility extinctions of 1.0 or greater for every Class I area for all three years. Also provided in this table is these sources' impact on overall max extinction in MANE-VU and nearby areas; see Appendix F for source rankings by max extinction for each Class I area.

Table 34: Top Impacting EGU Stacks (2015 Emissions) to MANE-VU Class I Areas

	Facility Info						Overall Max Extinction (Mm^{-1})	
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	MANE-VU Score	MANE-VU Areas	Nearby Areas
1	VA	Yorktown Power Station	3809	3	D038093	21	10.93	10.55
2	PA	Homer City	3122	1	D031221	21	9.29	19.98
3	OH	Avon Lake Power Plant	2836	12	D0283612	21	9.20	14.20
4	PA	Homer City	3122	2	D031222	21	8.14	17.61
5	OH	Muskingum River	2872	5	D028725	21	7.68	15.18
6	PA	Montour	3149	1	D031491	21	4.35	3.80
7	IN	Rockport	6166	MB1,MB2	D06166C02	21	3.84	6.66
8	PA	Shawville	3131	3,4	D03131CS1	21	3.60	5.13
9	KY	Big Sandy	1353	BSU1,BSU2	D01353C02	21	3.52	11.07
10	OH	Gen J M Gavin	8102	1	D081021	21	3.33	7.55
11	PA	Keystone	3136	1	D031361	21	3.18	6.10
12	PA	Keystone	3136	2	D031362	21	3.07	5.91
13	OH	Gen J M Gavin	8102	2	D081022	21	3.07	6.89
14	IN	Wabash River Gen Station	1010	2,3,4,5,6	D01010C05	21	2.61	6.60
15	OH	W H Zimmer Generating Station	6019	1	D060191	21	2.55	6.90
16	NC	L V Sutton	0	1, 2	D02713C02	20	6.94	2.36
17	OH	Muskingum River	2872	1,2,3,4	D02872C04	20	4.44	8.69
18	MA	Brayton Point	1619	4	x07	20	4.31	0.88
19	PA	Montour	3149	2	D031492	20	4.10	3.58
20	MI	Trenton Channel	1745	9A	D017459A	20	2.55	4.22
21	VA	Yorktown Power Station	3809	1,2	D03809CS0	19	6.98	4.99
22	MI	St. Clair	1743	6	D017436	19	2.08	3.40
23	ME	William F Wyman	1507	4	D015074	18	5.57	0.88
24	PA	Brunner Island	3140	1,2	D03140C12	18	3.97	6.87
25	WV	Kammer	3947	1,2,3	D03947C03	18	3.21	8.48
26	MI	St. Clair	1743	7	D017437	18	2.82	3.49
27	NY	Somerset Operating Company (Kintigh)	0	1	D060821	18	2.37	2.27
28	IN	Tanners Creek	988	U4	D00988U4	18	2.19	6.39
29	WV	Harrison Power Station	0	1 (25%), 2 (20%)	D03944C01	17	7.02	11.42
30	MI	Belle River	0	2	D060342	17	3.98	3.56
31	PA	Brunner Island	3140	3	D031403	17	3.84	5.49
32	MI	Belle River	0	1	D060341	17	3.69	3.28
33	NH	Newington	8002	1	D080021	17	2.85	0.47
34	GA	Harllee Branch	709	3&4	D00709C02	17	2.83	7.90
35	OH	Killen Station	6031	2	D060312	17	2.43	5.33
36	PA	Homer City	0	3	D031223	15	3.26	6.15

	Facility Info						Overall Max Extinction (Mm^{-1})	
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	MANE-VU Score	MANE-VU Areas	Nearby Areas
37	MI	St. Clair	1743	1,2,3,4,...6	x09	15	3.14	2.71
38	MA	Canal Station	1599	1	D015991	15	2.96	0.43
39	MA	Canal Station	1599	2	D015992	14	2.98	0.44
40	IN	Michigan City Generating Station	0	12	D0099712	14	1.88	2.15
41	NH	Merrimack	2364	2	D023642	11	3.28	0.32
42	WV	Pleasants Power Station	6004	2	D060042	10	2.77	7.48
43	OH	Kyger Creek	2876	1,2,3,4,5	D02876C01	10	2.28	5.06
44	NY	Oswego Harbor Power	2594	6	x15	10	2.27	1.12
45	WV	Kanawha River	3936	1,2	D03936C02	9	2.26	6.85
46	KY	Mill Creek	1364	1,2,3	x05	8	2.17	3.79
47	MD	Herbert A Wagner	1554	3	D015543	7	3.83	4.61
48	WV	Pleasants Power Station	6004	1	D060041	7	2.58	5.81
49	MI	J H Campbell	0	3 (50%)	D01710M3	7	1.78	3.77
50	IL	Powerton	0	51,52,61,62	D00879C06	7	1.67	2.68
51	OH	Conesville	2840	5,6	D02840C06	6	1.95	7.18
52	PA	Martins Creek	3148	3,4	x21	6	1.86	0.81
53	TN	Johnsonville	3406	1 thru 10	D03406C10	5	2.36	2.81
54	PA	Cheswick	8226	1	D082261	5	1.50	5.15
55	NH	Schiller	2367	6	0	5	1.38	0.14
56	NH	Merrimack	2364	1	D023641	5	1.28	0.12
57	KY	Ghent	1356	3,4 … (2,3)	D01356C02	5	1.19	2.64
58	MD	C P Crane	1552	2	D015522	4	2.62	3.25
59	MI	J H Campbell	0	A,B,1,2	D01710C09	4	1.30	3.19
60	NJ	B L England	2378	2,3	x12	3	5.64	1.40
61	GA	Yates	0	Y6BR	D00728Y6R	3	1.90	2.89
62	CT	Bridgeport Harbor Station	568	BHB3	0	3	1.22	0.42
63	MD	Brandon Shores	602	2	D006022	2	2.46	2.25
64	MD	C P Crane	1552	1	D015521	2	1.54	1.90
65	NC	Roxboro	2712	4A,4B	D02712C04	2	1.53	3.88
66	TX	Big Brown	3497	1	0	2	1.22	1.42
67	TX	Big Brown	3497	2	0	2	1.18	1.37
68	IN	Whitewater Valley	0	1, 2	D01040C12	2	1.14	2.62
69	NH	Schiller	2367	4	0	2	1.14	0.12
70	IN	IPL - Harding Street Station (EW Stout)	0	50	D0099050	2	1.04	2.45
71	MD	Brandon Shores	602	1	D006021	1	2.31	2.07
72	NY	Cayuga Operating Company, LLC	0	1 (33%), 2 (33%)	D02535C01	1	1.93	0.80
73	NC	Roxboro	2712	3A,3B	D02712C03	1	1.60	4.09
74	MD	Chalk Point	1571	1,2	D01571CE2	1	1.50	2.05
75	AL	E C Gaston	26	1, 2	D00026CA	1	1.49	2.24
76	WV	Mitchell (WV)	3948	1,2	D03948C02	1	1.44	3.52
77	MO	Sibley	0	1, 2, 3	D02094C01	1	1.13	0.92
78	MI	J C Weadock	0	7, 8	D01720C09	1	1.04	1.43
79	IN	Gibson	6113	1,2,3	D06113C03	1	1.03	1.95
80	MD	Morgantown	1573	1	D015731	1	1.00	2.10
81	IN	Tanners Creek	988	U1,U2,U3	D00988C03	1	1.00	2.97

4.3 Top 25 2011 Visibility Impacting Industrial and Institutional Units to Five MANE-VU Class I and Two Nearby Class I Areas

Figures 30 to 34 below display the top 25 Industrial and Institutional contributors to five MANE-VU Class I areas (Acadia, Brigantine, Great Gulf, Lye Brook, and Moosehorn). Figures 35 and 36 display this information for two nearby Class I area (Dolly Sods and Shenandoah).

The top 25 Industrial and Institutional contributors impacting each Class I area are sorted from the maximum on the left to the 25th maximum on the right. The three colors indicated in the graphs represent the range in predicted impacts due to the three years of differing meteorology. The closer these three colors are bunched, the less the meteorology variation, and the more spread out, the greater the difference between the years of meteorology. As an example, for 2011 typical emissions impacts at Acadia, Jackson Laboratories had a fair amount of variation between the meteorological years. The maximum predicted extinction was about 9 Mm^{-1} (for 2015, shown by green part of the bar), the minimum predicted extinction for the three years was about 5.7 Mm^{-1} (for 2011, shown by the blue part of the bar) and the mid-range of the three years was about 5.8 Mm^{-1} (for 2002, shown by the red part of the bar).

Figure 30: Acadia Top 25 Visibility Impacting 2011 Industrial/Institutional Units

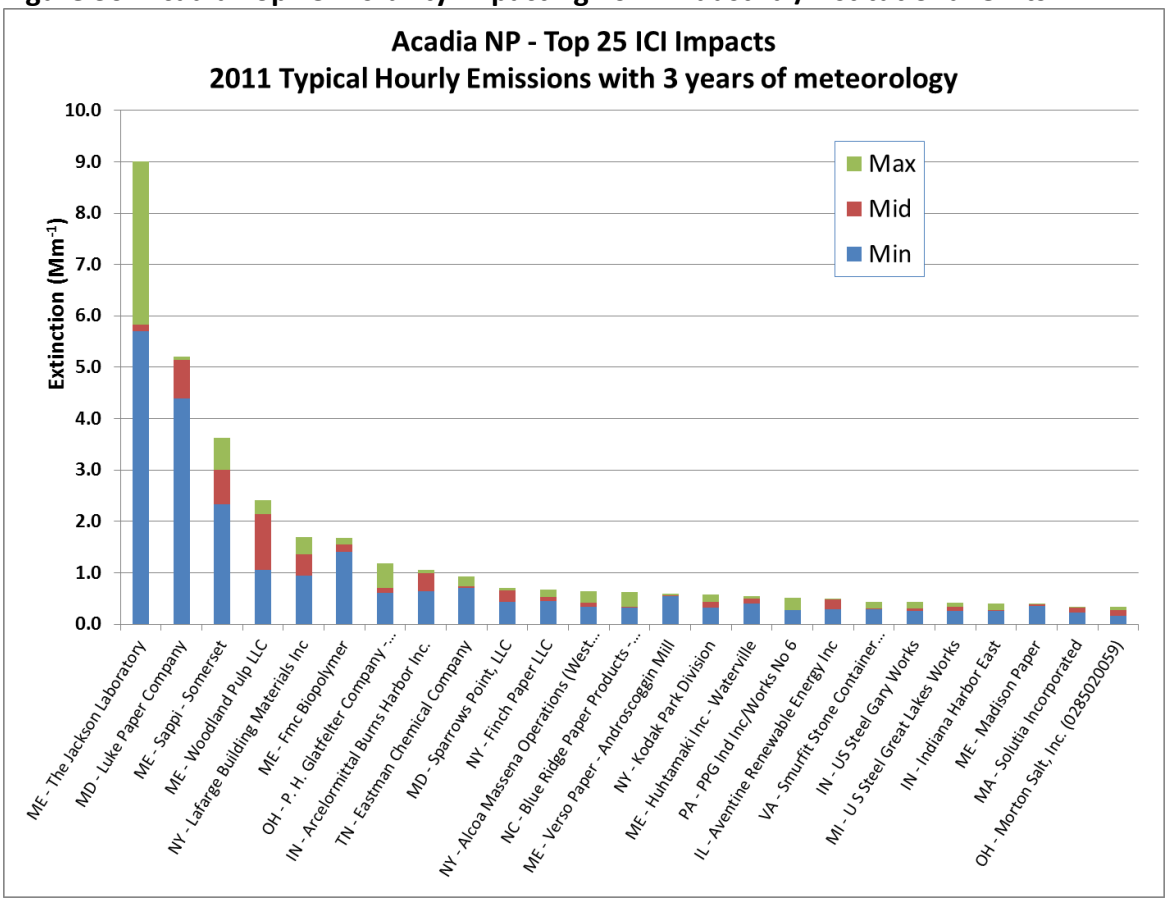


Figure 31: Brigantine Top 25 Visibility Impacting 2011 Industrial/Institutional Units

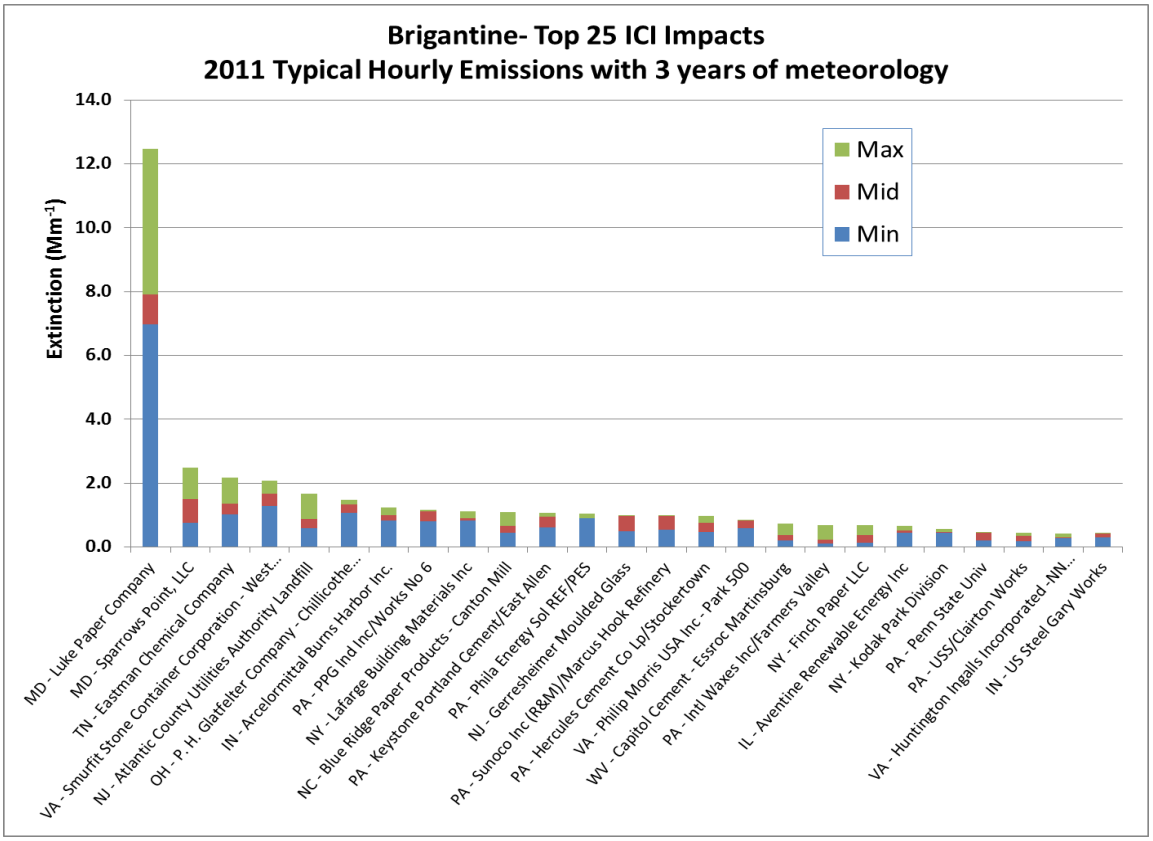


Figure 32: Great Gulf Top 25 Visibility Impacting 2011 Industrial/Institutional Units

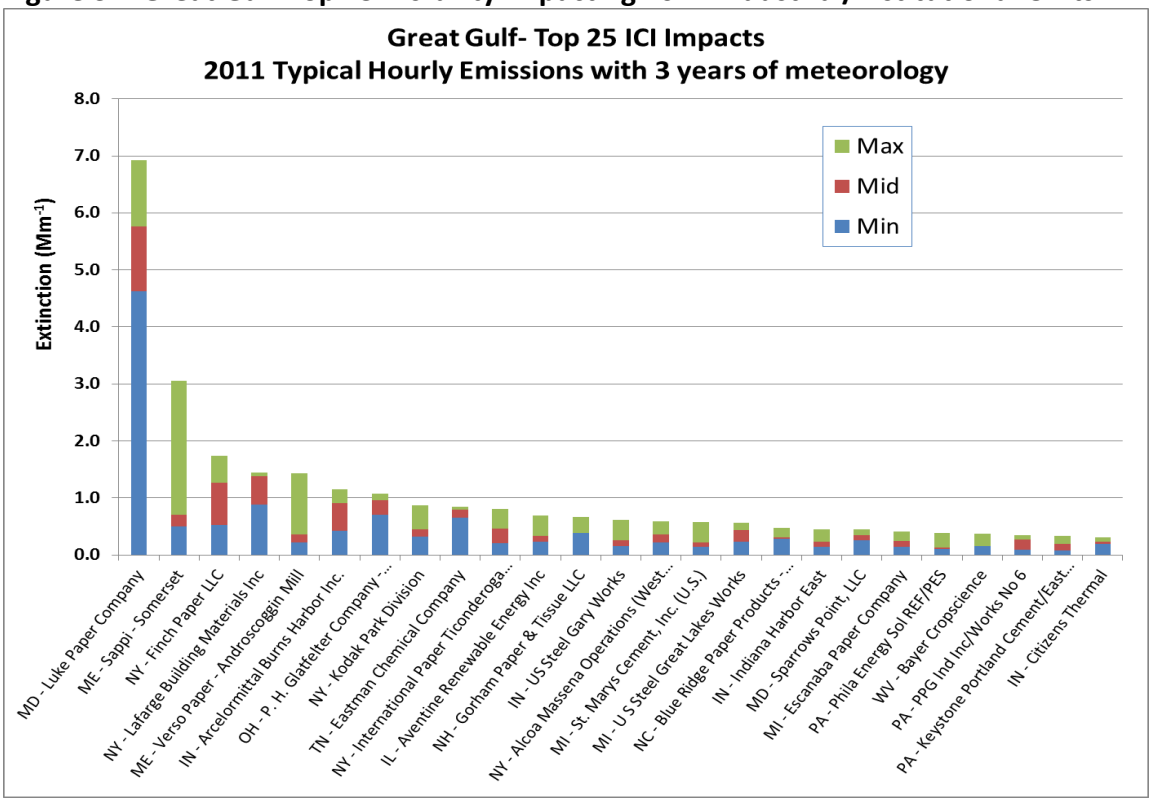


Figure 33: Lye Brook Top 25 Visibility Impacting 2011 Industrial/Institutional Units

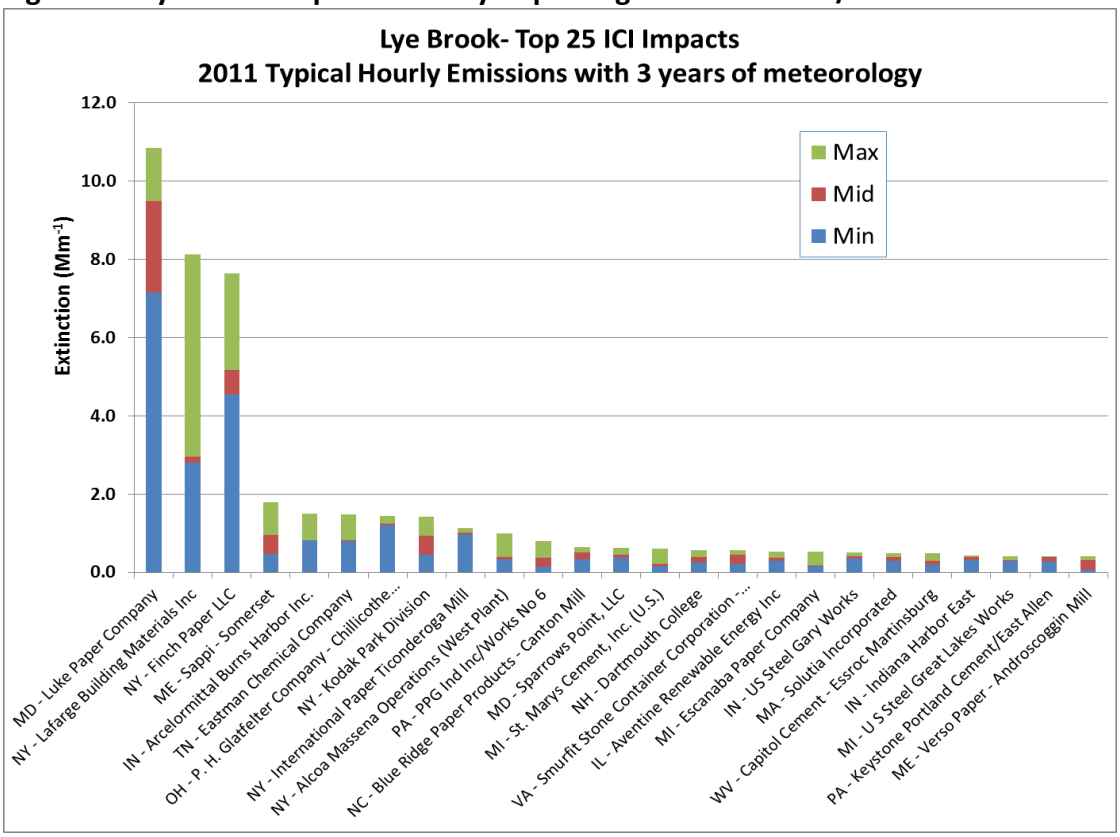
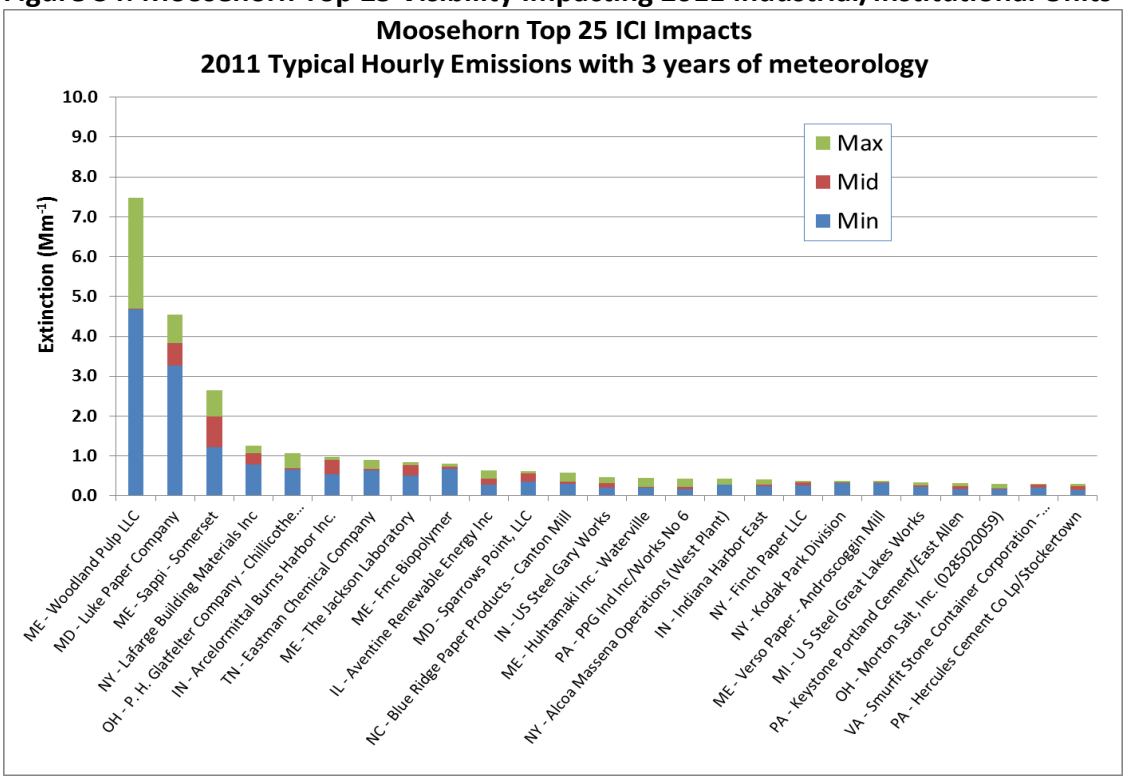


Figure 34: Moosehorn Top 25 Visibility Impacting 2011 Industrial/Institutional Units



Figures 35 and 36 indicate the top 25 MANE-VI ICI facility impacts to nearby Class I areas.

Figure 35: Dolly Sods Top 25 MANE-VU Visibility Impacting 2011 Industrial/Institutional Units

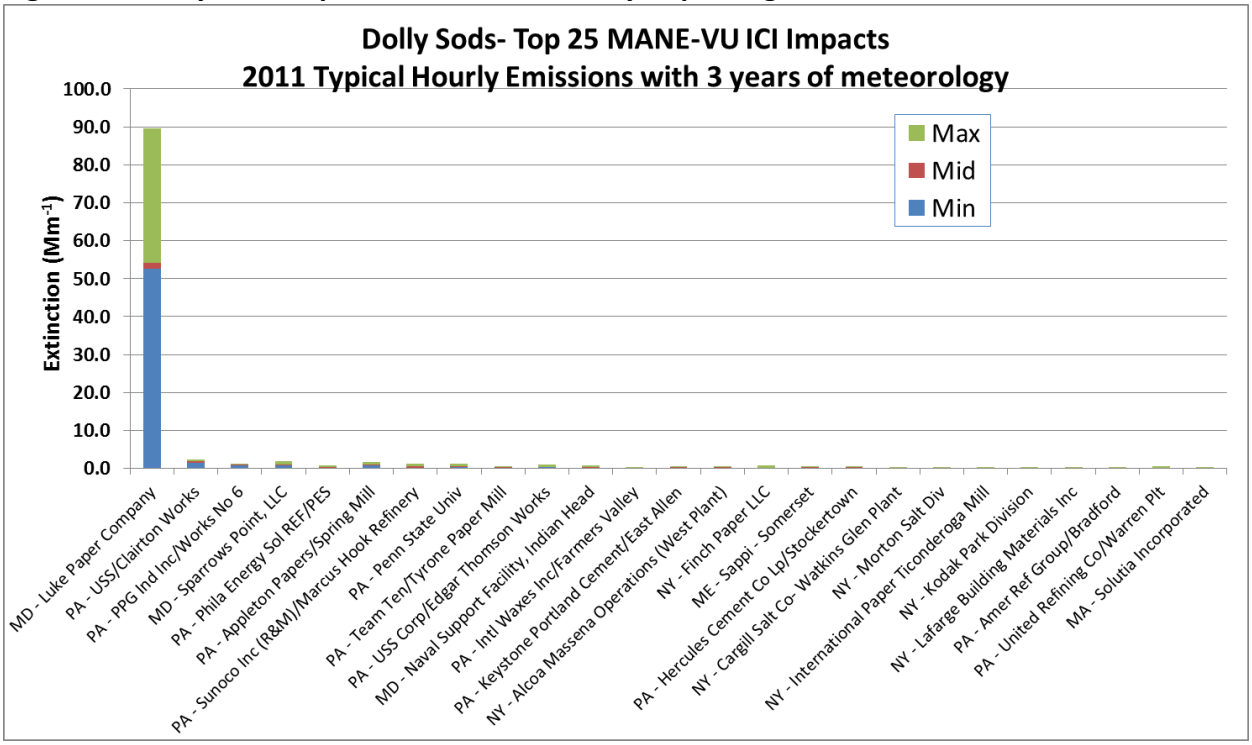


Figure 36: Shenandoah Top 25 MANE-VU Visibility Impacting 2011 Industrial/Institutional Units

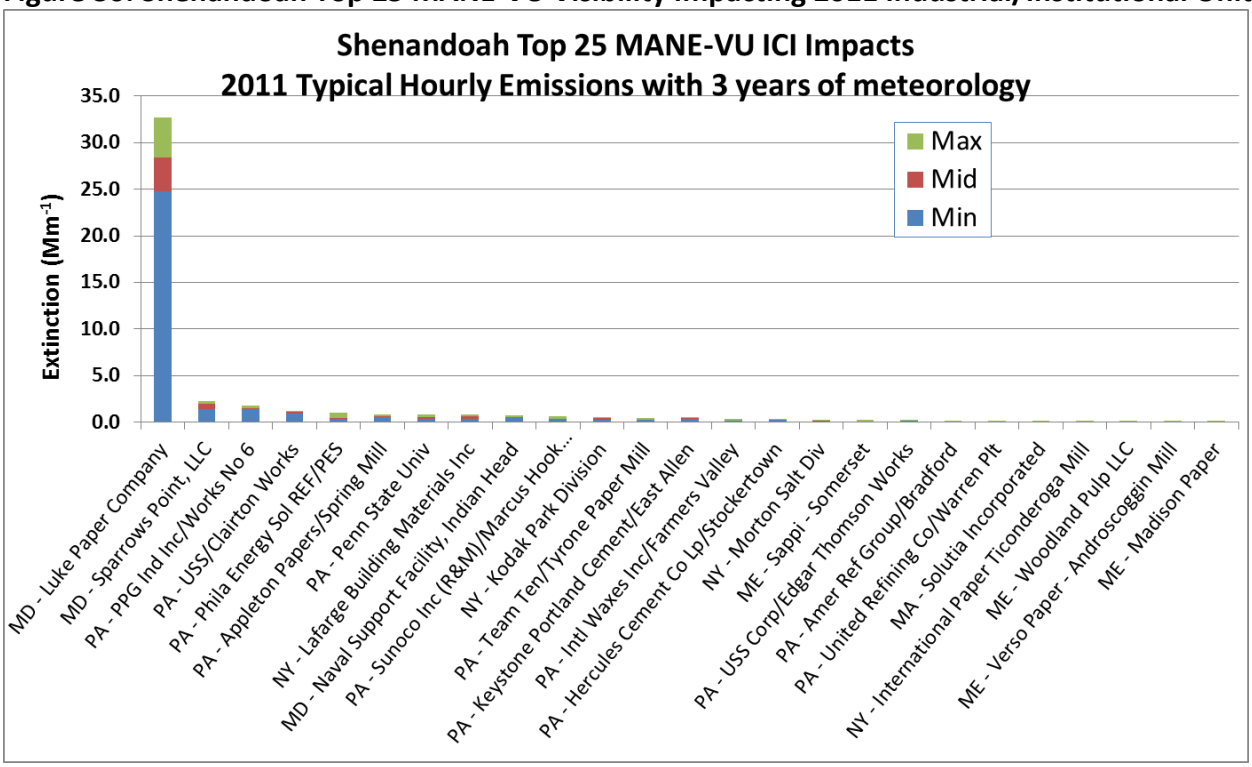


Table 35 provides a ranking of modeled industrial and institutional facilities with typical 2011 emissions that considers impacts to all seven MANE-VU Class I areas. Each facility receives one point for each Class I area that it has a modeled visibility extinction of 1.0 Mm^{-1} or greater. Since there are three years of meteorology, a facility may receive a maximum score of 21 if it has modeled visibility extinctions of 1.0 Mm^{-1} or greater for every Class I area for all three years. Also provided in this table are these sources' impact on overall max extinction in MANE-VU and nearby areas; see Appendix F for source rankings by max extinction for each Class I area.

Table 35: Top Impacting ICI Facilities (2011 Emissions) to MANE-VU Class I Areas

	Facility Info				MANE-VU Score	Overall Max Extinction (Mm^{-1})	
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs		MANE-VU Areas	Nearby Areas
1	MD	Luke Paper Company	7763811	001-0011-3-0018, 001-0011-3-0019, 001-0011-6-0235	20	12.47	90.79
2	NY	Lafarge Building Materials Inc.	8105211	43101	13	8.14	0.93
3	ME	Sappi - Somerset	8200111	0,1,37	12	3.82	0.23
4	OH	P. H. Glatfelter Company - Chillicothe	8131111	147671	10	1.48	3.74
5	ME	Woodland Pulp LLC	5974211	0	9	7.47	0.07
6	IN	Arcelormittal Burns Harbor Inc.	7376511	0	6	1.51	2.02
7	NY	Finch Paper LLC	8325211	0,12	6	7.64	0.24
8	TN	Eastman Chemical Company	3982311	B2531,B3251,B831	4	2.18	4.33
9	ME	Fmc Biopolymer	5692011	0	3	1.68	0.04
10	ME	The Jackson Laboratory	7945211	18	3	9.00	0.01
11	VA	Smurfit Stone Container Corporation -	4182011	0,2,4,7	3	2.08	2.05
12	MD	Sparrows Point, LLC	8239711	005-0147-6-0939, 005-0147-6-0941, 0	2	2.53	2.39
13	ME	Verso Paper - Androscoggin Mill	7764711	0	2	1.44	0.06
14	PA	PPG Ind Inc./Works No 6	6463511	0,S01,S02	2	1.15	1.77
15	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Big Bill/PG, EP-No. 4 PB, EP-Recovery 10,EP-Riley Bark,EP-Riley Coal	1	1.09	1.59
16	NJ	Atlantic County Utilities Authority	8093211	0	1	1.67	0.02
17	NJ	Gerresheimer Moulded Glass	1280461	0	1	1.00	0.18
18	NY	International Paper Ticonderoga Mill	7991711	44	1	1.14	0.14
19	NY	Kodak Park Division	8091511	4	1	1.42	0.60
20	PA	Keystone Portland Cement/East Allen	6582211	S73	1	1.07	0.60
21	PA	Philadelphia Energy Sol REF/PES	6652211	0	1	1.05	0.98

4.3 Sensitivity Analyses for Annual vs. 95th Percentile Emissions

A simple comparison of CALPUFF-predicted visibility extinction for daily 95th percentile emissions versus evenly distributed annual emissions was conducted in order to understand how much difference could be introduced with the two approaches. This study focused primarily on daily 95th percentile emissions in order to better understand potential impacts when a non-baseloaded emissions unit operates at near peak operations. For example, a unit

that only operates 10 days out of the year would consider 95th percentile emissions during those days instead of evenly distributing the total emissions for those ten day over the full 365 days for the year. In the latter case, even distribution of annual emissions would be highly diluted from 355 days with zero emissions.

Even Distribution of Annual Emissions = Total Annual Emissions / 365 Days per Year

The following set of scatter plots (Figures 37-40) for five MANE-VU Class I areas compares model-predicted visibility extinction for the even distribution of annual emissions (x-axis) and the 95th percentile emissions (y-axis). Each plot includes about 100 EGU units that were modeled with both techniques. The full set of over 300 EGU units was not modeled in order to conserve resources. Instead, an illustrative subset was selected such that EGU units with relatively higher 95th percentile SO_2 emissions were included with a good geographic distribution throughout the domain.

In each case, it is clear that potential peak visibility impairment is considerably understated when using an even distribution of annual emissions. The degree of understatement tracks with lowering operating hours.

Figure 37: Acadia EGU Visibility Extinction for 95th Percentile and Annual Emissions

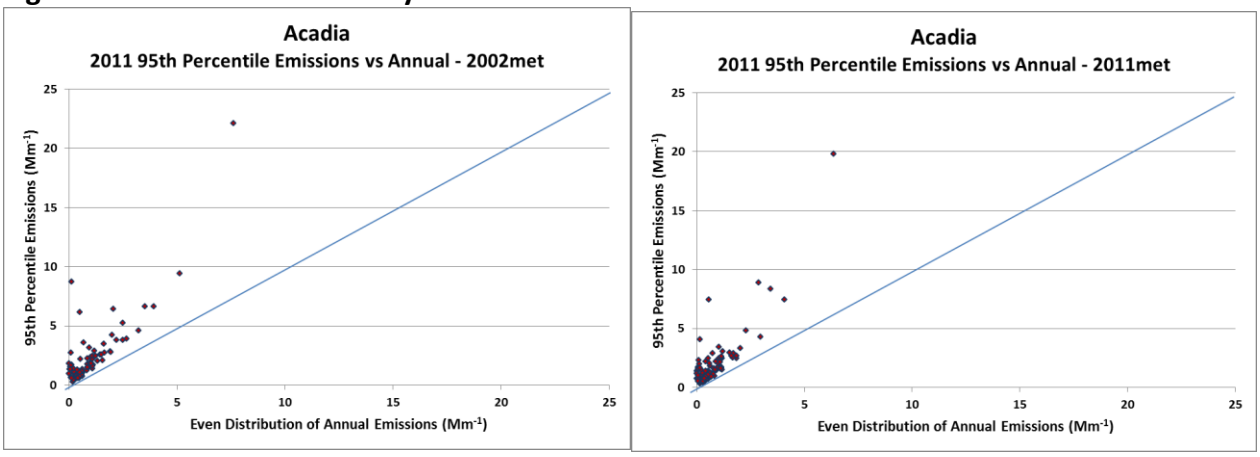


Figure 38: Brigantine EGU Visibility Extinction for 95th Percentile and Annual Emissions

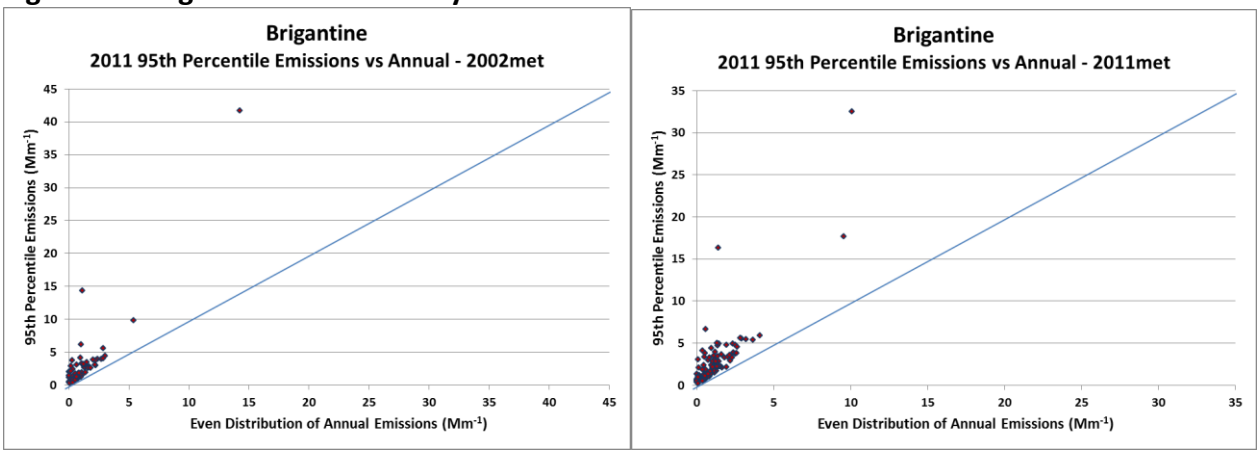


Figure 39: Great Gulf EGU Visibility Extinction for 95th Percentile and Annual Emissions

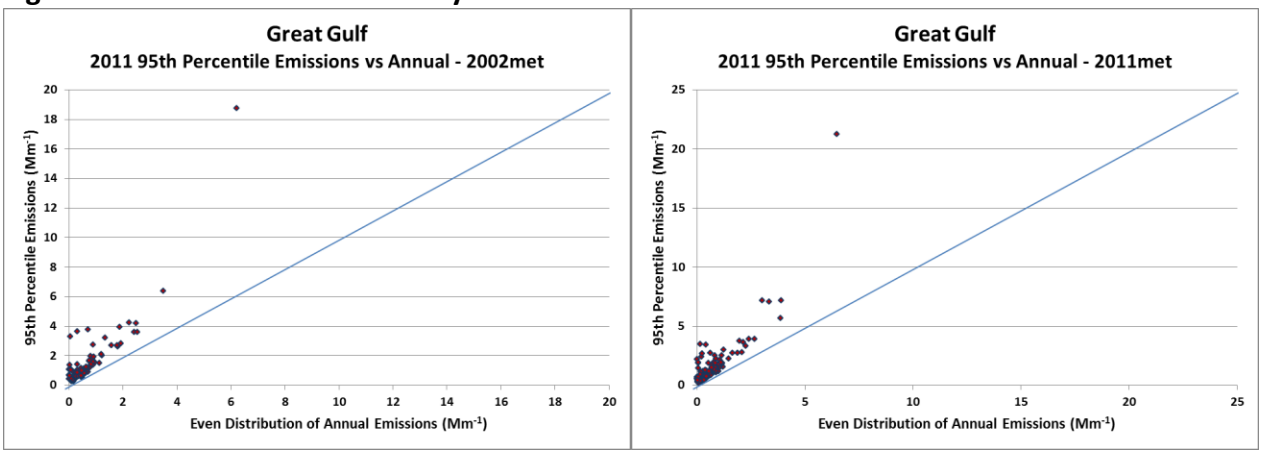
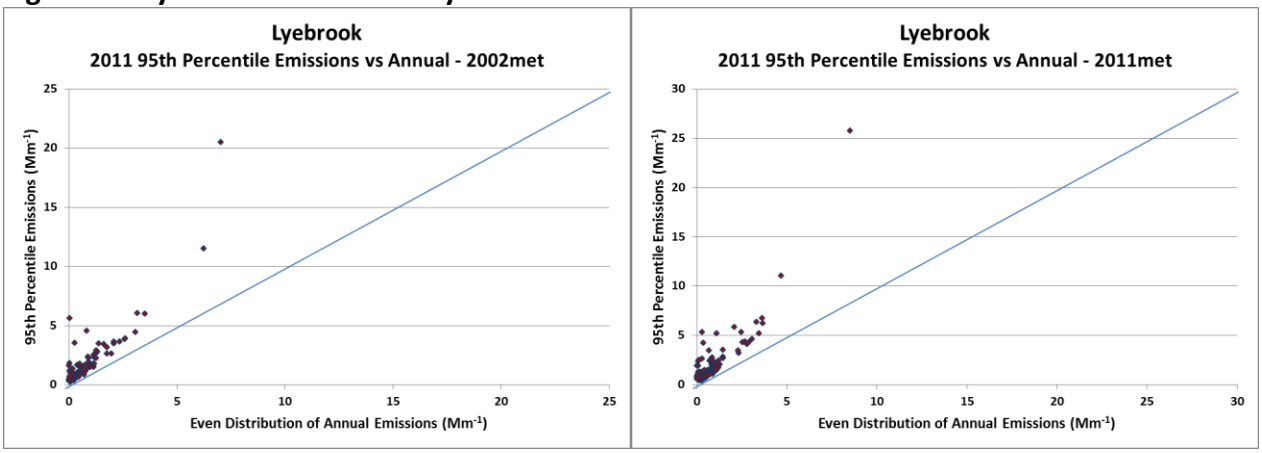


Figure 40: Lye Brook EGU Visibility Extinction for 95th Percentile and Annual Emissions



4.4 Effect of Meteorology

Distance, meteorology and wind patterns are obviously large components to emissions dispersion. As the distance from stack to Class I area grows, so does the importance of prevailing wind patterns that exist in each year of meteorology. Sections 4.1 and 4.2 noted different visibility impacts for the three different meteorological years, despite the use of the same emissions. The data show that one stack may produce maximum visibility impacts with one year of meteorology while another stack produces maximum impact with another year of meteorology, but overall, did one year of meteorology produce greater visibility impacts at MANE-VU Class I areas than the others?

To examine this, a simple analysis was conducted counting the number of stacks that produced maximum modeled visibility impacts in each of the three years of meteorology modeled. Table 36 compares 159 EGU stacks modeled with 2011 95th percentile emissions for all three years of meteorology and tracks the number of times a stack produced a maximum visibility extinction over the three years of meteorology as well as the cumulative extinction for all 159 stacks for that year. Table 37 provides this information for 139 ICI stacks.

Table 36: EGU Stack Cumulative Comparison for Three Years of Meteorology

	# Maxima			Cumulative Extinction		
	2002	2011	2015	2002	2011	2015
Acadia	**80**	41	38	**280.8**	255.7	235.5
Brigantine	38	**66**	55	332.3	**395.1**	350.5
Campobello	**87**	47	25	**231.4**	203.4	184.3
Great Gulf	47	**72**	40	192.0	**232.6**	201.2
Lye Brook	48	**75**	36	245.5	**284.9**	249.9
Moosehorn	**77**	48	34	**237.4**	214.9	199.8
Presidential Range	53	**70**	36	205.1	**244.0**	212.8
Total	**430**	419	264	1724.5	**1830.6**	1634

For EGU stacks (Table 36), 2002 meteorology emerged as worst case for the EGU stacks modeled in this analysis, and 2011 produced the greatest cumulative extinction. However, 2011 meteorology produced a similar number of EGU stacks with maximum visibility impacts, while the number of stacks providing maximum impacts during 2015 was about 40% lower than the rates experienced with 2002 and 2011 meteorology. Worst case visibility modeling for Acadia, Campobello, Moosehorn, Dolly Sods, and Otter Creek occurred with 2002 meteorology; worst case for Brigantine, Great Gulf, Lye Brook, Presidential Range, James River Face, and Shenandoah occurred with 2011 meteorology.

Table 37: ICI Cumulative Comparison for Three Years of Meteorology

	# Maxima			Cumulative Extinction		
	2002	2011	2015	2002	2011	2015
Acadia	**53**	44	40	**37.8**	35.4	36.5
Brigantine	12	58	**67**	30.2	**45. 7**	39.8
Campobello	**63**	46	28	**25.2**	22.6	21.5
Great Gulf	26	54	**57**	19.2	**29.9**	26.8
Lye Brook	21	**68**	48	31. 8	**50.0**	39.4
Moosehorn	**62**	46	29	**30. 8**	27.7	25.8
Presidential Range	31	51	**55**	21.0	**31.9**	29.3
Total	268	**367**	324	195.9	**243.2**	219.0

Figures 41-52 present state-by-state extinction values for each MANE-VU Class I area based on modeling of 2011 emissions over the three years of meteorology. The extinction values for each state are the sum of the extinctions calculated for each source in the state. All results for 2011 95th emissions and 2002 meteorology are based on modeled results, but smaller subsets of sources were modeled for the later meteorology years (see discussion of phases in section 3.2). Therefore, extinction is calculated for the 2011 and 2015 meteorology years for some sources based on ratios developed from sources modeled over all three years.

The three colors in the charts represent the minimum, middle, and maximum impacts from among the three meteorology years, but the year that corresponds to each of these categories may differ from state to state. The intent of the chart is not to show which meteorology year led to the maximum visibility impact, but to illustrate the variability in impacts over the three years from differing weather patterns.

To make this variability easier to distinguish, the data labels above each bar describe the maximum impact as a multiple of the minimum impact; that is, a value of 2.0 indicates that the maximum impact was twice the minimum impact. A value of 1.0 means there was no appreciable difference among the three years. States are ordered in decreasing order based on this multiplying factor, such that the leftmost states show the greatest percent increase from minimum to maximum (though the absolute difference may be small), and the rightmost states show the least difference due to changes in meteorology.

The variability of predicted visibility impacts due to changes in annual meteorology is significant and warrants additional analysis. There appears to be enough differences in modeled impacts and contributions introduced to suggest that modeling with one year of meteorology may not be sufficient to capture important transport patterns that may cycle more in some years and may be absent in others.

Figure 41: Acadia NP – Variability in EGU Visibility Impact by State and Meteorology Year – 2011 95th Percentile Emissions with Three Years of Meteorology

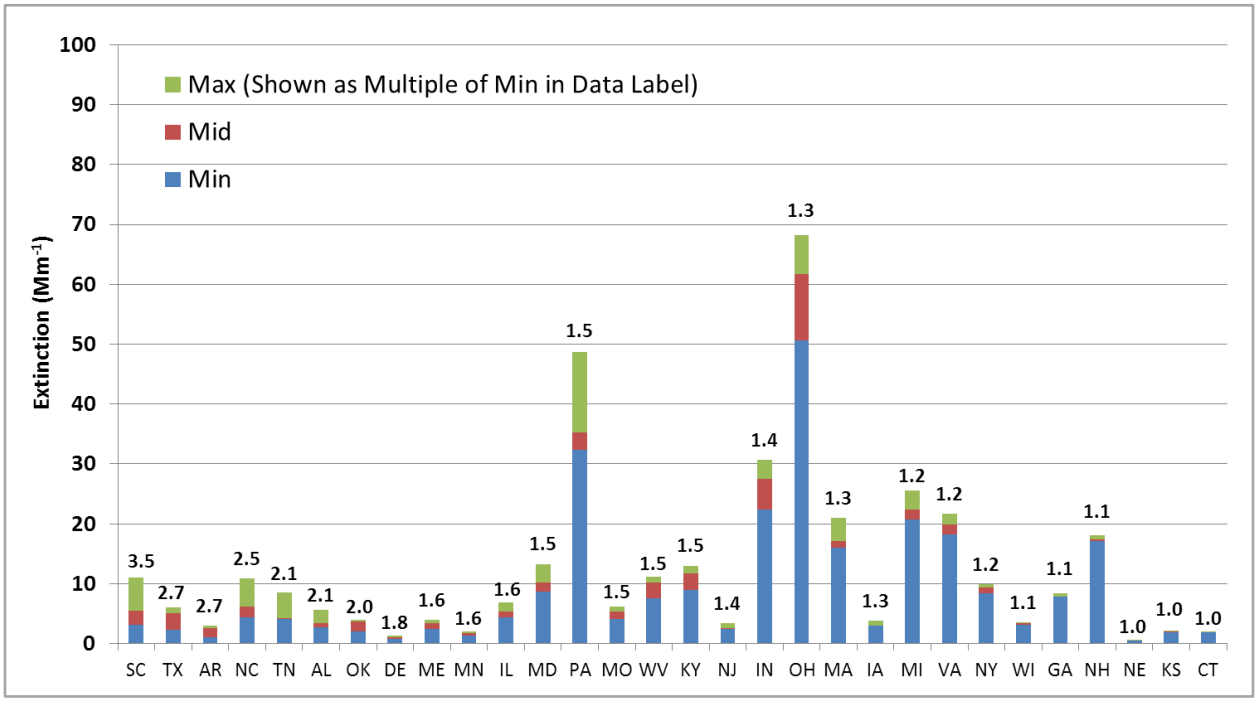


Figure 42: Acadia NP – Variability in ICI Visibility Impact by State and Meteorology Year – 2011 Typical Emissions with Three Years of Meteorology

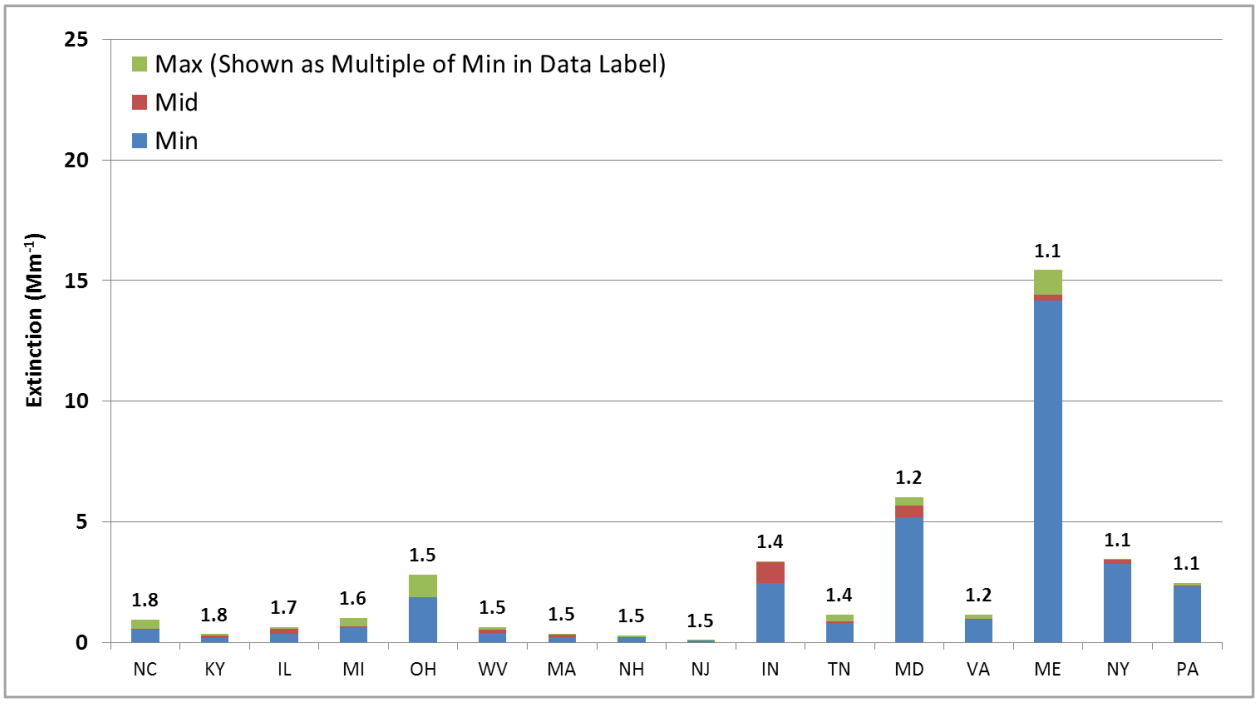


Figure 43: Brigantine – Variability in EGU Visibility Impact by State and Meteorology Year – 2011 95th Percentile Emissions with Three Years of Meteorology

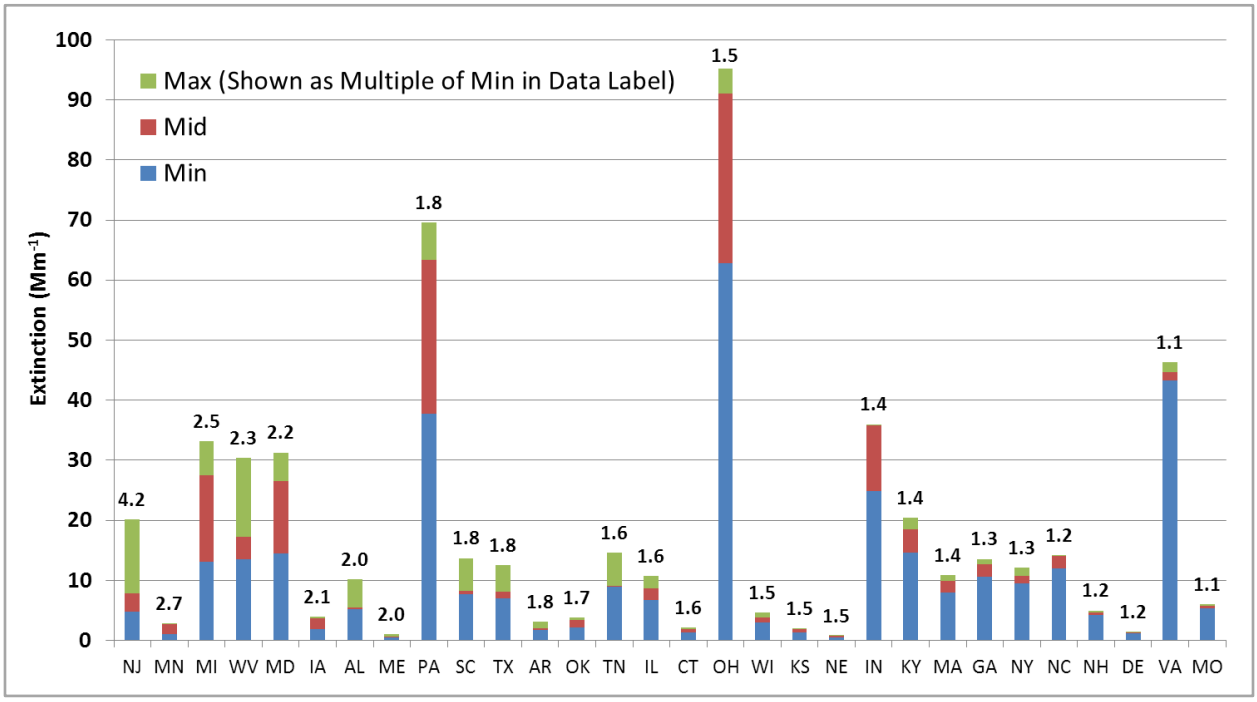


Figure 44: Brigantine – Variability in ICI Visibility Impact by State and Meteorology Year – 2011 Typical Emissions with Three Years of Meteorology

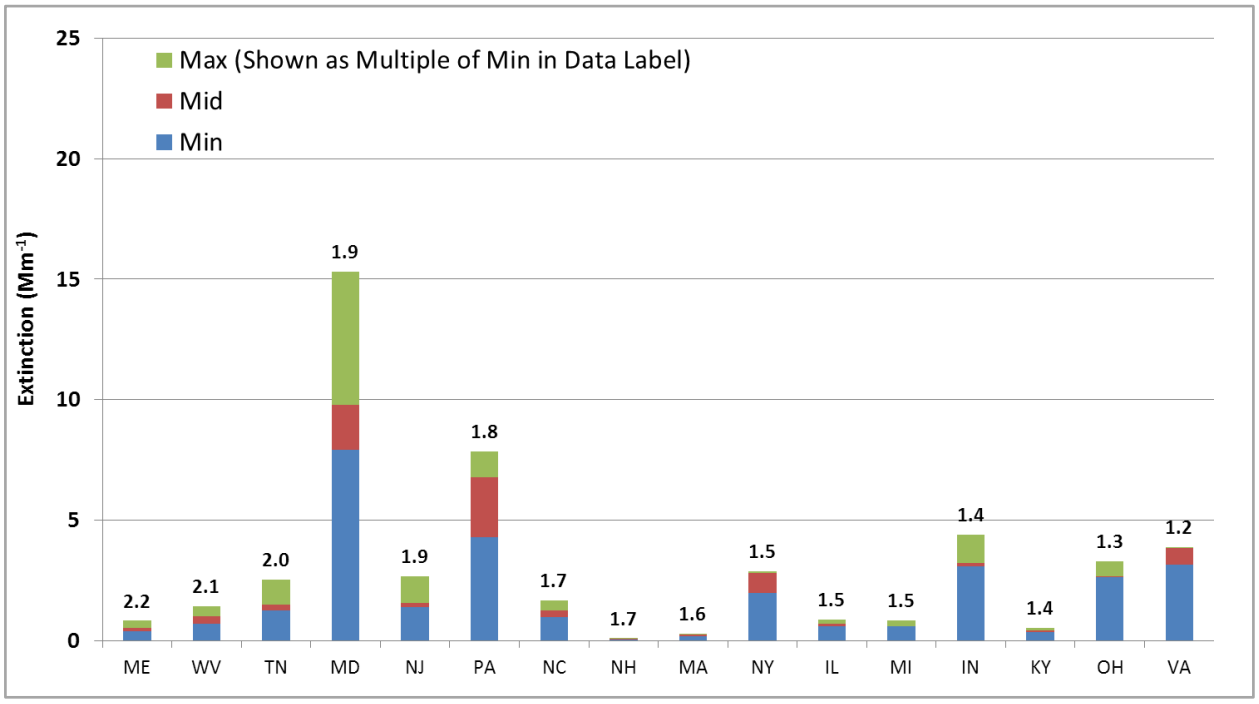


Figure 45: Great Gulf – Variability in EGU Visibility Impact by State and Meteorology Year – 2011 95th Percentile Emissions with Three Years of Meteorology

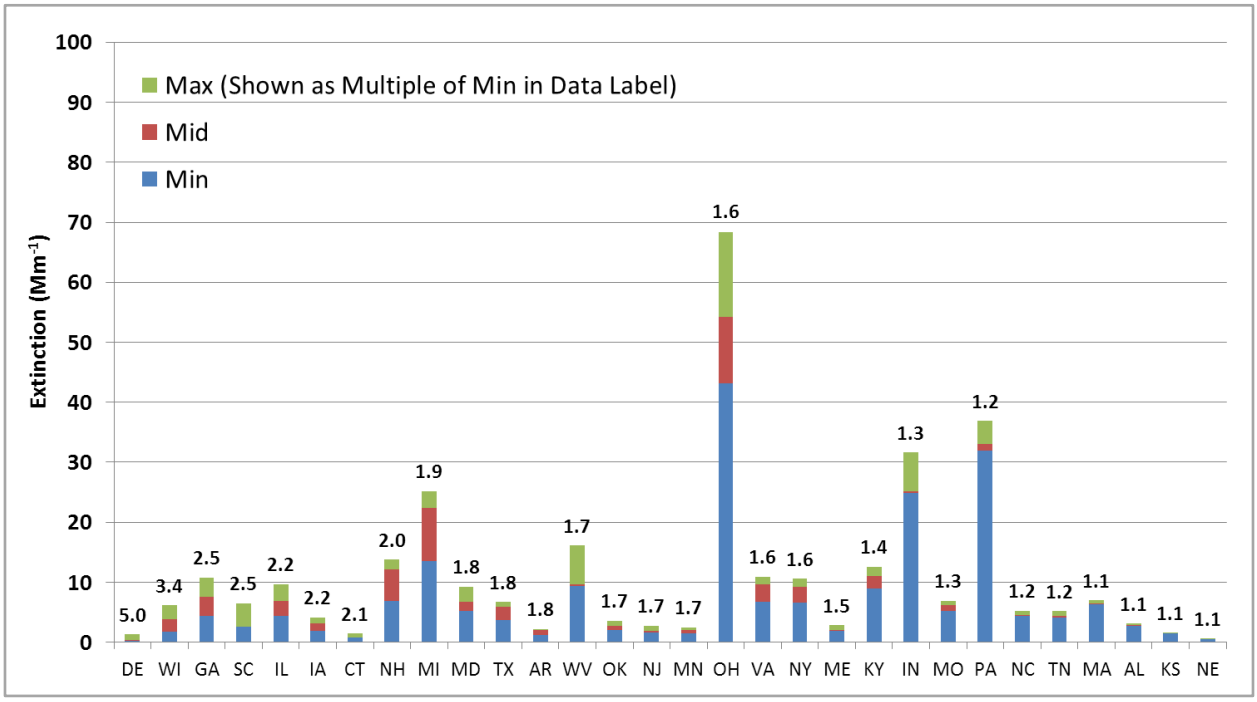


Figure 46: Great Gulf – Variability in ICI Visibility Impact by State and Meteorology Year – 2011 Typical Emissions with Three Years of Meteorology

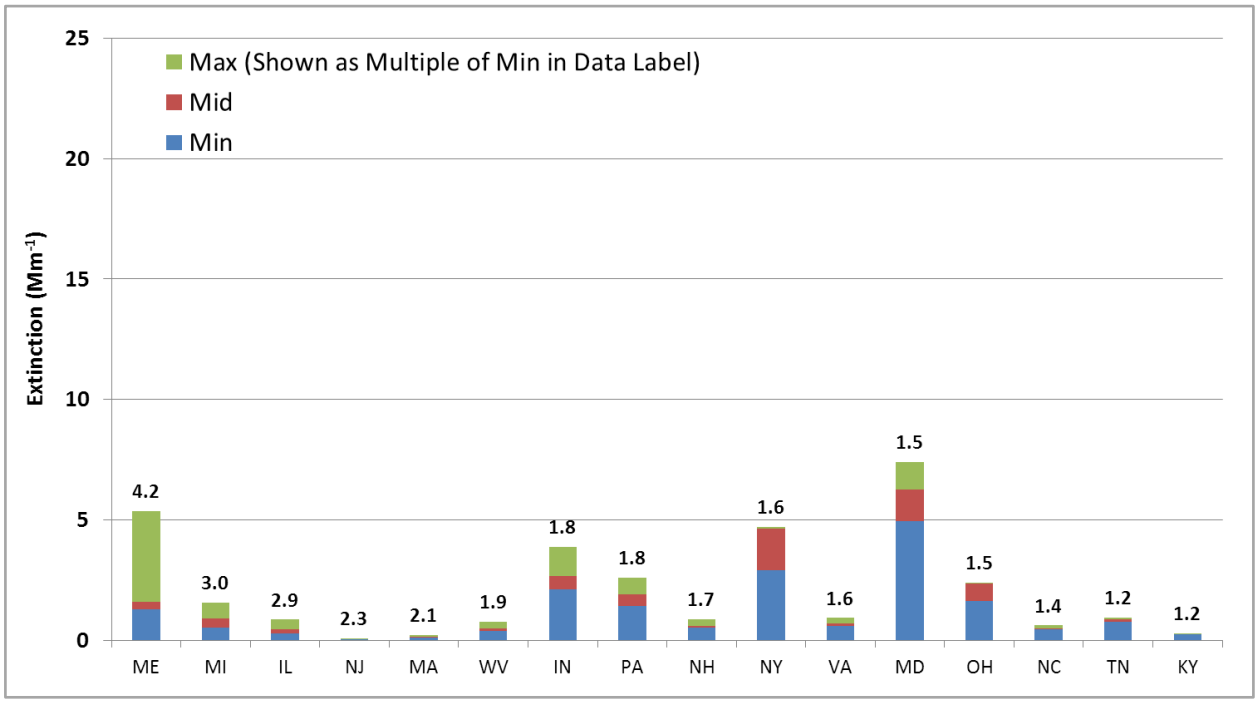


Figure 47: Lye Brook – Variability in EGU Visibility Impact by State and Meteorology Year – 2011 95th Percentile Emissions with Three Years of Meteorology

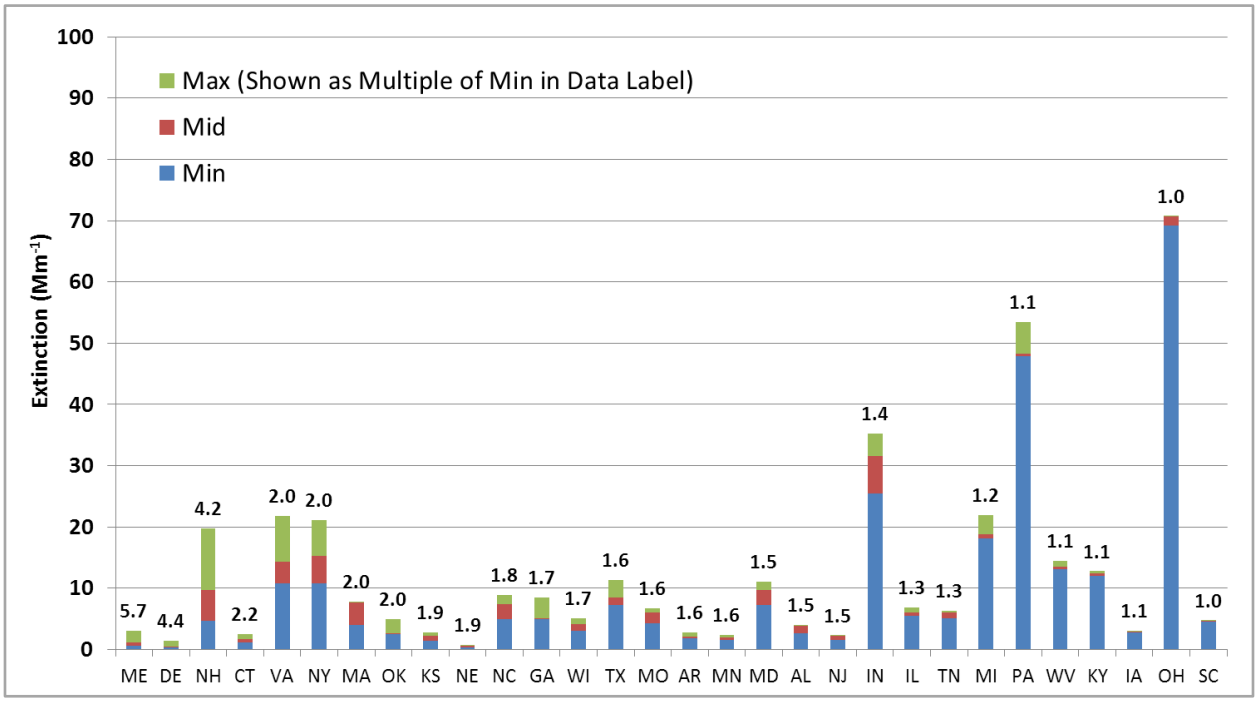


Figure 48: Lye Brook – Variability in ICI Visibility Impact by State and Meteorology Year – 2011 Typical Emissions with Three Years of Meteorology

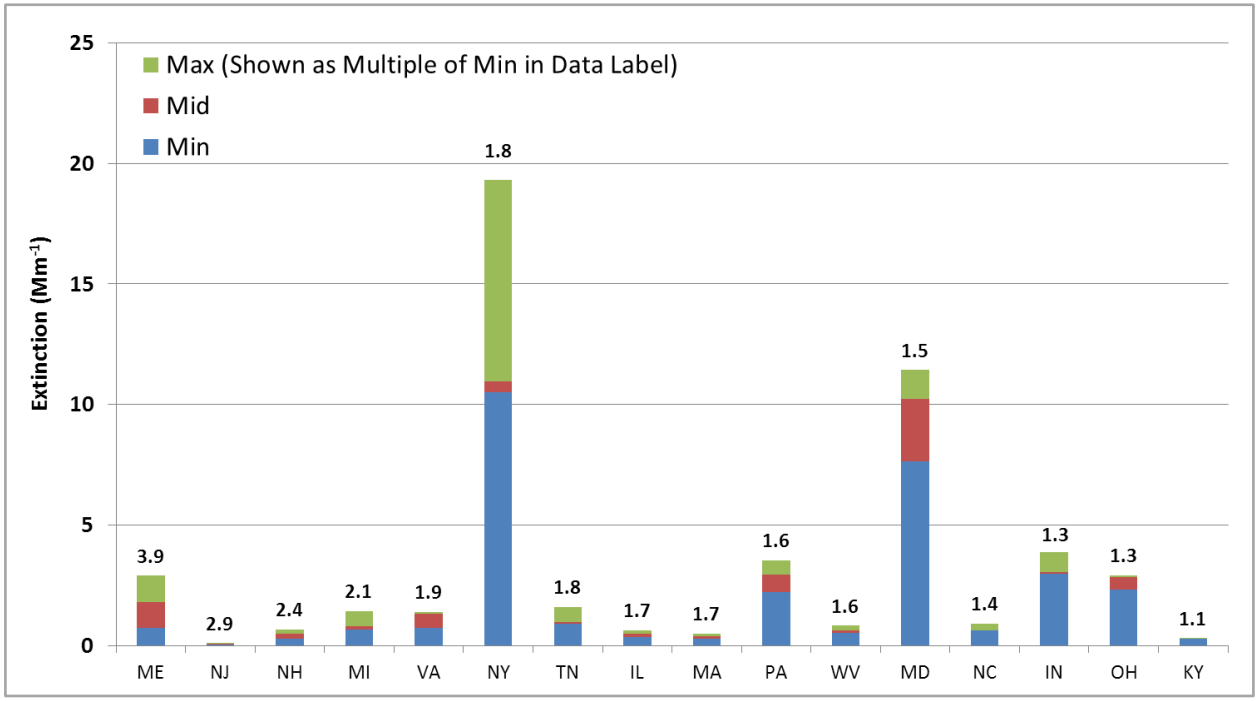


Figure 49: Moosehorn – Variability in EGU Visibility Impact by State and Meteorology Year – 2011 95th Percentile Emissions with Three Years of Meteorology

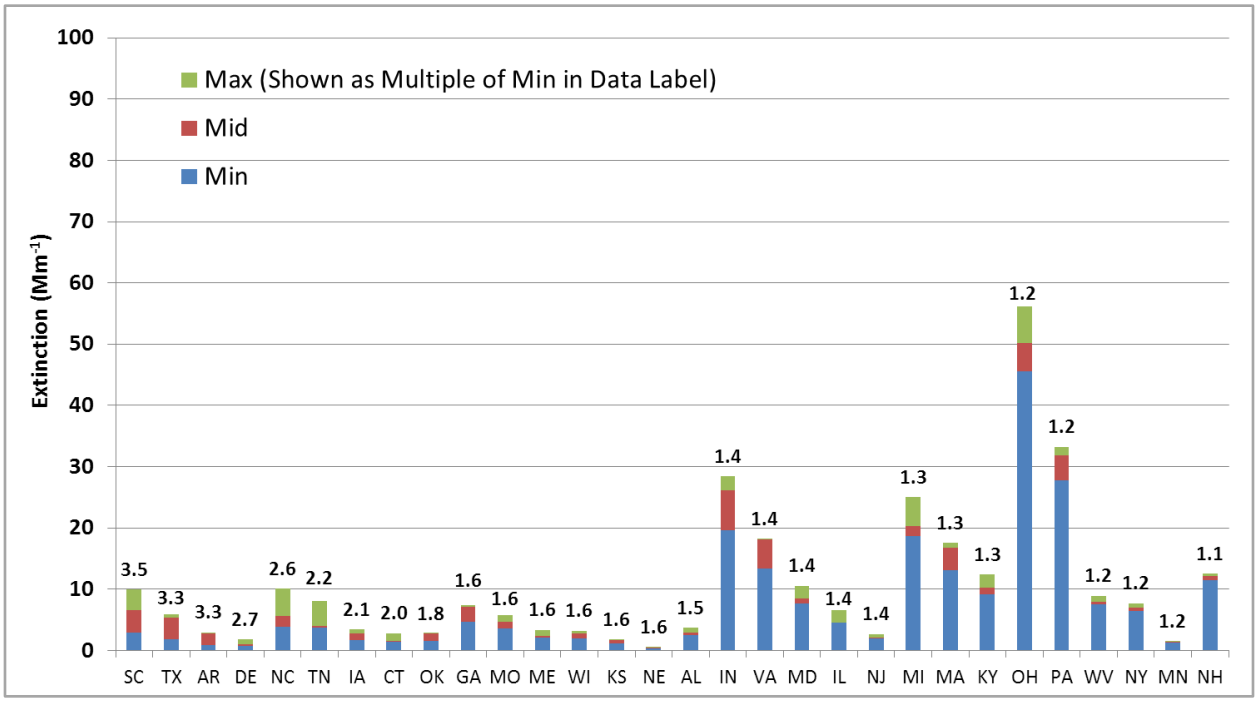
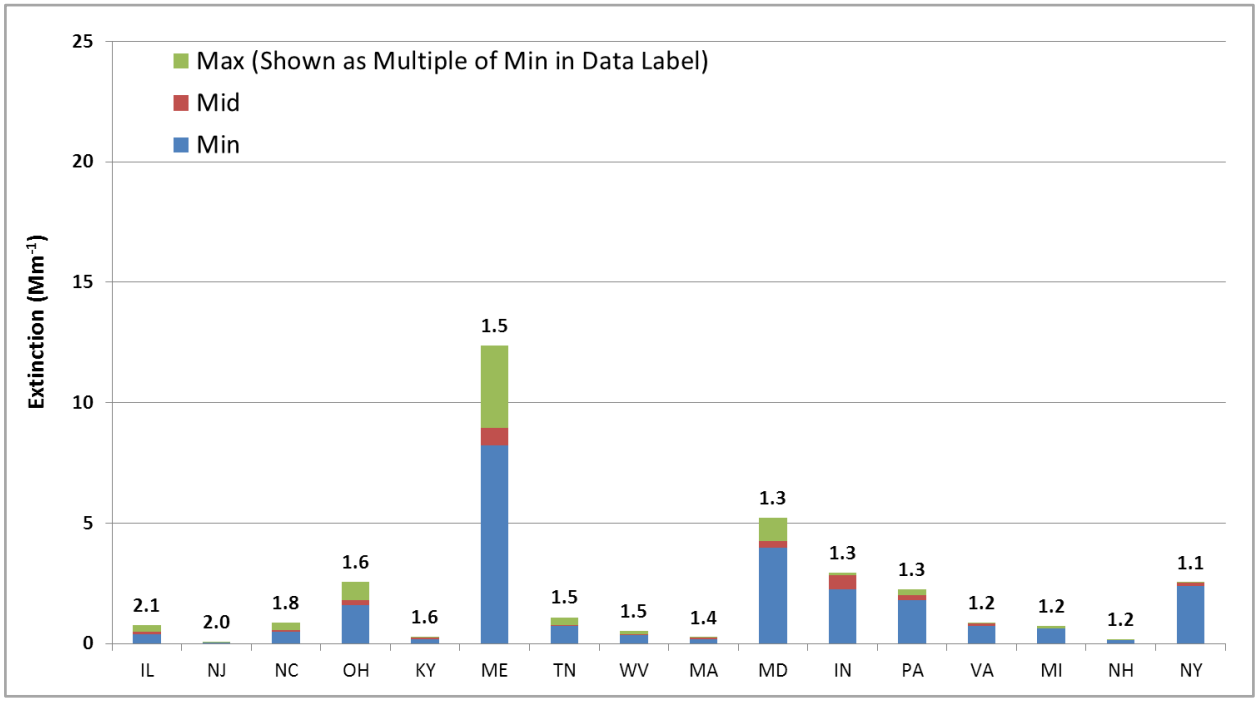


Figure 50: Moosehorn – Variability in ICI Visibility Impact by State and Meteorology Year – 2011 Typical Emissions with Three Years of Meteorology



4.5 State-by-State EGU Visibility Extinction Percentages

This section provides a state-by-state breakdown for EGU visibility extinction for 2011 and 2015 using 95th percentile emissions. Table 38 includes only those emission sources located within the modeling domain and modeled in this exercise. There are other emission sources in each state, including smaller EGUs not modeled in this analysis because it was assumed their impacts would be small based on the selection criteria used.

This table makes the rough assumption that extinction values for each modeled EGU within a state can be summed to give the state's total impact and that the maximum of these total extinction values over the three years of meteorology provides an estimate of the state's potential visibility impact to each regional Class I area. These total state contributions are ranked by the maximum extinction among each of the Class I areas and over the two emission years; this ranking becomes dominated by the 2011 extinction values for Brigantine, which produced the largest values overall.

The color scheme applies to all data in the table (inclusive of both 2011 and 2015 emission year data). The highest values are dark red, and the lowest values are dark blue, with both ends of the range gradating to white for middle values. The largest and smallest contributors are similar between the two emission years, but, as illustrated by the greater number of medium and dark blue cells, state contributions are lower overall with 2015 EGU emissions. The color scales also demonstrate that the relative rank of each state's contributions is fairly similar from one Class I area to the next.

Note that the 2011 emissions year includes a much more robust set of sources than the 2015 emissions year (308 compared to 130). Also, for meteorology years without modeled outputs, extinction values are calculated from ratios. For 2015 emissions, sources were modeled only with 2015 meteorology; 2002 and 2011 meteorology year results are calculated (see also section 4.1). For 2011 emissions, some sources were modeled for all three years, but others were modeled using 2002 meteorology only. In the latter case, extinction ratios from those sources modeled for all three years were used to calculate extinction values for the 2011 and 2015 meteorology years.

Table 38: State-by-State Contribution to Visibility Impairment at Class I Areas from Modeled EGUs (Expressed as Extinction in Mm^{-1} and Based on Maximum Extinction from 2002, 2011, and 2015 Meteorology with 2011 and 2015 95th Percentile Emissions)

	2011 EGUs					2015 EGUs				
State*	Moose-horn	Acadia NP	Great Gulf	Lye Brook	Brigan-tine	Moose-horn	Acadia NP	Great Gulf	Lye Brook	Brigan-tine
OH	56.1	68.2	68.3	70.8	95.3	18.9	22.7	26.7	24.7	33.0
PA	33.2	48.6	36.9	53.4	69.5	23.1	35.1	27.1	37.4	48.5
IN	28.4	30.7	31.6	35.2	46.3	12.5	13.6	12.9	12.4	18.6
MI	25.1	25.6	25.2	21.9	36.0	12.9	13.7	14.5	14.8	21.9
VA	18.2	21.6	16.2	21.8	33.1	5.3	7.0	6.1	7.9	14.4
MA	17.6	21.0	13.8	21.2	31.3	10.9	12.0	8.8	8.3	16.3
NH	12.5	18.1	12.6	19.7	30.4	6.9	7.2	7.4	7.9	16.0
MD	12.4	13.3	11.0	14.4	20.5	4.3	5.0	4.1	4.7	5.7
KY	10.6	13.0	10.8	12.8	20.2	5.0	5.9	5.0	5.8	6.5
WV	10.0	11.2	10.6	11.4	14.6	5.1	6.2	5.2	6.6	9.6
SC	9.9	11.1	9.7	11.1	14.2	0.4	0.4	0.4	0.4	0.4
NC	8.9	10.9	9.2	8.9	13.7	1.0	1.1	1.0	1.0	1.5
NY	8.0	10.0	7.0	8.5	13.6	2.7	3.0	3.7	4.6	3.8
TN	7.7	8.6	6.9	7.8	12.5	1.7	1.7	2.1	1.4	3.0
GA	7.3	8.5	6.7	6.9	12.1	3.4	3.8	3.9	4.7	5.7
IL	6.6	6.9	6.5	6.7	10.9	1.6	1.5	1.2	1.3	2.8
MO	5.9	6.2	6.2	6.4	10.8	1.1	1.2	1.0	1.2	1.6
TX	5.7	6.1	5.2	5.1	10.2	2.4	2.7	2.9	3.7	3.1
ME	3.4	4.0	3.6	4.0	4.7	4.9	5.6	4.8	5.1	6.3
AL	3.7	5.7	5.2	5.0	6.0	0.5	0.7	0.6	0.6	1.0
OK	3.5	4.0	4.2	4.7	5.0	1.0	0.9	0.9	1.0	1.4
IA	3.2	3.9	3.1	3.1	3.9	1.2	1.3	1.1	1.3	2.1
WI	3.0	3.5	2.8	3.0	3.8	0.3	0.3	0.3	0.3	0.4
NJ	2.8	3.4	2.8	2.8	3.1	0.7	0.9	0.9	0.9	1.2
AR	2.7	3.0	2.5	2.7	2.9	0.0	0.0	0.0	0.0	0.0
MN	2.7	2.1	2.2	2.6	2.1	0.4	0.4	0.5	0.4	0.5
KS	1.8	2.0	1.6	2.4	2.0	0.0	0.1	0.0	0.1	0.1
CT	1.8	1.9	1.5	2.2	1.5	0.7	0.9	0.8	0.7	1.1
DE	1.6	1.3	1.3	1.4	1.1	0.3	0.3	0.2	0.1	0.3

*States are ranked by maximum extinction among the five Class I areas and both emission years (2011 and 2015).

5.0 Summary and Further Analysis

Modeling results provided in this report are not intended to provide policy recommendations. It is anticipated that this data will subsequently be analyzed for better understanding and potential policy development. While the MANE-VU states consider CALPUFF a good model for this type of analysis, it is recommended that selection of emissions sources for any policy recommendation be additionally based on further analyses such as a 4-factor analysis.

MANE-VU will review these modeling results in conjunction with other information about these sources. This report by itself is not sufficient to indicate a need for controls on specific sources, but rather is an indication that certain sources should be analyzed in more detail. Some of these sources have shut down or reduced emissions considerably since 2011, while others have increased emissions of SO_2 and/or NO_X. Similarly, this report will be used in conjunction with other information about sources and their potential impacts and is not by itself sufficient to identify where or when additional emission controls may be reasonable. MANE-VU will consult with other states and regional organizations as it proceeds to consider what additional emissions reductions are reasonable for improving visibility at MANE-VU Class I areas by 2028.

Observations resulting from this 2016 CALPUFF modeling exercise include:

1. Emissions of SO_2 and NO_X from EGUs are lower in 2015 compared to 2011 at many EGUs, however some show some increased emissions.
2. Modeled sulfate, nitrate and visibility impacts for 95th percentile emissions produce substantially different results than modeling with annual emissions, especially for units with low operating hours.
3. The application of three different years of meteorology with identical emission rates can provide differing maximum sulfate, nitrate and visibility impacts. In some cases, the difference is substantial. Additional analysis of meteorological influence on emission source impacts to downwind areas is highly recommended.
4. Emission sources located close to Class I areas typically show higher visibility impacts than similarly sized facilities further away. But visibility degradation appears to be dominated by more distant emission sources.
5. This analysis indicates that some industrial emissions sources other than EGUs may have significant impacts on visibility at MANE-VU Class I areas. Several of these sources are located in MANE-VU, while a few are located in nearby states.

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Appendix A

A.1 EGU Sources Modeled in Phases I-VI

State	Facility Name	Facility /ORIS ID	Unit IDs	Phase I 2011 95th% 2002 Met	Phase III 2011 95th% 2011 Met	Phase V 2011 95th% 2015 Met	Phase VI 2015 95th% 2015 Met	Phase II 2011 Annual 2002 Met	Phase IV 2011 Annual 2011 Met
AL	Colbert	47	1, 2, 3, 4	✓				✓	
AL	E C Gaston	26	1, 2	✓	✓	✓	✓	✓	✓
AL	E C Gaston	26	3, 4	✓	✓				✓
AL	E C Gaston	26	5	✓					
AL	Greene County	10	1	✓					
AR	Flint Creek Power Plant	6138	1	✓					
AR	Independence		1	✓					
AR	Independence		2	✓					
AR	White Bluff		1	✓					
AR	White Bluff		2	✓					
CT	Bridgeport Harbor Station	568	BHB3	✓	✓	✓	✓	✓	✓
CT	Middletown	562	4	✓					
CT	New Haven Harbor	6156	NHB1	✓					
DE	Edge Moor	593	5	✓					
DE	Indian River	594	4	✓	✓	✓	✓	✓	✓
GA	Bowen	703	1BLR	✓					
GA	Bowen	703	2BLR	✓					
GA	Bowen	703	3BLR	✓					
GA	Bowen	703	4BLR	✓					
GA	Harllee Branch	709	1,2	✓	✓	✓	✓		✓
GA	Harllee Branch	709	3&4	✓	✓	✓	✓	✓	✓
GA	Jack McDonough		MB1, MB2	✓	✓		✓	✓	✓
GA	Scherer		1	✓	✓	✓	✓	✓	✓
GA	Scherer		2	✓	✓	✓	✓		✓
GA	Scherer		4	✓	✓	✓	✓		✓
GA	Yates		Y5BR	✓					
GA	Yates		Y6BR	✓	✓	✓	✓	✓	✓
GA	Yates		Y7BR	✓	✓	✓	✓		✓
IA	George Neal North		3	✓					
IA	George Neal South		4	✓	✓	✓	✓		✓
IA	Louisa		101	✓					

State	Facility Name	Facility /ORIS ID	Unit IDs	Phase I 2011 95th% 2002 Met	Phase III 2011 95th% 2011 Met	Phase V 2011 95th% 2015 Met	Phase VI 2015 95th% 2015 Met	Phase II 2011 Annual 2002 Met	Phase IV 2011 Annual 2011 Met
IA	Ottumwa		1	✓	✓	✓	✓	✓	✓
IA	Walter Scott Jr. Energy Center		3	✓					
IL	Baldwin Energy Complex		1,2	✓	✓	✓	✓	✓	✓
IL	Joliet 29		81, 82	✓				✓	
IL	Joppa Steam		1, 2	✓					
IL	Joppa Steam		3, 4	✓					
IL	Kincaid Generating Station		1, 2	✓	✓	✓	✓	✓	✓
IL	Marion		4	✓					
IL	Newton		1						
IL	Newton		2	✓					
IL	Powerton		51,52, 61,62	✓	✓	✓	✓	✓	✓
IL	Wood River Power Station		5	✓					
IN	Alcoa Allowance Management Inc	6705	3	✓					
IN	Alcoa Allowance Management Inc	6705	4	✓					
IN	Alcoa Allowance Management Inc	6705	1,2	✓					
IN	Cayuga	1001	1	✓					
IN	Cayuga	1001	2	✓					
IN	Clifty Creek	983	1,2,3	✓	✓	✓	✓	✓	✓
IN	Clifty Creek	983	4,5,6	✓	✓	✓	✓	✓	✓
IN	Gibson	6113	5	✓					
IN	Gibson	6113	1,2,3	✓	✓	✓	✓	✓	✓
IN	Gibson	6113	4	✓					
IN	IPL - Eagle Valley Generating Station		5, 6	✓					
IN	IPL - Harding Street Station (EW Stout)	990	70	✓					
IN	IPL - Harding Street Station (EW Stout)		50	✓	✓	✓	✓		✓
IN	IPL - Harding Street Station		60	✓	✓	✓	✓		✓

State	Facility Name	Facility /ORIS ID	Unit IDs	Phase I 2011 95th% 2002 Met	Phase III 2011 95th% 2011 Met	Phase V 2011 95th% 2015 Met	Phase VI 2015 95th% 2015 Met	Phase II 2011 Annual 2002 Met	Phase IV 2011 Annual 2011 Met
	(EW Stout)								
IN	IPL - Petersburg Generating Station		3	✓	✓	✓	✓		✓
IN	IPL - Petersburg Generating Station		4	✓	✓	✓	✓	✓	✓
IN	IPL - Petersburg Generating Station		1 (50%)	✓					
IN	IPL - Petersburg Generating Station		2(50%)	✓					
IN	Merom		2SG1	✓					
IN	Michigan City Generating Station		12	✓	✓	✓	✓		✓
IN	R Gallagher	1008	1,2	✓					
IN	R Gallagher	1008	3,4	✓					
IN	Rockport	6166	MB1, MB2	✓	✓	✓	✓	✓	✓
IN	Tanners Creek	988	U1,U2 ,U3	✓	✓	✓	✓		✓
IN	Tanners Creek	988	U4	✓	✓	✓	✓	✓	✓
IN	Wabash River Gen Station	1010	2,3,4, 5,6	✓	✓	✓	✓	✓	✓
IN	Whitewater Valley		1, 2	✓	✓	✓	✓		
IN	R M Schahfer Generating Station		14	✓	✓	✓	✓		✓
IN	R M Schahfer Generating Station		15	✓	✓	✓	✓		
KS	La Cygne	1241	1	✓	✓	✓	✓		
KS	La Cygne		2	✓	✓	✓	✓	✓	✓
KS	Nearman Creek	6064	N1	✓					
KS	Quindaro	1295	2	✓					
KS	Tecumseh Energy Center	1252	10	✓					
KY	Big Sandy	1353	BSU1, BSU2	✓	✓	✓	✓	✓	✓
KY	D B Wilson		W1	✓					
KY	E W Brown	1355	2,3	✓					
KY	East Bend	6018	2	✓					

State	Facility Name	Facility /ORIS ID	Unit IDs	Phase I 2011 95th% 2002 Met	Phase III 2011 95th% 2011 Met	Phase V 2011 95th% 2015 Met	Phase VI 2015 95th% 2015 Met	Phase II 2011 Annual 2002 Met	Phase IV 2011 Annual 2011 Met
KY	Ghent	1356	1,2 … (1,4)	✓					
KY	Ghent	1356	3,4 … (2,3)	✓	✓	✓	✓		✓
KY	Green River		4	✓					
KY	Green River		5	✓					
KY	H L Spurlock	6041	1	✓					
KY	H L Spurlock	6041	2	✓					
KY	John S. Cooper	1384	1,2	✓	✓	✓	✓	✓	✓
KY	Mill Creek	1364	4	✓	✓	✓	✓		✓
KY	Mill Creek	1364	1,2,3	✓	✓	✓	✓		
KY	Paradise	1378	1	✓	✓	✓	✓		
KY	Paradise	1378	2	✓	✓	✓	✓		✓
KY	Paradise	1378	3	✓	✓	✓	✓	✓	✓
KY	Shawnee		1,2,3, 4,5	✓					
KY	Shawnee		6,7,8, 9,10	✓					
MA	Brayton Point	1619	1	✓	✓	✓	✓		✓
MA	Brayton Point	1619	2	✓	✓	✓	✓	✓	✓
MA	Brayton Point	1619	3	✓	✓	✓	✓	✓	✓
MA	Brayton Point	1619	4	✓	✓	✓	✓		✓
MA	Canal Station	1599	1	✓	✓	✓	✓		✓
MA	Canal Station	1599	2	✓	✓	✓	✓	✓	✓
MA	Salem Harbor Station	1626	3						
MA	Salem Harbor Station	1626	1	✓	✓		✓		
MD	Brandon Shores	602	1	✓	✓	✓	✓		✓
MD	Brandon Shores	602	2	✓	✓	✓	✓	✓	✓
MD	C P Crane	1552	1	✓	✓	✓	✓		✓
MD	C P Crane	1552	2	✓	✓	✓	✓	✓	✓
MD	Chalk Point	1571	1,2	✓	✓	✓	✓	✓	✓
MD	Dickerson	1572	1,2,3	✓					
MD	Herbert A Wagner	1554	3	✓	✓	✓	✓	✓	✓
MD	Herbert A Wagner	1554	1,2,4	✓					
MD	Morgantown	1573	1	✓	✓	✓	✓	✓	✓
MD	Morgantown	1573	2	✓					
ME	William F Wyman	1507	1	✓					
ME	William F Wyman	1507	2	✓					

State	Facility Name	Facility /ORIS ID	Unit IDs	Phase I 2011 95th% 2002 Met	Phase III 2011 95th% 2011 Met	Phase V 2011 95th% 2015 Met	Phase VI 2015 95th% 2015 Met	Phase II 2011 Annual 2002 Met	Phase IV 2011 Annual 2011 Met
ME	William F Wyman	1507	3	✓					
ME	William F Wyman	1507	4	✓	✓	✓	✓	✓	✓
MI	Belle River		1	✓	✓	✓	✓		✓
MI	Belle River		2	✓	✓	✓	✓	✓	✓
MI	Dan E Karn	1702	3,4 (1,2)	✓	✓	✓	✓		✓
MI	J C Weadock		7, 8	✓	✓	✓	✓		✓
MI	J H Campbell		A,B,1, 2	✓	✓	✓	✓		✓
MI	J H Campbell		3 (50%)	✓	✓	✓	✓		✓
MI	Monroe	1733	1,2	✓	✓	✓	✓	✓	✓
MI	Monroe	1733	3,4	✓					
MI	River Rouge		3	✓					
MI	St. Clair	1743	6	✓	✓	✓	✓		✓
MI	St. Clair	1743	7	✓	✓	✓	✓		✓
MI	St. Clair	1743	1,2,3, 4,...6	✓	✓	✓	✓	✓	✓
MI	Trenton Channel	1745	16,17, 18,19	✓	✓	✓	✓		
MI	Trenton Channel	1745	9A	✓	✓	✓	✓	✓	✓
MN	Black Dog		3, 4	✓					
MN	Sherburne County		3	✓					
MN	Sherburne County		1, 2	✓	✓	✓	✓		✓
MO	Labadie		1	✓					
MO	Labadie		3	✓					
MO	Labadie		4	✓	✓	✓	✓		
MO	Meramec		3	✓					
MO	New Madrid Power Plant		1	✓					
MO	New Madrid Power Plant		2	✓					
MO	Rush Island		1	✓					
MO	Rush Island		2	✓					
MO	Sibley		1, 2, 3	✓	✓	✓	✓	✓	✓
MO	Sikeston		1	✓					
MO	Thomas Hill Energy Center		MB3	✓					
NC	Belews Creek	8042	1	✓					
NC	Belews Creek	8042	2	✓					
NC	Cape Fear	2708	6	✓	✓		✓		
NC	Cliffside	2721	5	✓					

State	Facility Name	Facility /ORIS ID	Unit IDs	Phase I 2011 95th% 2002 Met	Phase III 2011 95th% 2011 Met	Phase V 2011 95th% 2015 Met	Phase VI 2015 95th% 2015 Met	Phase II 2011 Annual 2002 Met	Phase IV 2011 Annual 2011 Met
NC	H F Lee Steam Electric Plant		3	✓	✓		✓		
NC	L V Sutton		3	✓	✓		✓		
NC	L V Sutton		1, 2	✓	✓	✓	✓		
NC	Marshall	2727	3	✓					
NC	Marshall	2727	4	✓					
NC	Marshall	2727	1,2	✓					
NC	Mayo	6250	1A,1B	✓	✓		✓		
NC	Riverbend	2732	9	✓					
NC	Roxboro	2712	1	✓					
NC	Roxboro	2712	2	✓					
NC	Roxboro	2712	3A,3B	✓	✓	✓	✓	✓	✓
NC	Roxboro	2712	4A,4B	✓	✓	✓	✓		✓
NE	Nebraska City Station		1	✓					
NH	Merrimack	2364	1	✓	✓	✓	✓	✓	✓
NH	Merrimack	2364	2	✓	✓	✓	✓	✓	✓
NH	Newington	8002	1	✓	✓	✓	✓		✓
NH	Schiller	2367	4	✓	✓	✓	✓		✓
NH	Schiller	2367	6	✓	✓	✓	✓	✓	✓
NJ	B L England	2378	2,3	✓	✓	✓	✓	✓	✓
NJ	B L England	2378	1	✓	✓		✓		
NJ	Hudson Generating Station	2403	2	✓	✓	✓	✓		✓
NJ	Mercer Generating Station	2408	1	✓					
NJ	Mercer Generating Station	2408	2	✓					
NY	Cayuga Operating Company, LLC		1 (33%), 2 (33%)	✓	✓	✓	✓		✓
NY	CCI Roseton LLC	8006	1				✓		
NY	CCI Roseton LLC	8006	2	✓					
NY	Dynegy Danskammer	2480	1,2,3	✓					
NY	Huntley Power	2549	67,68	✓					
NY	Northport	2516	3	✓					
NY	Northport	2516	1,2,4, ugt001	✓	✓				
NY	NRG Dunkirk Power		3	✓					

State	Facility Name	Facility /ORIS ID	Unit IDs	Phase I 2011 95th% 2002 Met	Phase III 2011 95th% 2011 Met	Phase V 2011 95th% 2015 Met	Phase VI 2015 95th% 2015 Met	Phase II 2011 Annual 2002 Met	Phase IV 2011 Annual 2011 Met
NY	Oswego Harbor Power	2594	5	✓					
NY	Oswego Harbor Power	2594	6	✓	✓	✓	✓	✓	✓
NY	Somerset Operating Company (Kintigh)		1	✓	✓	✓	✓	✓	✓
OH	Avon Lake Power Plant	2836	12	✓	✓	✓	✓	✓	✓
OH	Cardinal	2828	3	✓	✓	✓	✓	✓	✓
OH	Cardinal	2828	1	✓					
OH	Cardinal	2828	2	✓					
OH	Conesville	2840	5,6	✓	✓	✓	✓	✓	✓
OH	Conesville	2840	4	✓					
OH	Eastlake	2837	1	✓					
OH	Eastlake	2837	2	✓					
OH	Eastlake	2837	3	✓					
OH	Eastlake	2837	4,6, (5)	✓					
OH	Eastlake		5	✓	✓		✓		
OH	Gen J M Gavin	8102	1	✓	✓	✓	✓	✓	✓
OH	Gen J M Gavin	8102	2	✓	✓	✓	✓	✓	✓
OH	J M Stuart	2850	4	✓	✓	✓	✓		✓
OH	J M Stuart	2850	1	✓					
OH	J M Stuart	2850	2	✓					
OH	J M Stuart	2850	3	✓					
OH	Killen Station	6031	2	✓	✓	✓	✓	✓	✓
OH	Kyger Creek	2876	1,2,3, 4,5	✓	✓	✓	✓	✓	✓
OH	Miami Fort Generating Station	2832	7	✓					
OH	Miami Fort Generating Station	2832	5-1, 5-2, 6	✓					
OH	Miami Fort Power Station		8	✓					
OH	Muskingum River	2872	5	✓	✓	✓	✓	✓	✓
OH	Muskingum River	2872	1,2,3, 4	✓	✓	✓	✓	✓	✓
OH	W H Sammis	2866	5	✓					
OH	W H Sammis	2866	6	✓					
OH	W H Sammis	2866	7	✓					
OH	W H Sammis	2866	1,2	✓					
OH	W H Sammis	2866	3,4	✓					

State	Facility Name	Facility /ORIS ID	Unit IDs	Phase I 2011 95th% 2002 Met	Phase III 2011 95th% 2011 Met	Phase V 2011 95th% 2015 Met	Phase VI 2015 95th% 2015 Met	Phase II 2011 Annual 2002 Met	Phase IV 2011 Annual 2011 Met
OH	W H Zimmer Generating Station	6019	1	✓	✓	✓	✓	✓	✓
OH	Walter C Beckford Generating Station		6	✓	✓		✓		
OH	Walter C Beckford Generating Station		5 (50%)	✓	✓		✓		
OK	Grand River Dam Authority		1	✓	✓	✓	✓	✓	✓
OK	Hugo		1	✓					
OK	Muskogee		5	✓					
OK	Muskogee	2952	4	✓					
OK	Northeastern		3313, 3314	✓	✓	✓	✓	✓	✓
OK	Sooner	6095	1	✓					
OK	Sooner		2	✓					
PA	Armstrong Power Station		1	✓	✓			✓	✓
PA	Armstrong Power Station		2	✓	✓				✓
PA	Brunner Island	3140	3	✓	✓	✓	✓	✓	✓
PA	Brunner Island	3140	1,2	✓	✓	✓	✓	✓	✓
PA	Cheswick	8226	1	✓	✓	✓	✓	✓	✓
PA	Hatfield's Ferry Power Station	3179	3	✓					
PA	Homer City	3122	1	✓	✓	✓	✓	✓	✓
PA	Homer City	3122	2	✓	✓	✓	✓	✓	✓
PA	Homer City		3	✓	✓	✓	✓		✓
PA	Keystone	3136	1	✓	✓	✓	✓	✓	✓
PA	Keystone	3136	2	✓	✓	✓	✓	✓	✓
PA	Martins Creek	3148	3,4	✓	✓	✓	✓	✓	✓
PA	Montour	3149	1	✓	✓	✓	✓	✓	✓
PA	Montour	3149	2	✓	✓	✓	✓	✓	✓
PA	Portland		2 (1)	✓	✓		✓		
PA	Portland		3 (2)	✓	✓		✓	✓	
PA	Shawville	3131	1	✓					
PA	Shawville	3131	2	✓					
PA	Shawville	3131	3,4	✓	✓	✓	✓	✓	✓
PA	Sunbury		3	✓	✓		✓		

State	Facility Name	Facility /ORIS ID	Unit IDs	Phase I 2011 95th% 2002 Met	Phase III 2011 95th% 2011 Met	Phase V 2011 95th% 2015 Met	Phase VI 2015 95th% 2015 Met	Phase II 2011 Annual 2002 Met	Phase IV 2011 Annual 2011 Met
PA	Sunbury		4	✓	✓		✓		
PA	Sunbury		1A, 1B	✓	✓		✓		
SC	Canadys Steam		CAN3	✓	✓		✓		
SC	H B Robinson		1	✓	✓		✓		
SC	Jefferies	3319	3	✓	✓		✓		
SC	Jefferies	3319	4	✓	✓		✓		
SC	McMeekin		MCM 1	✓					
SC	McMeekin		MCM 2	✓					
SC	Urquhart		URQ3	✓					
SC	Wateree	3297	WAT1	✓	✓	✓	✓	✓	✓
SC	Wateree	3297	WAT2	✓	✓	✓	✓		✓
SC	Williams	3298	WIL1	✓					
SC	Winyah	6249	1	✓					
SC	Winyah	6249	2,3,4	✓					
TN	Cumberland	3399	1	✓					
TN	Gallatin	3403	1,2	✓					
TN	Gallatin	3403	3,4	✓					
TN	John Sevier	3405	1,2	✓	✓		✓		
TN	John Sevier	3405	3,4	✓	✓		✓		
TN	Johnsonville	3406	1 thru 10	✓	✓	✓	✓	✓	✓
TN	Kingston	3407	1,2,3, 4,5	✓	✓	✓	✓		
TN	Kingston	3407	6,7,8, 9	✓	✓	✓	✓		
TX	Big Brown	3497	1	✓	✓	✓	✓	✓	✓
TX	Big Brown	3497	2	✓	✓	✓	✓	✓	✓
TX	H W Pirkey Power Plant	7902	1	✓					
TX	Limestone	298	LIM1	✓					
TX	Limestone	298	LIM2	✓					
TX	Martin Lake	6146	1	✓	✓	✓	✓	✓	✓
TX	Martin Lake	6146	2	✓	✓	✓	✓		✓
TX	Martin Lake	6146	3	✓	✓	✓	✓		✓
TX	Monticello	6147	1	✓	✓	✓	✓		✓
TX	Monticello	6147	2	✓					
TX	Monticello	6147	3	✓					
TX	Welsh Power Plant	6139	1	✓					
TX	Welsh Power Plant	6139	2	✓					

State	Facility Name	Facility /ORIS ID	Unit IDs	Phase I 2011 95th% 2002 Met	Phase III 2011 95th% 2011 Met	Phase V 2011 95th% 2015 Met	Phase VI 2015 95th% 2015 Met	Phase II 2011 Annual 2002 Met	Phase IV 2011 Annual 2011 Met
TX	Welsh Power Plant	6139	3	✓					
VA	Bremo Power Station		4	✓	✓	✓	✓		✓
VA	Chesapeake Energy Center		1	✓	✓		✓		
VA	Chesapeake Energy Center		2	✓	✓		✓		
VA	Chesapeake Energy Center		3	✓	✓		✓		
VA	Chesapeake Energy Center		4	✓	✓		✓		
VA	Chesterfield Power Station	3797	4	✓	✓	✓	✓		✓
VA	Chesterfield Power Station	3797	5	✓	✓	✓	✓	✓	✓
VA	Chesterfield Power Station	3797	6	✓					
VA	Chesterfield Power Station	3797	3,7,8 A	✓	✓			✓	✓
VA	Clinch River	3775	1,2	✓					
VA	Yorktown Power Station	3809	3	✓	✓	✓	✓	✓	✓
VA	Yorktown Power Station	3809	1,2	✓	✓	✓	✓	✓	✓
WI	Columbia		1	✓	✓	✓	✓		✓
WI	Columbia		2	✓	✓	✓	✓		✓
WI	Edgewater (4050)	4050	5	✓					
WI	Genoa	4143	1	✓					
WI	Nelson Dewey	4054	2	✓					
WI	South Oak Creek		7, 8	✓					
WV	Albright Power Station	3942	3	✓	✓		✓		
WV	Fort Martin Power Station	3943	1	✓					✓
WV	Fort Martin Power Station	3943	2	✓					
WV	Harrison Power Station		1 (25%), 2 (20%)	✓	✓	✓	✓	✓	✓
WV	John E Amos	3935	3	✓					
WV	John E Amos	3935	1,2	✓	✓	✓	✓		✓
WV	Kammer	3947	1,2,3	✓	✓	✓	✓		
WV	Kanawha River	3936	1,2	✓	✓	✓	✓	✓	✓
WV	Longview Power	56671	1	✓					
WV	Mitchell (WV)	3948	1,2	✓	✓	✓	✓		✓

State	Facility Name	Facility /ORIS ID	Unit IDs	Phase I 2011 95th% 2002 Met	Phase III 2011 95th% 2011 Met	Phase V 2011 95th% 2015 Met	Phase VI 2015 95th% 2015 Met	Phase II 2011 Annual 2002 Met	Phase IV 2011 Annual 2011 Met
WV	Mount Storm Power Station	3954	1,2	✓					
WV	Mountaineer (1301)	6264	1	✓					
WV	Phil Sporn	3938	11,21, 31,41	✓					
WV	Pleasants Power Station	6004	1	✓	✓	✓	✓		✓
WV	Pleasants Power Station	6004	2	✓	✓	✓	✓		✓
				308	163	132	159	81	127
				Runs Completed					

(Return to Section 3.3 Modeling Phases)

Appendix B

B.1 EGU Source Parameters

EGU Facility Info					EGU Source Parameters						
State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Latitude	Longitude	Stack Height (m)	Base Elev. (m)	Stack Diameter (m)	Exhaust flow (m/s)	Exit Temp. (deg.K)
AL	Colbert	47	1, 2, 3, 4	D00047C14	34.744	-87.849	183.5	141.3	7.9	27.7	425.4
AL	E C Gaston	26	1, 2	D00026CAN	33.244	-86.457	228.6	130.7	10.1	12.1	407.6
AL	E C Gaston	26	3, 4	D00026CBN	33.244	-86.457	228.6	130.7	10.1	18.0	399.8
AL	E C Gaston	26	5		33.244	-86.457	230.1	130.7	10.4	17.6	420.4
AL	Greene County	10	1		32.602	-87.781	152.4	32.7	7.3	16.1	413.7
AR	Flint Creek Power Plant	6138	1		36.256	-94.524	164.6	351.2	6.1	27.7	408.2
AR	Independence	6641	1	D066411	35.673	-91.408	304.8	72.8	7.6	27.4	433.7
AR	Independence	6641	2	D066412	35.673	-91.408	304.8	72.8	7.6	27.4	433.7
AR	White Bluff	6009	1	D060091	34.424	-92.139	304.8	94.6	7.6	27.4	433.7
AR	White Bluff	6009	2	D060092	34.424	-92.139	304.8	94.6	7.6	27.4	433.7
CT	Bridgeport Harbor Station	568	BHB3		41.168	-73.185	151.8	3.0	4.3	38.8	416.5
CT	Middletown	562	4		41.554	-72.596	151.8	103.4	5.5	36.9	597.0
CT	New Haven Harbor	6156	NHB1		41.284	-72.904	118.6	4.2	5.6	30.0	394.3
DE	Edge Moor	593	5	D005935	39.737	-75.503	83.8	1.4	6.4	23.0	430.4
DE	Indian River	594	4	D005944	38.586	-75.234	121.9	2.3	7.3	17.7	447.0
GA	Bowen	703	1BLR	D007031LR	34.126	-84.919	304.8	221.3	7.6	20.7	403.2
GA	Bowen	703	2BLR	D007032LR	34.126	-84.919	205.7	221.3	9.4	17.7	329.3
GA	Bowen	703	3BLR	D007033LR	34.126	-84.919	304.8	221.3	7.6	20.7	403.2
GA	Bowen	703	4BLR	D007034LR	34.126	-84.919	304.8	221.3	7.6	27.1	409.8
GA	Harllee Branch	709	1,2	D00709C01	33.194	-83.299	304.8	110.6	6.7	25.0	394.3
GA	Harllee Branch	709	3&4	D00709C02	33.194	-83.299	304.8	110.6	8.8	23.5	399.8
GA	Jack McDonough	710	MB1, MB2	D00710C01	33.824	-84.475	254.8	236.9	7.3	22.9	405.4
GA	Scherer	6257	1	D062571	33.058	-83.807	304.8	142.6	8.2	23.2	409.8

EGU Facility Info					**EGU Source Parameters**						
State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Latitude	Longitude	Stack Height (m)	Base Elev. (m)	Stack Diameter (m)	Exhaust flow (m/s)	Exit Temp. (deg.K)
GA	Scherer	6257	2	D062572	33.058	-83.807	304.8	142.6	8.2	23.2	409.8
GA	Scherer	6257	4	D062574	33.058	-83.807	304.8	142.6	8.2	24.1	400.9
GA	Yates	728	Y5BR	D00728Y5R	33.462	-84.899	253.0	229.6	4.3	31.1	413.7
GA	Yates	728	Y6BR	D00728Y6R	33.462	-84.899	245.4	229.6	4.9	25.6	410.4
GA	Yates	889	Y7BR	D00728Y7R	33.462	-84.899	245.4	229.6	4.9	25.6	410.4
IA	George Neal North	1091	3	D010913	42.300	-96.363	121.9	326.4	6.1	28.3	355.4
IA	George Neal South	1091	4	D073434	42.302	-96.362	143.0	327.3	7.6	27.1	355.4
IA	Louisa	6664	101	D06664101	41.315	-91.094	185.9	175.2	9.1	25.8	355.4
IA	Ottumwa	887	1	D062541	41.096	-92.556	182.9	209.1	7.6	36.0	422.0
IA	Walter Scott Jr. Energy Center	1082	3	D010823	41.180	-95.841	167.6	298.9	7.6	29.0	355.4
IL	Baldwin Energy Complex	876	1,2	D008892	38.211	-89.847	184.4	134.8	5.8	26.8	423.7
IL	Joliet 29	384	81, 82	D00384C82	41.495	-88.125	167.3	156.8	5.2	26.8	422.0
IL	Joppa Steam	887	1, 2	D00887CS1	37.210	-88.861	167.6	105.2	5.5	25.9	427.6
IL	Joppa Steam	887	3, 4	D00887CS2	37.210	-88.861	167.6	105.2	5.5	25.9	427.6
IL	Kincaid Generating Station	876	1, 2	D00876C02	39.591	-89.496	186.8	183.2	8.8	26.8	415.4
IL	Marion	976	4	D009764	37.621	-88.955	121.9	156.6	4.6	15.2	324.8
IL	Newton	6017	1	D060171	38.936	-88.278	152.1	167.7	9.1	12.3	332.0
IL	Newton	6017	2	D060172	38.936	-88.278	152.1	167.7	9.1	12.3	332.0
IL	Powerton	879	51,52,61, 62	D00879C06	40.541	-89.679	150.6	142.7	10.4	10.0	426.5
IL	Wood River Power Station	898	5	D008985	38.886	-90.135	106.7	134.8	4.6	19.8	435.9
IN	Alcoa Allowance Management Inc	6705	3	x02	37.915	-87.333	152.4	119.7	5.8	17.0	325.9
IN	Alcoa Allowance Management Inc	6705	4	D067054	37.915	-87.333	152.4	119.7	5.8	17.0	325.9

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IN	Alcoa Allowance Management Inc	6705	1,2	D06705C02	37.915	-87.333	152.4	119.7	5.8	17.0	325.9
IN	Cayuga	1001	1	D010011	39.924	-87.427	152.4	224.2	5.8	27.4	416.5
IN	Cayuga	1001	2	D010012	39.924	-87.427	152.4	224.2	5.8	27.4	416.5
IN	Clifty Creek	983	1,2,3	D00983C01	38.738	-85.419	299.6	141.5	6.7	33.5	449.8
IN	Clifty Creek	983	4,5,6	D00983C02	38.738	-85.419	299.6	141.5	6.7	33.5	449.8
IN	Gibson	6113	5	D061135	38.372	-87.766	152.4	125.9	7.0	21.3	335.9
IN	Gibson	6113	1,2,3	D06113C03	38.372	-87.766	152.4	125.9	9.8	29.0	415.4
IN	Gibson	6113	4	D061135	38.372	-87.766	152.4	125.9	7.0	21.3	335.9
IN	IPL - Eagle Valley Generating Station	991	5, 6	D00991C56	39.485	-86.418	86.0	187.8	4.6	13.1	453.7
IN	IPL - Harding Street Station (EW Stout)	990	70	D0099070	39.712	-86.198	172.2	208.1	6.1	14.3	329.3
IN	IPL - Harding Street Station (EW Stout)	990	50	D0099050	39.712	-86.198	79.6	208.1	1.8	65.8	440.9
IN	IPL - Harding Street Station (EW Stout)	990	60	D0099060	39.712	-86.198	79.6	208.1	1.8	63.5	449.8
IN	IPL - Petersburg Generating Station	994	3	D009943	38.527	-87.253	190.5	132.7	6.7	26.3	342.6
IN	IPL - Petersburg Generating Station	994	4	D009944	38.527	-87.253	189.9	132.7	6.7	25.8	342.0
IN	IPL - Petersburg Generating Station	994	1 (50%)	D00994M1B	38.527	-87.253	168.2	132.7	8.8	4.9	416.5
IN	IPL - Petersburg Generating Station	994	2(50%)	D00994M2B	38.527	-87.253	189.3	132.7	6.1	23.9	324.3
IN	Merom	6213	2SG1	D062132G1	39.069	-87.511	214.6	148.9	5.8	31.4	327.6
IN	Michigan City Generating Station	997	12	D0099712	41.720	-86.910	153.9	184.4	6.4	28.6	439.8
IN	R Gallagher	1008	1,2	D01008C01	38.264	-85.838	167.6	124.7	3.7	50.4	413.7

EGU Facility Info					**EGU Source Parameters**						
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IN	R Gallagher	1008	3,4	D01008C02	38.264	-85.838	167.6	124.7	3.7	50.4	413.7
IN	Rockport	6166	MB1,MB2	D06166C02	37.926	-87.037	316.4	121.9	12.8	33.6	429.8
IN	Tanners Creek	988	U1,U2,U3	D00988C03	39.083	-84.858	122.8	149.3	7.0	16.5	420.4
IN	Tanners Creek	988	U4	D00988U4	39.083	-84.858	122.8	149.3	7.1	14.9	422.0
IN	Wabash River Gen Station	1010	2,3,4,5,6	D01010C05	39.530	-87.425	137.2	155.6	7.6	34.1	410.9
IN	Whitewater Valley	1040	1, 2	D01040C12	39.803	-84.895	99.1	302.6	3.4	6.7	438.7
IN	R M Schahfer Generating Station	6085	14	D0608514	41.218	-87.024	152.4	203.0	6.4	27.6	425.9
IN	R M Schahfer Generating Station	6085	15	D0608515	41.218	-87.024	152.4	203.0	6.4	7.8	416.5
KS	La Cygne	1241	1		38.347	-94.647	213.4	257.7	7.0	28.3	325.9
KS	La Cygne	1241	2	D012412	38.347	-94.647	213.4	257.7	7.3	30.8	411.5
KS	Nearman Creek	6064	N1		39.171	-94.697	121.9	229.4	7.0	13.4	424.8
KS	Quindaro	1295	2		39.150	-94.640	106.7	230.1	4.0	25.3	436.5
KS	Tecumseh Energy Center	1252	10		39.054	-95.569	64.3	267.5	3.4	25.6	409.8
KY	Big Sandy	1353	BSU1,BSU2	D01353C02	38.172	-82.618	251.8	172.4	8.5	29.9	430.9
KY	D B Wilson	6823	W1	D06823W1	37.450	-87.080	182.9	118.1	10.4	7.6	325.9
KY	E W Brown	1355	2,3	D01355C03	37.789	-84.714	171.0	273.3	7.9	23.8	327.0
KY	East Bend	6018	2	D060182	38.903	-84.851	198.1	152.5	7.0	34.0	338.2
KY	Ghent	1356	1,2 … (1,4)	D01356C01	38.750	-85.035	201.8	148.7	11.3	7.0	324.8
KY	Ghent	1356	3,4 … (2,3)	D01356C02	38.750	-85.035	177.1	148.7	9.1	14.5	422.0
KY	Green River	1357	4	D013574	37.364	-87.121	60.0	125.4	3.4	18.9	422.0
KY	Green River	1357	5	D013575	37.364	-87.121	75.3	125.4	3.0	28.4	422.0
KY	H L Spurlock	6041	1	D060411	38.700	-83.818	245.4	163.8	4.6	32.6	424.3
KY	H L Spurlock	6041	2	D060412	38.700	-83.818	245.4	163.8	4.6	32.6	424.3

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KY	John S. Cooper	1384	1,2	D01384CS1	37.000	-84.592	79.2	253.9	5.2	8.4	433.2
KY	Mill Creek	1364	4	D013644	38.053	-85.910	182.9	139.5	5.8	23.6	322.6
KY	Mill Creek	1364	1,2,3	x05	38.053	-85.910	182.9	139.5	5.5	20.2	327.0
KY	Paradise	1378	1	D01720C09	37.261	-86.978	182.9	128.7	7.9	22.1	324.8
KY	Paradise	1378	2	D013782	37.261	-86.978	182.9	128.7	7.9	22.1	324.8
KY	Paradise	1378	3	D013783	37.261	-86.978	182.9	128.7	11.3	15.4	328.7
KY	Shawnee	1379	1,2,3,4,5	D01379C15	37.152	-88.775	242.9	106.5	8.2	25.2	425.9
KY	Shawnee	1379	6,7,8,9,10	D01379C60	37.152	-88.775	242.9	106.5	8.2	25.2	425.9
MA	Brayton Point	1619	1	D016191	41.713	-71.191	107.3	4.1	4.4	25.0	398.2
MA	Brayton Point	1619	2	D016192	41.713	-71.191	107.3	4.1	4.4	26.5	407.0
MA	Brayton Point	1619	3	D016193	41.713	-71.191	107.3	4.1	5.9	35.4	402.0
MA	Brayton Point	1619	4	x07	41.713	-71.191	152.4	4.1	5.6	33.5	469.3
MA	Canal Station	1599	1	D015991	41.769	-70.510	151.8	2.6	5.5	22.3	428.7
MA	Canal Station	1599	2	D015992	41.769	-70.510	151.8	2.6	5.5	28.3	458.2
MA	Salem Harbor Station	1626	3	D016263	42.527	-70.879	132.9	2.6	3.8	20.6	392.0
MA	Salem Harbor Station	1626	1		42.527	-70.879	132.9	2.6	2.7	25.3	410.4
MD	Brandon Shores	602	1	D006021	39.179	-76.538	121.9	10.2	9.6	17.1	325.4
MD	Brandon Shores	602	2	D006022	39.179	-76.538	121.9	10.2	9.6	17.1	325.4
MD	C P Crane	1552	1	D015521	39.327	-76.365	107.6	2.3	5.5	20.8	424.3
MD	C P Crane	1552	2	D015522	39.327	-76.365	107.6	2.3	5.5	20.8	424.3
MD	Chalk Point	1571	1,2	D01571CE2	38.544	-76.686	216.1	5.9	9.6	17.1	415.9
MD	Dickerson	1572	1,2,3	D01572C23	39.327	-77.464	214.3	85.8	7.6	18.6	355.9
MD	Herbert A Wagner	1554	3	D015543	39.178	-76.527	105.5	3.2	4.1	32.6	430.4
MD	Herbert A Wagner	1554	1,2,4	x08	39.178	-76.527	87.5	3.2	3.1	30.5	438.7
MD	Morgantown	1573	1	D015731	38.359	-76.977	213.4	4.3	5.9	30.5	405.4

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MD	Morgantown	1573	2	D015732	38.359	-76.977	213.4	4.3	5.9	30.5	405.4
ME	William F Wyman	1507	1		43.750	-70.157	97.5	5.3	2.3	49.7	449.8
ME	William F Wyman	1507	2		43.750	-70.157	97.5	5.3	2.3	49.7	449.8
ME	William F Wyman	1507	3		43.750	-70.157	97.5	5.3	2.3	49.7	449.8
ME	William F Wyman	1507	4	D015074	43.750	-70.157	128.3	5.3	7.5	22.7	489.2
MI	Belle River	6034	1	D060341	42.775	-82.495	202.7	179.7	7.6	27.5	416.5
MI	Belle River	6034	2	D060342	42.775	-82.495	202.7	179.7	7.6	27.5	416.5
MI	Dan E Karn	1702	3,4 (1,2)	D01702C09	43.643	-83.843	106.7	178.6	5.5	19.4	426.5
MI		1720	7, 8	D01720C09	43.643	-83.843	151.8	178.6	5.2	22.2	421.5
MI	J H Campbell	1710	A,B,1,2	D01710C09	42.910	-86.204	121.9	181.8	5.8	38.7	409.8
MI	J H Campbell	1710	3 (50%)	D01710M3A	42.910	-86.204	195.7	181.8	8.2	25.2	421.5
MI	Monroe	1733	1,2	D01733C12	41.892	-83.346	213.4	177.2	8.5	39.0	405.4
MI	Monroe	1733	3,4	D01733C34	41.892	-83.346	213.4	177.2	8.5	39.0	405.4
MI	River Rouge	1740	3	D017403	42.273	-83.113	129.5	176.8	3.7	48.7	433.2
MI	St. Clair	1743	6	D017436	42.763	-82.472	129.5	177.5	4.0	39.9	422.0
MI	St. Clair	1743	7	D017437	42.763	-82.472	182.6	177.5	4.0	27.4	438.7
MI	St. Clair	1743	1,2,3,4	x09	42.763	-82.472	182.6	177.5	4.9	44.5	425.9
MI	Trenton Channel	1745	16,17,18, 19	x10	42.124	-83.181	170.4	201.3	4.4	42.7	433.2
MI	Trenton Channel	1745	9A	D017459A	42.124	-83.181	171.6	201.3	4.9	42.7	410.9
MN	Black Dog	1904	3, 4	D01904CS1	44.811	-93.250	182.9	217.9	6.7	28.9	448.2
MN	Sherburne County	6090	3	D060903	45.379	-93.896	198.1	295.1	7.9	30.6	347.0
MN	Sherburne County	6090	1, 2	D06090CS1	45.379	-93.896	198.1	295.1	9.8	32.8	350.4
MO	Labadie	2103	1	D021031	38.558	-90.836	213.4	149.8	6.1	28.0	444.3
MO	Labadie	2103	3	D021033	38.558	-90.836	213.4	149.8	6.1	26.1	414.8
MO	Labadie	2103	4	D021034	38.558	-90.836	213.4	149.8	6.1	26.4	422.6

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MO	Meramec	2104	3	D021043	38.402	-90.336	106.7	127.1	4.9	33.2	463.2
MO	New Madrid Power Plant	2167	1	D021671	36.515	-89.562	243.8	90.2	6.1	20.8	434.8
MO	New Madrid Power Plant	2167	2	D021672	36.515	-89.562	243.8	90.2	6.1	23.6	429.8
MO	Rush Island	6155	1	D061551	38.131	-90.263	213.4	124.7	6.1	25.0	405.4
MO	Rush Island	6155	2	D061552	38.131	-90.263	213.4	124.7	8.8	25.0	405.4
MO	Sibley	2094	1, 2, 3	D02094C01	39.178	-94.186	212.1	219.6	4.0	31.9	408.2
MO	Sikeston	6768	1	D067681	36.879	-89.621	137.2	94.4	4.6	1.6	410.9
MO	Thomas Hill Energy Center	2168	MB3	D02168MB3	39.553	-92.639	189.6	94.4	9.1	17.8	420.9
NC	Belews Creek	8042	1	D080421	36.283	-80.059	152.4	228.2	11.1	16.8	322.0
NC	Belews Creek	8042	2	D080422	36.283	-80.059	152.4	228.2	11.1	16.8	322.0
NC	Cape Fear	2708	6		35.595	-79.049	61.3	52.8	4.6	17.7	397.0
NC	Cliffside	2721	5	D027215	35.216	-81.762	175.3	232.5	7.6	17.1	320.9
NC	H F Lee Steam Electric Plant	2709	3	D027093	35.378	-78.088	91.4	24.6	5.8	40.6	421.5
NC	L V Sutton	2713	3	D027133	34.282	-77.986	167.9	3.1	5.0	35.7	420.4
NC	L V Sutton	2713	1, 2	D02713C02	34.282	-77.986	167.9	3.1	5.5	20.8	415.4
NC	Marshall	2727	3	D027273	35.598	-80.961	96.0	258.4	9.0	16.8	322.0
NC	Marshall	2727	4	D027274	35.598	-80.961	96.0	258.4	9.0	16.8	322.0
NC	Marshall	2727	1,2	x11	35.598	-80.961	96.0	258.4	9.0	16.8	322.0
NC	Mayo	6250	1A,1B	D06250C05	36.528	-78.892	115.8	162.1	9.3	16.3	324.8
NC	Riverbend	2732	9		35.360	-80.974	99.7	203.9	2.7	24.4	435.4
NC	Roxboro	2712	1	D027121	36.484	-79.071	121.9	131.7	6.7	14.2	325.4
NC	Roxboro	2712	2	D027122	36.484	-79.071	121.9	131.7	8.7	15.3	325.4
NC	Roxboro	2712	3A,3B	D02712C03	36.484	-79.071	121.9	131.7	9.3	14.3	325.9
NC	Roxboro	2712	4A,4B	D02712C04	36.484	-79.071	121.9	131.7	9.3	14.3	325.9
NE	Nebraska City Station	6096	1	D060961	40.622	-95.777	213.4	281.3	7.0	0.5	422.0

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NH	Merrimack	2364	1	D023641	43.141	-71.469	135.6	62.3	6.6	19.1	328.2
NH	Merrimack	2364	2	D023642	43.141	-71.469	135.6	62.3	6.6	19.1	328.2
NH	Newington	8002	1	D080021	43.100	-70.791	125.0	8.1	6.3	25.8	533.2
NH	Schiller	2367	4		43.098	-70.784	68.9	7.2	2.4	21.5	449.8
NH	Schiller	2367	6		43.098	-70.784	68.9	7.2	2.4	21.5	449.8
NJ	B L England	2378	2,3	x12	39.290	-74.634	144.8	2.9	4.6	21.0	416.5
NJ	B L England	2378	1		39.290	-74.634	144.8	2.9	4.6	21.0	416.5
NJ	Hudson Generating Station	2403	2	D024032	40.748	-74.072	151.8	2.0	5.3	50.7	399.8
NJ	Mercer Generating Station	2408	1	D024081	40.180	-74.733	99.4	4.9	5.3	27.5	422.0
NJ	Mercer Generating Station	2408	2	D024082	40.180	-74.733	99.4	4.9	5.3	27.5	422.0
NY	Cayuga Operating Company, LLC	2535	1 (33%), 2 (33%)	D02535C01	42.603	-76.634	114.0	137.1	0.7	19.8	358.7
NY	CCI Roseton LLC	8006	1	D080061	41.571	-73.974	79.2	14.9	7.0	18.3	402.6
NY	CCI Roseton LLC	8006	2	D080062	41.571	-73.974	79.2	14.9	7.0	18.3	402.6
NY	Dynegy Danskammer	2480	1,2,3	x13	41.574	-73.975	73.2	15.9	2.9	27.4	423.2
NY	Huntley Power	2549	67,68	D02549C01	42.970	-78.930	106.7	200.5	6.2	11.8	358.7
NY	Northport	2516	3	D025163	40.923	-73.342	182.9	1.1	5.1	25.6	435.9
NY	Northport	2516	1,2,4,ugt 001	x14	40.923	-73.342	182.9	1.1	5.1	25.6	435.9
NY	NRG Dunkirk Power	2554	3	D02554C03	42.490	-79.350	94.5	176.1	0.7	19.8	358.7
NY	Oswego Harbor Power	2594	5	D025945	43.460	-76.530	213.4	76.3	0.7	18.0	358.7
NY	Oswego Harbor Power	2594	6	x15	43.460	-76.530	213.4	76.3	0.7	18.0	358.7
NY	Somerset Operating Company (Kintigh)	6082	1	D060821	43.356	-78.604	186.5	89.8	0.7	19.8	358.7

EGU Facility Info					**EGU Source Parameters**						
State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Latitude	Longitude	Stack Height (m)	Base Elev. (m)	Stack Diameter (m)	Exhaust flow (m/s)	Exit Temp. (deg.K)
OH	Avon Lake Power Plant	2836	12	D0283612	41.504	-82.050	182.9	182.8	7.3	15.6	427.6
OH	Cardinal	2828	3	D028283	40.252	-80.649	274.3	204.3	7.3	29.2	323.2
OH	Cardinal	2828	1	D028281	40.252	-80.649	304.8	204.3	8.8	15.3	327.6
OH	Cardinal	2828	2	D028282	40.252	-80.649	304.8	204.3	8.8	15.3	327.6
OH	Conesville	2840	5,6	D02840C06	40.184	-81.881	243.8	226.6	7.9	23.9	324.8
OH	Conesville	2840	4	D028504	40.184	-81.881	243.8	226.6	9.8	16.7	327.6
OH	Eastlake	2837	1	D028371	41.671	-81.443	164.6	186.3	3.7	11.5	399.8
OH	Eastlake	2837	2	D028372	41.671	-81.443	164.6	186.3	3.7	11.5	399.8
OH	Eastlake	2837	3	D028373	41.671	-81.443	164.6	186.3	3.7	11.5	399.8
OH	Eastlake	2837	4,6	x17	41.671	-81.443	164.6	186.3	4.9	11.5	399.8
OH	Eastlake	2837	5	D028375	41.671	-81.443	164.6	186.3	4.9	11.5	399.8
OH	Gen J M Gavin	8102	1	D081021	38.935	-82.116	253.0	174.3	12.8	15.2	323.2
OH	Gen J M Gavin	8102	2	D081022	38.935	-82.116	253.0	174.3	12.8	15.2	323.2
OH	J M Stuart	2850	4	D028404	38.636	-83.694	243.8	161.9	7.9	19.1	325.9
OH	J M Stuart	2850	1	D028501	38.636	-83.694	243.8	161.9	7.9	19.1	325.9
OH	J M Stuart	2850	2	D028502	38.636	-83.694	243.8	161.9	7.9	19.1	325.9
OH	J M Stuart	2850	3	D028503	38.636	-83.694	243.8	161.9	7.9	19.1	325.9
OH	Killen Station	6031	2	D060312	38.690	-83.480	274.3	162.2	8.8	16.8	322.6
OH	Kyger Creek	2876	1,2,3,4,5	D02876C01	38.916	-82.128	304.8	176.0	8.8	34.3	449.8
OH	Miami Fort Generating Station	2832	7	D028327	39.113	-84.803	243.8	149.4	7.0	21.7	327.6
OH	Miami Fort Generating Station	2832	5-1, 5-2, 6	D02832C06	39.113	-84.803	179.8	149.4	5.2	16.3	398.7
OH	Miami Fort Power Station	2832	8	D028328	39.113	-84.803	243.8	149.4	7.0	21.7	327.6
OH	Muskingum River	2872	5	D028725	39.591	-81.680	252.4	195.9	6.7	28.1	430.4
OH	Muskingum River	2872	1,2,3,4	D02872C04	39.591	-81.680	252.4	195.9	7.6	34.5	430.4

EGU Facility Info					EGU Source Parameters						
State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Latitude	Longitude	Stack Height (m)	Base Elev. (m)	Stack Diameter (m)	Exhaust flow (m/s)	Exit Temp. (deg.K)
OH	W H Sammis	2866	5	D028665	40.531	-80.631	259.1	210.5	16.8	12.9	319.8
OH	W H Sammis	2866	6	D02866M6A	40.531	-80.631	259.1	210.5	16.8	12.9	319.8
OH	W H Sammis	2866	7	D028667	40.531	-80.631	259.1	210.5	16.8	12.9	319.8
OH	W H Sammis	2866	1,2	D02866C01	40.531	-80.631	259.1	210.5	16.8	12.9	319.8
OH	W H Sammis	2866	3,4	D02866C02	40.531	-80.631	259.1	210.5	16.8	12.9	319.8
OH	W H Zimmer Generating Station	6019	1	D060191	38.869	-84.229	174.7	155.5	12.8	14.3	327.6
OH	Walter C Beckjord Generating Station	2830	6	D028306	38.992	-84.298	137.2	142.2	5.8	39.9	422.0
OH	Walter C Beckjord Generating Station	2830	5 (50%)	D02830M51	38.992	-84.298	137.2	142.2	5.8	39.9	422.0
OK	Grand River Dam Authority	165	1	D001651	36.191	-95.289	153.9	190.1	6.1	32.3	425.4
OK	Hugo	6772	1	D067721	34.016	-95.321	152.4	146.7	7.9	14.4	399.8
OK	Muskogee	2952	5	D029525	35.762	-95.285	106.7	154.2	7.3	17.1	402.0
OK	Muskogee	2952	4		35.762	-95.285	106.7	154.2	7.3	17.1	402.0
OK	Northeastern	2963	3313, 3314	D02963C10	36.432	-95.701	182.9	196.2	8.2	13.8	419.3
OK	Sooner	6095	1		36.454	-97.053	152.4	283.4	6.1	32.3	402.0
OK	Sooner	6095	2	D060952	36.454	-97.053	152.4	283.4	6.1	32.3	402.0
PA	Armstrong Power Station	3178	1	D031781	40.929	-79.466	307.2	253.9	4.5	22.5	446.5
PA	Armstrong Power Station	3178	2	D031782	40.929	-79.466	307.2	253.9	4.5	22.5	446.5
PA	Brunner Island	3140	3	D031403	40.097	-76.696	182.9	91.0	6.0	44.1	427.6
PA	Brunner Island	3140	1,2	D03140C12	40.097	-76.696	137.2	91.0	6.0	47.3	327.6
PA	Cheswick	8226	1	D082261	40.538	-79.791	168.6	230.4	8.2	16.1	319.8
PA	Hatfield's Ferry Power Station	3179	3	x20	39.856	-79.927	213.4	247.0	6.9	41.9	427.6
PA	Homer City	3122	1	D031221	40.511	-79.197	243.8	365.0	7.3	26.0	427.6

EGU Facility Info					EGU Source Parameters						
State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Latitude	Longitude	Stack Height (m)	Base Elev. (m)	Stack Diameter (m)	Exhaust flow (m/s)	Exit Temp. (deg.K)
PA	Homer City	3122	2	D031222	40.511	-79.197	243.8	365.0	7.3	26.0	427.6
PA	Homer City	3122	3	D031223	40.511	-79.197	260.3	362.5	8.2	19.1	324.8
PA	Keystone	3136	1	D031361	40.660	-79.341	243.8	308.1	8.3	29.1	422.6
PA	Keystone	3136	2	D031362	40.660	-79.341	243.8	308.1	8.3	29.1	422.6
PA	Martins Creek	3148	3,4	x21	40.796	-75.107	182.9	73.6	6.9	36.5	422.0
PA	Montour	3149	1	D031491	41.071	-76.667	182.9	160.3	6.1	25.0	416.5
PA	Montour	3149	2	D031492	41.071	-76.667	182.9	160.3	6.1	25.0	416.5
PA	Portland	3113	2 (1)	d031131	40.910	-75.079	121.3	90.9	3.1	33.6	417.0
PA	Portland	3113	3 (2)	d031132	40.910	-75.079	121.9	90.9	3.8	28.8	418.2
PA	Shawville	3131	1	D031311	41.067	-78.366	182.9	322.9	3.8	54.7	414.3
PA	Shawville	3131	2	D031312	41.067	-78.366	182.9	322.9	3.8	54.7	414.3
PA	Shawville	3131	3,4	D03131CS1	41.067	-78.366	260.3	322.9	5.8	28.1	390.4
PA	Sunbury	3152	3	D031523	40.836	-76.825	91.4	134.1	4.6	12.8	419.3
PA	Sunbury	3152	4	D031524	40.836	-76.825	91.4	134.1	4.6	18.6	422.0
PA	Sunbury	3152	1A, 1B	D03152CS1	40.836	-76.825	91.4	134.1	4.6	13.5	435.9
SC	Canadys Steam	3280	CAN3	D03280CN3	33.065	-80.623	61.0	24.4	4.9	19.9	413.7
SC	H B Robinson	3251	1	D032511	34.402	-80.159	76.2	68.9	4.6	19.4	397.0
SC	Jefferies	3319	3		33.242	-79.988	91.4	9.9	4.0	16.5	433.7
SC	Jefferies	3319	4		33.242	-79.988	91.4	9.9	4.0	17.1	435.9
SC	McMeekin	3287	MCM1	D03287MM1	34.053	-81.218	125.0	82.7	4.0	16.5	410.9
SC	McMeekin	3287	MCM2	D03287MM2	34.053	-81.218	125.0	82.7	4.0	15.8	410.9
SC	Urquhart	3295	URQ3	D03295UQ3	33.435	-81.911	61.0	44.4	4.6	11.2	422.0
SC	Wateree	3297	WAT1	D03297WT1	33.826	-80.622	121.9	34.1	8.5	16.3	327.6
SC	Wateree	3297	WAT2	D03297WT2	33.826	-80.622	91.4	34.1	5.8	23.2	393.2
SC	Williams	3298	WIL1	D03298WL1	33.016	-79.929	121.9	6.8	7.9	17.6	326.5
SC	Winyah	6249	1	D062491	33.330	-79.361	123.1	8.3	6.1	15.8	324.8

EGU Facility Info					EGU Source Parameters						
State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Latitude	Longitude	Stack Height (m)	Base Elev. (m)	Stack Diameter (m)	Exhaust flow (m/s)	Exit Temp. (deg.K)
SC	Winyah	6249	2,3,4	x23	33.330	-79.361	123.1	8.3	4.9	22.9	344.8
TN	Cumberland	3399	1		36.390	-87.654	193.5	120.5	11.6	19.7	321.5
TN	Gallatin	3403	1,2	D03403C12	36.316	-86.401	152.7	165.9	7.6	21.8	419.3
TN	Gallatin	3403	3,4	D03403C34	36.316	-86.401	152.7	165.9	7.6	24.6	411.5
TN	John Sevier	3405	1,2	D03405C12	36.377	-82.964	106.7	337.7	7.0	16.6	416.5
TN	John Sevier	3405	3,4	D03405C34	36.377	-82.964	106.7	337.7	7.0	16.6	416.5
TN	Johnsonville	3406	1 thru 10	D03406C10	36.028	-87.986	182.9	118.1	9.8	41.8	424.8
TN	Kingston	3407	1,2,3,4,5	D03407C15	35.899	-84.519	304.8	443.0	7.9	34.7	424.3
TN	Kingston	3407	6,7,8,9	D03407C69	35.899	-84.519	304.8	443.0	7.9	34.7	424.3
TX	Big Brown	3497	1		31.821	-96.054	155.45	90	4.5	18.9	380.9
TX	Big Brown	3497	2		31.821	-96.054	155.45	90	4.5	18.9	380.9
TX	H W Pirkey Power Plant	7902	1		32.464	-94.487	160.02	90	7.6	25.9	338.7
TX	Limestone	298	LIM1		31.419	-96.256	137.16	90	7.9	27.4	394.3
TX	Limestone	298	LIM2		31.419	-96.256	137.16	90	7.9	27.4	394.3
TX	Martin Lake	6146	1		32.259	-94.569	155.45	90	4.5	18.9	380.9
TX	Martin Lake	6146	2		32.259	-94.569	155.45	90	4.5	18.9	380.9
TX	Martin Lake	6146	3		32.259	-94.569	155.45	90	4.5	18.9	380.9
TX	Monticello	6147	1		33.088	-95.038	155.45	90	4.5	18.9	380.9
TX	Monticello	6147	2		33.088	-95.038	155.45	90	4.5	18.9	380.9
TX	Monticello	6147	3		33.088	-95.038	155.45	90	4.5	18.9	380.9
TX	Welsh Power Plant	6139	1		33.055	-94.840	91.44	90	5.2	48.8	422.0
TX	Welsh Power Plant	6139	2		33.055	-94.840	91.44	90	5.2	48.8	422.0
TX	Welsh Power Plant	6139	3		33.055	-94.840	91.44	90	5.2	48.8	394.3
VA	Bremo Power Station	3796	4	D037964	37.709	-78.288	61.0	70.4	4.6	13.7	402.0
VA	Chesapeake Energy Center	3803	1	D038031	36.772	-76.309	53.3	7.0	4.0	17.7	414.3

EGU Facility Info					EGU Source Parameters						
State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Latitude	Longitude	Stack Height (m)	Base Elev. (m)	Stack Diameter (m)	Exhaust flow (m/s)	Exit Temp. (deg.K)
VA	Chesapeake Energy Center	3803	2	D038032	36.772	-76.309	53.3	7.0	4.0	17.7	414.3
VA	Chesapeake Energy Center	3803	3	D038033	36.772	-76.309	61.0	7.0	3.7	21.1	413.2
VA	Chesapeake Energy Center	3803	4	D038034	36.772	-76.309	61.0	7.0	4.3	21.3	382.0
VA	Chesterfield Power Station	3797	4	D037974	37.374	-77.406	61.0	31.8	4.0	22.3	435.4
VA	Chesterfield Power Station	3797	5	D037975	37.374	-77.406	61.0	31.8	5.2	21.6	402.6
VA	Chesterfield Power Station	3797	6	D037976	37.374	-77.406	127.7	31.8	6.1	30.5	402.0
VA	Chesterfield Power Station	3797	(3),7,8A	x28	37.374	-77.406	61.0	31.8	4.0	14.0	415.4
VA	Clinch River	3775	1,2	D03775C02	36.933	-82.199	137.2	465.9	4.8	31.1	410.9
VA	Yorktown Power Station	3809	3	D038093	37.221	-76.458	149.0	0.0	6.9	33.5	415.9
VA	Yorktown Power Station	3809	1,2	D03809CS0	37.221	-76.458	98.8	0.0	5.2	32.8	402.0
WI	Columbia	8023	1	D080231	43.486	-89.420	152.4	245.1	6.1	32.6	407.0
WI	Columbia	8023	2	D080232	43.486	-89.420	198.1	245.1	6.1	32.6	411.5
WI	Edgewater (4050)	4050	5		43.715	-87.709	167.3	183.9	4.9	29.1	406.5
WI	Genoa	4143	1		43.559	-91.233	152.4	193.8	4.6	27.8	429.3
WI	Nelson Dewey	4054	2		42.723	-91.009	107.9	190.1	3.7	18.3	424.8
WI	South Oak Creek	4041	7, 8	D04041CS4	42.846	-87.829	169.8	186.7	5.2	27.8	397.6
WV	Albright Power Station	3942	3	D039423	39.489	-79.637	68.6	371.4	3.2	31.7	426.5
WV	Fort Martin Power Station	3943	1	D039431	39.711	-79.928	167.6	247.0	7.5	17.6	325.4
WV	Fort Martin Power Station	3943	2	D039432	39.711	-79.928	167.6	247.0	7.5	17.6	325.4
WV	Harrison Power Station	3944	1 (25%), 2 (20%)	D03944C01	39.384	-80.333	305.1	297.9	7.9	16.8	338.7
WV	John E Amos	3935	3	D039353	38.473	-81.823	275.2	179.5	13.0	15.3	326.5
WV	John E Amos	3935	1,2	D03935C02	38.473	-81.823	275.2	179.5	10.3	15.2	326.5
WV	Kammer	3947	1,2,3	D03947C03	39.846	-80.819	274.3	198.5	7.0	29.9	427.6
WV	Kanawha River	3936	1,2	D03936C02	38.206	-81.421	99.1	190.6	6.0	20.1	430.9

EGU Facility Info					**EGU Source Parameters**						
State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Latitude	Longitude	Stack Height (m)	Base Elev. (m)	Stack Diameter (m)	Exhaust flow (m/s)	Exit Temp. (deg.K)
WV	Longview Power	56671	1		39.708	-79.959	168.9	343.7	7.8	16.5	324.8
WV	Mitchell (WV)	3948	1,2	D03948C02	39.830	-80.815	304.8	203.2	10.3	14.9	326.5
WV	Mount Storm Power Station	3954	1,2	D03954CS0	39.201	-79.267	226.5	1012.1	8.8	29.2	319.3
WV	Mountaineer (1301)	6264	1	D062641	38.979	-81.934	304.8	180.3	13.0	15.1	327.0
WV	Phil Sporn	3938	11,21,31, 41	D03938C04	38.967	-81.923	182.9	181.2	6.6	28.7	417.6
WV	Pleasants Power Station	6004	1	D060041	39.367	-81.294	195.1	193.6	8.8	13.8	338.7
WV	Pleasants Power Station	6004	2	D060042	39.367	-81.294	195.1	193.6	8.8	13.8	338.7

B.2 Industrial and Institutional Source Parameters

Industrial and Institutional Source Parameters

State	Facility Name	Facility/ ORIS ID	Unit IDs	Latitude	Longitude	Stack Height (m)	Base Elev. (m)	Stack Diameter (m)	Exhaust flow (m/s)	Exit Temp. (deg.K)
LARGE EMITTING STACKS										
IL	Aventine Renewable Energy Inc	8065311	48	40.555	-89.663	61.0	140.5	1.829	26.8	454.8
IL	Aventine Renewable Energy Inc	8065311	49	40.555	-89.663	61.0	140.2	3.048	7.7	435.4
IL	Tate & Lyle Ingredients Americas LLC	7793311	292	39.848	-88.928	91.4	205.8	2.438	8.6	410.9
IN	ArcelorMittal Burns Harbor Inc.	7376511	4	41.637	-87.139	68.0	188.1	3.200	14.4	505.4
IN	ArcelorMittal Burns Harbor Inc.	7376511	5	41.637	-87.139	68.0	188.1	3.374	14.1	505.4
IN	ArcelorMittal Burns Harbor Inc.	7376511	8	41.637	-87.139	67.1	188.1	3.587	11.2	505.4
IN	ArcelorMittal Burns Harbor Inc.	7376511	13	41.629	-87.144	76.8	188.1	3.780	7.2	547.0
IN	ArcelorMittal Burns Harbor Inc.	7376511	14	41.627	-87.144	75.9	188.1	4.045	4.8	505.4
IN	ArcelorMittal Burns Harbor Inc.	7376511	31	41.638	-87.140	61.3	188.1	3.484	15.8	519.3
IN	ArcelorMittal Burns Harbor Inc.	7376511	34	41.639	-87.140	61.3	188.4	3.594	14.9	519.3
IN	BALL STATE UNIVERSITY	4873211	1	40.209	-85.407	45.7	285.7	0.914	15.2	560.9
IN	BALL STATE UNIVERSITY	4873211	2	40.209	-85.407	45.7	285.7	0.914	15.2	560.9
IN	Citizens Thermal	4885311	1	39.763	-86.166	82.9	214.3	4.420	4.6	566.5
IN	Citizens Thermal	4885311	4	39.763	-86.166	82.9	213.7	4.642	4.7	463.7
IN	ELI LILLY & COMPANY CLINTON LABS	8223611	2	39.718	-87.395	54.9	160.4	1.829	11.5	416.5
IN	ESSROC Cement Corp	8198511	15	38.414	-85.752	45.7	144.2	0.914	16.3	422.0
IN	SABIC INNOVATIVE PLASTICS MT. VERNON LLC	7364611	1	37.907	-87.927	45.7	121.0	0.914	51.8	449.8
IN	TATE & LYLE, LAFAYETTE SOUTH (33)	7376411	4	40.376	-86.844	76.2	200.3	3.658	14.2	338.7
IN	UNIVERSITY OF NOTRE DAME DU LAC	5552011	2	41.705	-86.237	48.8	223.8	1.219	38.6	435.9
IN	US STEEL GARY WORKS	8192011	0	41.617	-87.322	45.7	184.1	0.914	15.2	310.9
KY	E I Dupont Inc	6096411	1	38.555	-82.789	61.0	166.2	0.914	27.2	37.0

Industrial and Institutional Source Parameters

State	Facility Name	Facility/ ORIS ID	Unit IDs	Latitude	Longitude	Stack Height (m)	Base Elev. (m)	Stack Diameter (m)	Exhaust flow (m/s)	Exit Temp. (deg.K)
KY	Isp Chemicals Inc.	7365311	0AA	37.048	-88.359	30.5	105.5	1.600	9.4	477.6
MD	Luke Paper Company	7763811	001-0011-3-0018	39.472	-79.058	189.9	292.1	3.353	22.9	422.0
MD	Luke Paper Company	7763811	001-0011-3-0019	39.472	-79.058	189.9	292.1	3.353	22.9	422.0
MD	Luke Paper Company	7763811	001-0011-6-0235	39.472	-79.058	67.1	292.1	2.615	15.2	422.0
MD	Naval Support Facility, Indian Head	6117011	017-0040-3-0006	38.587	-77.173	32.0	25.0	1.524	3.0	477.6
MD	Sparrows Point, LLC	8239711	005-0147-6-0939	39.217	-76.476	30.5	3.7	1.219	7.6	810.9
MD	Sparrows Point, LLC	8239711	005-0147-6-0941	39.217	-76.476	6.1	3.7	91.440	9.1	394.3
MI	ESCANABA PAPER COMPANY	8126511	SV0117	45.804	-87.091	100.6	187.8	3.353	21.1	454.3
MI	St. Marys Cement, Inc. (U.S.)	8160611	SV0009	45.318	-85.298	98.5	182.6	3.353	24.8	384.3
MI	St. Marys Cement, Inc. (U.S.)	8160611	SV0011	45.316	-85.302	68.3	183.2	1.981	17.0	379.8
MI	U S STEEL GREAT LAKES WORKS	8483611	FUG001	42.282	-83.110	6.1	177.4	91.440	0.01	295.4
NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Big Bill/PG	35.536	-82.842	71.5	787.8	4.785	10.1	473.7
NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-No. 4 PB	35.536	-82.842	83.8	787.8	2.438	18.3	448.7
NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Recovery 10	35.536	-82.842	61.9	787.8	3.658	15.4	422.0
NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Riley Bark	35.536	-82.842	34.7	787.8	2.438	17.9	332.0
NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Riley Coal	35.536	-82.842	45.7	787.8	2.743	18.2	495.4
NC	DAK Americas LLC	8122511	ES-01	34.322	-78.040	53.3	7.3	1.579	20.7	449.8
NC	DAK Americas LLC	8122511	ES-02	34.322	-78.040	53.3	7.3	1.579	20.7	449.8
NY	ALCOA MASSENA OPERATIONS (WEST PLANT)	7968211	SA398	44.940	-74.880	23.8	59.1	1.798	12.0	346.5

Industrial and Institutional Source Parameters

State	Facility Name	Facility/ ORIS ID	Unit IDs	Latitude	Longitude	Stack Height (m)	Base Elev. (m)	Stack Diameter (m)	Exhaust flow (m/s)	Exit Temp. (deg.K)
NY	CARGILL SALT CO-WATKINS GLEN PLANT	8176611	1	42.380	-76.860	32.3	140.9	2.134	3.0	438.7
NY	INTERNATIONAL PAPER TICONDEROGA MILL	7991711	44	43.892	-73.399	62.5	53.4	3.932	12.2	334.8
NY	KODAK PARK DIVISION	8091511	4	43.200	-77.640	124.7	131.7	4.572	8.4	358.7
NY	LAFARGE BUILDING MATERIALS INC	8105211	43101	42.490	-73.810	106.7	61.6	6.096	14.2	477.6
NY	MORTON SALT DIV	7814711	1	42.650	-78.080	38.1	431.1	2.591	5.2	472.0
OH	Cargill, Incorporated - Salt Division (Akron, OH) (1677010027)	7416411	250250	41.044	-81.543	53.3	295.4	1.615	19.6	441.5
OH	City of Akron Steam Generating (1677010757)	8170411	253630	41.072	-81.529	73.5	296.3	4.877	3.1	533.2
OH	DTE St. Bernard, LLC (1431394148)	9301711	2170429	39.176	-84.502	64.9	154.6	2.134	24.0	427.6
OH	Fluor-B&W Portsmouth LLC (0666005004)	15485811	146164	39.006	-82.999	33.2	204.6	1.829	7.5	455.4
OH	Fluor-B&W Portsmouth LLC (0666005004)	15485811	146165	39.007	-82.999	33.2	204.6	1.829	7.5	455.4
OH	Kraton Polymers U.S. LLC (0684010011)	8130511	152405	39.280	-81.639	53.3	191.2	1.585	26.3	494.3
OH	Kraton Polymers U.S. LLC (0684010011)	8130511	152407	39.280	-81.639	53.3	191.5	1.585	26.3	494.3
OH	Morton Salt, Inc. (0285020059)	7997111	65589	40.969	-81.776	48.8	291.5	1.829	12.0	463.7
OH	Morton Salt, Inc. (0285020059)	7997111	65590	40.969	-81.776	48.8	291.5	1.829	12.0	463.7
OH	P. H. Glatfelter Company - Chillicothe Facility (0671010028)	8131111	147671	39.322	-82.973	144.8	188.1	4.267	21.5	429.3
OH	The Medical Center Company (1318003059)	8252111	184509	41.496	-81.621	62.8	210.4	1.981	10.7	410.9
OH	Youngstown Thermal (0250110024)	7219511	56897	41.081	-80.657	38.1	322.3	1.615	9.2	477.6
PA	AMER REF GROUP/BRADFORD	6532511	S13	41.967	-78.630	65.5	433.2	2.438	15.5	449.8

Industrial and Institutional Source Parameters

State	Facility Name	Facility/ ORIS ID	Unit IDs	Latitude	Longitude	Stack Height (m)	Base Elev. (m)	Stack Diameter (m)	Exhaust flow (m/s)	Exit Temp. (deg.K)
PA	APPLETON PAPERS/SPRING MILL	7872711	S09	40.339	-78.405	52.4	353.7	2.438	8.9	324.8
PA	APPLETON PAPERS/SPRING MILL	7872711	S18	40.339	-78.405	67.1	353.7	1.219	52.5	449.8
PA	APPLETON PAPERS/SPRING MILL	7872711	S28	40.339	-78.405	67.1	354.3	1.219	52.5	449.8
PA	HERCULES CEMENT CO LP/STOCKERTOWN	3881611	S03	40.750	-75.271	47.5	111.0	3.962	11.1	477.6
PA	INTL WAXES INC/FARMERS VALLEY	6582111	S02	41.863	-78.448	61.0	489.9	2.286	14.2	566.5
PA	KEYSTONE PORTLAND CEMENT/EAST ALLEN	6582211	S73	40.716	-75.398	57.9	124.4	1.524	69.5	375.9
PA	Penn State Univ	3186811	S01	40.793	-77.865	59.7	354.9	2.438	10.1	449.8
PA	SUNOCO INC (R&M)/MARCUS HOOK REFINERY	7873611	S60	39.814	-75.414	36.6	3.7	4.572	22.0	699.8
PA	TEAM TEN/TYRONE PAPER MILL	9248211	S01	40.680	-78.236	71.6	281.1	1.829	15.8	383.2
PA	UNITED REFINING CO/WARREN PLT	4966711	S27	41.830	-79.124	45.7	369.5	2.134	16.5	477.6
TN	Cargill Corn Milling	5723011	8001	35.081	-90.133	65.5	72.0	0.610	4.6	295.4
TN	Cargill Corn Milling	5723011	8301	35.081	-90.134	65.5	73.5	2.743	4.6	295.4
TN	EASTMAN CHEMICAL COMPANY	3982311	B2531	36.519	-82.535	76.2	375.9	2.438	16.8	419.3
TN	EASTMAN CHEMICAL COMPANY	3982311	B3251	36.516	-82.533	114.3	378.0	3.048	36.3	344.3
TN	EASTMAN CHEMICAL COMPANY	3982311	B831	36.519	-82.539	70.1	372.0	4.267	18.6	442.6
TN	PACKAGING CORPORATION OF AMERICA	4963011	ST1198	35.047	-88.268	76.2	144.8	3.901	12.2	435.9
VA	GP Big Island LLC	4183311	1	37.534	-79.358	55.5	204.3	2.134	19.8	472.0
VA	Radford Army Ammunition Plant	5748611	1	37.180	-80.542	76.2	558.2	3.353	5.7	449.8
VA	Roanoke Cement Company	5039811	4	37.459	-79.995	106.7	425.6	3.048	28.8	388.7
WV	BAYER CROPSCIENCE	5782411	8	38.381	-81.772	61.0	182.6	2.896	19.8	449.8
WV	CAPITOL CEMENT - ESSROC MARTINSBURG	4987611	71	39.435	-77.978	133.2	153.0	5.182	22.9	358.2

Industrial and Institutional Source Parameters

State	Facility Name	Facility/ ORIS ID	Unit IDs	Latitude	Longitude	Stack Height (m)	Base Elev. (m)	Stack Diameter (m)	Exhaust flow (m/s)	Exit Temp. (deg.K)
WV	DUPONT WASHINGTON WORKS	4878911	477	39.269	-81.670	45.7	191.5	2.743	13.6	457.6
IN	ALCOA INC. - WARRICK OPERATIONS	8181811		37.918	-87.326	31.7	120.1	1.859	83.8	588.7
IN	ArcelorMittal Burns Harbor Inc.	7376511		41.627	-87.144	67.1	187.2	3.435	13.3	505.4
IN	Indiana Harbor East	3986511		41.667	-87.442	47.2	179.9	4.420	2.4	449.8
IN	INDIANA UNIVERSITY	4553211		39.174	-86.520	76.2	243.9	1.433	45.7	466.5
IN	SABIC INNOVATIVE PLASTICS MT. VERNON LLC	7364611		37.907	-87.927	45.7	122.0	0.914	9.6	422.0
IN	US STEEL GARY WORKS	8192011		41.617	-87.313	45.7	182.3	0.914	15.2	326.5
KY	Century Aluminum Sebree LLC	7352311		37.657	-87.501	27.4	138.7	0.966	7.8	431.5
ACCUMULATED EMISSIONS										
MA	SOLUTIA INCORPORATED	7236411		42.157	-72.528	59.7	45.7	2.134	7.3	397.0
MD	Sparrows Point, LLC	8239711		39.217	-76.476	53.3	4.9	3.505	26.2	522.0
ME	FMC BIOPOLYMER	5692011		44.107	-69.104	39.9	3.0	1.219	3.0	495.9
ME	HUHTAMAKI INC - WATERVILLE	5691611		44.577	-69.610	31.7	33.5	1.859	0.03	588.7
ME	Madison Paper	5253911		44.798	-69.886	76.2	74.7	1.433	45.7	466.5
ME	SAPPI - SOMERSET	8200111		44.702	-69.649	83.8	58.8	4.328	29.4	464.3
ME	THE JACKSON LABORATORY	7945211		44.366	-68.196	28.0	51.8	0.914	11.4	449.8
ME	VERSO PAPER - ANDROSCOGGIN MILL	7764711		44.506	-70.239	73.2	126.5	4.572	16.3	478.7
ME	WOODLAND PULP LLC	5974211		45.155	-67.401	68.6	39.6	3.566	6.7	335.4
MI	U S STEEL GREAT LAKES WORKS	8483611		42.282	-83.110	31.1	178.0	4.267	1.6	477.6
NC	KapStone Kraft Paper Corporation	8048011		36.477	-77.645	64.9	21.3	2.591	10.1	333.2
NH	DARTMOUTH COLLEGE	7199811		43.701	-72.288	53.3	158.5	3.048	6.6	468.7
NH	GORHAM PAPER & TISSUE LLC	7866711		44.447	-71.187	64.9	274.4	3.200	12.7	483.2
NJ	Atlantic County Utilities Authority Landfill	8093211		39.424	-74.536	4.9	10.7	0.335	1.9	550.4

Industrial and Institutional Source Parameters

State	Facility Name	Facility/ ORIS ID	Unit IDs	Latitude	Longitude	Stack Height (m)	Base Elev. (m)	Stack Diameter (m)	Exhaust flow (m/s)	Exit Temp. (deg.K)
NJ	Gerresheimer Moulded Glass	12804611		39.411	-75.035	21.3	14.3	1.143	13.8	449.8
NY	FINCH PAPER LLC	8325211		43.309	-73.635	68.0	88.4	1.890	8.4	302.6
NY	NORLITE CORP	8090911		42.755	-73.703	36.6	18.3	1.219	19.2	330.4
OH	AK Steel Corporation (1409010006)	8008811		39.482	-84.358	64.9	201.2	2.591	10.1	333.2
OH	BDM Warren Steel Operations, LLC (0278000463)	8063611		41.211	-80.814	51.8	269.8	3.658	4.5	394.3
OH	Youngstown Thermal (0250110024)	7219511		41.106	-80.657	38.1	268.6	1.615	9.2	477.6
PA	INTL WAXES INC/FARMERS VALLEY	6582111		41.863	-78.448	39.6	442.7	1.676	14.2	566.5
PA	PHILA ENERGY SOL REF/ PES	6652211		39.914	-75.199	61.0	9.1	3.962	22.6	449.8
PA	PPG IND INC/WORKS NO 6	6463511		40.129	-77.167	29.0	164.6	3.353	15.1	472.0
PA	USS CORP/EDGAR THOMSON WORKS	7409311		40.392	-79.861	50.3	228.7	4.206	41.0	516.5
PA	USS/CLAIRTON WORKS	8204511		40.306	-79.877	52.4	231.7	3.353	23.9	560.9
TN	PACKAGING CORPORATION OF AMERICA	4963011		35.047	-88.269	76.2	144.8	2.438	19.2	469.3
VA	Huntington Ingalls Incorporated -NN Shipbldg Div	4938811		36.986	-76.436	47.2	4.0	4.420	2.4	449.8
VA	Philip Morris Usa Inc - Park 500	5795511		37.344	-77.283	80.5	4.0	1.463	19.3	463.7
VA	Smurfit Stone Container Corporation - West Point	4182011		37.539	-76.805	45.7	5.2	1.463	8.4	347.0
WV	DUPONT WASHINGTON WORKS	4878911		39.269	-81.670	45.7	192.1	2.286	9.9	439.8

B.3 EGU Source Emissions

State	Facility Name	ORIS ID	Unit IDs	Stack CEMS Unit	2011 SO2 95% (lb/hr)	2011 NOx 95% (lb/hr)	2015 SO2 95% (lb/hr)	2015 NOx 95% (lb/hr)	2011 SO2 Annual (ton/yr)	2011 NOx Annual (ton/yr)
AL	Colbert	47	1, 2, 3, 4	D00047C14	4,852	3,052	9,383	2,649	13,205	8,062
AL	E C Gaston	26	1, 2	D00026CAN	14,999	2,327	7,137	1,045	48,257	7,108
AL	E C Gaston	26	3, 4	D00026CBN	14,260	2,419	6,495	973	41,190	6,807
AL	E C Gaston	26	5		1,514	2,707	8,419	2,587	2,264	3,077
AL	Greene County	10	1		6,325	905	5,893	912	18,111	2,764
AR	Flint Creek Power Plant	6138	1		2,474	1,565	2,193	1,556	8,617	5,324
AR	Independence	6641	1	D066411	5,081	2,346	3,811	1,540	15,306	7,010
AR	Independence	6641	2	D066412	5,142	2,084	3,781	1,287	15,089	6,394
AR	White Bluff	6009	1	D060091	5,741	2,708	4,840	2,133	15,017	7,261
AR	White Bluff	6009	2	D060092	5,522	2,849	4,662	2,244	16,665	8,740
CT	Bridgeport Harbor Station	568	BHB3		657	501	1,008	537	498	361
CT	Middletown	562	4		722	556	489	400	53	36
CT	New Haven Harbor	6156	NHB1		540	316	1,104	577	68	50
DE	Edge Moor	593	5	D005935	554	235	706	187	55	89
DE	Indian River	594	4	D005944	3,405	1,065	1,154	277	5,957	1,736
GA	Bowen	703	1BLR	D007031LR	726	2,101	884	1,018	2,142	2,544
GA	Bowen	703	2BLR	D007032LR	336	2,211	953	789	680	1,929
GA	Bowen	703	3BLR	D007033LR	409	1,010	1,178	737	1,027	1,709
GA	Bowen	703	4BLR	D007034LR	406	2,443	1,110	738	2,038	2,124
GA	Harllee Branch	709	1,2	D00709C01	8,052	1,977	4,661	832	19,113	4,565
GA	Harllee Branch	709	3&4	D00709C02	16,641	3,612	14,841	2,805	30,250	7,525
GA	Jack McDonough	710	MB1, MB2	D00710C01	6,575	1,101	-	-	18,307	3,164
GA	Scherer	6257	1	D062571	5,662	1,439	109	1,573	15,229	3,429
GA	Scherer	6257	2	D062572	5,654	1,337	68	1,226	15,203	3,843
GA	Scherer	6257	4	D062574	5,820	1,309	157	1,509	18,373	4,331

State	Facility Name	ORIS ID	Unit IDs	Stack CEMS Unit	2011 SO2 95% (lb/hr)	2011 NOx 95% (lb/hr)	2015 SO2 95% (lb/hr)	2015 NOx 95% (lb/hr)	2011 SO2 Annual (ton/yr)	2011 NOx Annual (ton/yr)
GA	Yates	728	Y5BR	D00728Y5R	1,901	295	3,101	443	3,201	489
GA	Yates	728	Y6BR	D00728Y6R	8,901	853	7,789	929	18,878	2,280
GA	Yates	889	Y7BR	D00728Y7R	6,591	682	2	946	12,512	1,534
IA	George Neal North	1091	3	D010913	2,505	1,189	1,719	1,076	7,981	3,505
IA	George Neal South	1091	4	D073434	4,811	1,578	2,431	1,373	15,053	4,570
IA	Louisa	6664	101	D06664101	2,652	1,358	2,469	1,292	7,306	3,722
IA	Ottumwa	887	1	D062541	4,916	1,200	2,576	1,321	12,237	3,032
IA	Walter Scott Jr. Energy Center	1082	3	D010823	2,590	1,531	2,400	1,667	9,642	5,311
IL	Baldwin Energy Complex	876	1,2	D008892	7,591	869	986	778	17,306	2,428
IL	Joliet 29	384	81, 82	D00384C82	2,383	578	2,025	480	7,543	1,817
IL	Joppa Steam	887	1, 2	D00887CS1	2,463	448	1,601	364	8,201	1,590
IL	Joppa Steam	887	3, 4	D00887CS2	2,479	407	1,631	353	8,861	1,564
IL	Kincaid Generating Station	876	1, 2	D00876C02	5,085	7,717	932	598	11,789	11,630
IL	Marion	976	4	D009764	2,266	601	992	446	6,488	1,214
IL	Newton	6017	1	D060171	3,681	651	2,673	497	10,817	1,969
IL	Newton	6017	2	D060172	3,431	647	2,542	456	10,054	1,956
IL	Powerton	879	51,52,61,62	D00879C06	7,017	2,198	4,769	1,822	21,835	12,218
IL	Wood River Power Station	898	5	D008985	2,021	580	1,446	436	6,776	2,037
IN	Alcoa Allowance Management Inc	6705	3	x02	310	858	246	663		
IN	Alcoa Allowance Management Inc	6705	4	D067054	777	711	685	963	2,016	1,612
IN	Alcoa Allowance Management Inc	6705	1,2	D06705C02	1,271	4,635	647	1,247		
IN	Cayuga	1001	1	D010011	852	1,362	851	2,054	1,528	4,102
IN	Cayuga	1001	2	D010012	998	1,442	449	1,709	1,768	4,148
IN	Clifty Creek	983	1,2,3	D00983C01	10,927	1,322	986	1,105	36,391	4,022
IN	Clifty Creek	983	4,5,6	D00983C02	14,242	2,321	888	1,548	37,695	6,920

State	Facility Name	ORIS ID	Unit IDs	Stack CEMS Unit	2011 SO2 95% (lb/hr)	2011 NOx 95% (lb/hr)	2015 SO2 95% (lb/hr)	2015 NOx 95% (lb/hr)	2011 SO2 Annual (ton/yr)	2011 NOx Annual (ton/yr)
IN	Gibson	6113	5	D061135	3,700	1,985	4,271	1,738	9,276	2,919
IN	Gibson	6113	1,2,3	D06113C03	2,499	6,295	2,583	2,039	6,699	9,572
IN	Gibson	6113	4	D061135	1,256	4,657	1,441	785	2,112	3,101
IN	IPL - Eagle Valley Generating Station	991	5, 6	D00991C56	2,967	403	2,428	398	6,720	953
IN	IPL - Harding Street Station (EW Stout)	990	70	D0099070	2,213	711	961	789	681	1,081
IN	IPL - Harding Street Station (EW Stout)	990	50	D0099050	3,835	305	3,723	238	8,634	739
IN	IPL - Harding Street Station (EW Stout)	990	60	D0099060	3,480	268	3,387	207	7,940	700
IN	IPL - Petersburg Generating Station	994	3	D009943	3,984	1,463	3,061	2,085	7,569	2,277
IN	IPL - Petersburg Generating Station	994	4	D009944	5,749	1,456	2,179	1,288	13,681	3,743
IN	IPL - Petersburg Generating Station	994	1 (50%)	D00994M1B	4,116	636	5,636	726	1,395	1,514
IN	IPL - Petersburg Generating Station	994	2(50%)	D00994M2B	2,757	1,329	17,177	1,636	2,586	2,125
IN	Merom	6213	2SG1	D062132G1	3,984	523	611	275	4,687	1,671
IN	Michigan City Generating Station	997	12	D0099712	4,116	497	5,203	453	13,352	1,399
IN	R Gallagher	1008	1,2	D01008C01	2,191	803	1,016	451	1,578	703
IN	R Gallagher	1008	3,4	D01008C02	1,940	768	970	393	1,432	643
IN	Rockport	6166	MB1,MB2	D06166C02	18,882	6,490	12,426	5,423	56,727	19,791
IN	Tanners Creek	988	U1,U2,U3	D00988C03	2,971	937	2,904	1,084	5,438	1,853
IN	Tanners Creek	988	U4	D00988U4	9,211	1,407	7,024	1,217	19,656	3,233
IN	Wabash River Gen Station	1010	2,3,4,5,6	D01010C05	18,621	2,324	10,778	1,186	55,343	6,729
IN	Whitewater Valley	1040	1, 2	D01040C12	3,077	223	3,671	273	5,239	375
IN	R M Schahfer Generating Station	6085	14	D0608514	4,144	638	134	622	9,211	1,266
IN	R M Schahfer Generating Station	6085	15	D0608515	3,249	886	98	622	8,413	2,346
KS	La Cygne	1241	1		2,172	745	363	19	3,623	1,796
KS	La Cygne	1241	2	D012412	4,836	2,400	110	17	14,249	6,554

State	Facility Name	ORIS ID	Unit IDs	Stack CEMS Unit	2011 SO2 95% (lb/hr)	2011 NOx 95% (lb/hr)	2015 SO2 95% (lb/hr)	2015 NOx 95% (lb/hr)	2011 SO2 Annual (ton/yr)	2011 NOx Annual (ton/yr)
KS	Nearman Creek	6064	N1		2,567	1,777	1,634	21	5,987	4,202
KS	Quindaro	1295	2		765	454	595	17	2,059	1,007
KS	Tecumseh Energy Center	1252	10		888	513	766	15	2,282	1,412
KY	Big Sandy	1353	BSU1,BSU2	D01353C02	13,686	2,198	12,083	1,688	42,118	6,628
KY	D B Wilson	6823	W1	D06823W1	2,995	406	2,468	358	9,721	1,118
KY	E W Brown	1355	2,3	D01355C03	791	1,599	714	836	952	4,027
KY	East Bend	6018	2	D060182	724	937	807	2,443	1,974	2,660
KY	Ghent	1356	1,2 … (1,4)	D01356C01	1,070	885	988	1,628	2,814	3,657
KY	Ghent	1356	3,4 … (2,3)	D01356C02	3,116	1,608	3,562	1,653	7,969	5,408
KY	Green River	1357	4	D013574	2,897	317	3,434	414	8,190	880
KY	Green River	1357	5	D013575	3,389	346	3,618	419	9,061	913
KY	H L Spurlock	6041	1	D060411	1,082	251	463	213	1,455	829
KY	H L Spurlock	6041	2	D060412	950	445	485	443	2,396	1,554
KY	John S. Cooper	1384	1,2	D01384CS1	6,265	1,226	1,723	457	18,316	3,676
KY	Mill Creek	1364	4	D013644	4,212	807	383	1,276	10,756	1,645
KY	Mill Creek	1364	1,2,3	x05	6,145	2,570	6,518	2,129	19,189	6,848
KY	Paradise	1378	1	D01720C09	4,934	1,031	1,900	656	13,919	2,465
KY	Paradise	1378	2	D013782	5,646	1,068	2,397	781	19,641	3,128
KY	Paradise	1378	3	D013783	3,343	5,717	1,523	1,488	3,945	4,515
KY	Shawnee	1379	1,2,3,4,5	D01379C15	4,170	2,796	4,367	1,382	15,283	7,457
KY	Shawnee	1379	6,7,8,9,10	D01379C60	3,686	1,999	3,747	1,266	12,487	6,421
MA	Brayton Point	1619	1	D016191	2,469	350	391	159	4,298	633
MA	Brayton Point	1619	2	D016192	2,732	556	389	584	3,535	821
MA	Brayton Point	1619	3	D016193	7,369	922	395	340	10,768	1,135
MA	Brayton Point	1619	4	x07	1,073	368	3,240	1,147	45	38
MA	Canal Station	1599	1	D015991	1,380	315	1,908	566	99	20

State	Facility Name	ORIS ID	Unit IDs	Stack CEMS Unit	2011 SO2 95% (lb/hr)	2011 NOx 95% (lb/hr)	2015 SO2 95% (lb/hr)	2015 NOx 95% (lb/hr)	2011 SO2 Annual (ton/yr)	2011 NOx Annual (ton/yr)
MA	Canal Station	1599	2	D015992	922	455	1,534	924	29	13
MA	Salem Harbor Station	1626	3	D016263	1,248	300	-	-	2,323	276
MA	Salem Harbor Station	1626	1		716	175	-	-	877	201
MD	Brandon Shores	602	1	D006021	907	1,841	1,023	419	1,323	2,352
MD	Brandon Shores	602	2	D006022	886	1,957	943	557	1,506	2,513
MD	C P Crane	1552	1	D015521	3,106	866	853	814	2,597	1,195
MD	C P Crane	1552	2	D015522	3,431	973	1,700	1,241	3,085	1,303
MD	Chalk Point	1571	1,2	D01571CE2	7,656	1,424	1,668	46	5,662	3,992
MD	Dickerson	1572	1,2,3	D01572C23	756	1,140	539	1,117	694	1,226
MD	Herbert A Wagner	1554	3	D015543	2,752	604	3,550	156	6,117	645
MD	Herbert A Wagner	1554	1,2,4	x08	1,543	587	2,692	626	2,994	1,030
MD	Morgantown	1573	1	D015731	5,682	295	1,044	228	3,243	633
MD	Morgantown	1573	2	D015732	902	234	923	228	1,923	560
ME	William F Wyman	1507	1		146	46	398	151	58	17
ME	William F Wyman	1507	2		138	47	405	150	35	12
ME	William F Wyman	1507	3		291	56	789	178	76	16
ME	William F Wyman	1507	4	D015074	2,058	498	3,918	1,272	284	61
MI	Belle River	6034	1	D060341	4,199	1,494	3,754	1,614	10,843	3,590
MI	Belle River	6034	2	D060342	4,275	1,499	4,234	1,613	14,986	5,088
MI	Dan E Karn	1702	3,4 (1,2)	D01702C09	2,581	926	736	204	10,967	1,228
MI	Dan E Karn	1720	7, 8	D01720C09	2,625	729	2,288	569	7,684	2,451
MI	J H Campbell	1710	A,B,1,2	D01710C09	4,322	1,365	3,278	484	10,979	3,694
MI	J H Campbell	1710	3 (50%)	D01710M3A	4,850	1,688	4,371	475	15,531	3,341
MI	Monroe	1733	1,2	D01733C12	14,821	4,697	438	892	47,546	12,275
MI	Monroe	1733	3,4	D01733C34	1,101	1,437	731	868	1,521	2,952
MI	River Rouge	1740	3	D017403	2,030	862	2,006	957	4,709	1,902

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MI	St. Clair	1743	6	D017436	3,950	475	5,038	423	10,537	1,315
MI	St. Clair	1743	7	D017437	6,836	738	4,622	731	13,375	1,798
MI	St. Clair	1743	1,2,3,4	x09	5,271	2,059	3,021	1,489	10,741	5,124
MI	Trenton Channel	1745	16,17,18,19	x10	2,236	895	1,396	397	6,298	2,748
MI	Trenton Channel	1745	9A	D017459A	5,680	827	5,427	752	16,420	2,452
MN	Black Dog	1904	3, 4	D01904CS1	1,068	2,017	1,182	1,703	2,952	5,618
MN	Sherburne County	6090	3	D060903	3,375	1,401	2,397	1,041	7,925	3,260
MN	Sherburne County	6090	1, 2	D06090CS1	4,005	2,442	356	1,847	12,292	8,524
MO	Labadie	2103	1	D021031	4,232	646	2,594	556	14,464	2,400
MO	Labadie	2103	3	D021033	4,484	681	2,407	489	14,285	2,427
MO	Labadie	2103	4	D021034	4,415	675	2,433	471	14,799	2,504
MO	Meramec	2104	3	D021043	1,635	491	1,225	424	4,428	1,549
MO	New Madrid Power Plant	2167	1	D021671	2,549	4,681	2,090	1,747	7,887	6,018
MO	New Madrid Power Plant	2167	2	D021672	2,456	3,522	2,131	1,364	7,070	2,624
MO	Rush Island	6155	1	D061551	4,620	550	2,883	472	12,272	1,588
MO	Rush Island	6155	2	D061552	4,822	530	2,815	452	15,764	1,853
MO	Sibley	2094	1, 2, 3	D02094C01	6,947	1,028	3,702	1,609	13,872	2,460
MO	Sikeston	6768	1	D067681	1,779	599	1,922	313	6,048	2,182
MO	Thomas Hill Energy Center	2168	MB3	D02168MB3	3,845	1,185	2,915	1,912	12,006	3,005
NC	Belews Creek	8042	1	D080421	603	825	1,382	1,903	1,676	2,042
NC	Belews Creek	8042	2	D080422	622	814	1,433	1,798	1,632	1,962
NC	Cape Fear	2708	6		2,336	766	-	-	4,669	1,242
NC	Cliffside	2721	5	D027215	420	342	382	673	308	710
NC	H F Lee Steam Electric Plant	2709	3	D027093	3,184	763	-	-	7,011	1,725
NC	L V Sutton	2713	3	D027133	4,554	1,487	-	-	8,792	2,841
NC	L V Sutton	2713	1, 2	D02713C02	2,682	689	-	-	4,095	1,158

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NC	Marshall	2727	3	D027273	658	422	1,313	1,105	1,291	828
NC	Marshall	2727	4	D027274	635	1,606	833	1,664	1,291	828
NC	Marshall	2727	1,2	x11	789	1,532	1,008	1,719	1,305	4,734
NC	Mayo	6250	1A,1B	D06250C05	3,478	769	1,612	1,235	7,198	1,502
NC	Riverbend	2732	9		1,836	234	-	-	2,381	317
NC	Roxboro	2712	1	D027121	786	643	1,005	451	1,649	1,096
NC	Roxboro	2712	2	D027122	1,257	664	1,710	940	1,863	929
NC	Roxboro	2712	3A,3B	D02712C03	1,226	1,125	2,042	1,169	2,720	2,512
NC	Roxboro	2712	4A,4B	D02712C04	1,379	895	2,124	1,037	3,101	2,247
NE	Nebraska City Station	6096	1	D060961	4,761	1,406	4,421	1,466	15,062	4,776
NH	Merrimack	2364	1	D023641	4,113	390	244	421	8,130	1,016
NH	Merrimack	2364	2	D023642	8,216	878	699	1,024	14,290	1,979
NH	Newington	8002	1	D080021	2,127	390	1,566	989	304	118
NH	Schiller	2367	4		597	162	498	145	878	234
NH	Schiller	2367	6		603	165	502	124	827	218
NJ	B L England	2378	2,3	x12	839	641	717	637	1,030	174
NJ	B L England	2378	1		2,729	442	-	-	1,030	174
NJ	Hudson Generating Station	2403	2	D024032	667	494	473	379	971	715
NJ	Mercer Generating Station	2408	1	D024081	408	275	226	245	312	227
NJ	Mercer Generating Station	2408	2	D024082	360	252	257	269	260	197
NY	Cayuga Operating Company, LLC	2535	1 (33%), 2 (33%)	D02535C01	7,104	902	2,075	434	10,492	1,828
NY	CCI Roseton LLC	8006	1	D080061	-	-	1,795	764	142	19
NY	CCI Roseton LLC	8006	2	D080062	719	415	2,048	864	138	12
NY	Dynegy Danskammer	2480	1,2,3	x13	1,364	372	28	369	1,658	424
NY	Huntley Power	2549	67,68	D02549C01	2,179	612	1,363	289	4,882	1,229
NY	Northport	2516	3	D025163	441	189	1,865	475	265	26

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NY	Northport	2516	1,2,4,ugt001	x14	774	464	3,604	907	34	201
NY	NRG Dunkirk Power	2554	3	D02554C03	1,022	304	-	-	2,104	651
NY	Oswego Harbor Power	2594	5	D025945	4,462	1,053	1,855	1,028	258	55
NY	Oswego Harbor Power	2594	6	x15	2,981	922	2,106	892	116	35
NY	Somerset Operating Company (Kintigh)	6082	1	D060821	3,456	1,821	3,355	880	10,024	5,437
OH	Avon Lake Power Plant	2836	12	D0283612	14,725	2,405	19,476	2,490	31,449	4,581
OH	Cardinal	2828	3	D028283	8,107	504	645	591	20,299	982
OH	Cardinal	2828	1	D028281	1,962	342	2,121	545	3,164	666
OH	Cardinal	2828	2	D028282	1,418	368	1,907	577	1,649	574
OH	Conesville	2840	5,6	D02840C06	1,398	2,713	1,976	2,059	1,880	7,426
OH	Conesville	2840	4	D028504	1,018	549	1,453	580	1,803	1,027
OH	Eastlake	2837	1	D028371	2,573	335	4,480	412	4,305	815
OH	Eastlake	2837	2	D028372	2,482	304	3,641	352	3,057	509
OH	Eastlake	2837	3	D028373	2,138	280	4,635	397	3,329	606
OH	Eastlake	2837	4,6	x17	1,569	518	-	-	3,337	1,182
OH	Eastlake	2837	5	D028375	11,449	1,722	-	-	34,805	5,329
OH	Gen J M Gavin	8102	1	D081021	6,503	1,097	6,843	2,161	17,198	3,502
OH	Gen J M Gavin	8102	2	D081022	6,587	1,125	6,407	1,934	16,063	3,471
OH	J M Stuart	2850	4	D028404	2,667	900	1,306	808	1,578	1,031
OH	J M Stuart	2850	1	D028501	957	581	1,494	713	967	962
OH	J M Stuart	2850	2	D028502	559	750	1,317	833	686	830
OH	J M Stuart	2850	3	D028503	1,001	745	2,066	927	990	1,058
OH	Killen Station	6031	2	D060312	2,942	1,413	4,052	3,235	7,721	3,620
OH	Kyger Creek	2876	1,2,3,4,5	D02876C01	87,122	14,140	3,463	2,062	142,926	8,864
OH	Miami Fort Generating Station	2832	7	D028327	1,208	984	2,054	1,472	2,765	2,455

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OH	Miami Fort Generating Station	2832	5-1, 5-2, 6	D02832C06	73	6	5,526	269	21,756	1,673
OH	Miami Fort Power Station	2832	8	D028328	1,060	976	2,173	795	2,386	1,947
OH	Muskingum River	2872	5	D028725	10,977	442	17,811	540	19,460	829
OH	Muskingum River	2872	1,2,3,4	D02872C04	34,938	3,401	8,483	1,120	84,601	7,975
OH	W H Sammis	2866	5	D028665	216	644	212	323	430	888
OH	W H Sammis	2866	6	D02866M6A	538	664	527	740	710	724
OH	W H Sammis	2866	7	D028667	520	793	524	687	1,541	2,108
OH	W H Sammis	2866	1,2	D02866C01	356	853	1,741	622	446	873
OH	W H Sammis	2866	3,4	D02866C02	338	852	1,654	556	800	2,108
OH	W H Zimmer Generating Station	6019	1	D060191	8,985	4,884	5,569	4,158	18,044	8,394
OH	Walter C Beckjord Generating Station	2830	6	D028306	26,485	1,910	-	-	57,308	4,223
OH	Walter C Beckjord Generating Station	2830	5 (50%)	D02830M51	10,694	833	-	-	30,556	2,449
OK	Grand River Dam Authority	165	1	D001651	4,240	2,208	3,282	15	14,789	7,594
OK	Hugo	6772	1	D067721	2,751	805	-	-	9,272	2,729
OK	Muskogee	2952	5	D029525	3,151	1,939	2,805	12	8,322	5,243
OK	Muskogee	2952	4		3,341	2,258	2,231	38	9,417	5,749
OK	Northeastern	2963	3313, 3314	D02963C10	6,123	4,836	4,621	1,513	17,887	15,760
OK	Sooner	6095	1		3,367	1,895	2,618	12	9,464	5,447
OK	Sooner	6095	2	D060952	3,266	1,937	2,685	12	9,630	5,679
PA	Armstrong Power Station	3178	1	D031781	4,331	519	1	48	12,496	1,482
PA	Armstrong Power Station	3178	2	D031782	4,247	552	1	34	13,243	1,625
PA	Brunner Island	3140	3	D031403	3,387	2,637	2,878	2,530	9,311	9,019
PA	Brunner Island	3140	1,2	D03140C12	2,966	2,291	3,049	2,271	3,625	3,444
PA	Cheswick	8226	1	D082261	12,300	1,883	1,367	1,849	9,289	3,292
PA	Hatfield's Ferry Power Station	3179	3	x20	370	2,515	-	-	801	7,972

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PA	Homer City	3122	1	D031221	15,950	1,084	21,155	2,907	41,849	2,624
PA	Homer City	3122	2	D031222	15,967	1,323	18,664	2,624	37,348	2,768
PA	Homer City	3122	3	D031223	1,970	1,451	2,598	2,951	4,390	3,623
PA	Keystone	3136	1	D031361	8,739	3,285	5,843	3,153	21,834	9,616
PA	Keystone	3136	2	D031362	8,706	3,261	5,594	3,096	24,598	11,145
PA	Martins Creek	3148	3,4	x21	1,413	3,078	56	2,070	272	452
PA	Montour	3149	1	D031491	3,574	2,874	2,934	2,763	8,281	6,513
PA	Montour	3149	2	D031492	3,612	2,603	2,410	2,746	9,482	6,202
PA	Portland	3113	2 (1)	d031131	3,931	332	-	-	4,845	443
PA	Portland	3113	3 (2)	d031132	6,207	873	-	-	10,301	1,521
PA	Shawville	3131	1	D031311	1,272	340	4,100	682	4,824	723
PA	Shawville	3131	2	D031312	1,259	319	3,848	601	4,469	687
PA	Shawville	3131	3,4	D03131CS1	7,751	980	7,305	1,059	15,885	2,115
PA	Sunbury	3152	3	D031523	3,172	316	-	-	4,041	422
PA	Sunbury	3152	4	D031524	3,638	333	-	-	5,763	555
PA	Sunbury	3152	1A, 1B	D03152CS1	2,566	251	-	-	2,288	368
SC	Canadys Steam	3280	CAN3	D03280CN3	3,840	669	-	-	7,200	1,201
SC	H B Robinson	3251	1	D032511	2,661	873	-	-	4,514	1,606
SC	Jefferies	3319	3		3,860	696	-	-	3,189	613
SC	Jefferies	3319	4		3,847	713	-	-	3,308	581
SC	McMeekin	3287	MCM1	D03287MM1	1,211	288	785	259	3,501	898
SC	McMeekin	3287	MCM2	D03287MM2	1,270	268	863	273	3,717	908
SC	Urquhart	3295	URQ3	D03295UQ3	1,891	245	1	59	4,703	572
SC	Wateree	3297	WAT1	D03297WT1	4,638	654	122	380	1,648	126
SC	Wateree	3297	WAT2	D03297WT2	3,814	507	121	333	1,693	122
SC	Williams	3298	WIL1	D03298WL1	348	924	788	714	607	1,528

State	Facility Name	ORIS ID	Unit IDs	Stack CEMS Unit	2011 SO2 95% (lb/hr)	2011 NOx 95% (lb/hr)	2015 SO2 95% (lb/hr)	2015 NOx 95% (lb/hr)	2011 SO2 Annual (ton/yr)	2011 NOx Annual (ton/yr)
SC	Winyah	6249	1	D062491	147	252	134	216	275	663
SC	Winyah	6249	2,3,4	x23	1,318	831	606	609	3,235	2,104
TN	Cumberland	3399	1		1,901	803	1,639	1,084	3,836	1,932
TN	Gallatin	3403	1,2	D03403C12	3,232	728	3,377	780	10,833	2,721
TN	Gallatin	3403	3,4	D03403C34	3,633	834	5,122	3,199	12,404	3,201
TN	John Sevier	3405	1,2	D03405C12	4,223	764	-	-	8,016	1,571
TN	John Sevier	3405	3,4	D03405C34	4,117	768	-	-	7,194	1,525
TN	Johnsonville	3406	1 thru 10	D03406C10	14,104	2,868	8,473	768	36,572	7,775
TN	Kingston	3407	1,2,3,4,5	D03407C15	6,500	420	473	372	14,331	856
TN	Kingston	3407	6,7,8,9	D03407C69	7,050	384	488	344	11,716	636
TX	Big Brown	3497	1		10,877	857	8,857	836	30,070	2,754
TX	Big Brown	3497	2		11,425	857	8,496	857	34,127	3,040
TX	H W Pirkey Power Plant	7902	1		5,029	1,308	1,300	1,139	7,255	4,279
TX	Limestone	298	LIM1		4,152	1,982	3,112	1,547	11,545	6,762
TX	Limestone	298	LIM2		4,467	2,119	3,896	1,655	13,470	7,410
TX	Martin Lake	6146	1		8,164	1,598	5,744	1,308	24,728	5,570
TX	Martin Lake	6146	2		7,645	1,317	4,384	1,218	24,436	5,021
TX	Martin Lake	6146	3		6,989	1,371	5,440	1,254	19,767	4,590
TX	Monticello	6147	1		6,393	838	5,860	701	21,897	2,695
TX	Monticello	6147	2		6,022	740	6,630	713	18,436	2,259
TX	Monticello	6147	3		5,353	1,299	3,098	1,262	14,103	4,284
TX	Welsh Power Plant	6139	1		2,457	1,124	1,765	750	8,401	3,731
TX	Welsh Power Plant	6139	2		2,520	987	1,808	753	8,386	3,327
TX	Welsh Power Plant	6139	3		2,581	1,215	2,013	871	8,836	4,040
VA	Bremo Power Station	3796	4	D037964	2,296	585	1	163	5,433	1,450
VA	Chesapeake Energy Center	3803	1	D038031	1,248	624	-	-	2,211	1,273

State	Facility Name	ORIS ID	Unit IDs	Stack CEMS Unit	2011 SO2 95% (lb/hr)	2011 NOx 95% (lb/hr)	2015 SO2 95% (lb/hr)	2015 NOx 95% (lb/hr)	2011 SO2 Annual (ton/yr)	2011 NOx Annual (ton/yr)
VA	Chesapeake Energy Center	3803	2	D038032	1,736	574	-	-	2,426	1,389
VA	Chesapeake Energy Center	3803	3	D038033	2,710	938	-	-	4,761	1,244
VA	Chesapeake Energy Center	3803	4	D038034	3,876	918	-	-	7,850	2,080
VA	Chesterfield Power Station	3797	4	D037974	2,898	611	328	91	5,723	752
VA	Chesterfield Power Station	3797	5	D037975	22,382	2,536	469	155	7,386	1,603
VA	Chesterfield Power Station	3797	6	D037976	793	375	986	295	1,266	884
VA	Chesterfield Power Station	3797	(3),7,8A	x28	6,386	690	-	696	1,507	772
VA	Clinch River	3775	1,2	D03775C02	2,698	838	2,517	1,133	3,621	1,011
VA	Yorktown Power Station	3809	3	D038093	3,108	802	10,079	2,445	755	242
VA	Yorktown Power Station	3809	1,2	D03809CS0	5,808	1,483	5,382	1,236	13,187	3,184
WI	Columbia	8023	1	D080231	3,742	859	327	662	12,217	2,753
WI	Columbia	8023	2	D080232	3,876	918	321	569	12,305	2,676
WI	Edgewater (4050)	4050	5		2,598	624	2,410	141	8,340	1,735
WI	Genoa	4143	1		1,442	406	157	272	3,296	702
WI	Nelson Dewey	4054	2		2,978	438	685	287	5,819	1,659
WI	South Oak Creek	4041	7, 8	D04041CS4	2,601	695	75	366	7,663	1,603
WV	Albright Power Station	3942	3	D039423	3,040	363	-	-	5,034	587
WV	Fort Martin Power Station	3943	1	D039431	934	1,893	1,149	1,441	1,915	5,631
WV	Fort Martin Power Station	3943	2	D039432	854	1,653	1,295	1,384	2,038	5,502
WV	Harrison Power Station	3944	1 (25%), 2 (20%)	D03944C01	2,361	3,983	2,458	4,226	5,756	8,574
WV	John E Amos	3935	3	D039353	1,106	996	1,330	1,387	1,968	1,875
WV	John E Amos	3935	1,2	D03935C02	2,429	873	1,286	1,079	6,643	2,059
WV	Kammer	3947	1,2,3	D03947C03	6,386	1,392	6,386	1,162	16,712	3,593
WV	Kanawha River	3936	1,2	D03936C02	4,782	1,228	4,467	1,241	10,337	2,497
WV	Longview Power	56671	1		1,232	431	615	428	2,733	1,791

State	Facility Name	ORIS ID	Unit IDs	Stack CEMS Unit	2011 SO2 95% (lb/hr)	2011 NOx 95% (lb/hr)	2015 SO2 95% (lb/hr)	2015 NOx 95% (lb/hr)	2011 SO2 Annual (ton/yr)	2011 NOx Annual (ton/yr)
WV	Mitchell (WV)	3948	1,2	D03948C02	2,042	778	1,820	1,154	4,518	2,282
WV	Mount Storm Power Station	3954	1,2	D03954CS0	959	859	959	830	2,298	2,370
WV	Mountaineer (1301)	6264	1	D062641	1,193	701	2,055	1,252	2,009	2,352
WV	Phil Sporn	3938	11,21,31,41	D03938C04	4,078	1,003	-	-	11,041	2,065
WV	Pleasants Power Station	6004	1	D060041	3,054	1,737	2,473	1,957	7,038	3,016
WV	Pleasants Power Station	6004	2	D060042	2,719	1,228	2,288	2,780	5,995	2,423

B.4 Industrial and Institutional Source Emissions

State	Facility Name	Facility/ ORIS ID	Unit IDs	2011 Typical SO_2 Emissions (lb/hr)	2011 Typical NOx Emissions (lb/hr)
LARGE EMITTING STACKS					
IL	Aventine Renewable Energy Inc	8065311	48	1,367.50	144
IL	Aventine Renewable Energy Inc	8065311	49	1,553.90	206.9
IL	Tate & Lyle Ingredients Americas LLC	7793311	292	742.3	63
IN	ArcelorMittal Burns Harbor Inc.	7376511	4	239.6	34.1
IN	ArcelorMittal Burns Harbor Inc.	7376511	5	285	38.2
IN	ArcelorMittal Burns Harbor Inc.	7376511	6	207.7	31
IN	ArcelorMittal Burns Harbor Inc.	7376511	7	207.4	27
IN	ArcelorMittal Burns Harbor Inc.	7376511	8	264.2	43.1
IN	ArcelorMittal Burns Harbor Inc.	7376511	13	453.7	789.3
IN	ArcelorMittal Burns Harbor Inc.	7376511	14	552.2	43.2
IN	ArcelorMittal Burns Harbor Inc.	7376511	25	178.3	208.6
IN	ArcelorMittal Burns Harbor Inc.	7376511	31	223.7	87.3
IN	ArcelorMittal Burns Harbor Inc.	7376511	34	394.2	292.5
IN	BALL STATE UNIVERSITY	4873211	1	511.5	61
IN	BALL STATE UNIVERSITY	4873211	2	511.5	61
IN	Citizens Thermal	4885311	1	536.9	113.3
IN	Citizens Thermal	4885311	4	498.5	212.2
IN	ELI LILLY & COMPANY CLINTON LABS	8223611	2	887.5	284.6
IN	ESSROC Cement Corp	8198511	15	772.3	576.3
IN	Indiana Harbor East	3986511	134	155.2	257.3
IN	INDIANA UNIVERSITY	4553211	2	337	76.8
IN	INDIANA UNIVERSITY	4553211	3	384.9	85.9
IN	SABIC INNOVATIVE PLASTICS MT. VERNON LLC	7364611	1	810.1	76.9
IN	SABIC INNOVATIVE PLASTICS MT. VERNON LLC	7364611	2	193.9	303
IN	TATE & LYLE, LAFAYETTE SOUTH (33)	7376411	4	1,053.30	227.6
IN	UNIVERSITY OF NOTRE DAME DU LAC	5552011	2	774.8	258.8
IN	US STEEL GARY WORKS	8192011	0	465.8	273.6
IN	US STEEL GARY WORKS	8192011	301	69.8	350.1
KY	Century Aluminum Sebree LLC	7352311	SO2ENG	998.3	2.7
KY	E I Dupont Inc	6096411	1	759.5	1.9
KY	Isp Chemicals Inc.	7365311	0AA	987.9	113.9
MA	SOLUTIA INCORPORATED	7236411	5	314.9	165.9
MD	Luke Paper Company	7763811	3-0018	10,651.30	1,527.30
MD	Luke Paper Company	7763811	3-0019	10,505.50	1,468.80
MD	Luke Paper Company	7763811	6-0235	618.2	415.8
MD	Naval Support Facility, Indian Head	6117011	3-0006	346.1	79
MD	Sparrows Point, LLC	8239711	6-0939	231.2	56.8
MD	Sparrows Point, LLC	8239711	6-0941	416.6	368.7
ME	SAPPI - SOMERSET	8200111	1	369.9	754.3
ME	SAPPI - SOMERSET	8200111	37	13.2	276.3
MI	ESCANABA PAPER COMPANY	8126511	SV0117	507	340.1
MI	St. Marys Cement, Inc. (U.S.)	8160611	SV0009	221.7	227.9
MI	St. Marys Cement, Inc. (U.S.)	8160611	SV0011	221.7	227.9

State	Facility Name	Facility/ ORIS ID	Unit IDs	2011 Typical SO_2 Emissions (lb/hr)	2011 Typical NOx Emissions (lb/hr)
MI	U S STEEL GREAT LAKES WORKS	8483611	FUG001	530.5	253.5
NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Big Bill/PG	605	256.2
NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-No. 4 PB	440.4	115.5
NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Recovery 10	1,011.50	352.6
NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Riley Bark	222.6	99.5
NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Riley Coal	442.7	153.5
NC	DAK Americas LLC	8122511	ES-01	235.7	122.9
NC	DAK Americas LLC	8122511	ES-02	235.7	122.9
NC	KapStone Kraft Paper Corporation	8048011	ST-1,2	183.8	230.1
NY	ALCOA MASSENA OPERATIONS (WEST PLANT)	7968211	SA398	1,189.00	19
NY	CARGILL SALT CO- WATKINS GLEN PLANT	8176611	1	454.4	92.4
NY	FINCH PAPER LLC	8325211	12	121.9	627.1
NY	INTERNATIONAL PAPER TICONDEROGA MILL	7991711	44	473.7	203
NY	KODAK PARK DIVISION	8091511	4	1,021.90	612.9
NY	LAFARGE BUILDING MATERIALS INC	8105211	43101	2,278.60	1,172.40
NY	MORTON SALT DIV	7814711	1	542.4	22.8
OH	BDM Warren Steel Operations, LLC	8063611	59727	408.8	0.7
OH	Cargill, Incorporated - Salt Division (Akron, OH) (1677010027)	7416411	250250	466.2	42
OH	City of Akron Steam Generating	8170411	253630	394.1	43.7
OH	DTE St. Bernard, LLC (1431394148)	9301711	2170429	490.2	176.7
OH	Fluor-B&W Portsmouth LLC	15485811	146164	341.3	40.3
OH	Fluor-B&W Portsmouth LLC	15485811	146165	362.3	40.9
OH	Kraton Polymers U.S. LLC (0684010011)	8130511	152405	303	63.2
OH	Kraton Polymers U.S. LLC (0684010011)	8130511	152407	358.6	66.2
OH	Morton Salt, Inc. (0285020059)	7997111	65589	542.4	22.8
OH	Morton Salt, Inc. (0285020059)	7997111	65590	537.8	23.2
OH	P. H. Glatfelter Company - Chillicothe Facility (0671010028)	8131111	147671	4,495.20	368.7
OH	The Medical Center Company	8252111	184509	609.9	57.5
OH	Youngstown Thermal (0250110024)	7219511	56897	226.8	26
PA	AMER REF GROUP/BRADFORD	6532511	S13	255.50	50.5
PA	APPLETON PAPERS/SPRING MILL	7872711	S09	202.4	51.6
PA	APPLETON PAPERS/SPRING MILL	7872711	S18	404.2	25.8
PA	APPLETON PAPERS/SPRING MILL	7872711	S28	404.2	25.8
PA	HERCULES CEMENT CO LP/STOCKERTOWN	3881611	S03	472.9	329.3
PA	INTL WAXES INC/FARMERS VALLEY	6582111	S02	332.2	94.5
PA	KEYSTONE PORTLAND CEMENT/EAST ALLEN	6582211	S73	477.1	401.6
PA	Penn State Univ	3186811	S01	784.2	161.7
PA	PPG IND INC/WORKS NO 6	6463511	S01	72.5	534.3
PA	PPG IND INC/WORKS NO 6	6463511	S02	72.7	513.1

State	Facility Name	Facility/ ORIS ID	Unit IDs	2011 Typical SO_2 Emissions (lb/hr)	2011 Typical NOx Emissions (lb/hr)
PA	SUNOCO INC (R&M)/MARCUS HOOK REFINERY	7873611	S60	497.9	266.4
PA	TEAM TEN/TYRONE PAPER MILL	9248211	S01	509.8	66.8
PA	UNITED REFINING CO/WARREN PLT	4966711	S27	232.9	13.8
TN	Cargill Corn Milling	5723011	8001	349.8	59.2
TN	Cargill Corn Milling	5723011	8301	307.9	54.2
TN	EASTMAN CHEMICAL COMPANY	3982311	B2531	3,546.9	1,273.8
TN	EASTMAN CHEMICAL COMPANY	3982311	B3251	303.8	385.2
TN	EASTMAN CHEMICAL COMPANY	3982311	B831	1,353.8	421.3
TN	PACKAGING CORPORATION OF AMERICA	4963011	ST1198	354.3	206.5
VA	GP Big Island LLC	4183311	1	571.4	232.6
VA	Huntington Ingalls Incorporated -NN Shipbldg Div	4938811	1	362.9	61.0
VA	Philip Morris Usa Inc - Park 500	5795511	47	338.1	213.5
VA	Radford Army Ammunition Plant	5748611	1	687.4	297.8
VA	Roanoke Cement Company	5039811	4	456.6	393.3
VA	Smurfit Stone Container Corporation - West Point	4182011	2	4.5	319.7
VA	Smurfit Stone Container Corporation - West Point	4182011	4	32.4	280.9
VA	Smurfit Stone Container Corporation - West Point	4182011	7	412.2	32.3
WV	BAYER CROPSCIENCE	5782411	8	647.8	460.6
WV	CAPITOL CEMENT - ESSROC MARTINSBURG	4987611	71	419.0	490.6
WV	DUPONT WASHINGTON WORKS	4878911	477	440.2	220.2
ACCUMULATED EMISSIONS					
IN	ALCOA INC. - WARRICK OPERATIONS	8181811		928.0	79.0
IN	ArcelorMittal Burns Harbor Inc.	7376511		289.9	381.9
IN	Indiana Harbor East	3986511		523.4	923.8
IN	INDIANA UNIVERSITY	4553211		329.7	74.3
IN	SABIC INNOVATIVE PLASTICS MT. VERNON LLC	7364611		166.4	42.0
IN	US STEEL GARY WORKS	8192011		464.8	476.7
KY	Century Aluminum Sebree LLC	7352311		0.1	17.8
MA	SOLUTIA INCORPORATED	7236411		0.0	0.0
MD	Sparrows Point, LLC	8239711		420.5	752.1
ME	FMC BIOPOLYMER	5692011		165.9	51.0
ME	HUHTAMAKI INC - WATERVILLE	5691611		139.8	35.0
ME	Madison Paper	5253911		195.3	53.8
ME	SAPPI - SOMERSET	8200111		0.0	0.0
ME	THE JACKSON LABORATORY	7945211		4.2	63.0
ME	VERSO PAPER - ANDROSCOGGIN MILL	7764711		107.3	238.5
ME	WOODLAND PULP LLC	5974211		116.4	371.7

State	Facility Name	Facility/ ORIS ID	Unit IDs	2011 Typical SO_2 Emissions (lb/hr)	2011 Typical NOx Emissions (lb/hr)
MI	U S STEEL GREAT LAKES WORKS	8483611		889.8	256.9
NC	KapStone Kraft Paper Corporation	8048011		61.2	52.0
NH	DARTMOUTH COLLEGE	7199811		154.5	56.6
NH	GORHAM PAPER & TISSUE LLC	7866711		63.5	21.4
NJ	Atlantic County Utilities Authority Landfill	8093211		11.2	13.0
NJ	Gerresheimer Moulded Glass	12804611		51.4	87.7
NY	FINCH PAPER LLC	8325211		32.7	365.8
NY	NORLITE CORP	8090911		62.3	40.3
OH	AK Steel Corporation (1409010006)	8008811		467.2	523.2
OH	BDM Warren Steel Operations, LLC	8063611		80.6	81.3
OH	Youngstown Thermal (0250110024)	7219511		357.8	46.3
PA	INTL WAXES INC/FARMERS VALLEY	6582111		178.9	56.4
PA	PHILA ENERGY SOL REF/ PES	6652211		148.6	657.4
PA	PPG IND INC/WORKS NO 6	6463511		10.3	37.3
PA	USS CORP/EDGAR THOMSON WORKS	7409311		301.0	55.2
PA	USS/CLAIRTON WORKS	8204511		336.1	708.5
TN	PACKAGING CORPORATION OF AMERICA	4963011		217.3	315.3
VA	Huntington Ingalls Incorporated -NN Shipbldg Div	4938811		39.7	89.4
VA	Philip Morris Usa Inc - Park 500	5795511		2.4	4.8
VA	Smurfit Stone Container Corporation - West Point	4182011		4.9	320.3
WV	DUPONT WASHINGTON WORKS	4878911		216.3	117.0

(Return to Section 3.2 Stack, Emissions and Meteorology Inventories)

Appendix C

C.1 Distances from EGU Facilities to Class 1 Areas

EGU Emission Sources			Great Circle Mapper (mi)										
State	Facility Name	Facility/ ORIS ID	ACAD	BRIG	Great Gulf	Lye	Moose	Pres	Campo	Dolly	Otter	James River	Shen
AL	Colbert	47	1,231	809	1,101	982	1,295	1,093	1,306	556	541	508	565
AL	E C Gaston	26	1,239	796	1,117	996	1,305	1,109	1,314	564	551	496	558
AL	Greene County	10	1,325	884	1,202	1,081	1,391	1,194	1,400	649	635	583	645
AR	Flint Creek Power Plant	6138	1,484	1,119	1,341	1,233	1,541	1,335	1,555	852	836	837	881
AR	Independence	6641	1,357	967	1,218	1,105	1,417	1,211	1,430	702	686	676	725
AR	White Bluff	6009	1,440	1,039	1,303	1,188	1,501	1,296	1,513	776	761	742	794
CT	Bridgeport Harbor Station	568	332	136	238	135	399	228	405	357	372	416	353
CT	Middletown	562	291	175	202	110	358	192	365	396	410	456	393
CT	New Haven Harbor	6156	316	151	225	127	383	216	389	373	389	432	370
DE	Edge Moor	593	488	65	384	266	555	374	562	211	226	259	198
DE	Indian River	594	536	74	446	333	604	436	609	224	238	239	188
GA	Bowen	703	1,133	688	1,012	892	1,199	1,004	1,207	459	447	389	451
GA	Harllee Branch	709	1,114	657	1,003	883	1,181	995	1,188	461	451	373	437
GA	Jack McDonough	710	1,129	680	1,011	890	1,195	1,003	1,204	460	448	384	447
GA	Scherer	6257	1,141	685	1,028	908	1,207	1,020	1,215	483	472	398	462
GA	Yates	889	1,164	715	1,046	925	1,230	1,038	1,238	494	482	419	482
IA	George Neal North	1091	1,412	1,164	1,266	1,182	1,457	1,262	1,474	918	905	952	970
IA	George Neal South	1091	1,412	1,164	1,265	1,182	1,457	1,262	1,474	918	905	952	970
IA	Louisa	6664	1,171	889	1,024	931	1,221	1,020	1,238	639	626	672	691
IA	Ottumwa	887	1,248	965	1,101	1,008	1,298	1,097	1,314	712	698	741	762
IA	Walter Scott Jr. Energy Center	1082	1,409	1,136	1,262	1,173	1,456	1,258	1,473	883	869	909	932
IL	Baldwin Energy Complex	876	1,194	837	1,051	942	1,251	1,045	1,265	570	554	569	606
IL	Joliet 29	384	1,021	737	874	779	1,072	870	1,088	493	480	535	547
IL	Joppa Steam	887	1,180	800	1,041	928	1,240	1,034	1,253	532	517	517	561
IL	Kincaid Generating Station	876	1,135	806	990	887	1,190	985	1,205	544	529	560	588
IL	Marion	976	1,170	798	1,030	919	1,230	1,024	1,243	530	514	520	562
IL	Newton	6017	1,095	745	952	844	1,152	946	1,167	480	465	488	520
IL	Powerton	879	1,119	814	973	874	1,172	968	1,188	558	544	585	607
IL	Wood River Power Station	898	1,186	845	1,042	937	1,242	1,037	1,257	580	564	587	620
IN	Alcoa Allowance Management Inc	6705	1,084	707	944	831	1,143	938	1,156	439	423	431	471
IN	Cayuga	1001	1,025	695	881	776	1,081	875	1,096	435	421	459	482
IN	Clifty Creek	983	965	595	826	713	1,025	820	1,038	327	312	334	366
IN	Gibson	6113	1,089	724	948	837	1,147	941	1,161	456	441	456	492
IN	IPL - Eagle Valley Generating Station	991	989	643	847	738	1,047	841	1,061	380	365	399	424
IN	IPL - Harding Street Station (EW Stout)	990	972	630	829	721	1,029	823	1,043	369	354	393	415
IN	IPL - Petersburg Generating Station	994	1,059	695	918	807	1,118	912	1,131	427	412	430	464
IN	Merom	6213	1,054	703	912	803	1,112	906	1,126	438	423	449	479
IN	Michigan City Generating Station	997	957	677	810	714	1,008	805	1,024	439	427	489	496
IN	R Gallagher	1008	1,001	622	863	749	1,062	856	1,074	355	339	352	388
IN	Rockport	6166	1,069	691	930	817	1,129	924	1,142	423	408	415	455
IN	Tanners Creek	988	927	562	788	675	987	781	1,000	296	281	311	338
IN	Wabash River Gen Station	1010	1,036	696	893	786	1,093	887	1,107	433	419	451	478
IN	Whitewater Valley	1040	907	561	765	655	965	759	978	301	287	331	349
IN	R M Schahfer Generating Station	6085	973	678	827	728	1,026	822	1,041	433	420	476	487
KS	La Cygne	1241	1,423	1,091	1,277	1,175	1,476	1,272	1,492	826	811	829	865
KS	Nearman Creek	6064	1,402	1,085	1,255	1,157	1,454	1,250	1,470	822	807	832	865
KS	Quindaro	1295	1,399	1,082	1,253	1,154	1,452	1,248	1,467	819	804	829	861
KS	Tecumseh Energy Center	1252	1,448	1,133	1,301	1,203	1,499	1,296	1,515	870	855	879	911
KY	Big Sandy	1353	857	453	726	607	920	718	931	187	171	178	214
KY	D B Wilson	6823	1,088	701	951	836	1,149	944	1,162	434	418	419	462
KY	E W Brown	1355	966	570	832	715	1,029	825	1,040	303	288	288	330
KY	East Bend	6018	933	563	794	681	993	788	1,006	296	281	307	336
KY	Ghent	1356	947	574	808	695	1,007	802	1,020	307	291	314	345
KY	Green River	1357	1,093	705	956	841	1,154	949	1,167	438	422	421	465
KY	H L Spurlock	6041	892	509	756	640	953	749	965	242	226	250	279
KY	John S. Cooper	1384	992	579	861	742	1,055	853	1,066	319	304	286	336

EGU Emission Sources			Great Circle Mapper (mi)										
State	Facility Name	Facility/ ORIS ID	ACAD	BRIG	Great Gulf	Lye	Moose	Pres	Campo	Dolly	Otter	James River	Shen
KY	Mill Creek	1364	1,012	629	874	760	1,073	868	1,085	361	346	354	393
KY	Paradise	1378	1,091	699	954	839	1,152	947	1,164	433	417	414	459
KY	Shawnee	1379	1,178	796	1,039	926	1,238	1,033	1,251	529	513	513	557
MA	Brayton Point	1619	234	230	179	135	301	170	305	467	482	523	461
MA	Canal Station	1599	210	260	179	159	277	171	279	501	516	556	494
MA	Salem Harbor Station	1626	181	282	124	116	248	116	254	504	518	567	504
MD	Brandon Shores	602	555	117	447	327	622	438	629	151	166	192	131
MD	C P Crane	1552	541	107	433	314	608	424	615	161	176	205	144
MD	Chalk Point	1571	591	138	487	369	658	478	665	147	162	164	109
MD	Dickerson	1572	586	166	469	349	652	461	660	103	118	161	97
MD	Herbert A Wagner	1554	555	117	446	327	621	437	629	151	167	192	131
MD	Morgantown	1573	611	158	507	388	678	498	685	136	150	145	92
ME	William F Wyman	1507	102	370	66	151	166	65	176	576	590	646	582
MI	Belle River	6034	719	483	573	479	771	568	787	306	301	393	369
MI	Dan E Karn	1702	774	570	627	544	821	624	838	394	388	478	457
MI	J H Campbell	1710	901	661	753	665	949	750	966	446	436	512	507
MI	Monroe	1733	778	501	632	532	832	627	847	288	279	362	350
MI	River Rouge	1740	759	498	612	515	811	608	827	298	291	378	361
MI	St. Clair	1743	719	481	572	478	770	567	786	304	299	392	367
MI	Trenton Channel	1745	765	498	619	520	818	614	834	293	285	371	356
MN	Black Dog	1904	1,225	1,035	1,081	1,010	1,264	1,079	1,283	817	806	872	876
MN	Sherburne County	6090	1,252	1,075	1,109	1,042	1,289	1,107	1,308	862	851	919	922
MO	Labadie	2103	1,230	886	1,086	981	1,286	1,081	1,301	619	604	623	658
MO	Meramec	2104	1,211	861	1,068	961	1,268	1,062	1,282	594	579	595	631
MO	New Madrid Power Plant	2167	1,239	851	1,100	987	1,299	1,093	1,312	584	569	563	610
MO	Rush Island	6155	1,216	860	1,073	965	1,273	1,067	1,287	593	577	591	629
MO	Sibley	2094	1,376	1,058	1,230	1,131	1,429	1,225	1,444	795	780	805	837
MO	Sikeston	6768	1,228	846	1,089	976	1,288	1,082	1,301	579	564	562	607
MO	Thomas Hill Energy Center	2168	1,290	973	1,144	1,044	1,343	1,139	1,358	711	696	725	755
NC	Belews Creek	8042	833	378	722	602	899	713	906	195	189	96	158
NC	Cape Fear	2708	830	368	729	611	897	720	903	239	238	139	188
NC	Cliffside	2721	952	499	839	718	1,019	830	1,026	296	287	209	273
NC	H F Lee Steam Electric Plant	2709	808	346	715	599	875	706	880	263	264	170	204
NC	L V Sutton	2713	866	407	780	666	933	771	937	338	339	243	280
NC	Marshall	2727	902	447	790	670	968	782	976	254	246	161	225
NC	Mayo	6250	775	317	670	551	843	661	849	176	176	79	122
NC	Riverbend	2732	914	458	804	683	981	795	988	270	262	176	239
NC	Roxboro	2712	785	327	679	559	852	670	858	178	177	79	127
NE	Nebraska City Station	6096	1,418	1,134	1,271	1,180	1,467	1,267	1,483	878	863	899	925
NH	Merrimack	2364	180	298	81	79	244	72	254	498	512	568	505
NH	Newington	8002	152	315	86	113	218	79	227	526	540	593	530
NH	Schiller	2367	152	315	86	113	218	79	226	526	541	594	530
NJ	B L England	2378	478	17	388	277	546	378	551	253	268	286	229
NJ	Hudson Generating Station	2403	386	94	285	172	452	275	459	303	318	361	298
NJ	Mercer Generating Station	2408	438	57	336	221	505	327	511	258	273	310	248
NY	Cayuga Operating Company, LLC	2535	436	250	294	186	494	288	508	284	294	377	317
NY	CCI Roseton LLC	8006	346	151	234	117	411	225	420	332	347	401	337
NY	Dynegy Danskammer	2480	346	151	234	117	411	225	420	332	347	401	337
NY	Huntley Power	2549	541	342	395	298	594	390	610	272	277	373	323
NY	Northport	2516	349	118	257	152	416	247	423	343	358	400	337
NY	NRG Dunkirk Power	2554	570	336	425	323	625	420	640	238	241	339	292
NY	Oswego Harbor Power	2594	415	301	269	178	469	264	484	338	348	434	374
NY	Somerset Operating Company (Kintigh)	6082	519	350	372	281	571	368	587	300	306	401	350
OH	Avon Lake Power Plant	2836	723	429	579	474	779	574	794	222	215	304	285
OH	Cardinal	2828	692	338	556	440	753	549	765	109	102	195	172
OH	Conesville	2840	752	403	613	500	812	606	825	156	145	222	215
OH	Eastlake	2837	690	403	546	441	746	540	760	213	208	302	276
OH	Gen J M Gavin	8102	805	416	672	554	868	665	879	149	134	172	191
OH	J M Stuart	2850	888	504	753	637	950	746	962	236	220	242	272
OH	Killen Station	6031	877	492	741	625	938	734	950	224	208	232	261
OH	Kyger Creek	2876	806	417	673	556	869	666	880	150	134	172	191

EGU Emission Sources			Great Circle Mapper (mi)										
State	Facility Name	Facility/ ORIS ID	ACAD	BRIG	Great Gulf	Lye	Moose	Pres	Campo	Dolly	Otter	James River	Shen
OH	Miami Fort Generating Station	2832	924	559	784	672	983	778	997	293	278	309	335
OH	Miami Fort Power Station	2832	924	559	784	672	983	778	997	293	278	309	335
OH	Muskingum River	2872	762	390	627	510	823	619	835	130	117	184	185
OH	W H Sammis	2866	682	341	545	430	743	538	755	123	118	213	186
OH	W H Zimmer Generating Station	6019	905	530	768	653	966	761	978	263	247	274	302
OH	Walter C Beckjord Generating Station	2830	904	532	766	652	964	759	977	266	251	281	307
OK	Grand River Dam Authority	165	1,523	1,161	1,380	1,272	1,580	1,374	1,594	894	878	880	924
OK	Hugo	6772	1,605	1,216	1,465	1,353	1,664	1,458	1,678	951	936	922	973
OK	Muskogee	2952	1,538	1,170	1,395	1,287	1,595	1,389	1,609	903	887	886	931
OK	Northeastern	2963	1,535	1,178	1,391	1,285	1,591	1,385	1,605	911	895	900	942
OK	Sooner	6095	1,600	1,250	1,455	1,351	1,655	1,450	1,670	982	967	973	1,015
PA	Armstrong Power Station	3178	615	289	478	363	676	471	688	130	133	231	187
PA	Brunner Island	3140	521	133	403	282	586	394	595	159	174	228	164
PA	Cheswick	8226	643	298	507	391	704	500	716	106	106	205	166
PA	Hatfield's Ferry Power Station	3179	672	298	540	422	735	533	746	64	61	159	127
PA	Homer City	3122	616	267	482	365	678	475	690	102	107	202	156
PA	Keystone	3136	618	277	483	366	679	476	691	112	116	212	167
PA	Martins Creek	3148	425	104	312	192	491	303	500	255	270	321	257
PA	Montour	3149	482	167	354	234	546	346	556	199	212	283	220
PA	Portland	3113	419	110	305	185	485	296	494	260	275	327	264
PA	Shawville	3131	560	240	425	308	621	418	633	149	158	247	192
PA	Sunbury	3152	498	163	371	251	561	363	572	182	195	265	202
SC	Canadys Steam	3280	1,023	560	925	807	1,090	916	1,095	419	414	320	377
SC	H B Robinson	3251	933	471	832	714	1,001	823	1,006	324	319	224	281
SC	Jefferies	3319	991	529	896	779	1,058	887	1,063	403	399	302	357
SC	McMeekin	3287	991	530	886	766	1,058	877	1,064	360	353	264	325
SC	Urquhart	3295	1,049	588	943	823	1,116	934	1,122	413	405	319	381
SC	Wateree	3297	981	519	880	761	1,048	871	1,054	368	362	268	327
SC	Williams	3298	1,002	540	909	792	1,069	899	1,073	418	414	317	371
SC	Winyah	6249	965	504	874	758	1,032	865	1,036	395	392	294	345
TN	Cumberland	3399	1,155	753	1,020	903	1,217	1,013	1,229	490	474	460	510
TN	Gallatin	3403	1,101	690	968	850	1,164	961	1,175	429	414	394	446
TN	John Sevier	3405	947	513	824	703	1,012	815	1,022	270	257	212	270
TN	Johnsonville	3406	1,184	780	1,050	933	1,246	1,042	1,258	517	502	485	536
TN	Kingston	3407	1,035	606	909	789	1,099	901	1,109	357	343	304	362
TX	Big Brown	3497	1,729	1,322	1,592	1,477	1,790	1,585	1,802	1,063	1,048	1,022	1,078
TX	H W Pirkey Power Plant	7902	1,629	1,221	1,493	1,378	1,691	1,486	1,703	962	946	921	976
TX	Limestone	298	1,755	1,346	1,619	1,504	1,817	1,612	1,829	1,088	1,073	1,046	1,102
TX	Martin Lake	6146	1,642	1,232	1,506	1,390	1,703	1,499	1,715	973	958	931	987
TX	Monticello	6147	1,629	1,229	1,491	1,377	1,689	1,484	1,702	967	951	931	984
TX	Welsh Power Plant	6139	1,621	1,220	1,483	1,369	1,682	1,476	1,694	958	943	922	975
VA	Bremo Power Station	3796	694	242	585	465	760	576	768	109	115	64	46
VA	Chesapeake Energy Center	3803	671	211	584	471	738	575	742	228	238	182	167
VA	Chesterfield Power Station	3797	677	217	577	459	744	567	750	156	165	113	94
VA	Clinch River	3775	890	459	766	646	955	758	964	213	200	158	214
VA	Yorktown Power Station	3809	652	189	560	446	719	551	724	201	212	166	142
WI	Columbia	8023	1,052	828	905	823	1,096	902	1,114	606	595	663	665
WI	Edgewater (4050)	4050	964	750	818	737	1,009	815	1,027	540	530	605	601
WI	Genoa	4143	1,140	917	993	914	1,183	991	1,201	691	679	743	749
WI	Nelson Dewey	4054	1,141	895	994	909	1,187	990	1,204	660	647	705	716
WI	South Oak Creek	4041	982	739	835	748	1,029	831	1,046	515	503	572	574
WV	Albright Power Station	3942	673	281	544	425	736	536	747	34	34	132	97
WV	Fort Martin Power Station	3943	678	297	547	428	741	539	752	56	51	149	119
WV	Harrison Power Station	3944	708	319	578	458	771	570	782	58	46	133	117
WV	John E Amos	3935	809	406	679	560	873	672	884	139	124	143	171
WV	Kammer	3947	713	345	579	462	775	572	787	96	86	173	157
WV	Kanawha River	3936	802	389	675	555	866	667	877	126	111	116	149
WV	Longview Power	56671	679	299	548	429	742	540	753	56	52	149	120
WV	Mitchell (WV)	3948	714	345	579	462	776	572	787	95	85	172	156
WV	Mount Storm Power Station	3954	668	262	543	422	732	535	742	12	24	112	70
WV	Mountaineer (1301)	6264	795	406	662	545	858	655	869	139	124	166	182
WV	Phil Sporn	3938	795	406	662	545	858	655	869	139	123	165	181
WV	Pleasants Power Station	6004	752	370	619	501	814	611	826	107	93	158	159

C.2 Distances from Industrial and Institutional Facilities to Class 1 Areas

Industrial and Institutional Emission Sources			Great Circle Mapper (mi)										
State	Facility Name	Facility/ ORIS ID	ACAD	BRIG	Great Gulf	Lye	Moose	Pres	Campo	Dolly	Otter	James River	Shen
IL	Aventine Renewable Energy Inc	8065311	1,118	813	972	873	1,171	967	1,187	557	543	585	606
IL	Tate & Lyle Ingredients Americas L	7793311	1,100	775	955	852	1,155	950	1,170	514	500	534	560
IN	ALCOA INC. - WARRICK OPERATIOI	8181811	1,083	706	944	831	1,143	937	1,156	439	423	431	471
IN	ArcelorMittal Burns Harbor Inc.	7376511	970	688	823	727	1,021	818	1,037	448	435	496	504
IN	BALL STATE UNIVERSITY	4873211	919	588	776	669	976	770	990	333	319	368	383
IN	Citizens Thermal	4885311	969	629	826	718	1,026	820	1,040	368	353	392	414
IN	ELI LILLY & COMPANY CLINTON LAI	8223611	1,029	694	886	779	1,086	880	1,100	432	418	453	478
IN	ESSROC Cement Corp	8198511	992	616	853	740	1,052	847	1,065	348	333	348	383
IN	Indiana Harbor East	3986511	984	704	837	741	1,035	833	1,051	463	451	510	519
IN	INDIANA UNIVERSITY	4553211	1,003	650	862	752	1,062	856	1,075	385	370	399	427
IN	SABIC INNOVATIVE PLASTICS MT. V	7364611	1,112	739	972	860	1,171	965	1,184	471	455	464	503
IN	TATE & LYLE, LAFAYETTE SOUTH (33	7376411	985	664	840	736	1,040	834	1,055	409	395	442	459
IN	UNIVERSITY OF NOTRE DAME DU L	5552011	924	643	777	680	976	772	992	407	395	460	464
IN	US STEEL GARY WORKS	8192011	978	696	832	736	1,030	827	1,046	456	443	503	511
KY	Century Aluminum Sebree LLC	7352311	1,101	720	962	848	1,161	955	1,173	452	437	441	482
KY	E I Dupont Inc	6096411	850	456	717	599	912	709	924	189	173	194	223
KY	Isp Chemicals Inc.	7365311	1,163	776	1,024	911	1,223	1,018	1,236	509	494	491	536
MA	SOLUTIA INCORPORATED	7236411	262	213	162	71	328	152	336	417	432	484	420
MD	Luke Paper Company	7763811	648	250	522	401	712	514	722	33	45	132	84
MD	Naval Support Facility, Indian Hea	6117011	608	161	500	380	675	491	682	121	135	142	84
MD	Sparrows Point, LLC	8239711	551	114	443	323	618	434	625	154	170	196	135
ME	FMC BIOPOLYMER	5692011	44	423	107	208	109	110	118	634	648	703	639
ME	HUHTAMAKI INC - WATERVILLE	5691611	68	432	83	198	117	89	132	630	643	703	639
ME	Madison Paper	5253911	85	437	75	195	127	83	143	627	641	703	639
ME	SAPPI - SOMERSET	8200111	72	438	84	201	117	90	132	633	647	707	643
ME	THE JACKSON LABORATORY	7945211	4	467	151	256	63	155	70	682	696	750	686
ME	VERSO PAPER - ANDROSCOGGIN M	7764711	98	411	52	169	148	58	163	602	615	677	612
ME	WOODLAND PULP LLC	5974211	71	533	198	313	10	204	29	743	756	813	749
MI	ESCANABA PAPER COMPANY	8126511	922	782	779	717	959	778	977	611	604	691	674
MI	St. Marys Cement, Inc. (U.S.)	8160611	836	691	692	626	875	690	893	530	524	614	593
MI	U S STEEL GREAT LAKES WORKS	8483611	758	498	612	515	811	607	827	298	291	378	361
NC	Blue Ridge Paper Products - Canto	7920511	980	536	861	740	1,046	853	1,055	309	298	236	299
NC	DAK Americas LLC	8122511	866	406	779	665	933	769	936	334	335	239	277
NC	KapStone Kraft Paper Corporation	8048011	733	270	637	520	800	627	805	200	205	126	138
NH	DARTMOUTH COLLEGE	7199811	204	315	66	55	263	58	276	487	500	565	501
NH	GORHAM PAPER & TISSUE LLC	7866711	144	384	10	130	195	20	210	562	575	640	576
NJ	Atlantic County Utilities Authority	8093211	468	9	377	267	535	368	540	259	274	294	236
NJ	Gerresheimer Moulded Glass	12804611	487	36	390	276	554	381	560	232	248	270	211
NY	ALCOA MASSENA OPERATIONS (W	7968211	327	383	184	156	370	183	388	467	477	560	499
NY	CARGILL SALT CO- WATKINS GLEN	8176611	452	243	312	201	511	305	524	265	275	358	298
NY	FINCH PAPER LLC	8325211	277	272	137	33	335	130	348	418	431	499	435
NY	INTERNATIONAL PAPER TICONDER	7991711	256	314	110	57	310	105	325	455	467	538	474
NY	KODAK PARK DIVISION	8091511	474	312	328	233	528	323	543	301	308	399	343
NY	LAFARGE BUILDING MATERIALS IN	8105211	306	215	179	59	369	171	380	375	388	451	387
NY	MORTON SALT DIV	7814711	505	296	361	258	561	355	575	258	265	357	303
NY	NORLITE CORP	8090911	293	234	163	42	355	155	367	390	404	468	404
OH	AK Steel Corporation (1409010006	8008811	891	533	751	639	950	744	963	270	255	296	316
OH	BDM Warren Steel Operations, LL	8063611	671	362	530	420	729	523	743	169	165	261	231
OH	Cargill, Incorporated - Salt Divisior	7416411	710	395	569	459	769	563	782	181	174	264	244
OH	City of Akron Steam Generating (1	8170411	709	395	567	458	767	561	781	182	175	265	245
OH	DTE St. Bernard, LLC (1431394148)	9301711	908	542	768	655	967	762	980	277	262	295	320
OH	Fluor-B&W Portsmouth LLC (06660	15485811	843	463	707	591	905	700	917	196	181	216	238
OH	Kraton Polymers U.S. LLC (0684010	8130511	771	389	637	520	833	630	845	124	109	167	173
OH	Morton Salt, Inc. (0285020059)	7997111	724	406	582	472	782	576	796	185	177	265	248
OH	P. H. Glatfelter Company - Chillico	8131111	831	460	694	579	892	687	904	195	181	225	242
OH	The Medical Center Company (131	8252111	703	408	559	453	759	553	774	208	202	294	271
OH	Youngstown Thermal (0250110024	7219511	666	352	526	415	725	519	739	158	155	252	221

Industrial and Institutional Emission Sources			Great Circle Mapper (mi)										
State	Facility Name	Facility/ ORIS ID	ACAD	BRIG	Great Gulf	Lye	Moose	Pres	Campo	Dolly	Otter	James River	Shen
PA	AMER REF GROUP/BRADFORD	6532511	547	285	405	296	605	399	619	205	211	306	254
PA	APPLETON PAPERS/SPRING MILL	7872711	586	224	457	337	649	449	660	102	113	198	142
PA	HERCULES CEMENT CO LP/STOCKE	3881611	434	104	320	200	500	311	508	246	261	313	249
PA	INTL WAXES INC/FARMERS VALLEY	6582111	541	273	400	289	600	394	613	200	207	300	247
PA	KEYSTONE PORTLAND CEMENT/EA	6582211	441	106	326	206	506	317	515	239	254	306	242
PA	Penn State Univ	3186811	546	208	415	296	609	407	620	144	155	237	178
PA	PHILA ENERGY SOL REF/ PES	6652211	468	56	365	248	535	355	542	229	245	280	218
PA	PPG IND INC/WORKS NO 6	6463511	540	157	418	297	605	410	614	138	153	214	151
PA	SUNOCO INC (R&M)/MARCUS HOO	7873611	481	62	377	259	548	367	555	216	232	266	204
PA	TEAM TEN/TYRONE PAPER MILL	9248211	566	223	435	316	629	427	641	127	138	223	167
PA	UNITED REFINING CO/WARREN PL	4966711	574	300	432	323	632	426	646	193	197	294	246
PA	USS CORP/EDGAR THOMSON WOR	7409311	651	299	516	399	712	509	724	97	97	195	158
PA	USS/CLAIRTON WORKS	8204511	654	299	520	403	716	513	728	92	91	189	153
TN	Cargill Corn Milling	5723011	1,321	916	1,185	1,069	1,382	1,178	1,394	654	639	619	672
TN	EASTMAN CHEMICAL COMPANY	3982311	923	488	800	679	988	792	997	247	234	186	245
TN	PACKAGING CORPORATION OF AM	4963011	1,237	821	1,105	987	1,300	1,097	1,311	564	549	522	577
VA	GP Big Island LLC	4183311	744	300	630	509	811	622	819	104	103	6	64
VA	Huntington Ingalls Incorporated -N	4938811	664	202	574	460	731	565	735	213	223	171	152
VA	Philip Morris Usa Inc - Park 500	5795511	674	213	575	457	741	566	747	162	171	120	101
VA	Radford Army Ammunition Plant	5748611	809	369	691	570	875	683	884	144	135	67	128
VA	Roanoke Cement Company	5039811	774	333	657	536	840	648	848	115	108	31	92
VA	Smurfit Stone Container Corporati	4182011	647	185	550	433	714	541	719	173	184	145	115
WV	BAYER CROPSCIENCE	5782411	811	405	681	562	874	674	885	139	123	138	168
WV	CAPITOL CEMENT - ESSROC MARTI	4987611	603	193	482	361	668	474	677	78	93	150	87
WV	DUPONT WASHINGTON WORKS	4878911	773	390	639	522	835	632	847	126	111	167	175

(Return to Section 4.0 Mane-VU Modeling Results)

Appendix D

D.1 Assumptions for EGUs

This section highlights specific EGU assumptions mentioned in the Stack Parameter Development section. All Parameter, and Emission assumptions are listed along with their resulting alterations. In cases that emission vales were zero and the facility was deemed to be closed or not operating they are listed below under 'Facilities that did not Contain Emission Data'. These facilities or EGUs specifically were not run for the year it applies to.

Emission Source Parameter Assumptions and Alterations:

- Alabama, Greene County, Unit(s) 1: This site was artificially pulled inside the modeling domain. The actual y coordinate was 55 km outside the domain; for modeling, the y coordinate was changed to 0 km, placing it on the edge of the domain.
- Connecticut, New Haven Harbor, Unit(s) NHB1: This exhaust flow was assumed to be wrong in MARAMA inventory. An exhaust flow of 30.0 was used in order to continue the baseline of Vermont's 2002 CALPUFF modeling.
- Indiana, Alcoa Allowance Management Inc, Unit(s) 1, 2,3: The MARAMA inventory did not contain stack height, base elevation, stack diameter, or exit temp. These values were assumed to be the same as Alcoa Unit 4, as all parameters were available for this unit.
- Tennessee, Kingston, Unit(s) 1-5: The MARAMA inventory had four different stacks for each EGU. The stack with the tallest height, the highest velocity, and highest emissions was used. The EGUs were combined to the chosen stack.
- Tennessee, Kingston, Unit(s) 6-9: The MARAMA inventory had four different stacks for each EGU. The stack with the tallest height, the highest velocity, and highest emissions was used. The EGUs were combined to the chosen stack.
- Texas, All Facilities, Unit(s) All: All sites were outside the modeling domain. The site's x and y coordinates were artificially changed to bring the site into the modeling domain. The x and y coordinates of (381.216, 10.001) were used, placing all the Texas EGUs in the northeastern-most corner of Texas.
- Wisconsin, Columbia, Unit(s) 1: The MARAMA inventory contained an exhaust flow of 1.5 m/s which was assumed to be inaccurate; therefore the Columbia Unit 2 exhaust flow was used for this unit.
- Base elevations were not included in the MARAMA Beta Inventory; Google Earth was used to find these elevations using the provided latitude/longitude coordinates.
- When stack temperatures were deemed to be inaccurate or missing, NHDES assumed a baseline of 422 degrees K; this value was used to be consistent with the 2002 modeling process completed by VTDEC.

Emission Assumptions and Alterations:

- Georgia, Harllee Branch, Unit(s) 1, 2: The CAMD database did not include unit 1 emissions for 2015; this stack will be modeling only unit 2 for 2015. The emission data for 2015 are also only for quarters one and two.

- Georgia, Harllee Branch, Unit(s) 3, 4: The CAMD database only include emissions for January to June 2015.
- Georgia, Yates, Unit(s); Y5BR: The CAMD database only includes emissions for quarters one and two.
- Indiana, Gallagher, Unit(s) 1, 2: The CAMD database did not include unit 1 emissions in 2015, this stack will only be modeling unit 2 in 2015.
- Indiana, Gallagher, Unit(s) 3, 4: The CAMD database only includes emissions for unit 4 in 2015, this stack will only be modeling unit 4 in 2015.
- Indiana, Tanners Creek, Unit(s) U1, U2, U3: The CAMD database only includes emissions for quarters one and two for 2015.
- Kentucky, Shawnee, Unit(s) 6-10: The CAMD database did not include unit 10 emissions in 2015, this stack will only be modeling units 6-9 in 2015.
- Minnesota, Sherburne County, Unit(s) 3: The CAMD database only included emissions for January through September in 2015.
- Ohio, Miami Fort Generating Station, Unit(s) 5-1, 5-2, 6: The CAMD database did not include data for 5-1, or 5-2 in 2015, this stack will only be modeling unit 6 for 2015.
- Ohio, Muskingum River, Unit(s) 1-4: The CAMD database only included emissions for quarters one and two for 2015
- Tennessee, Johnsonville, Unit(s) 1-10: The CAMD database did include emissions for units 5-10 in 2015, this stack will only model units 1-4 in 2015.
- Indiana, Gallagher, Unit(s) 3, 4: The CAMD database did not include unit 3 emissions in 2015, this stack will only be modeling unit 4 in 2015.
- Indiana, Tanners Creek, Unit(s) U1, U2, U3: The CAMD database only includes emissions for quarters one and two for 2015.
- Kentucky, Shawnee, Unit(s) 6-10: The CAMD database did not include unit 10 emissions in 2015, this stack will only be modeling units 6-9 in 2015.
- Minnesota, Sherburne County, Unit(s) 3: The CAMD database only included emissions for January through September in 2015.
- Ohio, Miami Fort Generating Station, Unit(s) 5-1, 5-2, 6: The CAMD database did not include 5-1, or 5-2 emissions in 2015, this stack will only be modeling unit 6 in 2015.
- Ohio, Muskingum River, Unit(s) 1-4: The CAMD database only included emissions for quarters one and two for 2015
- Tennessee, Johnsonville, Unit(s) 1-10: The CAMD database did include emissions for units 5-10 in 2015, this stack will only model units 1-4 in 2015.

Facilities that did not Contain Emission Data:

- **2011 Emissions**
  - New York, CCI Roseton LLC, Unit(s) 1
- **2015 Emissions**
  - Georgia, Jack McDonough, Unit(s) MB1, MB2
  - Massachusetts, Salem Harbor Station, Unit(s) 3
  - Massachusetts, Salem Harbor Station, Unit(s) 1
  - North Carolina, Cape Fear, Unit(s) 6

- North Carolina, H F Lee Steam Electric Plant, Unit(s) 3
- North Carolina, L V Sutton, Unit(s) 3
- North Carolina, L V Sutton, Unit(s) 1, 2
- North Carolina, Riverbend, Unit(s) 9
- New Jersey, B L England, Unit(s) 1
- New York, NRG Dunkirk Power, Unit(s) 3
- Ohio, Eastlake, Unit(s) 4,6
- Ohio, Eastlake, Unit(s) 5
- Ohio, Walter C Beckjord Generating Station, Unit(s) 6
- Ohio, Walter C Beckjord Generating Station, Unit(s) 5 (50%)
- Oklahoma, Hugo, Unit(s) 1
- Pennsylvania, Hatfield's Ferry Power Station, Unit(s) 3
- Pennsylvania, Portland, Unit(s) 2 (1)
- Pennsylvania, Portland, Unit(s) 3 (2)
- Pennsylvania, Sunbury, Unit(s) 3
- Pennsylvania, Sunbury, Unit(s) 4
- Pennsylvania, Sunbury, Unit(s) 1A, 1B
- South Carolina, Canadys Steam, Unit(s) CAN3
- South Carolina, H B Robinson, Unit(s) 1
- South Carolina, Jefferies, Unit(s) 3
- South Carolina, Jefferies, Unit(s) 4
- Tennessee, John Sevier, Unit(s) 1,2
- Tennessee, John Sevier, Unit(s) 3,4
- Virginia, Chesapeake Energy Center, Unit(s) 1
- Virginia, Chesapeake Energy Center, Unit(s) 2
- Virginia, Chesapeake Energy Center, Unit(s) 3
- Virginia, Chesapeake Energy Center, Unit(s) 4
- Virginia, Chesterfield Power Station, Unit(s) (3),7,8A
- West Virginia, Albright Power Station, Unit(s) 3
- West Virginia, Phil Sporn, Unit(s) 11,21,31,41

D.2 Assumptions for ICIs

This section highlights specific ICI boiler assumptions mentioned in the Stack Parameter Development section. Emissions and stack parameters were primarily obtained through the MARAMA 2011 base year emission inventory. Emissions information were generally complete, however there were a large number of emission units with missing hours of operation. Since this CALPUFF modeling study focuses on daily emissions, reasonable assumptions needed to be made in order to develop typical hourly emissions from the available annual data.

Emission Unit Methodology for Filling Missing Hours of Operation:

1. When hours of operation were available for a unit, they were used (1661 of 3329 units)
2. When hours of operation were available for other units at the same facility, a typical value was assumed for units with missing data

Facility	Hours
Atlantic County Utilities Authority Landfill	4000
BAYER CROPSCIENCE	5289
DUPONT WASHINGTON WORKS	6984
ESCANABA PAPER COMPANY	8472
HUHTAMAKI INC - WATERVILLE	5849
Kraton Polymers U.S. LLC	5994
MADISON PAPER INDUSTRIES	3014
U S STEEL GREAT LAKES WORKS	8328
WOODLAND PULP LLC	8046

3. When hours of operation for a specific SCC code from other a representative value was assumed for units with missing data

Facility	Hours
Indiana Harbor East	SCC Max[A,B]
EASTMAN CHEMICAL COMPANY	SCC Max[B]

Notes:

[A] – Since this is a large industrial facility with relatively high emissions, SCC maximum hours were used with the exception of one unit that had a low SCC maximum of 36 hours. Instead, 8400 hours were used to be more consistent with general facility operations.

[B] –Additional units with no comparable SCC operating information were allocated according to the following steps.

4. The following 27 facilities with annual SO_2+NOx emissions less than 3000 tons were applied 4000 hours per year of operation to units with missing data

Facility	NOx	SO2	NOx+SO2
ALCOA MASSENA OPERATIONS (WEST PLANT)	196	2,468	2,664
Atlantic County Utilities Authority Landfill	11	22	32
BALL STATE UNIVERSITY	251	2,046	2,297
CARGILL SALT CO- WATKINS GLEN PLANT	185	909	1,094
DARTMOUTH COLLEGE	113	309	422
E I Dupont Inc	4	1,519	1,523
ELI LILLY & COMPANY CLINTON LABS	593	1,775	2,368
ESSROC CEMENT CORP	1,153	1,545	2,697
FINCH PAPER LLC	1,829	310	2,138
Gerresheimer Moulded Glass	252	103	355
GORHAM PAPER & TISSUE LLC	43	127	170
GP Big Island LLC	481	1,143	1,624
Huntington Ingalls Incorporated -NN Shipbldg Div	301	805	1,106
INDIANA UNIVERSITY	326	1,444	1,769
INTERNATIONAL PAPER TICONDEROGA MILL	699	1,046	1,745
Isp Chemicals Inc.	288	1,976	2,264
MORTON SALT DIV	213	1,333	1,545
NORLITE CORP	81	125	206
PHILA ENERGY SOL REF/ PES	1,315	297	1,612
Philip Morris Usa Inc - Park 500	438	681	1,119
SAPPI - SOMERSET	2,061	766	2,828
Smurfit Stone Container Corporation - West Point	1,906	908	2,814
SOLUTIA INCORPORATED	332	630	962
TATE & LYLE, LAFAYETTE SOUTH	491	2,297	2,788
THE JACKSON LABORATORY	13	20	33
UNIVERSITY OF NOTRE DAME DU LAC	579	1,644	2,223
VERSO PAPER - ANDROSCOGGIN MILL	929	450	1,378

5. The following 14 facilities with annual SO_2+Nox emissions greater than 3000 tons were applied 8400 hours per year of operation to units with missing data

Facility	NOx	SO2	NOx+SO2
ALCOA INC. - WARRICK OPERATIONS	332	3,898	4,229
ArcelorMittal Burns Harbor Inc.	8,289	13,843	22,132
Cargill Corn Milling	567	3,007	3,574
Century Aluminum Sebree LLC	75	4,193	4,268
Citizens Thermal	1,423	4,349	5,771
EASTMAN CHEMICAL COMPANY	9,113	22,024	31,138
Indiana Harbor East	4,813	2,874	7,687
KODAK PARK DIVISION	2,593	4,292	6,885

LAFARGE BUILDING MATERIALS INC	4,926	9,570	14,496
PACKAGING CORPORATION OF AMERICA	1,534	2,401	3,935
Radford Army Ammunition Plant	1,274	2,888	4,162
Roanoke Cement Company	1,652	1,918	3,570
SABIC INNOVATIVE PLASTICS MT. VERNON LLC	1,799	4,916	6,714
US STEEL GARY WORKS	4,313	4,202	8,515

(Return to Section 3.2 Stack, Emissions and Meteorology Inventories)

Appendix E

E.1 Output Processing Calculations

CALPUFF was run for each facility emissions scenario for all Class 1 areas simultaneously. Maximum SO4 and NO3 ion concentrations were extracted for each receptor location. Since several receptor locations were modeled for each Class 1 area, the maximum concentration receptor for each class 1 area was selected for further post-processing. These maximum 24-hour SO4 and NO3 ion concentrations for the calendar year modeled, and are presented as-is along with other pertinent information. For the purpose of better understanding the combined influence of sulfates and nitrates on class 1 area visibility, facility emission impacts for extinction and delta DV calculations are also provided. Calculations for visual extinction (b_{ext}) and deciviews (DV) follow updated visibility reconstruction equations. Steps include:

1. Modeled ion concentrations are converted to $(NH_4)2SO_4$ (132.14 g/mole) and NH_4NO_3 (80.052 g/mole). All concentration units are in micrograms per cubic meter ($\mu g/m^3$).
2. f(RH) values for were extracted from guidance for the month of July. July was chosen as a representative month during the summer season which has a high percentage of 20% worst visibility days.
3. Large and small sulfate and nitrate concentrations for facility emissions are calculated according to FLAG guidance. [X] indicates concentration of species X :

   [facility large sulfate] = ([facility total sulfate] / 20) x [facility total sulfate][1]

   [facility small sulfate] = [facility total sulfate] - [facility large sulfate]

4. Facility visibility extinctions (inverse megameters – Mm^{-1})are calculated as:

   b_{ext}(facility) = b_{ext}(facility large sulfate) + b_{ext}(facility small sulfate) + b_{ext}(facility large nitrate) + b_{ext}(facility small nitrate)

   Where:

   b_{ext}(facility large sulfate) = 4.8 x f_L(RH) x [facility large sulfate]

   b_{ext}(facility small sulfate) = 2.2 x f_S(RH) x [facility small sulfate]

   b_{ext}(facility large nitrate) = 5.1 x f_L(RH) x [facility large nitrate] and

   b_{ext}(facility small nitrate) = 2.4 x f_S(RH) x [facility small nitrate]

[1] In all cases, average background sulfate particle concentrations [bkgr sulfate] at Class 1 areas for best and worst visibility days was below 20$\mu g/m^3$, thus only the applicable large/small division equation is presented here.

5. Relative 2011 baseline extinction values for each Class 1 area were extracted from the 2011 IMPROVE dataset. Averages of extinctions for the best and worst 20% DV days at each area are summarized in the table below and represented as:

   b_{ext}(2011 avg 20%worst) and
   b_{ext}(2011 avg 20%best)

6. Facility cause extinction is added to the 2011 baseline extinction to facilitate delta-deciview calculations for best and worst visibility days as follows:
   $\Delta DV_W = 10\ln((b_{ext}(facility) + b_{ext}(2011\ avg\ 20\%worst))/10) - 10\ln(b_{ext}(2011\ avg\ 20\%worst))/10)$
   $\Delta DV_B = 10\ln((b_{ext}(facility) + b_{ext}(2011\ avg\ 20\%best))/10) - 10\ln(b_{ext}(2011\ avg\ 20\%best))/10)$

Table 2: Class 1 Area Humidity Parameters and Average 2011 IMPROVE Background Sulfate Concentrations and Extinctions on 20% Worst and Best Days[2]

July Values	2010 FLAG Guidance			[bkgr SO4 (avg 20% W)]	[bkgr SO4 (avg 20% B)]	b_{ext} (avg 20%W)	b_{ext} (avg 20%B)
	f_L(RH)	f_S(RH)	f_{SS}(RH)	ug/m3	ug/m3	1/Mm	1/Mm
Acadia	2.99	4.28	4.19	3.17	0.53	68.11	21.20
Moosehorn	2.83	3.98	3.98	2.93	0.48	57.93	20.20
Campobello	2.82	3.95	3.96	2.93	0.48	57.93	20.20
Great Gulf	2.72	3.76	3.85	0.26	0.52	70.34	19.03
Presidential dry river	2.78	3.86	3.92	0.26	0.52	70.34	19.03
Lyebrook	2.60	3.52	3.70	4.42	0.44	72.67	17.35
Brigantine	2.69	3.68	3.84	6.01	1.26	135.08	36.71
Dolly sods	2.74	3.78	3.91	8.49	1.03	122.11	24.62
Otter creek	2.80	3.88	3.98	8.49	1.03	122.11	24.62
Shenendoah	2.65	3.59	3.78	6.98	0.90	107.55	22.77
James river face	2.65	3.59	3.79	6.73	1.68	117.27	32.82

[2] Because the IMPROVE monitoring network does not include Roosevelt Campobello, Presidential Dry River, and Otter Creek, IMPROVE measured data from nearby Class 1 areas are deemed representative, including; Moosehorn, Great Gulf and Dolly Sods, respectively.

b_{ext} = $2.2 \times f_S(RH) \times$ [Small Sulfate] + $4.8 \times f_L(RH) \times$ [Large Sulfate]
+ $2.4 \times f_S(RH) \times$ [Small Nitrate] + $5.1 \times f_L(RH) \times$ [Large Nitrate]
+ $2.8 \times$ [Small Organic Mass] + $6.1 \times$ [Large Organic Mass]
+ $10 \times$ [Elemental Carbon]
+ $1 \times$ [Fine Soil]
+ $0.6 \times$ [Coarse Mass]
+ $1.7 \times f_{SS}(RH) \times$ [Sea Salt]
+ Rayleigh Scattering (Site Specific)
+ $0.33 \times [NO_2\ (ppb)]$ {or as: $0.1755 \times [NO_2\ (\mu g/m^3)]$}

Where:

[ ] indicates concentrations in $\mu g/m^3$

$f_S(RH)$ = Relative humidity adjustment factor for small sulfate and nitrate

$f_L(RH)$ = Relative humidity adjustment factor for large sulfate and nitrate

$f_{SS}(RH)$ = Relative humidity adjustment factor for sea salt

For Total Sulfate < 20 $\mu g/m^3$:

[Large Sulfate] = ([Total Sulfate] / 20 $\mu g/m^3$) × [Total Sulfate]

For Total Sulfate ≥ 20 $\mu g/m^3$:

[Large Sulfate] = [Total Sulfate]

And:

[Small Sulfate] = [Total Sulfate] – [Large Sulfate]

(Return to Section 3.6 Output Processing)

Appendix F

F.1 2011 EGU Ranking Visibility Impairing Sources to Acadia National Park

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
1	OH	Kyger Creek	2876	1,2,3,4,5	D02876C01	22.124	1.495	0.150	22.124	2.813	7.147	1.198	0.285	19.814	2.553	6.599	0.863	0.183	13.870	1.854	5.033
2	OH	Muskingum River	2872	1,2,3,4	D02872C04	9.396	0.691	0.021	9.396	1.292	3.669	0.528	0.039	7.453	1.038	3.013	0.325	0.038	4.750	0.674	2.022
3	VA	Chesterfield Power Station	3797	5	D037975	9.285	0.427	0.043	6.162	0.866	2.551	0.535	0.030	7.431	1.036	3.005	0.659	0.045	9.285	1.278	3.632
4	MA	Brayton Point	1619	3	D016193	8.860	0.429	0.059	6.394	0.897	2.636	0.624	0.049	8.860	1.223	3.492	0.385	0.057	5.797	0.817	2.417
5	NH	Merrimack	2364	2	D023642	8.718	0.542	0.120	8.718	1.204	3.445	0.546	0.087	8.338	1.155	3.317	0.561	0.063	8.210	1.138	3.273
6	MI	Monroe	1733	1,2	D01733C12	7.181	0.296	0.054	4.582	0.651	1.957	0.244	0.082	4.269	0.608	1.835	0.428	0.118	7.181	1.002	2.917
7	OH	Avon Lake Power Plant	2836	12	D0283612	7.056	0.355	0.045	5.243	0.742	2.210	0.327	0.040	4.801	0.681	2.041	0.462	0.075	7.056	0.986	2.873
8	PA	Homer City	3122	2	D031222	6.648	0.494	0.013	6.648	0.931	2.727	0.195	0.030	2.940	0.423	1.299	0.217	0.013	3.006	0.432	1.326
9	PA	Homer City	3122	1	D031221	6.610	0.493	0.010	6.610	0.926	2.714	0.195	0.025	2.863	0.412	1.267	0.217	0.011	2.968	0.427	1.310
10	OH	Walter C Beckford Generating Station		6	D028306	6.278	0.467	0.012	6.278	0.882	2.594	0.424	0.024	5.870	0.827	2.444	0.345	0.013	4.675	0.664	1.993
11	OH	Eastlake		5	D028375	4.713	0.214	0.033	3.220	0.462	1.414	0.278	0.037	4.127	0.588	1.779	0.311	0.049	4.713	0.669	2.007
12	NH	Merrimack	2364	1	D023641	4.248	0.271	0.053	4.248	0.605	1.826	0.273	0.038	4.076	0.581	1.759	0.281	0.028	4.035	0.576	1.742
13	IN	Rockport	6166	MB1,MB2	D06166C02	3.899	0.255	0.043	3.899	0.557	1.688	0.121	0.079	2.624	0.378	1.167	0.146	0.034	2.343	0.338	1.048
14	PA	Keystone	3136	1	D031361	3.787	0.256	0.034	3.787	0.541	1.644	0.128	0.077	2.690	0.387	1.195	0.120	0.034	2.000	0.289	0.902
15	PA	Keystone	3136	2	D031362	3.771	0.255	0.034	3.771	0.539	1.637	0.128	0.076	2.676	0.385	1.189	0.119	0.033	1.991	0.288	0.897
16	PA	Cheswick	8226	1	D082261	3.580	0.254	0.021	3.580	0.512	1.560	0.144	0.044	2.461	0.355	1.098	0.124	0.017	1.847	0.268	0.835
17	PA	Shawville	3131	3,4	D03131CS1	3.475	0.250	0.016	3.475	0.498	1.518	0.151	0.027	2.322	0.335	1.039	0.117	0.013	1.682	0.244	0.763
18	MA	Brayton Point	1619	2	D016192	3.409	0.196	0.045	3.149	0.452	1.385	0.225	0.036	3.409	0.488	1.491	0.199	0.034	3.044	0.437	1.342
19	IN	Clifty Creek	983	4,5,6	D00983C02	3.311	0.197	0.012	2.732	0.393	1.212	0.223	0.030	3.311	0.475	1.451	0.151	0.019	2.215	0.320	0.994
20	MA	Brayton Point	1619	1	D016191	3.041	0.181	0.029	2.740	0.394	1.215	0.209	0.024	3.041	0.437	1.340	0.180	0.021	2.627	0.378	1.168
21	MD	Chalk Point	1571	1,2	D01571CE2	2.997	0.139	0.027	2.165	0.313	0.972	0.180	0.040	2.874	0.413	1.271	0.208	0.022	2.997	0.431	1.322
22	OH	Muskingum River	2872	5	D028725	2.886	0.219	0.003	2.886	0.415	1.276	0.164	0.005	2.203	0.318	0.989	0.105	0.004	1.414	0.206	0.646
23	IN	Wabash River Gen Station	1010	2,3,4,5,6	D01010C05	2.842	0.205	0.013	2.842	0.409	1.258	0.171	0.020	2.486	0.359	1.109	0.164	0.015	2.325	0.336	1.041
24	KY	Big Sandy	1353	BSU1,BSU2	D01353C02	2.793	0.200	0.014	2.793	0.402	1.237	0.134	0.032	2.172	0.314	0.975	0.166	0.020	2.426	0.350	1.084
25	VA	Yorktown Power Station	3809	1,2	D03809CS0	2.755	0.167	0.020	2.437	0.352	1.088	0.146	0.019	2.153	0.311	0.967	0.190	0.021	2.755	0.397	1.222
26	ME	William F Wyman	1507	4	D015074	2.746	0.150	0.060	2.746	0.395	1.218	0.103	0.030	1.734	0.251	0.786	0.150	0.034	2.400	0.346	1.073
27	NH	Newington	8002	1	D080021	2.667	0.144	0.054	2.596	0.374	1.155	0.152	0.026	2.311	0.334	1.035	0.170	0.035	2.667	0.384	1.185
28	OH	W H Zimmer Generating Station	6019	1	D060191	2.629	0.156	0.032	2.449	0.353	1.093	0.137	0.063	2.629	0.379	1.169	0.112	0.034	1.909	0.276	0.862
29	NC	L V Sutton		3	D027133	2.558	0.173	0.023	2.558	0.369	1.139	0.081	0.016	1.273	0.185	0.583	0.038	0.012	0.648	0.095	0.301
30	TN	Johnsonville	3406	1 thru 10	D03406C10	2.555	0.183	0.013	2.555	0.368	1.138	0.058	0.010	0.891	0.130	0.412	0.066	0.012	1.024	0.149	0.472
31	PA	Portland		3 (2)	d031132	2.552	0.153	0.018	2.229	0.322	1.000	0.170	0.025	2.552	0.368	1.136	0.157	0.031	2.457	0.354	1.097
32	OH	Cardinal	2828	3	D028283	2.540	0.191	0.004	2.540	0.366	1.132	0.119	0.009	1.669	0.242	0.758	0.118	0.004	1.583	0.230	0.720
33	MI	St. Clair	1743	7	D017437	2.525	0.118	0.014	1.722	0.250	0.781	0.179	0.015	2.525	0.364	1.125	0.150	0.018	2.191	0.317	0.983
34	OH	Walter C Beckford Generating Station		5 (50%)	D02830M51	2.520	0.188	0.005	2.520	0.363	1.123	0.171	0.010	2.362	0.341	1.056	0.139	0.005	1.883	0.273	0.851
35	GA	Harllee Branch	709	3&4	D00709C02	2.456	0.164	0.018	2.372	0.342	1.061	0.158	0.031	2.456	0.354	1.096	0.129	0.024	2.001	0.290	0.902
36	IN	Clifty Creek	983	1,2,3	D00983C01	2.454	0.151	0.007	2.058	0.298	0.927	0.171	0.017	2.454	0.354	1.095	0.116	0.010	1.643	0.238	0.747
37	IN	Tanners Creek	988	U4	D00988U4	2.443	0.162	0.009	2.215	0.320	0.994	0.175	0.013	2.443	0.352	1.091	0.112	0.008	1.571	0.228	0.715
38	MI	St. Clair	1743	1,2,3,4,...6	x09	2.384	0.097	0.036	1.736	0.252	0.787	0.122	0.035	2.050	0.297	0.923	0.116	0.066	2.384	0.344	1.065
39	VA	Chesapeake Energy Center		4	D038034	2.354	0.157	0.024	2.354	0.340	1.053	0.097	0.010	1.402	0.204	0.640	0.100	0.013	1.475	0.214	0.672
40	MI	Trenton Channel	1745	9A	D017459A	2.203	0.137	0.018	2.021	0.292	0.910	0.118	0.015	1.726	0.250	0.783	0.152	0.017	2.203	0.318	0.989

	Facility Info					2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	Stat	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
41	PA	Brunner Island	3140	3	D031403	2.060	0.076	0.047	**1.608**	0.233	0.731	0.065	0.058	**1.611**	0.234	0.732	0.086	0.071	**2.060**	0.298	0.927
42	NY	Somerset Operating Company (Kintigh)		1	D060821	2.059	0.101	0.037	**1.798**	0.261	0.814	0.084	0.042	**1.648**	0.239	0.749	0.079	0.078	**2.059**	0.298	0.927
43	PA	Brunner Island	3140	1,2	D03140C12	2.026	0.063	0.036	**1.303**	0.190	0.596	0.084	0.070	**2.026**	0.293	0.913	0.078	0.050	**1.675**	0.243	0.760
44	MA	Canal Station	1599	1	D015991	2.022	0.115	0.013	**1.668**	0.242	0.757	0.134	0.021	**2.022**	0.293	0.911	0.079	0.024	**1.339**	0.195	0.612
45	WV	Kammer	3947	1,2,3	D03947C03	1.990	0.141	0.012	**1.990**	0.288	0.897	0.083	0.021	**1.356**	0.197	0.620	0.074	0.013	**1.135**	0.165	0.522
46	MD	Morgantown	1573	1	D015731	1.961	0.100	0.004	**1.362**	0.198	0.623	0.109	0.005	**1.488**	0.216	0.678	0.143	0.008	**1.961**	0.284	0.885
47	NY	Oswego Harbor Power	2594	5	D025945	1.958	0.134	0.016	**1.958**	0.283	0.884										
48	VA	Chesterfield Power Station	3797	3,7,8A	x28	1.954	0.119	0.008	**1.650**	0.239	0.750	0.141	0.010	**1.954**	0.283	0.882					
49	NY	Cayuga Operating Company, LLC		1 (33%), 2 (33	D02535C01	1.885	0.128	0.016	**1.885**	0.273	0.852	0.125	0.014	**1.809**	0.262	0.819	0.103	0.020	**1.599**	0.232	0.727
50	PA	Montour	3149	1	D031491	1.851	0.091	0.050	**1.851**	0.268	0.837	0.061	0.059	**1.575**	0.229	0.717	0.083	0.054	**1.800**	0.261	0.815
51	NJ	B L England	2378	1		1.850	0.090	0.012	**1.324**	0.192	0.606	0.080	0.010	**1.179**	0.172	0.541	0.132	0.010	**1.850**	0.268	0.837
52	MD	C P Crane	1552	2	D015522	1.808	0.073	0.014	**1.137**	0.166	0.522	0.076	0.017	**1.204**	0.175	0.552	0.110	0.028	**1.808**	0.262	0.818
53	PA	Montour	3149	2	D031492	1.800	0.092	0.046	**1.800**	0.261	0.815	0.062	0.053	**1.507**	0.219	0.687	0.084	0.049	**1.741**	0.252	0.789
54	MI	Belle River		2	D060342	1.772	0.076	0.029	**1.380**	0.201	0.630	0.091	0.022	**1.476**	0.214	0.673	0.089	0.046	**1.772**	0.257	0.803
55	VA	Chesapeake Energy Center		3	D038033	1.766	0.112	0.023	**1.766**	0.256	0.800	0.069	0.011	**1.030**	0.150	0.474	0.071	0.015	**1.111**	0.162	0.511
56	PA	Portland		2 (1)	d031131	1.759	0.098	0.006	**1.350**	0.196	0.617	0.126	0.009	**1.759**	0.255	0.797	0.100	0.013	**1.475**	0.214	0.673
57	MI	Belle River		1	D060341	1.749	0.075	0.029	**1.360**	0.198	0.622	0.090	0.022	**1.455**	0.211	0.664	0.088	0.046	**1.749**	0.254	0.793
58	SC	Wateree	3297	WAT1	D03297WT1	1.732	0.130	0.003	**1.732**	0.251	0.785	0.050	0.006	0.739	0.108	0.342	0.025	0.004	0.380	0.056	0.178
59	MI	J H Campbell		3 (50%)	D01710M3A	1.722	0.067	0.023	**1.177**	0.171	0.540	0.105	0.027	**1.722**	0.250	0.781	0.055	0.031	**1.128**	0.164	0.518
60	PA	Armstrong Power Station		1	D031781	1.698	0.123	0.008	**1.698**	0.246	0.771	0.075	0.011	**1.118**	0.163	0.514					
61	IL	Kincaid Generating Station		1, 2	D00876C02	1.690	0.038	0.050	**1.158**	0.169	0.532	0.043	0.061	**1.368**	0.199	0.625	0.057	0.072	**1.690**	0.245	0.767
62	PA	Armstrong Power Station		2	D031782	1.673	0.120	0.008	**1.673**	0.243	0.760	0.073	0.012	**1.108**	0.161	0.510					
63	MI	St. Clair	1743	6	D017436	1.663	0.075	0.009	**1.092**	0.159	0.502	0.118	0.010	**1.663**	0.241	0.755	0.082	0.010	**1.207**	0.176	0.554
64	WV	Harrison Power Station		1 (25%), 2 (20	D03944C01	1.656	0.050	0.038	**1.162**	0.169	0.534	0.029	0.096	**1.656**	0.240	0.752	0.023	0.041	0.840	0.123	0.389
65	KY	Mill Creek	1364	1,2,3	x05	1.656	0.061	0.013	0.960	0.140	0.443	0.093	0.034	**1.656**	0.240	0.752	0.037	0.016	0.698	0.102	0.324
66	MD	C P Crane	1552	1	D015521	1.629	0.067	0.012	**1.026**	0.149	0.472	0.069	0.015	**1.086**	0.158	0.499	0.100	0.025	**1.629**	0.236	0.740
67	PA	Martins Creek	3148	3,4	x21	1.621	0.035	0.084	**1.573**	0.228	0.716	0.032	0.091	**1.621**	0.235	0.737	0.035	0.082	**1.536**	0.223	0.699
68	IL	Powerton		51,52,61,62	D00879C06	1.616	0.045	0.012	0.750	0.110	0.348	0.055	0.019	0.964	0.141	0.445	0.086	0.037	**1.616**	0.235	0.735
69	MI	J H Campbell		A,B,1,2	D01710C09	1.568	0.059	0.018	**1.007**	0.147	0.464	0.100	0.020	**1.568**	0.228	0.714	0.061	0.025	**1.128**	0.164	0.518
70	SC	Jefferies	3319	3		1.561	0.113	0.007	**1.561**	0.227	0.710	0.068	0.008	0.995	0.145	0.459	0.040	0.004	0.569	0.083	0.265
71	SC	Jefferies	3319	4		1.561	0.113	0.007	**1.561**	0.227	0.710	0.068	0.009	0.993	0.145	0.458	0.038	0.004	0.546	0.080	0.255
72	IN	Michigan City Generating Station		12	D0099712	1.545	0.028	0.004	0.410	0.060	0.192	0.111	0.007	**1.545**	0.224	0.703	0.063	0.009	0.946	0.138	0.436
73	NC	H F Lee Steam Electric Plant		3	D027093	1.527	0.111	0.006	**1.527**	0.222	0.695	0.076	0.006	**1.071**	0.156	0.493	0.031	0.007	0.503	0.074	0.235
74	OH	Gen J M Gavin	8102	2	D081022	1.520	0.108	0.009	**1.520**	0.221	0.692	0.097	0.016	**1.475**	0.214	0.673	0.071	0.015	**1.116**	0.163	0.513
75	NC	L V Sutton		1, 2	D02713C02	1.509	0.107	0.009	**1.509**	0.219	0.687	0.050	0.007	0.741	0.108	0.344	0.027	0.005	0.420	0.061	0.196
76	OH	Gen J M Gavin	8102	1	D081021	1.499	0.107	0.008	**1.499**	0.218	0.683	0.096	0.016	**1.453**	0.211	0.663	0.070	0.014	**1.099**	0.160	0.506
77	AL	E C Gaston	26	3, 4	D00026CBN	1.452	0.047	0.005	0.673	0.098	0.313	0.053	0.011	0.825	0.120	0.382	0.098	0.014	**1.452**	0.211	0.663
78	SC	Wateree	3297	WAT2	D03297WT2	1.431	0.107	0.003	**1.431**	0.208	0.653	0.038	0.004	0.547	0.080	0.255	0.019	0.003	0.287	0.042	0.134
79	AL	E C Gaston	26	1, 2	D00026CAN	1.421	0.048	0.004	0.676	0.099	0.314	0.058	0.009	0.864	0.126	0.399	0.096	0.014	**1.421**	0.206	0.649
80	MA	Brayton Point	1619	4	x07	1.385	0.050	0.015	0.848	0.124	0.392	0.088	0.018	**1.385**	0.201	0.633	0.046	0.024	0.916	0.134	0.423

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81	NH	Schiller	2367	6		1.376	0.059	0.036	**1.255**	0.183	0.575	0.072	0.034	**1.376**	0.200	0.629	0.064	0.024	**1.144**	0.167	0.526
82	SC	Canadys Steam		CAN3	D03280CN3	1.368	0.098	0.007	**1.368**	0.199	0.625	0.050	0.007	0.743	0.108	0.344	0.029	0.003	0.418	0.061	0.195
83	NH	Schiller	2367	4		1.357	0.059	0.036	**1.238**	0.180	0.567	0.071	0.033	**1.357**	0.197	0.621	0.063	0.024	**1.130**	0.165	0.519
84	NY	Oswego Harbor Power	2594	6	x15	1.352	0.089	0.014	**1.352**	0.197	0.618	0.045	0.014	0.768	0.112	0.356	0.058	0.024	**1.069**	0.156	0.492
85	VA	Yorktown Power Station	3809	3	D038093	1.349	0.094	0.010	**1.349**	0.196	0.617	0.069	0.007	0.994	0.145	0.458	0.084	0.013	**1.260**	0.183	0.577
86	MO	Sibley		1, 2, 3	D02094C01	1.345	0.091	0.013	**1.345**	0.196	0.615	0.051	0.006	0.746	0.109	0.346	0.083	0.008	**1.185**	0.172	0.544
87	TN	Kingston	3407	6,7,8,9	D03407C69	1.319	0.098	0.003	**1.319**	0.192	0.604	0.046	0.004	0.644	0.094	0.299	0.046	0.002	0.629	0.092	0.292
88	MA	Canal Station	1599	2	D015992	1.310	0.073	0.018	**1.187**	0.173	0.545	0.075	0.026	**1.310**	0.190	0.600	0.053	0.037	**1.179**	0.172	0.541
89	IN	Gibson	6113	1,2,3	D06113C03	1.259	0.032	0.047	**1.031**	0.150	0.475	0.027	0.068	**1.259**	0.183	0.577	0.016	0.042	0.769	0.112	0.356
90	PA	Sunbury		4	D031524	1.257	0.092	0.005	**1.257**	0.183	0.576	0.073	0.007	**1.047**	0.153	0.482	0.064	0.005	0.894	0.130	0.413
91	KY	John S. Cooper	1384	1,2	D01384CS1	1.241	0.089	0.007	**1.241**	0.181	0.569	0.029	0.005	0.448	0.066	0.209	0.033	0.003	0.476	0.070	0.222
92	IN	R M Schahfer Generating Station		14	D0608514	1.224	0.035	0.006	0.529	0.077	0.246	0.086	0.008	**1.224**	0.178	0.561	0.068	0.015	**1.088**	0.158	0.500
93	TN	Kingston	3407	1,2,3,4,5	D03407C15	1.223	0.091	0.003	**1.223**	0.178	0.561	0.042	0.004	0.602	0.088	0.280	0.042	0.003	0.584	0.085	0.272
94	MI	Dan E Karn	1702	3,4 (1,2)	D01702C09	1.208	0.067	0.025	**1.208**	0.176	0.554	0.048	0.017	0.840	0.123	0.389	0.045	0.032	**1.016**	0.148	0.468
95	GA	Harllee Branch	709	1,2	D00709C01	1.203	0.083	0.008	**1.175**	0.171	0.539	0.077	0.016	**1.203**	0.175	0.552	0.068	0.014	**1.064**	0.155	0.489
96	VA	Chesterfield Power Station	3797	4	D037974	1.195	0.055	0.008	0.817	0.119	0.378	0.066	0.008	0.961	0.140	0.443	0.082	0.010	**1.195**	0.174	0.548
97	IN	IPL - Petersburg Generating Station		4	D009944	1.165	0.080	0.009	**1.165**	0.170	0.535	0.057	0.014	0.928	0.135	0.429	0.033	0.010	0.564	0.082	0.262
98	MI	J C Weadock		7, 8	D01720C09	1.152	0.068	0.020	**1.152**	0.168	0.529	0.048	0.012	0.785	0.115	0.364	0.053	0.025	**1.017**	0.148	0.469
99	IA	Ottumwa		1	D062541	1.146	0.071	0.017	**1.146**	0.167	0.526	0.053	0.012	0.838	0.122	0.388	0.064	0.017	**1.058**	0.154	0.487
100	VA	Chesapeake Energy Center		2	D038032	1.116	0.072	0.014	**1.116**	0.163	0.513	0.044	0.006	0.649	0.095	0.302	0.046	0.008	0.701	0.102	0.325
101	MA	Salem Harbor Station	1626	1		1.108	0.069	0.016	**1.108**	0.161	0.509	0.058	0.018	0.988	0.144	0.455	0.064	0.018	**1.067**	0.155	0.491
102	PA	Sunbury		3	D031523	1.078	0.078	0.005	**1.078**	0.157	0.496	0.059	0.006	0.847	0.124	0.392	0.053	0.005	0.748	0.109	0.347
103	WV	Kanawha River	3936	1,2	D03936C02	1.077	0.074	0.007	**1.056**	0.154	0.486	0.064	0.019	**1.077**	0.157	0.495	0.050	0.011	0.792	0.116	0.367
104	IA	George Neal South		4	D073434	1.066	0.027	0.009	0.480	0.070	0.224	0.052	0.012	0.837	0.122	0.387	0.060	0.021	**1.066**	0.155	0.490
105	GA	Yates		Y6BR	D00728Y6R	1.054	0.055	0.004	0.766	0.112	0.355	0.053	0.004	0.740	0.108	0.343	0.076	0.005	**1.054**	0.154	0.485
106	MD	Brandon Shores	602	2	D006022	1.050	0.016	0.024	0.531	0.078	0.248	0.020	0.028	0.636	0.093	0.296	0.021	0.058	**1.050**	0.153	0.484
107	MD	Herbert A Wagner	1554	3	D015543	1.050	0.051	0.007	0.754	0.110	0.350	0.060	0.009	0.889	0.130	0.411	0.067	0.014	**1.050**	0.153	0.483
108	AL	Colbert	47	1, 2, 3, 4	D00047C14	1.033	0.067	0.012	**1.033**	0.151	0.476										
109	KY	Paradise	1378	2	D013782	1.024	0.072	0.006	**1.024**	0.149	0.472	0.046	0.006	0.678	0.099	0.315	0.043	0.004	0.612	0.089	0.285
110	OH	Conesville	2840	5,6	D02840C06	1.012	0.036	0.025	0.800	0.117	0.370	0.019	0.058	**1.012**	0.147	0.466	0.016	0.036	0.685	0.100	0.318
111	KY	Paradise	1378	3	D013783	1.011	0.044	0.033	**1.011**	0.147	0.466	0.029	0.038	0.878	0.128	0.406	0.026	0.023	0.640	0.094	0.297
112	MD	Brandon Shores	602	1	D006021	1.009	0.016	0.023	0.516	0.076	0.241	0.021	0.027	0.620	0.091	0.288	0.022	0.055	**1.009**	0.147	0.465
113	OK	Northeastern		3313, 3314	D02963C10	0.991	0.033	0.033	0.865	0.126	0.400	0.040	0.036	0.991	0.144	0.457	0.028	0.009	0.484	0.071	0.226
114	SC	H B Robinson		1	D032511	0.991	0.071	0.005	0.991	0.144	0.457	0.019	0.005	0.317	0.046	0.148	0.015	0.006	0.278	0.041	0.130
115	MI	Trenton Channel	1745	16,17,18,19	x10	0.987	0.053	0.019	0.941	0.137	0.434	0.050	0.015	0.849	0.124	0.392	0.059	0.017	0.987	0.144	0.455
116	KY	Ghent	1356	3,4 … (2,3)	D01356C02	0.974	0.045	0.010	0.720	0.105	0.334	0.055	0.019	0.974	0.142	0.449	0.033	0.011	0.570	0.083	0.265
117	WI	Columbia		2	D080232	0.972	0.050	0.010	0.777	0.113	0.360	0.061	0.013	0.954	0.139	0.440	0.064	0.011	0.972	0.142	0.448
118	DE	Indian River	594	4	D005944	0.971	0.054	0.007	0.789	0.115	0.365	0.065	0.010	0.971	0.142	0.448	0.032	0.008	0.529	0.077	0.246
119	WV	Phil Sporn	3938	11,21,31,41	D03938C04	0.971	0.067	0.007	0.971	0.142	0.448										
120	IN	R M Schahfer Generating Station		15	D0608515	0.970	0.025	0.008	0.429	0.063	0.200	0.062	0.012	0.970	0.141	0.448	0.049	0.020	0.898	0.131	0.415

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121	AR	White Bluff		1	D060091	0.954	0.050	0.023	0.954	0.139	0.440										
122	NC	Mayo	6250	1A,1B	D06250C05	0.953	0.067	0.006	0.953	0.139	0.440	0.044	0.006	0.648	0.095	0.301	0.045	0.009	0.701	0.102	0.325
123	AR	White Bluff		2	D060092	0.945	0.049	0.024	0.945	0.138	0.436										
124	MN	Sherburne County		1, 2	D06090CS1	0.942	0.025	0.020	0.596	0.087	0.277	0.046	0.026	0.942	0.137	0.435	0.032	0.027	0.765	0.112	0.355
125	PA	Homer City		3	D031223	0.931	0.058	0.013	0.931	0.136	0.430	0.021	0.035	0.732	0.107	0.340	0.027	0.015	0.560	0.082	0.261
126	WV	Pleasants Power Station	6004	1	D060041	0.928	0.060	0.011	0.928	0.135	0.428	0.043	0.027	0.914	0.133	0.422	0.026	0.019	0.582	0.085	0.271
127	KY	Mill Creek	1364	4	D013644	0.926	0.042	0.004	0.601	0.088	0.280	0.062	0.009	0.926	0.135	0.428	0.026	0.005	0.399	0.058	0.186
128	IN	IPL - Harding Street Station (EW Stout)		50	D0099050	0.924	0.052	0.002	0.708	0.103	0.328	0.069	0.003	0.924	0.135	0.427	0.046	0.002	0.616	0.090	0.286
129	KY	Paradise	1378	1	D01720C09	0.902	0.063	0.006	0.902	0.132	0.417	0.040	0.006	0.600	0.088	0.279	0.038	0.004	0.540	0.079	0.251
130	IL	Baldwin Energy Complex		1,2	D008892	0.895	0.050	0.006	0.728	0.106	0.338	0.063	0.006	0.895	0.130	0.413	0.057	0.005	0.814	0.119	0.377
131	TN	Gallatin	3403	3,4	D03403C34	0.883	0.063	0.005	0.883	0.129	0.408										
132	PA	Sunbury		1A, 1B	D03152CS1	0.874	0.064	0.003	0.874	0.127	0.404	0.049	0.005	0.710	0.104	0.329	0.043	0.004	0.612	0.089	0.285
133	NY	Huntley Power	2549	67,68	D02549C01	0.871	0.058	0.009	0.871	0.127	0.402										
134	VA	Chesapeake Energy Center		1	D038031	0.870	0.052	0.015	0.870	0.127	0.402	0.031	0.007	0.498	0.073	0.232	0.033	0.009	0.544	0.080	0.253
135	WI	Columbia		1	D080231	0.870	0.055	0.010	0.845	0.123	0.391	0.056	0.011	0.869	0.127	0.402	0.056	0.011	0.870	0.127	0.402
136	IN	IPL - Petersburg Generating Station		3	D009943	0.848	0.056	0.009	0.848	0.124	0.392	0.040	0.014	0.703	0.103	0.326	0.023	0.010	0.433	0.063	0.202
137	IN	Tanners Creek	988	U1,U2,U3	D00988C03	0.847	0.052	0.006	0.758	0.111	0.351	0.056	0.009	0.847	0.124	0.392	0.036	0.005	0.539	0.079	0.251
138	IN	IPL - Harding Street Station (EW Stout)		60	D0099060	0.837	0.048	0.002	0.641	0.094	0.298	0.062	0.002	0.837	0.122	0.387	0.041	0.001	0.558	0.082	0.260
139	GA	Jack McDonough		MB1, MB2	D00710C01	0.825	0.061	0.002	0.825	0.120	0.382	0.039	0.005	0.576	0.084	0.268	0.031	0.004	0.458	0.067	0.214
140	GA	Scherer		4	D062574	0.812	0.036	0.003	0.514	0.075	0.240	0.035	0.007	0.552	0.081	0.257	0.053	0.009	0.812	0.119	0.376
141	IN	Whitewater Valley		1, 2	D01040C12	0.810	0.050	0.002	0.667	0.098	0.310	0.061	0.002	0.810	0.118	0.375	0.039	0.002	0.528	0.077	0.246
142	GA	Scherer		1	D062571	0.805	0.035	0.004	0.504	0.074	0.235	0.034	0.008	0.549	0.080	0.256	0.052	0.010	0.805	0.117	0.372
143	WV	Pleasants Power Station	6004	2	D060042	0.798	0.053	0.008	0.798	0.116	0.369	0.038	0.019	0.746	0.109	0.346	0.023	0.013	0.469	0.069	0.219
144	GA	Scherer		2	D062572	0.793	0.035	0.004	0.499	0.073	0.233	0.034	0.008	0.541	0.079	0.252	0.051	0.009	0.793	0.116	0.367
145	MI	River Rouge		3	D017403	0.789	0.047	0.014	0.789	0.115	0.366										
146	WV	Albright Power Station	3942	3	D039423	0.785	0.058	0.002	0.785	0.115	0.364	0.025	0.005	0.390	0.057	0.182	0.038	0.004	0.535	0.078	0.249
147	GA	Yates		Y7BR	D00728Y7R	0.783	0.041	0.003	0.570	0.083	0.265	0.039	0.004	0.551	0.081	0.257	0.056	0.004	0.783	0.114	0.363
148	MO	New Madrid Power Plant		1	D021671	0.781	0.024	0.036	0.781	0.114	0.362										
149	NC	Cape Fear	2708	6		0.779	0.054	0.006	0.779	0.114	0.361	0.022	0.005	0.352	0.052	0.165	0.023	0.005	0.359	0.053	0.168
150	IN	Gibson	6113	5	D061135	0.773	0.046	0.013	0.773	0.113	0.358										
151	TN	Gallatin	3403	1,2	D03403C12	0.770	0.055	0.004	0.770	0.112	0.357										
152	IN	IPL - Petersburg Generating Station		1 (50%)	D00994M1B	0.767	0.055	0.004	0.767	0.112	0.355										
153	KS	Nearman Creek	6064	N1		0.764	0.035	0.023	0.764	0.112	0.354										
154	TX	Big Brown	3497	2		0.753	0.054	0.004	0.753	0.110	0.349	0.047	0.002	0.640	0.094	0.298	0.022	0.001	0.287	0.042	0.135
155	OH	Killen Station	6031	2	D060312	0.747	0.046	0.011	0.747	0.109	0.346	0.026	0.020	0.604	0.088	0.281	0.038	0.013	0.656	0.096	0.305
156	NJ	B L England	2378	2,3	x12	0.721	0.028	0.017	0.585	0.086	0.272	0.025	0.016	0.528	0.077	0.246	0.041	0.014	0.721	0.105	0.334
157	IA	Louisa		101	D06664101	0.720	0.037	0.018	0.720	0.105	0.334										
158	TX	Big Brown	3497	1		0.719	0.051	0.004	0.719	0.105	0.334	0.045	0.002	0.611	0.089	0.284	0.021	0.001	0.274	0.040	0.128
159	TN	John Sevier	3405	1,2	D03405C12	0.718	0.051	0.004	0.718	0.105	0.333	0.035	0.009	0.568	0.083	0.264	0.029	0.004	0.423	0.062	0.197
160	TN	John Sevier	3405	3,4	D03405C34	0.702	0.050	0.004	0.702	0.102	0.326	0.034	0.009	0.557	0.081	0.259	0.028	0.004	0.413	0.061	0.193

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161	OH	Eastlake	2837	1	D028371	0.687	0.048	0.005	0.687	0.100	0.319										
162	CT	Middletown	562	4		0.683	0.028	0.024	0.683	0.100	0.317										
163	WV	Mitchell (WV)	3948	1,2	D03948C02	0.664	0.045	0.006	0.664	0.097	0.309	0.029	0.011	0.527	0.077	0.246	0.024	0.007	0.405	0.059	0.189
164	OH	Eastlake	2837	2	D028372	0.659	0.047	0.004	0.659	0.096	0.306										
165	KY	Shawnee		1,2,3,4,5	D01379C15	0.656	0.032	0.018	0.656	0.096	0.305										
166	KS	La Cygne		2	D012412	0.654	0.031	0.015	0.611	0.089	0.284	0.038	0.011	0.641	0.094	0.298	0.034	0.016	0.654	0.096	0.304
167	MO	New Madrid Power Plant		2	D021672	0.654	0.024	0.026	0.654	0.096	0.304										
168	IN	Merom		2SG1	D062132G1	0.647	0.047	0.002	0.647	0.095	0.301										
169	SC	Winyah	6249	2,3,4	x23	0.644	0.040	0.009	0.644	0.094	0.299										
170	CT	Bridgeport Harbor Station	568	BHB3		0.637	0.025	0.023	0.627	0.092	0.291	0.033	0.016	0.636	0.093	0.296	0.029	0.020	0.637	0.093	0.296
171	OH	Cardinal	2828	1	D028281	0.633	0.046	0.003	0.633	0.093	0.294										
172	IN	Gibson	6113	4	D061135	0.629	0.016	0.032	0.629	0.092	0.292										
173	IN	IPL - Eagle Valley Generating Station		5, 6	D00991C56	0.622	0.046	0.002	0.622	0.091	0.289										
174	WV	John E Amos	3935	1,2	D03935C02	0.622	0.042	0.006	0.622	0.091	0.289	0.033	0.011	0.577	0.084	0.269	0.032	0.010	0.549	0.080	0.256
175	VA	Bremo Power Station		4	D037964	0.620	0.032	0.006	0.499	0.073	0.233	0.029	0.005	0.453	0.066	0.211	0.040	0.007	0.620	0.091	0.288
176	NY	Northport	2516	1,2,4,ugt001	x14	0.602	0.026	0.020	0.602	0.088	0.280	0.032	0.012	0.569	0.083	0.265					
177	TX	Martin Lake	6146	1		0.600	0.039	0.007	0.600	0.088	0.279	0.034	0.005	0.495	0.072	0.231	0.015	0.001	0.214	0.031	0.100
178	OH	J M Stuart	2850	4	D028404	0.599	0.041	0.005	0.599	0.088	0.278	0.024	0.012	0.468	0.068	0.218	0.031	0.008	0.507	0.074	0.236
179	OK	Grand River Dam Authority		1	D001651	0.593	0.029	0.016	0.593	0.087	0.276	0.024	0.009	0.430	0.063	0.201	0.017	0.003	0.264	0.039	0.124
180	IN	IPL - Petersburg Generating Station		2(50%)	D00994M2B	0.592	0.037	0.008	0.592	0.086	0.275										
181	IN	Alcoa Allowance Management Inc	6705	1,2	D06705C02	0.591	0.015	0.030	0.591	0.086	0.275										
182	AR	Independence		1	D066411	0.573	0.028	0.016	0.573	0.084	0.266										
183	ME	William F Wyman	1507	3		0.572	0.031	0.013	0.572	0.084	0.266										
184	OH	Eastlake	2837	3	D028373	0.571	0.040	0.004	0.571	0.083	0.266										
185	PA	Shawville	3131	1	D031311	0.570	0.039	0.005	0.570	0.083	0.265										
186	NC	Riverbend	2732	9		0.565	0.042	0.001	0.565	0.083	0.263										
187	PA	Shawville	3131	2	D031312	0.561	0.039	0.004	0.561	0.082	0.261										
188	MO	Labadie		4	D021034	0.559	0.038	0.005	0.559	0.082	0.260	0.037	0.004	0.528	0.077	0.246	0.030	0.004	0.438	0.064	0.205
189	MO	Labadie		3	D021033	0.556	0.038	0.005	0.556	0.081	0.259										
190	AR	Independence		2	D066412	0.553	0.029	0.014	0.553	0.081	0.257										
191	NY	Dynegy Danskammer	2480	1,2,3	x13	0.551	0.031	0.012	0.551	0.081	0.256										
192	TX	Martin Lake	6146	2		0.550	0.036	0.006	0.550	0.080	0.256	0.031	0.004	0.457	0.067	0.213	0.014	0.001	0.199	0.029	0.093
193	CT	New Haven Harbor	6156	NHB1		0.545	0.025	0.017	0.545	0.080	0.254										
194	NE	Nebraska City Station		1	D060961	0.543	0.034	0.008	0.543	0.079	0.253										
195	MO	Labadie		1	D021031	0.536	0.037	0.005	0.536	0.078	0.250										
196	VA	Clinch River	3775	1,2	D03775C02	0.533	0.036	0.005	0.533	0.078	0.249										
197	KY	Shawnee		6,7,8,9,10	D01379C60	0.533	0.028	0.013	0.533	0.078	0.248										
198	SC	Urquhart		URQ3	D03295UQ3	0.526	0.039	0.001	0.526	0.077	0.245										
199	OK	Muskogee	2952	4		0.515	0.026	0.014	0.515	0.075	0.240										
200	TX	Martin Lake	6146	3		0.514	0.033	0.006	0.514	0.075	0.239	0.029	0.004	0.424	0.062	0.198	0.013	0.001	0.183	0.027	0.086

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201	KY	Green River		5	D013575	0.513	0.038	0.002	0.513	0.075	0.239										
202	OH	Eastlake	2837	4,6, (5)	x17	0.506	0.029	0.010	0.506	0.074	0.236										
203	MI	Monroe	1733	3,4	D01733C34	0.500	0.022	0.016	0.500	0.073	0.233										
204	MO	Rush Island		2	D061552	0.498	0.036	0.003	0.498	0.073	0.232										
205	MO	Rush Island		1	D061551	0.497	0.035	0.003	0.497	0.073	0.232										
206	KY	D B Wilson		W1	D06823W1	0.493	0.036	0.002	0.493	0.072	0.230										
207	OK	Hugo		1	D067721	0.474	0.033	0.004	0.474	0.069	0.221										
208	IN	IPL - Harding Street Station (EW Stout)	990	70	D0099070	0.470	0.033	0.004	0.470	0.069	0.219										
209	OK	Muskogee		5	D029525	0.470	0.024	0.012	0.470	0.069	0.219										
210	OH	Cardinal	2828	2	D028282	0.470	0.033	0.003	0.470	0.069	0.219										
211	WI	Edgewater (4050)	4050	5		0.460	0.029	0.007	0.460	0.067	0.215										
212	MD	Dickerson	1572	1,2,3	D01572C23	0.459	0.018	0.017	0.459	0.067	0.214										
213	NJ	Hudson Generating Station	2403	2	D024032	0.452	0.016	0.013	0.376	0.055	0.176	0.020	0.015	0.452	0.066	0.211	0.017	0.014	0.403	0.059	0.188
214	MD	Herbert A Wagner	1554	1,2,4	x08	0.451	0.028	0.007	0.451	0.066	0.211										
215	TX	Monticello	6147	1		0.442	0.030	0.004	0.442	0.065	0.207	0.026	0.002	0.372	0.054	0.174	0.012	0.000	0.164	0.024	0.077
216	WV	Fort Martin Power Station	3943	1	D039431	0.439	0.020	0.013	0.439	0.064	0.205										
217	SC	McMeekin		MCM2	D03287MM2	0.438	0.033	0.001	0.438	0.064	0.205										
218	KY	Green River		4	D013574	0.436	0.032	0.001	0.436	0.064	0.203										
219	NC	Roxboro	2712	4A,4B	D02712C04	0.420	0.025	0.007	0.420	0.062	0.196	0.017	0.006	0.303	0.044	0.142	0.016	0.009	0.332	0.049	0.156
220	SC	McMeekin		MCM1	D03287MM1	0.420	0.031	0.001	0.420	0.061	0.196										
221	TN	Cumberland	3399	1		0.419	0.026	0.006	0.419	0.061	0.196										
222	NY	CCI Roseton LLC	8006	2	D080062	0.415	0.017	0.014	0.415	0.061	0.194										
223	TX	Monticello	6147	2		0.414	0.028	0.003	0.414	0.061	0.193										
224	IL	Newton		2	D060172	0.411	0.028	0.004	0.411	0.060	0.192										
225	PA	Hatfield's Ferry Power Station	3179	3	x20	0.409	0.009	0.023	0.409	0.060	0.191										
226	OK	Sooner	6095	1		0.409	0.018	0.013	0.409	0.060	0.191										
227	TX	Monticello	6147	3		0.408	0.025	0.006	0.408	0.060	0.191										
228	NC	Roxboro	2712	3A,3B	D02712C03	0.408	0.023	0.009	0.408	0.060	0.191	0.015	0.008	0.302	0.044	0.142	0.014	0.012	0.344	0.050	0.161
229	OK	Sooner		2	D060952	0.406	0.018	0.013	0.406	0.059	0.190										
230	OH	Conesville	2840	4	D028504	0.405	0.026	0.005	0.405	0.059	0.189										
231	MO	Thomas Hill Energy Center		MB3	D02168MB3	0.402	0.024	0.007	0.402	0.059	0.188										
232	WV	Fort Martin Power Station	3943	2	D039432	0.393	0.019	0.011	0.393	0.058	0.184										
233	WV	Longview Power	56671	1		0.389	0.027	0.003	0.389	0.057	0.182										
234	IN	R Gallagher	1008	1,2	D01008C01	0.386	0.025	0.004	0.386	0.057	0.180										
235	TX	Limestone	298	LIM2		0.376	0.020	0.008	0.376	0.055	0.176										
236	TX	H W Pirkey Power Plant	7902	1		0.373	0.023	0.006	0.373	0.055	0.175										
237	MN	Sherburne County		3	D060903	0.370	0.019	0.010	0.370	0.054	0.173										
238	NC	Marshall	2727	1,2	x11	0.369	0.018	0.010	0.369	0.054	0.172										
239	AR	Flint Creek Power Plant	6138	1		0.368	0.017	0.011	0.368	0.054	0.172										
240	OH	Miami Fort Generating Station	2832	7	D028327	0.368	0.022	0.006	0.368	0.054	0.172										

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	Stat	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
241	NC	Roxboro	2712	2	D027122	0.365	0.023	0.005	0.365	0.053	0.171										
242	WI	South Oak Creek		7, 8	D04041CS4	0.365	0.022	0.006	0.365	0.053	0.171										
243	WI	Nelson Dewey	4054	2		0.355	0.024	0.003	0.355	0.052	0.166										
244	WV	John E Amos	3935	3	D039353	0.351	0.019	0.008	0.351	0.051	0.164										
245	MN	Black Dog		3, 4	D01904CS1	0.350	0.008	0.019	0.350	0.051	0.164										
246	TX	Limestone	298	LIM1		0.349	0.019	0.008	0.349	0.051	0.163										
247	IN	R Gallagher	1008	3,4	D01008C02	0.346	0.023	0.004	0.346	0.051	0.162										
248	ME	William F Wyman	1507	1		0.341	0.016	0.010	0.341	0.050	0.160										
249	OH	Miami Fort Power Station		8	D028328	0.333	0.019	0.006	0.333	0.049	0.156										
250	ME	William F Wyman	1507	2		0.332	0.015	0.011	0.332	0.049	0.155										
251	NC	Marshall	2727	4	D027274	0.331	0.014	0.011	0.331	0.048	0.155										
252	WV	Mountaineer (1301)	6264	1	D062641	0.329	0.020	0.005	0.329	0.048	0.154										
253	WV	Mount Storm Power Station	3954	1,2	D03954CS0	0.328	0.018	0.007	0.328	0.048	0.154										
254	IA	Walter Scott Jr. Energy Center		3	D010823	0.327	0.016	0.009	0.327	0.048	0.153										
255	KS	La Cygne	1241	1		0.315	0.018	0.006	0.315	0.046	0.148	0.016	0.003	0.245	0.036	0.115	0.016	0.005	0.271	0.040	0.127
256	IL	Joppa Steam		1, 2	D00887CS1	0.299	0.020	0.003	0.299	0.044	0.140										
257	NY	Northport	2516	3	D025163	0.298	0.015	0.008	0.298	0.044	0.140										
258	IL	Joppa Steam		3, 4	D00887CS2	0.297	0.020	0.003	0.297	0.043	0.139										
259	SC	Williams	3298	WIL1	D03298WL1	0.297	0.010	0.012	0.297	0.043	0.139										
260	IA	George Neal North		3	D010913	0.291	0.015	0.007	0.291	0.043	0.136										
261	DE	Edge Moor	593	5	D005935	0.291	0.021	0.002	0.291	0.043	0.136										
262	WI	Genoa	4143	1		0.283	0.018	0.004	0.283	0.041	0.133										
263	VA	Chesterfield Power Station	3797	6	D037976	0.275	0.017	0.005	0.275	0.040	0.129										
264	IL	Wood River Power Station		5	D008985	0.267	0.017	0.004	0.267	0.039	0.125										
265	OH	J M Stuart	2850	3	D028503	0.257	0.015	0.004	0.257	0.038	0.120										
266	KY	Ghent	1356	1,2 … (1,4)	D01356C01	0.256	0.015	0.005	0.256	0.038	0.120										
267	MD	Morgantown	1573	2	D015732	0.252	0.016	0.003	0.252	0.037	0.118										
268	OH	W H Sammis	2866	7	D028667	0.252	0.012	0.007	0.252	0.037	0.118										
269	IL	Marion		4	D009764	0.250	0.016	0.004	0.250	0.037	0.117										
270	IL	Joliet 29		81, 82	D00384C82	0.247	0.015	0.004	0.247	0.036	0.116										
271	NC	Roxboro	2712	1	D027121	0.243	0.014	0.005	0.243	0.036	0.114										
272	OH	W H Sammis	2866	6	D02866M6A	0.241	0.013	0.006	0.241	0.035	0.113										
273	KY	H L Spurlock	6041	1	D060411	0.238	0.017	0.001	0.238	0.035	0.111										
274	NC	Belews Creek	8042	2	D080422	0.235	0.012	0.006	0.235	0.034	0.110										
275	OH	J M Stuart	2850	1	D028501	0.234	0.015	0.003	0.234	0.034	0.110										
276	IN	Cayuga	1001	2	D010012	0.232	0.008	0.010	0.232	0.034	0.109										
277	NC	Belews Creek	8042	1	D080421	0.231	0.012	0.006	0.231	0.034	0.108										
278	NC	Marshall	2727	3	D027273	0.228	0.015	0.003	0.228	0.033	0.107										
279	KY	East Bend	6018	2	D060182	0.228	0.011	0.006	0.228	0.033	0.107										
280	NY	NRG Dunkirk Power		3	D02554C03	0.227	0.013	0.004	0.227	0.033	0.106										

	Facility Info					2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	Stat	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
281	MO	Meramec		3	D021043	0.226	0.014	0.003	0.226	0.033	0.106										
282	KY	H L Spurlock	6041	2	D060412	0.224	0.015	0.002	0.224	0.033	0.105										
283	TX	Welsh Power Plant	6139	3		0.217	0.012	0.005	0.217	0.032	0.102										
284	KS	Quindaro	1295	2		0.215	0.011	0.006	0.215	0.031	0.101										
285	IN	Cayuga	1001	1	D010011	0.210	0.007	0.009	0.210	0.031	0.099										
286	OH	W H Sammis	2866	1,2	D02866C01	0.209	0.008	0.008	0.209	0.031	0.098										
287	OH	W H Sammis	2866	3,4	D02866C02	0.204	0.008	0.008	0.204	0.030	0.096										
288	TX	Welsh Power Plant	6139	1		0.203	0.011	0.004	0.203	0.030	0.095										
289	TX	Welsh Power Plant	6139	2		0.199	0.012	0.004	0.199	0.029	0.094										
290	KY	E W Brown	1355	2,3	D01355C03	0.188	0.008	0.007	0.188	0.028	0.088										
291	MO	Sikeston		1	D067681	0.180	0.010	0.004	0.180	0.026	0.085										
292	IN	Alcoa Allowance Management Inc	6705	4	D067054	0.172	0.009	0.004	0.172	0.025	0.081										
293	GA	Yates		Y5BR	D00728Y5R	0.170	0.012	0.001	0.170	0.025	0.080										
294	OH	J M Stuart	2850	2	D028502	0.170	0.009	0.005	0.170	0.025	0.080										
295	AL	Greene County	10	1		0.166	0.012	0.001	0.166	0.024	0.078										
296	NJ	Mercer Generating Station	2408	1	D024081	0.158	0.008	0.004	0.158	0.023	0.074										
297	GA	Bowen	703	1BLR	D007031LR	0.157	0.007	0.005	0.157	0.023	0.074										
298	NC	Cliffside	2721	5	D027215	0.151	0.009	0.002	0.151	0.022	0.071										
299	AL	E C Gaston	26	5		0.143	0.005	0.006	0.143	0.021	0.067										
300	OH	W H Sammis	2866	5	D028665	0.141	0.005	0.006	0.141	0.021	0.067										
301	NJ	Mercer Generating Station	2408	2	D024082	0.141	0.007	0.004	0.141	0.021	0.066										
302	GA	Bowen	703	4BLR	D007034LR	0.131	0.004	0.006	0.131	0.019	0.061										
303	IN	Alcoa Allowance Management Inc	6705	3	x02	0.112	0.004	0.005	0.112	0.016	0.053										
304	GA	Bowen	703	2BLR	D007032LR	0.112	0.003	0.005	0.112	0.016	0.053										
305	SC	Winyah	6249	1	D062491	0.098	0.004	0.003	0.098	0.014	0.046										
306	KS	Tecumseh Energy Center	1252	10		0.096	0.004	0.003	0.096	0.014	0.045										
307	GA	Bowen	703	3BLR	D007033LR	0.081	0.004	0.002	0.081	0.012	0.038										
308	OH	Miami Fort Generating Station	2832	5-1, 5-2, 6	D02832C06	0.018	0.001	0.000	0.018	0.003	0.008										
309	IL	Newton		1	D060171	0.000															
310	MA	Salem Harbor Station	1626	3	D016263	0.000															
311	NY	CCI Roseton LLC	8006	1	D080061	0.000											0.000	0.000	0.000	0.000	0.000

F.2 2015 EGU Ranking Visibility Impairing Sources to Acadia National Park

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
1	PA	Homer City	3122	1	D031221	9.288	0.654	0.030	**9.288**	**1.243**	**3.544**	0.258	0.071	**4.023**	0.615	**1.854**	0.288	0.031	**4.171**	0.594	**1.796**
2	OH	Avon Lake Power Plant	2836	12	D0283612	9.077	0.470	0.047	**6.744**	0.949	**2.775**	0.433	0.041	**6.176**	0.873	**2.570**	0.611	0.078	**9.077**	**1.251**	**3.564**
3	PA	Homer City	3122	2	D031222	8.144	0.577	0.026	**8.144**	**1.103**	**3.182**	0.228	0.063	**3.602**	0.545	**1.653**	0.254	0.028	**3.682**	0.526	**1.601**
4	ME	William F Wyman	1507	4	D015074	5.572	0.285	0.154	**5.572**	0.812	**2.403**	0.197	0.075	**3.518**	0.509	**1.552**	0.286	0.086	**4.871**	0.691	**2.068**
5	OH	Muskingum River	2872	5	D028725	4.648	0.355	0.003	**4.648**	0.665	**1.996**	0.266	0.007	**3.548**	0.509	**1.551**	0.170	0.005	**2.278**	0.329	**1.021**
6	VA	Yorktown Power Station	3809	3	D038093	4.370	0.304	0.031	**4.370**	0.623	**1.878**	0.225	0.022	**3.221**	0.463	**1.416**	0.271	0.041	**4.082**	0.582	**1.761**
7	MA	Brayton Point	1619	4	x07	4.306	0.151	0.049	**2.638**	0.377	**1.164**	0.267	0.058	**4.306**	0.606	**1.829**	0.139	0.078	**2.847**	0.410	**1.260**
8	PA	Shawville	3131	3,4	D03131CS1	3.324	0.235	0.018	**3.324**	0.474	**1.449**	0.142	0.030	**2.221**	0.323	**1.004**	0.110	0.014	**1.609**	0.233	0.731
9	MA	Canal Station	1599	1	D015991	3.008	0.159	0.023	**2.481**	0.344	**1.065**	0.185	0.038	**3.008**	0.420	**1.291**	0.109	0.044	**1.991**	0.288	0.898
10	NH	Newington	8002	1	D080021	2.850	0.106	0.144	**2.775**	0.473	**1.447**	0.112	0.068	**2.470**	0.340	**1.053**	0.125	0.092	**2.850**	0.410	**1.261**
11	PA	Keystone	3136	1	D031361	2.775	0.171	0.033	**2.775**	0.383	**1.182**	0.086	0.074	**1.972**	0.303	0.942	0.080	0.032	**1.466**	0.213	0.669
12	IN	Rockport	6166	MB1,MB2	D06166C02	2.688	0.168	0.036	**2.688**	0.383	**1.180**	0.079	0.066	**1.809**	0.275	0.859	0.096	0.028	**1.615**	0.234	0.734
13	PA	Keystone	3136	2	D031362	2.677	0.164	0.032	**2.677**	0.368	**1.138**	0.082	0.072	**1.900**	0.293	0.913	0.077	0.032	**1.413**	0.205	0.645
14	VA	Yorktown Power Station	3809	1,2	D03809CS0	2.525	0.155	0.016	**2.233**	0.323	**1.001**	0.135	0.016	**1.973**	0.285	0.888	0.176	0.018	**2.525**	0.364	**1.125**
15	KY	Big Sandy	1353	BSU1,BSU2	D01353C02	2.426	0.177	0.011	**2.426**	0.352	**1.090**	0.118	0.025	**1.886**	0.270	0.842	0.146	0.015	**2.107**	0.305	0.948
16	MA	Canal Station	1599	2	D015992	2.395	0.122	0.037	**2.171**	0.299	0.931	0.124	0.053	**2.395**	0.334	**1.036**	0.088	0.076	**2.156**	0.312	0.969
17	OH	Muskingum River	2872	1,2,3,4	D02872C04	2.336	0.168	0.006	**2.336**	0.328	**1.017**	0.128	0.012	**1.853**	0.265	0.827	0.079	0.012	**1.181**	0.172	0.542
18	GA	Harllee Branch	709	3&4	D00709C02	2.141	0.146	0.014	**2.068**	0.302	0.938	0.140	0.024	**2.141**	0.309	0.961	0.115	0.019	**1.744**	0.253	0.791
19	MI	Trenton Channel	1745	9A	D017459A	2.094	0.131	0.016	**1.920**	0.278	0.866	0.113	0.013	**1.641**	0.238	0.745	0.146	0.015	**2.094**	0.303	0.942
20	PA	Brunner Island	3140	1,2	D03140C12	2.053	0.065	0.036	**1.320**	0.192	0.605	0.086	0.070	**2.053**	0.296	0.922	0.080	0.050	**1.697**	0.246	0.770
21	MI	St. Clair	1743	6	D017436	2.049	0.095	0.008	**1.345**	0.196	0.616	0.150	0.009	**2.049**	0.300	0.932	0.105	0.009	**1.487**	0.216	0.678
22	WV	Kammer	3947	1,2,3	D03947C03	1.936	0.141	0.010	**1.936**	0.284	0.886	0.083	0.017	**1.319**	0.190	0.599	0.074	0.011	**1.104**	0.161	0.508
23	IN	Michigan City Generating Station		12	D0099712	1.883	0.035	0.003	0.499	0.073	0.234	0.141	0.007	**1.883**	0.278	0.867	0.080	0.008	**1.152**	0.168	0.529
24	IN	Tanners Creek	988	U4	D00988U4	1.879	0.123	0.007	**1.704**	0.246	0.771	0.133	0.011	**1.879**	0.272	0.849	0.086	0.007	**1.208**	0.176	0.554
25	PA	Brunner Island	3140	3	D031403	1.851	0.065	0.045	**1.445**	0.208	0.654	0.055	0.055	**1.447**	0.211	0.662	0.073	0.068	**1.851**	0.268	0.837
26	OH	Gen J M Gavin	8102	1	D081021	1.831	0.112	0.017	**1.831**	0.245	0.766	0.101	0.032	**1.775**	0.252	0.787	0.074	0.029	**1.343**	0.195	0.614
27	MI	Belle River		2	D060342	1.810	0.076	0.032	**1.409**	0.204	0.640	0.090	0.024	**1.508**	0.216	0.678	0.088	0.050	**1.810**	0.262	0.819
28	MI	St. Clair	1743	7	D017437	1.790	0.080	0.014	**1.221**	0.178	0.560	0.121	0.014	**1.790**	0.256	0.800	0.102	0.018	**1.553**	0.225	0.707
29	OH	W H Zimmer Generating Station	6019	1	D060191	1.769	0.097	0.027	**1.649**	0.234	0.732	0.085	0.054	**1.769**	0.264	0.823	0.069	0.029	**1.285**	0.187	0.589
30	WV	Harrison Power Station		1 (25%), 2 (20%	D03944C01	1.749	0.053	0.041	**1.228**	0.178	0.560	0.030	0.103	**1.749**	0.254	0.795	0.024	0.043	0.887	0.129	0.410
31	NH	Merrimack	2364	2	D023642	1.695	0.046	0.140	**1.695**	0.355	**1.098**	0.046	0.102	**1.621**	0.284	0.885	0.048	0.074	**1.596**	0.232	0.726
32	OH	Gen J M Gavin	8102	2	D081022	1.687	0.105	0.015	**1.687**	0.228	0.714	0.094	0.029	**1.637**	0.233	0.730	0.069	0.026	**1.239**	0.180	0.568
33	MI	Belle River		1	D060341	1.680	0.067	0.032	**1.306**	0.188	0.591	0.080	0.024	**1.397**	0.197	0.620	0.078	0.050	**1.680**	0.244	0.762
34	KY	Mill Creek	1364	1,2,3	x05	1.637	0.065	0.011	0.949	0.143	0.451	0.099	0.028	**1.637**	0.239	0.750	0.040	0.013	0.690	0.101	0.320
35	IN	Wabash River Gen Station	1010	2,3,4,5,6	D01010C05	1.623	0.119	0.006	**1.623**	0.236	0.740	0.099	0.010	**1.420**	0.206	0.646	0.095	0.007	**1.328**	0.193	0.608
36	PA	Montour	3149	1	D031491	1.623	0.075	0.048	**1.623**	0.234	0.733	0.050	0.056	**1.381**	0.204	0.640	0.068	0.052	**1.578**	0.229	0.718
37	PA	Homer City		3	D031223	1.516	0.077	0.028	**1.516**	0.200	0.628	0.027	0.076	**1.193**	0.198	0.621	0.036	0.033	0.912	0.133	0.421
38	MI	St. Clair	1743	1,2,3,4,...6	x09	1.489	0.056	0.026	**1.084**	0.155	0.488	0.070	0.025	**1.280**	0.180	0.568	0.066	0.047	**1.489**	0.216	0.679
39	NY	Somerset Operating Company (Kintigh)		1	D060821	1.488	0.098	0.018	**1.299**	0.218	0.685	0.082	0.020	**1.190**	0.193	0.607	0.077	0.037	**1.488**	0.216	0.678
40	PA	Montour	3149	2	D031492	1.462	0.061	0.048	**1.462**	0.209	0.655	0.041	0.056	**1.225**	0.186	0.586	0.056	0.052	**1.415**	0.206	0.646

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
41	TN	Johnsonville	3406	1 thru 10	D03406C10	1.393	0.110	0.003	1.393	0.213	0.670	0.035	0.003	0.486	0.071	0.228	0.040	0.003	0.558	0.082	0.260
42	OH	Killen Station	6031	2	D060312	1.221	0.064	0.026	1.221	0.172	0.541	0.036	0.048	0.986	0.160	0.506	0.052	0.030	1.072	0.156	0.493
43	OH	Kyger Creek	2876	1,2,3,4,5	D02876C01	1.203	0.059	0.019	1.203	0.149	0.472	0.048	0.036	1.077	0.160	0.506	0.034	0.023	0.754	0.110	0.350
44	MD	C P Crane	1552	2	D015522	1.196	0.036	0.018	0.752	0.103	0.329	0.037	0.022	0.796	0.113	0.358	0.054	0.037	1.196	0.174	0.549
45	IL	Powerton		51,52,61,62	D00879C06	1.167	0.031	0.010	0.542	0.078	0.248	0.037	0.016	0.696	0.101	0.321	0.059	0.031	1.167	0.170	0.536
46	MD	Herbert A Wagner	1554	3	D015543	1.163	0.065	0.002	0.836	0.127	0.403	0.077	0.002	0.985	0.150	0.473	0.086	0.003	1.163	0.169	0.534
47	MI	J H Campbell		3 (50%)	D01710M3A	1.158	0.060	0.006	0.791	0.127	0.401	0.094	0.007	1.158	0.193	0.607	0.050	0.009	0.758	0.111	0.351
48	NH	Schiller	2367	4		1.155	0.049	0.032	1.053	0.155	0.488	0.059	0.029	1.155	0.169	0.532	0.053	0.021	0.961	0.140	0.443
49	NH	Schiller	2367	6		1.116	0.050	0.027	1.018	0.147	0.464	0.060	0.025	1.116	0.162	0.511	0.053	0.018	0.928	0.135	0.429
50	KY	Ghent	1356	3,4 … (2,3)	D01356C02	1.085	0.052	0.010	0.802	0.118	0.374	0.063	0.020	1.085	0.158	0.499	0.037	0.011	0.635	0.093	0.295
51	NY	Oswego Harbor Power	2594	6	x15	1.058	0.063	0.014	1.058	0.146	0.462	0.032	0.014	0.601	0.086	0.275	0.041	0.023	0.837	0.122	0.387
52	WV	Kanawha River	3936	1,2	D03936C02	1.021	0.069	0.007	1.002	0.145	0.458	0.060	0.019	1.021	0.149	0.472	0.046	0.011	0.751	0.110	0.348
53	MI	J H Campbell		A,B,1,2	D01710C09	1.001	0.045	0.006	0.643	0.097	0.308	0.076	0.007	1.001	0.157	0.496	0.047	0.009	0.720	0.105	0.334
54	MI	J C Weadock		7, 8	D01720C09	0.969	0.060	0.015	0.969	0.143	0.451	0.042	0.010	0.660	0.098	0.311	0.046	0.019	0.855	0.125	0.395
55	IN	Whitewater Valley		1, 2	D01040C12	0.968	0.059	0.002	0.797	0.116	0.369	0.072	0.002	0.968	0.141	0.446	0.047	0.002	0.631	0.092	0.293
56	OH	Conesville	2840	5,6	D02840C06	0.967	0.051	0.019	0.765	0.133	0.421	0.027	0.043	0.967	0.135	0.426	0.023	0.027	0.655	0.096	0.304
57	MA	Brayton Point	1619	2	D016192	0.947	0.028	0.048	0.875	0.145	0.459	0.032	0.038	0.947	0.133	0.422	0.028	0.036	0.846	0.123	0.391
58	GA	Yates		Y6BR	D00728Y6R	0.936	0.048	0.004	0.680	0.100	0.316	0.046	0.005	0.657	0.096	0.307	0.067	0.005	0.936	0.137	0.432
59	IN	IPL - Harding Street Station (EW Stout)		50	D0099050	0.891	0.051	0.002	0.682	0.100	0.317	0.067	0.002	0.891	0.130	0.412	0.044	0.001	0.593	0.087	0.276
60	WV	Pleasants Power Station	6004	1	D060041	0.882	0.049	0.013	0.882	0.117	0.371	0.035	0.031	0.870	0.125	0.396	0.021	0.022	0.553	0.081	0.258
61	CT	Bridgeport Harbor Station	568	BHB3		0.855	0.038	0.025	0.841	0.120	0.379	0.050	0.017	0.854	0.128	0.406	0.044	0.022	0.855	0.125	0.395
62	IN	Tanners Creek	988	U1,U2,U3	D00988C03	0.847	0.051	0.007	0.758	0.110	0.350	0.055	0.010	0.847	0.124	0.393	0.035	0.006	0.539	0.079	0.251
63	MO	Sibley		1, 2, 3	D02094C01	0.847	0.048	0.021	0.847	0.131	0.416	0.027	0.010	0.470	0.072	0.228	0.044	0.013	0.746	0.109	0.346
64	IN	IPL - Petersburg Generating Station		3	D009943	0.837	0.043	0.013	0.837	0.107	0.341	0.031	0.020	0.694	0.098	0.311	0.018	0.015	0.428	0.063	0.200
65	MA	Brayton Point	1619	3	D016193	0.818	0.023	0.021	0.590	0.084	0.267	0.033	0.017	0.818	0.097	0.308	0.021	0.020	0.535	0.078	0.249
66	IN	IPL - Harding Street Station (EW Stout)		60	D0099060	0.809	0.046	0.001	0.620	0.091	0.288	0.061	0.002	0.809	0.118	0.374	0.040	0.001	0.539	0.079	0.251
67	PA	Martins Creek	3148	3,4	x21	0.778	0.001	0.056	0.755	0.111	0.352	0.001	0.060	0.778	0.119	0.378	0.001	0.054	0.737	0.108	0.342
68	PA	Cheswick	8226	1	D082261	0.769	0.028	0.020	0.769	0.091	0.290	0.016	0.042	0.529	0.111	0.353	0.014	0.016	0.397	0.058	0.185
69	IA	Ottumwa		1	D062541	0.745	0.037	0.019	0.745	0.107	0.339	0.028	0.013	0.545	0.077	0.247	0.033	0.019	0.688	0.101	0.319
70	WV	Mitchell (WV)	3948	1,2	D03948C02	0.694	0.040	0.009	0.694	0.094	0.300	0.026	0.017	0.551	0.082	0.262	0.021	0.011	0.423	0.062	0.198
71	MD	C P Crane	1552	1	D015521	0.668	0.018	0.011	0.421	0.057	0.182	0.019	0.014	0.445	0.063	0.200	0.027	0.024	0.668	0.098	0.310
72	AL	E C Gaston	26	1, 2	D00026CAN	0.668	0.023	0.002	0.318	0.047	0.150	0.027	0.004	0.406	0.059	0.190	0.045	0.006	0.668	0.098	0.310
73	GA	Harllee Branch	709	1,2	D00709C01	0.661	0.048	0.003	0.645	0.097	0.308	0.044	0.006	0.661	0.096	0.307	0.039	0.005	0.584	0.085	0.272
74	NH	Merrimack	2364	1	D023641	0.649	0.016	0.057	0.649	0.142	0.448	0.016	0.042	0.623	0.111	0.353	0.017	0.030	0.617	0.090	0.287
75	NJ	B L England	2378	2,3	x12	0.643	0.024	0.017	0.521	0.078	0.247	0.021	0.016	0.471	0.070	0.224	0.035	0.014	0.643	0.094	0.299
76	IA	George Neal South		4	D073434	0.638	0.014	0.008	0.287	0.042	0.135	0.026	0.010	0.502	0.070	0.224	0.031	0.018	0.638	0.093	0.297
77	OK	Northeastern		3313, 3314	D02963C10	0.637	0.025	0.010	0.556	0.066	0.211	0.030	0.010	0.637	0.077	0.246	0.021	0.003	0.311	0.046	0.146
78	IN	Gibson	6113	1,2,3	D06113C03	0.629	0.033	0.014	0.515	0.089	0.284	0.029	0.020	0.629	0.093	0.296	0.017	0.012	0.384	0.056	0.180
79	NY	Cayuga Operating Company, LLC		1 (33%), 2 (33%	D02535C01	0.606	0.037	0.008	0.606	0.086	0.274	0.036	0.007	0.581	0.082	0.261	0.030	0.009	0.514	0.075	0.240
80	MD	Chalk Point	1571	1,2	D01571CE2	0.596	0.030	0.001	0.430	0.059	0.188	0.039	0.001	0.571	0.077	0.244	0.045	0.001	0.596	0.087	0.277

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81	NC	Roxboro	2712	4A,4B	D02712C04	0.588	0.039	0.008	0.588	0.090	0.286	0.026	0.008	0.425	0.064	0.203	0.025	0.011	0.465	0.068	0.217
82	TX	Big Brown	3497	1		0.588	0.042	0.004	0.588	0.087	0.276	0.036	0.002	0.500	0.074	0.234	0.017	0.000	0.224	0.033	0.105
83	IN	IPL - Petersburg Generating Station		4	D009944	0.581	0.031	0.008	0.581	0.073	0.234	0.022	0.012	0.463	0.065	0.207	0.013	0.009	0.281	0.041	0.132
84	MA	Brayton Point	1619	1	D016191	0.574	0.029	0.013	0.518	0.079	0.253	0.033	0.011	0.574	0.084	0.267	0.029	0.010	0.496	0.073	0.231
85	MI	Trenton Channel	1745	16,17,18,19	x10	0.573	0.033	0.008	0.547	0.079	0.252	0.031	0.007	0.493	0.072	0.229	0.037	0.007	0.573	0.084	0.267
86	TX	Big Brown	3497	2		0.564	0.040	0.004	0.564	0.084	0.267	0.035	0.002	0.480	0.071	0.226	0.016	0.001	0.215	0.032	0.101
87	NC	Roxboro	2712	3A,3B	D02712C03	0.561	0.038	0.009	0.561	0.089	0.283	0.025	0.009	0.415	0.064	0.203	0.024	0.013	0.473	0.069	0.221
88	MD	Brandon Shores	602	2	D006022	0.501	0.017	0.006	0.253	0.045	0.144	0.021	0.008	0.303	0.055	0.177	0.023	0.015	0.501	0.073	0.233
89	MD	Brandon Shores	602	1	D006021	0.472	0.019	0.005	0.242	0.044	0.142	0.023	0.006	0.291	0.055	0.176	0.025	0.011	0.472	0.069	0.220
90	KY	Paradise	1378	2	D013782	0.460	0.031	0.005	0.460	0.067	0.214	0.020	0.004	0.305	0.046	0.146	0.018	0.003	0.275	0.040	0.129
91	MI	Monroe	1733	1,2	D01733C12	0.441	0.009	0.010	0.281	0.035	0.113	0.007	0.015	0.262	0.042	0.134	0.013	0.021	0.441	0.064	0.206
92	WV	John E Amos	3935	1,2	D03935C02	0.433	0.022	0.007	0.433	0.056	0.179	0.017	0.014	0.402	0.060	0.193	0.017	0.012	0.383	0.056	0.179
93	IN	Clifty Creek	983	4,5,6	D00983C02	0.427	0.012	0.008	0.353	0.039	0.125	0.014	0.020	0.427	0.065	0.208	0.009	0.012	0.286	0.042	0.134
94	TX	Martin Lake	6146	1		0.426	0.027	0.006	0.426	0.063	0.201	0.024	0.004	0.351	0.052	0.166	0.011	0.001	0.152	0.022	0.071
95	MD	Morgantown	1573	1	D015731	0.418	0.018	0.003	0.290	0.041	0.133	0.020	0.004	0.317	0.046	0.146	0.026	0.006	0.418	0.061	0.195
96	TX	Monticello	6147	1		0.404	0.028	0.003	0.404	0.059	0.187	0.024	0.002	0.339	0.049	0.158	0.011	0.000	0.149	0.022	0.070
97	TX	Martin Lake	6146	3		0.404	0.026	0.006	0.404	0.060	0.191	0.022	0.003	0.333	0.049	0.157	0.010	0.001	0.144	0.021	0.068
98	OK	Grand River Dam Authority		1	D001651	0.383	0.022	0.000	0.383	0.043	0.137	0.018	0.000	0.278	0.035	0.113	0.013	0.000	0.171	0.025	0.080
99	IN	Clifty Creek	983	1,2,3	D00983C01	0.375	0.014	0.006	0.315	0.037	0.119	0.015	0.015	0.375	0.058	0.184	0.010	0.009	0.251	0.037	0.118
100	MN	Sherburne County		1, 2	D06090CS1	0.372	0.002	0.015	0.235	0.033	0.107	0.004	0.020	0.372	0.046	0.146	0.003	0.020	0.303	0.044	0.142
101	KY	Paradise	1378	1	D01720C09	0.367	0.024	0.004	0.367	0.054	0.172	0.016	0.004	0.244	0.037	0.117	0.015	0.002	0.220	0.032	0.103
102	KY	Paradise	1378	3	D013783	0.353	0.020	0.008	0.353	0.053	0.169	0.013	0.009	0.306	0.042	0.134	0.012	0.005	0.223	0.033	0.105
103	KY	John S. Cooper	1384	1,2	D01384CS1	0.350	0.024	0.002	0.350	0.051	0.163	0.008	0.002	0.126	0.019	0.060	0.009	0.001	0.134	0.020	0.063
104	OH	J M Stuart	2850	4	D028404	0.342	0.020	0.005	0.342	0.047	0.151	0.012	0.011	0.267	0.043	0.138	0.015	0.007	0.290	0.042	0.136
105	NJ	Hudson Generating Station	2403	2	D024032	0.332	0.011	0.010	0.276	0.040	0.129	0.014	0.011	0.332	0.049	0.155	0.012	0.011	0.296	0.043	0.139
106	TX	Martin Lake	6146	2		0.325	0.021	0.006	0.325	0.050	0.160	0.018	0.003	0.270	0.041	0.131	0.008	0.001	0.118	0.017	0.055
107	KY	Mill Creek	1364	4	D013644	0.320	0.004	0.006	0.208	0.020	0.063	0.006	0.015	0.320	0.040	0.129	0.002	0.008	0.138	0.020	0.065
108	MO	Labadie		4	D021034	0.317	0.021	0.003	0.317	0.046	0.148	0.020	0.003	0.299	0.044	0.139	0.016	0.003	0.248	0.036	0.116
109	DE	Indian River	594	4	D005944	0.312	0.018	0.002	0.253	0.038	0.122	0.022	0.003	0.312	0.046	0.149	0.011	0.002	0.170	0.025	0.080
110	MI	Dan E Karn	1702	3,4 (1,2)	D01702C09	0.309	0.019	0.005	0.309	0.047	0.150	0.014	0.004	0.215	0.033	0.105	0.013	0.007	0.260	0.038	0.122
111	OH	Cardinal	2828	3	D028283	0.291	0.015	0.005	0.291	0.038	0.122	0.010	0.011	0.191	0.039	0.124	0.009	0.004	0.181	0.027	0.085
112	IN	R M Schahfer Generating Station		14	D0608514	0.254	0.001	0.006	0.110	0.013	0.042	0.003	0.008	0.254	0.021	0.068	0.002	0.015	0.226	0.033	0.106
113	IN	R M Schahfer Generating Station		15	D0608515	0.217	0.001	0.005	0.096	0.012	0.038	0.002	0.008	0.217	0.020	0.064	0.001	0.014	0.201	0.029	0.094
114	VA	Chesterfield Power Station	3797	5	D037975	0.214	0.009	0.002	0.142	0.022	0.070	0.011	0.002	0.171	0.025	0.079	0.014	0.003	0.214	0.031	0.100
115	IL	Kincaid Generating Station		1, 2	D00876C02	0.199	0.007	0.003	0.136	0.020	0.064	0.008	0.004	0.161	0.023	0.074	0.010	0.005	0.199	0.029	0.093
116	SC	Wateree	3297	WAT1	D03297WT1	0.181	0.003	0.002	0.181	0.010	0.033	0.001	0.004	0.077	0.010	0.031	0.001	0.002	0.040	0.006	0.019
117	WI	Columbia		1	D080231	0.176	0.005	0.008	0.171	0.024	0.078	0.005	0.009	0.176	0.026	0.083	0.005	0.009	0.176	0.026	0.083
118	SC	Wateree	3297	WAT2	D03297WT2	0.175	0.003	0.002	0.175	0.010	0.032	0.001	0.003	0.067	0.008	0.025	0.001	0.002	0.035	0.005	0.016
119	IL	Baldwin Energy Complex		1,2	D008892	0.175	0.007	0.005	0.142	0.022	0.071	0.008	0.005	0.175	0.025	0.081	0.007	0.005	0.159	0.023	0.075
120	GA	Scherer		1	D062571	0.162	0.001	0.004	0.101	0.010	0.030	0.001	0.009	0.111	0.019	0.060	0.001	0.011	0.162	0.024	0.076

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121	GA	Scherer		4	D062574	0.162	0.001	0.004	0.102	0.010	0.031	0.001	0.009	0.110	0.019	0.059	0.001	0.011	0.162	0.024	0.076
122	WI	Columbia		2	D080232	0.154	0.004	0.006	0.123	0.020	0.064	0.005	0.008	0.152	0.025	0.079	0.005	0.006	0.154	0.023	0.073
123	TN	Kingston	3407	6,7,8,9	D03407C69	0.149	0.007	0.003	0.149	0.019	0.061	0.003	0.003	0.073	0.013	0.041	0.003	0.002	0.071	0.010	0.033
124	TN	Kingston	3407	1,2,3,4,5	D03407C15	0.146	0.007	0.003	0.146	0.018	0.059	0.003	0.004	0.072	0.013	0.041	0.003	0.002	0.070	0.010	0.033
125	VA	Chesterfield Power Station	3797	4	D037974	0.139	0.006	0.001	0.095	0.014	0.045	0.007	0.001	0.112	0.016	0.053	0.009	0.001	0.139	0.020	0.065
126	GA	Scherer		2	D062572	0.123	0.000	0.003	0.077	0.007	0.023	0.000	0.007	0.084	0.014	0.045	0.001	0.009	0.123	0.018	0.058
127	GA	Yates		Y7BR	D00728Y7R	0.072	0.000	0.004	0.052	0.009	0.028	0.000	0.005	0.051	0.010	0.031	0.000	0.005	0.072	0.011	0.034
128	KS	La Cygne	1241	1		0.042	0.003	0.000	0.042	0.006	0.019	0.003	0.000	0.033	0.005	0.017	0.003	0.000	0.037	0.005	0.017
129	VA	Bremo Power Station		4	D037964	0.026	0.000	0.002	0.021	0.003	0.010	0.000	0.001	0.019	0.003	0.009	0.000	0.002	0.026	0.004	0.012
130	KS	La Cygne		2	D012412	0.011	0.001	0.000	0.011	0.002	0.005	0.001	0.000	0.011	0.002	0.006	0.001	0.000	0.011	0.002	0.005

F.3 2011 EGU Ranking Visibility Impairing Sources to Brigantine

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
1	OH	Kyger Creek	2876	1,2,3,4,5	D02876C01	41.713	**3.221**	0.209	**41.713**	**2.691**	**7.590**	**2.158**	0.600	**32.539**	**2.158**	**6.346**	**1.335**	0.231	**18.113**	**1.258**	**4.010**
2	OH	Muskingum River	2872	1,2,3,4	D02872C04	17.707	0.826	0.036	**9.838**	0.703	**2.374**	**1.242**	0.292	**17.707**	**1.232**	**3.936**	0.626	0.100	**8.251**	0.593	**2.027**
3	VA	Chesterfield Power Station	3797	5	D037975	16.366	**1.142**	0.103	**14.324**	**1.008**	**3.294**	**1.159**	0.262	**16.366**	**1.144**	**3.687**	0.805	0.255	**12.113**	0.859	**2.851**
4	NJ	B L England	2378	1		12.001	0.862	0.188	**12.001**	0.851	**2.828**	0.328	0.046	**4.220**	0.308	**1.088**	0.180	0.036	**2.430**	0.178	0.641
5	OH	Walter C Beckford Generating Station		6	D028306	8.843	0.753	0.023	**8.843**	0.634	**2.158**	0.566	0.036	**6.819**	0.492	**1.704**	0.409	0.034	**5.006**	0.364	**1.278**
6	MD	Chalk Point	1571	1,2	D01571CE2	7.899	0.316	0.053	**4.163**	0.304	**1.074**	0.353	0.092	**5.032**	0.366	**1.285**	0.603	0.093	**7.899**	0.568	**1.949**
7	VA	Yorktown Power Station	3809	1,2	D03809CS0	7.637	0.427	0.065	**5.555**	0.403	**1.409**	0.358	0.136	**5.587**	0.405	**1.417**	0.583	0.090	**7.637**	0.550	**1.890**
8	WV	Harrison Power Station		1 (25%), 2 (2(	D03944C01	6.653	0.045	0.066	**1.254**	0.092	0.336	0.110	0.470	**6.653**	0.481	**1.665**	0.056	0.109	**1.873**	0.138	0.498
9	PA	Homer City	3122	2	D031222	6.204	0.316	0.026	**3.851**	0.281	0.998	0.437	0.053	**5.544**	0.402	**1.406**	0.463	0.086	**6.204**	0.449	**1.561**
10	NJ	B L England	2378	2,3	x12	6.112	0.265	0.273	**6.112**	0.443	**1.540**	0.101	0.067	**1.891**	0.139	0.502	0.055	0.053	**1.222**	0.090	0.327
11	PA	Homer City	3122	1	D031221	6.016	0.316	0.021	**3.792**	0.277	0.983	0.437	0.044	**5.429**	0.394	**1.379**	0.462	0.070	**6.016**	0.436	**1.517**
12	MI	Monroe	1733	1,2	D01733C12	5.881	0.220	0.054	**3.076**	0.225	0.805	0.396	0.124	**5.881**	0.426	**1.486**	0.317	0.104	**4.754**	0.346	**1.218**
13	OH	Eastlake		5	D028375	5.606	0.149	0.028	**1.992**	0.146	0.528	0.322	0.044	**4.120**	0.300	**1.064**	0.411	0.085	**5.606**	0.407	**1.421**
14	IN	Rockport	6166	MB1,MB2	D06166C02	5.377	0.254	0.098	**3.974**	0.290	**1.028**	0.408	0.068	**5.377**	0.390	**1.367**	0.195	0.095	**3.266**	0.239	0.852
15	OH	Avon Lake Power Plant	2836	12	D0283612	5.168	0.215	0.024	**2.689**	0.197	0.707	0.380	0.059	**4.956**	0.360	**1.266**	0.415	0.043	**5.168**	0.375	**1.317**
16	MI	St. Clair	1743	1,2,3,4,...6	x09	5.077	0.079	0.034	**1.262**	0.093	0.338	0.168	0.086	**2.868**	0.210	0.752	0.301	0.148	**5.077**	0.369	**1.295**
17	MD	Brandon Shores	602	2	D006022	4.976	0.020	0.099	**1.354**	0.100	0.362	0.056	0.378	**4.976**	0.362	**1.271**	0.052	0.127	**2.038**	0.150	0.540
18	VA	Chesapeake Energy Center		4	D038034	4.916	0.362	0.074	**4.916**	0.358	**1.257**	0.331	0.083	**4.673**	0.340	**1.198**	0.314	0.074	**4.375**	0.319	**1.126**
19	PA	Montour	3149	1	D031491	4.810	0.074	0.064	**1.562**	0.115	0.417	0.205	0.219	**4.810**	0.350	**1.231**	0.163	0.242	**4.607**	0.335	**1.182**
20	OH	Muskingum River	2872	5	D028725	4.784	0.266	0.005	**3.036**	0.222	0.795	0.390	0.034	**4.784**	0.348	**1.225**	0.200	0.012	**2.370**	0.174	0.626
21	MD	Brandon Shores	602	1	D006021	4.722	0.021	0.093	**1.292**	0.095	0.346	0.057	0.355	**4.722**	0.344	**1.210**	0.054	0.119	**1.961**	0.144	0.520
22	MA	Brayton Point	1619	3	D016193	4.623	0.251	0.037	**3.240**	0.237	0.846	0.261	0.052	**3.516**	0.257	0.914	0.352	0.058	**4.623**	0.337	**1.186**
23	MD	Morgantown	1573	1	D015731	4.619	0.205	0.008	**2.394**	0.176	0.632	0.283	0.017	**3.372**	0.247	0.879	0.385	0.024	**4.619**	0.336	**1.185**
24	PA	Montour	3149	2	D031492	4.599	0.075	0.058	**1.501**	0.111	0.401	0.207	0.199	**4.599**	0.335	**1.180**	0.165	0.219	**4.359**	0.318	**1.122**
25	PA	Portland		3 (2)	d031132	4.570	0.206	0.073	**3.142**	0.230	0.821	0.277	0.082	**4.043**	0.295	**1.045**	0.286	0.119	**4.570**	0.333	**1.173**
26	TN	Johnsonville	3406	1 thru 10	D03406C10	4.496	0.108	0.039	**1.645**	0.121	0.438	0.294	0.027	**3.618**	0.264	0.940	0.313	0.085	**4.496**	0.327	**1.155**
27	IN	Wabash River Gen Station	1010	2,3,4,5,6	D01010C05	4.468	0.371	0.025	**4.468**	0.325	**1.148**	0.273	0.057	**3.716**	0.271	0.964	0.194	0.025	**2.467**	0.181	0.650
28	PA	Cheswick	8226	1	D082261	4.404	0.228	0.049	**3.122**	0.228	0.816	0.316	0.075	**4.404**	0.321	**1.133**	0.275	0.098	**4.209**	0.307	**1.085**
29	PA	Brunner Island	3140	3	D031403	4.290	0.085	0.088	**1.954**	0.144	0.518	0.227	0.111	**3.819**	0.279	0.990	0.224	0.155	**4.290**	0.313	**1.105**
30	VA	Chesterfield Power Station	3797	3,7,8A	x28	4.108	0.307	0.027	**3.755**	0.274	0.974	0.301	0.064	**4.108**	0.300	**1.061**					
31	KY	Big Sandy	1353	BSU1,BSU2	D01353C02	4.068	0.325	0.036	**4.068**	0.297	**1.051**	0.305	0.034	**3.814**	0.278	0.988	0.289	0.048	**3.792**	0.277	0.983
32	MI	St. Clair	1743	7	D017437	3.994	0.107	0.010	**1.312**	0.097	0.351	0.217	0.026	**2.725**	0.200	0.716	0.319	0.036	**3.994**	0.291	**1.033**
33	PA	Brunner Island	3140	1,2	D03140C12	3.940	0.060	0.090	**1.700**	0.125	0.453	0.189	0.159	**3.940**	0.288	**1.019**	0.153	0.167	**3.626**	0.265	0.942
34	IN	Clifty Creek	983	4,5,6	D00983C02	3.934	0.319	0.030	**3.934**	0.287	**1.018**	0.315	0.032	**3.904**	0.285	**1.010**	0.175	0.038	**2.389**	0.175	0.630
35	MI	Belle River		2	D060342	3.912	0.057	0.025	0.927	0.068	0.249	0.127	0.056	**2.064**	0.152	0.547	0.237	0.110	**3.912**	0.285	**1.013**
36	MI	Belle River		1	D060341	3.860	0.056	0.025	0.914	0.067	0.246	0.125	0.056	**2.036**	0.150	0.540	0.232	0.109	**3.860**	0.282	1.000
37	VA	Chesapeake Energy Center		3	D038033	3.795	0.253	0.083	**3.795**	0.277	0.984	0.232	0.092	**3.654**	0.267	0.949	0.220	0.079	**3.364**	0.246	0.877
38	PA	Keystone	3136	1	D031361	3.789	0.164	0.068	**2.619**	0.192	0.689	0.177	0.118	**3.339**	0.244	0.871	0.247	0.089	**3.789**	0.277	0.982
39	PA	Keystone	3136	2	D031362	3.771	0.164	0.068	**2.607**	0.191	0.686	0.177	0.117	**3.321**	0.243	0.866	0.246	0.088	**3.771**	0.275	0.978
40	PA	Shawville	3131	3,4	D03131CS1	3.714	0.099	0.020	**1.338**	0.099	0.358	0.185	0.057	**2.722**	0.200	0.715	0.265	0.065	**3.714**	0.271	0.964

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
41	OH	W H Zimmer Generating Station	6019	1	D060191	3.675	0.240	0.066	**3.436**	0.251	0.895	0.237	0.089	**3.675**	0.268	0.954	0.187	0.094	**3.164**	0.232	0.827
42	OH	Walter C Beckford Generating Station		5 (50%)	D02830M51	3.531	0.304	0.010	**3.531**	0.258	0.918	0.228	0.015	**2.737**	0.201	0.719	0.165	0.014	**2.013**	0.148	0.534
43	MD	Herbert A Wagner	1554	3	D015543	3.405	0.064	0.036	**1.130**	0.083	0.303	0.183	0.119	**3.405**	0.249	0.887	0.167	0.031	**2.230**	0.164	0.590
44	WV	Kammer	3947	1,2,3	D03947C03	3.347	0.114	0.022	**1.533**	0.113	0.409	0.205	0.091	**3.347**	0.245	0.873	0.124	0.038	**1.825**	0.134	0.485
45	VA	Yorktown Power Station	3809	3	D038093	3.340	0.221	0.036	**2.889**	0.212	0.758	0.158	0.030	**2.117**	0.156	0.561	0.271	0.026	**3.340**	0.244	0.871
46	MD	C P Crane	1552	2	D015522	3.324	0.090	0.032	**1.367**	0.101	0.366	0.159	0.135	**3.324**	0.243	0.867	0.144	0.081	**2.533**	0.186	0.667
47	OH	Cardinal	2828	3	D028283	3.260	0.163	0.007	**1.908**	0.140	0.507	0.265	0.025	**3.260**	0.238	0.851	0.142	0.011	**1.713**	0.126	0.456
48	PA	Martins Creek	3148	3,4	x21	3.254	0.035	0.140	**1.991**	0.146	0.528	0.068	0.200	**3.044**	0.223	0.797	0.047	0.238	**3.254**	0.238	0.849
49	AL	E C Gaston	26	1, 2	D00026CAN	3.196	0.135	0.011	**1.638**	0.121	0.436	0.142	0.013	**1.742**	0.128	0.464	0.237	0.047	**3.196**	0.234	0.835
50	AL	E C Gaston	26	3, 4	D00026CBN	3.100	0.128	0.014	**1.595**	0.117	0.425	0.137	0.013	**1.679**	0.123	0.447	0.225	0.050	**3.100**	0.227	0.811
51	IL	Kincaid Generating Station		1, 2	D00876C02	3.068	0.091	0.073	**1.855**	0.136	0.493	0.078	0.191	**3.068**	0.225	0.803	0.093	0.111	**2.308**	0.169	0.610
52	GA	Harllee Branch	709	3&4	D00709C02	3.002	0.236	0.031	**3.002**	0.220	0.786	0.207	0.020	**2.549**	0.187	0.671	0.211	0.020	**2.596**	0.190	0.683
53	MD	C P Crane	1552	1	D015521	2.980	0.082	0.028	**1.233**	0.091	0.330	0.144	0.120	**2.980**	0.218	0.781	0.130	0.072	**2.275**	0.167	0.601
54	IN	Clifty Creek	983	1,2,3	D00983C01	2.939	0.245	0.017	**2.939**	0.215	0.770	0.241	0.018	**2.912**	0.213	0.763	0.134	0.021	**1.740**	0.128	0.463
55	NY	Cayuga Operating Company, LLC		1 (33%), 2 (3	D02535C01	2.897	0.224	0.034	**2.897**	0.212	0.759	0.194	0.059	**2.844**	0.208	0.746	0.151	0.051	**2.271**	0.167	0.600
56	WV	Pleasants Power Station	6004	1	D060041	2.807	0.069	0.021	**1.012**	0.075	0.272	0.107	0.141	**2.807**	0.206	0.737	0.086	0.042	**1.437**	0.106	0.384
57	IN	Tanners Creek	988	U4	D00988U4	2.800	0.235	0.015	**2.800**	0.205	0.735	0.172	0.032	**2.292**	0.168	0.605	0.100	0.028	**1.434**	0.106	0.383
58	OH	Gen J M Gavin	8102	2	D081022	2.798	0.230	0.020	**2.798**	0.205	0.735	0.151	0.047	**2.228**	0.164	0.589	0.153	0.029	**2.036**	0.150	0.540
59	OH	Gen J M Gavin	8102	1	D081021	2.759	0.227	0.019	**2.759**	0.202	0.725	0.149	0.046	**2.193**	0.161	0.580	0.151	0.028	**2.006**	0.147	0.532
60	MI	Trenton Channel	1745	9A	D017459A	2.694	0.062	0.010	0.804	0.059	0.217	0.132	0.021	**1.715**	0.126	0.457	0.201	0.039	**2.694**	0.197	0.708
61	PA	Portland		2 (1)	d031131	2.678	0.133	0.029	**1.817**	0.134	0.483	0.177	0.029	**2.316**	0.170	0.612	0.189	0.049	**2.678**	0.196	0.704
62	PA	Sunbury		4	D031524	2.507	0.089	0.007	**1.079**	0.080	0.290	0.191	0.027	**2.448**	0.180	0.646	0.197	0.026	**2.507**	0.184	0.661
63	NH	Merrimack	2364	2	D023642	2.475	0.162	0.017	**2.006**	0.147	0.532	0.192	0.028	**2.475**	0.182	0.653	0.153	0.059	**2.387**	0.175	0.630
64	KY	Paradise	1378	3	D013783	2.472	0.034	0.065	**1.123**	0.083	0.301	0.066	0.148	**2.428**	0.178	0.640	0.054	0.164	**2.472**	0.181	0.652
65	VA	Chesterfield Power Station	3797	4	D037974	2.396	0.155	0.024	**2.001**	0.147	0.531	0.148	0.065	**2.396**	0.176	0.632	0.117	0.065	**2.049**	0.151	0.543
66	PA	Sunbury		3	D031523	2.386	0.076	0.007	0.937	0.069	0.252	0.175	0.025	**2.252**	0.165	0.595	0.184	0.029	**2.386**	0.175	0.630
67	WV	Kanawha River	3936	1,2	D03936C02	2.385	0.144	0.017	**1.804**	0.133	0.480	0.085	0.016	**1.132**	0.083	0.304	0.179	0.033	**2.385**	0.175	0.629
68	NC	L V Sutton		3	D027133	2.371	0.140	0.047	**2.104**	0.155	0.557	0.180	0.031	**2.371**	0.174	0.626	0.169	0.026	**2.194**	0.161	0.580
69	VA	Chesapeake Energy Center		2	D038032	2.366	0.158	0.053	**2.366**	0.174	0.625	0.149	0.058	**2.336**	0.171	0.617	0.142	0.051	**2.174**	0.160	0.575
70	MI	J H Campbell		3 (50%)	D01710M3A	2.359	0.073	0.019	**1.039**	0.077	0.279	0.165	0.045	**2.359**	0.173	0.623	0.099	0.030	**1.451**	0.107	0.388
71	TN	Kingston	3407	6,7,8,9	D03407C69	2.331	0.151	0.005	**1.741**	0.128	0.463	0.099	0.004	**1.157**	0.085	0.310	0.193	0.014	**2.331**	0.171	0.616
72	NY	Somerset Operating Company (Kintigh)		1	D060821	2.222	0.080	0.050	**1.464**	0.108	0.391	0.101	0.095	**2.222**	0.163	0.588	0.080	0.038	**1.332**	0.098	0.356
73	KY	Mill Creek	1364	1,2,3	x05	2.217	0.078	0.024	**1.141**	0.084	0.306	0.155	0.043	**2.217**	0.163	0.586	0.081	0.044	**1.406**	0.104	0.376
74	WV	Pleasants Power Station	6004	2	D060042	2.187	0.062	0.014	0.853	0.063	0.230	0.095	0.098	**2.187**	0.161	0.579	0.076	0.030	**1.187**	0.087	0.318
75	TN	Kingston	3407	1,2,3,4,5	D03407C15	2.177	0.139	0.005	**1.614**	0.119	0.430	0.092	0.005	**1.075**	0.079	0.289	0.178	0.016	**2.177**	0.160	0.576
76	IL	Powerton		51,52,61,62	D00879C06	2.141	0.093	0.021	**1.276**	0.094	0.342	0.127	0.063	**2.141**	0.157	0.567	0.151	0.017	**1.885**	0.139	0.501
77	SC	Wateree	3297	WAT1	D03297WT1	2.137	0.179	0.012	**2.137**	0.157	0.566	0.093	0.008	**1.133**	0.083	0.304	0.083	0.006	0.999	0.074	0.269
78	GA	Yates		Y6BR	D00728Y6R	2.112	0.137	0.010	**1.644**	0.121	0.438	0.179	0.010	**2.112**	0.155	0.559	0.123	0.017	**1.566**	0.115	0.418
79	KY	John S. Cooper	1384	1,2	D01384CS1	2.057	0.100	0.010	**1.235**	0.091	0.331	0.099	0.013	**1.252**	0.092	0.335	0.134	0.049	**2.057**	0.151	0.545
80	SC	Jefferies	3319	4		1.961	0.151	0.023	**1.961**	0.144	0.520	0.111	0.007	**1.322**	0.097	0.354	0.104	0.010	**1.278**	0.094	0.342

	Facility Info						2002 Meteorology						2011 Meteorology						2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
81	SC	Jefferies	3319	3		1.955	0.152	0.023	**1.955**	0.144	0.519	0.111	0.007	**1.327**	0.098	0.355	0.103	0.010	**1.271**	0.094	0.340
82	VA	Chesapeake Energy Center		1	D038031	1.925	0.113	0.058	**1.923**	0.141	0.511	0.107	0.063	**1.925**	0.141	0.511	0.102	0.056	**1.780**	0.131	0.473
83	MI	J H Campbell		A,B,1,2	D01710C09	1.908	0.067	0.012	0.883	0.065	0.238	0.130	0.040	**1.908**	0.140	0.507	0.095	0.022	**1.312**	0.097	0.351
84	MA	Brayton Point	1619	2	D016192	1.902	0.102	0.024	**1.420**	0.105	0.379	0.127	0.042	**1.896**	0.139	0.503	0.130	0.040	**1.902**	0.140	0.505
85	PA	Sunbury		1A, 1B	D03152CS1	1.865	0.063	0.006	0.761	0.056	0.205	0.138	0.020	**1.773**	0.130	0.472	0.145	0.021	**1.865**	0.137	0.495
86	NC	Mayo	6250	1A,1B	D06250C05	1.818	0.140	0.022	**1.818**	0.134	0.483	0.078	0.031	**1.220**	0.090	0.327	0.107	0.046	**1.718**	0.126	0.457
87	PA	Homer City		3	D031223	1.780	0.038	0.031	0.770	0.057	0.208	0.044	0.063	**1.203**	0.089	0.323	0.056	0.101	**1.780**	0.131	0.473
88	SC	Wateree	3297	WAT2	D03297WT2	1.760	0.148	0.009	**1.760**	0.129	0.468	0.079	0.006	0.949	0.070	0.255	0.062	0.005	0.746	0.055	0.201
89	VA	Bremo Power Station		4	D037964	1.725	0.132	0.021	**1.725**	0.127	0.459	0.114	0.031	**1.630**	0.120	0.434	0.091	0.029	**1.350**	0.099	0.361
90	SC	Canadys Steam		CAN3	D03280CN3	1.688	0.136	0.015	**1.688**	0.124	0.450	0.083	0.006	**1.002**	0.074	0.269	0.075	0.008	0.922	0.068	0.248
91	OH	Conesville	2840	5,6	D02840C06	1.684	0.036	0.031	0.754	0.056	0.203	0.033	0.115	**1.684**	0.124	0.449	0.026	0.099	**1.428**	0.105	0.382
92	NC	H F Lee Steam Electric Plant		3	D027093	1.676	0.128	0.022	**1.676**	0.123	0.446	0.075	0.018	**1.041**	0.077	0.280	0.093	0.011	**1.165**	0.086	0.312
93	WV	Phil Sporn	3938	11,21,31,41	D03938C04	1.654	0.134	0.014	**1.654**	0.122	0.441										
94	NY	Oswego Harbor Power	2594	5	D025945	1.620	0.110	0.034	**1.620**	0.119	0.432										
95	MI	St. Clair	1743	6	D017436	1.605	0.070	0.006	0.855	0.063	0.230	0.127	0.016	**1.600**	0.118	0.427	0.129	0.015	**1.605**	0.118	0.428
96	MA	Brayton Point	1619	1	D016191	1.594	0.094	0.015	**1.222**	0.090	0.327	0.114	0.026	**1.569**	0.115	0.419	0.118	0.025	**1.594**	0.117	0.425
97	GA	Yates		Y7BR	D00728Y7R	1.568	0.101	0.008	**1.223**	0.090	0.328	0.132	0.008	**1.568**	0.115	0.418	0.091	0.013	**1.169**	0.086	0.313
98	WV	Albright Power Station	3942	3	D039423	1.565	0.054	0.004	0.651	0.048	0.176	0.109	0.031	**1.565**	0.115	0.417	0.079	0.012	**1.027**	0.076	0.276
99	TX	Big Brown	3497	2		1.550	0.088	0.004	**1.023**	0.075	0.275	0.075	0.003	0.880	0.065	0.237	0.129	0.010	**1.550**	0.114	0.414
100	KY	Paradise	1378	2	D013782	1.484	0.057	0.010	0.755	0.056	0.203	0.109	0.023	**1.484**	0.109	0.396	0.081	0.026	**1.196**	0.088	0.321
101	TX	Big Brown	3497	1		1.481	0.084	0.004	0.976	0.072	0.262	0.072	0.003	0.840	0.062	0.226	0.123	0.010	**1.481**	0.109	0.396
102	GA	Harllee Branch	709	1,2	D00709C01	1.479	0.113	0.017	**1.456**	0.107	0.389	0.119	0.013	**1.479**	0.109	0.395	0.101	0.012	**1.266**	0.093	0.339
103	GA	Jack McDonough		MB1, MB2	D00710C01	1.477	0.091	0.014	**1.174**	0.087	0.315	0.123	0.009	**1.477**	0.109	0.394	0.085	0.017	**1.139**	0.084	0.305
104	IL	Baldwin Energy Complex		1,2	D008892	1.462	0.085	0.008	**1.048**	0.077	0.281	0.120	0.010	**1.462**	0.108	0.391	0.095	0.008	**1.151**	0.085	0.309
105	TN	John Sevier	3405	1,2	D03405C12	1.425	0.094	0.008	**1.138**	0.084	0.305	0.056	0.012	0.760	0.056	0.205	0.099	0.028	**1.425**	0.105	0.381
106	OH	Killen Station	6031	2	D060312	1.413	0.083	0.019	**1.142**	0.084	0.306	0.097	0.029	**1.413**	0.104	0.378	0.068	0.028	**1.082**	0.080	0.290
107	IN	Gibson	6113	1,2,3	D06113C03	1.400	0.039	0.067	**1.194**	0.088	0.320	0.033	0.074	**1.209**	0.089	0.324	0.029	0.094	**1.400**	0.103	0.374
108	TN	John Sevier	3405	3,4	D03405C34	1.399	0.091	0.008	**1.112**	0.082	0.298	0.055	0.012	0.745	0.055	0.201	0.096	0.029	**1.399**	0.103	0.374
109	MI	Trenton Channel	1745	16,17,18,19	x10	1.371	0.024	0.011	0.398	0.029	0.108	0.048	0.022	0.785	0.058	0.212	0.079	0.043	**1.371**	0.101	0.367
110	NY	Oswego Harbor Power	2594	6	x15	1.347	0.074	0.030	**1.162**	0.086	0.312	0.086	0.034	**1.347**	0.099	0.360	0.080	0.034	**1.274**	0.094	0.341
111	PA	Armstrong Power Station		1	D031781	1.325	0.081	0.015	**1.083**	0.080	0.291	0.099	0.019	**1.325**	0.098	0.355					
112	MO	Sibley		1, 2, 3	D02094C01	1.325	0.108	0.010	**1.325**	0.098	0.355	0.085	0.011	**1.075**	0.079	0.289	0.073	0.006	0.884	0.065	0.238
113	KY	Paradise	1378	1	D01720C09	1.320	0.050	0.010	0.670	0.049	0.181	0.095	0.023	**1.320**	0.097	0.353	0.071	0.025	**1.071**	0.079	0.288
114	KY	Mill Creek	1364	4	D013644	1.319	0.053	0.007	0.674	0.050	0.182	0.106	0.012	**1.319**	0.097	0.353	0.052	0.013	0.732	0.054	0.197
115	NC	L V Sutton		1, 2	D02713C02	1.319	0.082	0.022	**1.171**	0.086	0.314	0.104	0.014	**1.319**	0.097	0.353	0.099	0.012	**1.242**	0.092	0.333
116	PA	Armstrong Power Station		2	D031782	1.318	0.080	0.016	**1.076**	0.079	0.289	0.097	0.020	**1.318**	0.097	0.353					
117	WV	Mitchell (WV)	3948	1,2	D03948C02	1.308	0.036	0.013	0.549	0.041	0.148	0.063	0.053	**1.308**	0.096	0.350	0.043	0.022	0.727	0.054	0.196
118	NC	Roxboro	2712	3A,3B	D02712C03	1.273	0.046	0.032	0.881	0.065	0.237	0.028	0.040	0.761	0.056	0.205	0.039	0.073	**1.273**	0.094	0.341
119	DE	Indian River	594	4	D005944	1.247	0.090	0.014	**1.164**	0.086	0.312	0.099	0.012	**1.247**	0.092	0.334	0.079	0.012	**1.021**	0.075	0.274
120	TX	Martin Lake	6146	1		1.237	0.063	0.007	0.781	0.058	0.210	0.054	0.007	0.677	0.050	0.183	0.092	0.018	**1.237**	0.091	0.332

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121	NJ	Hudson Generating Station	2403	2	D024032	1.227	0.028	0.050	0.885	0.065	0.238	0.085	0.024	**1.227**	0.090	0.329	0.024	0.053	0.874	0.064	0.235
122	SC	H B Robinson		1	D032511	1.214	0.095	0.013	**1.214**	0.089	0.325	0.054	0.011	0.729	0.054	0.197	0.063	0.007	0.781	0.058	0.211
123	NH	Merrimack	2364	1	D023641	1.212	0.081	0.007	0.989	0.073	0.266	0.096	0.012	**1.212**	0.089	0.325	0.076	0.026	**1.154**	0.085	0.310
124	OK	Northeastern		3313, 3314	D02963C10	1.201	0.071	0.036	**1.201**	0.089	0.322	0.041	0.044	0.960	0.071	0.258	0.033	0.024	0.640	0.047	0.173
125	IN	IPL - Petersburg Generating Station		4	D009944	1.200	0.091	0.016	**1.199**	0.088	0.321	0.085	0.021	**1.200**	0.088	0.322	0.059	0.016	0.841	0.062	0.226
126	WV	John E Amos	3935	1,2	D03935C02	1.187	0.089	0.017	**1.187**	0.088	0.318	0.064	0.017	0.907	0.067	0.244	0.058	0.022	0.896	0.066	0.241
127	OH	J M Stuart	2850	4	D028404	1.175	0.068	0.012	0.898	0.066	0.242	0.089	0.016	**1.175**	0.087	0.315	0.066	0.016	0.921	0.068	0.248
128	MN	Sherburne County		1, 2	D06090CS1	1.168	0.065	0.032	**1.089**	0.080	0.292	0.068	0.036	**1.168**	0.086	0.313	0.019	0.019	0.431	0.032	0.117
129	IA	George Neal South		4	D073434	1.155	0.069	0.018	0.974	0.072	0.262	0.075	0.027	**1.155**	0.085	0.310	0.038	0.010	0.546	0.040	0.148
130	NC	Roxboro	2712	4A,4B	D02712C04	1.152	0.052	0.025	0.868	0.064	0.234	0.031	0.031	0.705	0.052	0.190	0.044	0.057	**1.152**	0.085	0.309
131	TX	Martin Lake	6146	2		1.134	0.059	0.006	0.722	0.053	0.195	0.050	0.005	0.625	0.046	0.169	0.086	0.015	**1.134**	0.084	0.304
132	NC	Cape Fear	2708	6		1.107	0.074	0.025	**1.107**	0.082	0.297	0.053	0.022	0.838	0.062	0.226	0.070	0.022	**1.024**	0.075	0.275
133	WI	Columbia		1	D080231	1.102	0.072	0.007	0.885	0.065	0.238	0.079	0.019	**1.102**	0.081	0.296	0.052	0.008	0.671	0.050	0.181
134	IN	Michigan City Generating Station		12	D0099712	1.093	0.080	0.004	0.940	0.069	0.253	0.076	0.011	0.971	0.072	0.261	0.090	0.008	**1.093**	0.081	0.293
135	KY	Ghent	1356	3,4 … (2,3)	D01356C02	1.080	0.071	0.021	**1.039**	0.077	0.279	0.077	0.020	**1.080**	0.080	0.290	0.043	0.025	0.768	0.057	0.207
136	IA	Ottumwa		1	D062541	1.077	0.080	0.016	**1.077**	0.079	0.289	0.074	0.018	**1.032**	0.076	0.277	0.032	0.010	0.478	0.035	0.129
137	WI	Columbia		2	D080232	1.073	0.074	0.007	0.907	0.067	0.244	0.076	0.020	**1.073**	0.079	0.288	0.057	0.009	0.739	0.055	0.199
138	GA	Scherer		4	D062574	1.070	0.080	0.011	**1.022**	0.075	0.275	0.083	0.012	**1.070**	0.079	0.287	0.051	0.007	0.643	0.047	0.174
139	IN	Whitewater Valley		1, 2	D01040C12	1.060	0.073	0.002	0.835	0.062	0.225	0.085	0.010	**1.060**	0.078	0.285	0.045	0.007	0.582	0.043	0.157
140	TX	Martin Lake	6146	3		1.059	0.054	0.006	0.668	0.049	0.180	0.046	0.006	0.579	0.043	0.156	0.079	0.016	**1.059**	0.078	0.284
141	GA	Scherer		1	D062571	1.052	0.079	0.012	**1.018**	0.075	0.274	0.080	0.013	**1.052**	0.078	0.283	0.051	0.007	0.650	0.048	0.175
142	MA	Canal Station	1599	1	D015991	1.047	0.050	0.014	0.715	0.053	0.193	0.070	0.023	**1.047**	0.077	0.281	0.065	0.023	0.986	0.073	0.265
143	MI	Dan E Karn	1702	3,4 (1,2)	D01702C09	1.047	0.032	0.009	0.463	0.034	0.125	0.070	0.023	**1.047**	0.077	0.281	0.037	0.018	0.627	0.046	0.169
144	GA	Scherer		2	D062572	1.039	0.079	0.011	**1.006**	0.074	0.270	0.080	0.012	**1.039**	0.077	0.279	0.051	0.007	0.638	0.047	0.172
145	CT	Bridgeport Harbor Station	568	BHB3		1.034	0.033	0.052	0.963	0.071	0.259	0.022	0.034	0.630	0.047	0.170	0.021	0.070	**1.034**	0.076	0.278
146	IN	R M Schahfer Generating Station		14	D0608514	1.032	0.088	0.005	**1.032**	0.076	0.277	0.074	0.016	**1.011**	0.075	0.272	0.085	0.006	**1.014**	0.075	0.272
147	IN	IPL - Harding Street Station (EW Stout)		50	D0099050	1.001	0.086	0.003	**1.001**	0.074	0.269	0.077	0.011	0.981	0.072	0.264	0.048	0.007	0.612	0.045	0.165
148	MI	J C Weadock		7, 8	D01720C09	0.996	0.032	0.008	0.457	0.034	0.124	0.071	0.018	0.996	0.073	0.268	0.038	0.014	0.579	0.043	0.157
149	IN	Tanners Creek	988	U1,U2,U3	D00988C03	0.956	0.076	0.010	0.956	0.071	0.257	0.055	0.021	0.854	0.063	0.230	0.032	0.018	0.564	0.042	0.152
150	TX	Monticello	6147	1		0.912	0.049	0.004	0.590	0.044	0.159	0.042	0.003	0.508	0.038	0.138	0.072	0.009	0.912	0.067	0.245
151	IN	IPL - Harding Street Station (EW Stout)		60	D0099060	0.908	0.078	0.003	0.908	0.067	0.244	0.070	0.009	0.886	0.065	0.239	0.043	0.006	0.550	0.041	0.149
152	IN	IPL - Petersburg Generating Station		3	D009943	0.901	0.063	0.016	0.887	0.065	0.239	0.059	0.021	0.901	0.066	0.242	0.041	0.017	0.649	0.048	0.175
153	NY	Northport	2516	1,2,4,ugt001	x14	0.899	0.039	0.041	0.899	0.066	0.242	0.037	0.039	0.850	0.063	0.229					
154	MA	Canal Station	1599	2	D015992	0.891	0.033	0.020	0.587	0.043	0.159	0.046	0.033	0.891	0.066	0.240	0.035	0.027	0.703	0.052	0.190
155	AL	Greene County	10	1		0.868	0.071	0.006	0.868	0.064	0.234										
156	IN	Merom		2SG1	D062132G1	0.855	0.070	0.006	0.855	0.063	0.230										
157	KS	La Cygne		2	D012412	0.853	0.059	0.018	0.853	0.063	0.230	0.052	0.021	0.824	0.061	0.222	0.034	0.016	0.555	0.041	0.150
158	IN	Gibson	6113	5	D061135	0.843	0.056	0.019	0.843	0.062	0.227										
159	IN	R M Schahfer Generating Station		15	D0608515	0.838	0.067	0.007	0.838	0.062	0.226	0.053	0.020	0.826	0.061	0.222	0.065	0.008	0.813	0.060	0.219
160	VA	Clinch River	3775	1,2	D03775C02	0.824	0.062	0.011	0.824	0.061	0.222										

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161	MN	Sherburne County		3	D060903	0.813	0.055	0.018	0.813	0.060	0.219										
162	ME	William F Wyman	1507	4	D015074	0.810	0.033	0.008	0.457	0.034	0.124	0.026	0.009	0.397	0.029	0.107	0.061	0.011	0.810	0.060	0.218
163	IN	IPL - Petersburg Generating Station		1 (50%)	D00994M1B	0.802	0.065	0.007	0.802	0.059	0.216										
164	NH	Newington	8002	1	D080021	0.799	0.051	0.008	0.661	0.049	0.178	0.037	0.010	0.534	0.039	0.144	0.055	0.016	0.799	0.059	0.215
165	NE	Nebraska City Station		1	D060961	0.795	0.058	0.013	0.795	0.059	0.214										
166	AL	Colbert	47	1, 2, 3, 4	D00047C14	0.792	0.050	0.021	0.792	0.058	0.213										
167	TN	Gallatin	3403	3,4	D03403C34	0.791	0.063	0.008	0.791	0.058	0.213										
168	MN	Black Dog		3, 4	D01904CS1	0.783	0.026	0.043	0.783	0.058	0.211										
169	MO	Labadie		4	D021034	0.770	0.036	0.005	0.467	0.035	0.126	0.061	0.008	0.770	0.057	0.207	0.061	0.006	0.751	0.055	0.202
170	IL	Newton		2	D060172	0.767	0.061	0.008	0.767	0.057	0.207										
171	IN	IPL - Eagle Valley Generating Station		5, 6	D00991C56	0.754	0.064	0.003	0.754	0.056	0.203										
172	MA	Brayton Point	1619	4	x07	0.752	0.034	0.013	0.522	0.039	0.141	0.038	0.016	0.604	0.045	0.163	0.049	0.018	0.752	0.056	0.203
173	NY	Dynegy Danskammer	2480	1,2,3	x13	0.751	0.046	0.021	0.751	0.055	0.202										
174	MD	Herbert A Wagner	1554	1,2,4	x08	0.751	0.039	0.028	0.751	0.055	0.202										
175	IN	Gibson	6113	4	D061135	0.748	0.019	0.047	0.748	0.055	0.202										
176	NC	Roxboro	2712	2	D027122	0.744	0.047	0.019	0.744	0.055	0.201										
177	SC	Winyah	6249	2,3,4	x23	0.737	0.042	0.024	0.737	0.054	0.199										
178	IN	Alcoa Allowance Management Inc	6705	1,2	D06705C02	0.721	0.016	0.047	0.721	0.053	0.195										
179	OK	Grand River Dam Authority		1	D001651	0.720	0.028	0.008	0.412	0.030	0.112	0.049	0.015	0.720	0.053	0.194	0.032	0.008	0.443	0.033	0.120
180	NY	Huntley Power	2549	67,68	D02549C01	0.705	0.042	0.021	0.705	0.052	0.190										
181	TN	Gallatin	3403	1,2	D03403C12	0.701	0.056	0.007	0.701	0.052	0.189										
182	OK	Sooner	6095	1		0.675	0.044	0.016	0.675	0.050	0.182										
183	OK	Sooner		2	D060952	0.664	0.043	0.017	0.664	0.049	0.179										
184	WV	John E Amos	3935	3	D039353	0.661	0.042	0.017	0.661	0.049	0.178										
185	IN	IPL - Harding Street Station (EW Stout)	990	70	D0099070	0.653	0.051	0.007	0.653	0.048	0.176										
186	VA	Chesterfield Power Station	3797	6	D037976	0.643	0.042	0.015	0.643	0.047	0.174										
187	IN	IPL - Petersburg Generating Station		2(50%)	D00994M2B	0.640	0.044	0.014	0.640	0.047	0.173										
188	NC	Riverbend	2732	9		0.630	0.052	0.004	0.630	0.047	0.170										
189	MO	Rush Island		2	D061552	0.630	0.052	0.004	0.630	0.047	0.170										
190	NJ	Mercer Generating Station	2408	1	D024081	0.628	0.028	0.027	0.628	0.046	0.170										
191	SC	Urquhart		URQ3	D03295UQ3	0.615	0.052	0.003	0.615	0.045	0.166										
192	WI	South Oak Creek		7, 8	D04041CS4	0.614	0.048	0.007	0.614	0.045	0.166										
193	KY	Shawnee		1,2,3,4,5	D01379C15	0.603	0.038	0.015	0.603	0.045	0.163										
194	MO	Rush Island		1	D061551	0.591	0.049	0.004	0.591	0.044	0.160										
195	IL	Joliet 29		81, 82	D00384C82	0.580	0.047	0.004	0.580	0.043	0.157										
196	NC	Marshall	2727	1,2	x11	0.574	0.022	0.029	0.574	0.042	0.155										
197	IA	George Neal North		3	D010913	0.571	0.037	0.014	0.571	0.042	0.154										
198	NC	Roxboro	2712	1	D027121	0.568	0.029	0.021	0.568	0.042	0.153										
199	IA	Walter Scott Jr. Energy Center		3	D010823	0.566	0.035	0.015	0.566	0.042	0.153										
200	NJ	Mercer Generating Station	2408	2	D024082	0.564	0.025	0.025	0.564	0.042	0.152										

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201	NY	CCI Roseton LLC	8006	2	D080062	0.556	0.025	0.024	0.556	0.041	0.150										
202	WV	Mountaineer (1301)	6264	1	D062641	0.553	0.039	0.011	0.553	0.041	0.150										
203	WI	Nelson Dewey	4054	2		0.553	0.044	0.006	0.553	0.041	0.149										
204	TX	Monticello	6147	2		0.553	0.046	0.003	0.553	0.041	0.149										
205	KS	Nearman Creek	6064	N1		0.546	0.033	0.016	0.546	0.040	0.148										
206	NC	Marshall	2727	4	D027274	0.543	0.018	0.030	0.543	0.040	0.147										
207	AR	White Bluff		1	D060091	0.540	0.035	0.014	0.540	0.040	0.146										
208	AR	White Bluff		2	D060092	0.534	0.033	0.014	0.534	0.039	0.144										
209	SC	McMeekin		MCM2	D03287MM2	0.529	0.044	0.003	0.529	0.039	0.143										
210	MO	Thomas Hill Energy Center		MB3	D02168MB3	0.529	0.039	0.008	0.529	0.039	0.143										
211	WV	Fort Martin Power Station	3943	1	D039431	0.529	0.016	0.031	0.529	0.039	0.143										
212	CT	New Haven Harbor	6156	NHB1		0.525	0.027	0.020	0.525	0.039	0.142										
213	TX	Monticello	6147	3		0.524	0.041	0.006	0.524	0.039	0.142										
214	PA	Hatfield's Ferry Power Station	3179	3	x20	0.513	0.007	0.038	0.513	0.038	0.139										
215	TX	H W Pirkey Power Plant	7902	1		0.511	0.040	0.006	0.511	0.038	0.138										
216	SC	McMeekin		MCM1	D03287MM1	0.511	0.042	0.003	0.511	0.038	0.138										
217	WI	Edgewater (4050)	4050	5		0.505	0.039	0.007	0.505	0.037	0.137										
218	MO	New Madrid Power Plant		1	D021671	0.503	0.019	0.025	0.503	0.037	0.136										
219	KY	Shawnee		6,7,8,9,10	D01379C60	0.502	0.034	0.011	0.502	0.037	0.136										
220	OH	Cardinal	2828	1	D028281	0.495	0.039	0.005	0.495	0.037	0.134										
221	IA	Louisa		101	D06664101	0.495	0.030	0.014	0.495	0.037	0.134										
222	WV	Mount Storm Power Station	3954	1,2	D03954CS0	0.491	0.031	0.012	0.491	0.036	0.133										
223	OH	Miami Fort Generating Station	2832	7	D028327	0.486	0.032	0.012	0.486	0.036	0.131										
224	TX	Limestone	298	LIM2		0.483	0.035	0.008	0.483	0.036	0.131										
225	SC	Williams	3298	WIL1	D03298WL1	0.480	0.013	0.029	0.480	0.035	0.130										
226	CT	Middletown	562	4		0.474	0.026	0.016	0.474	0.035	0.128										
227	AR	Independence		1	D066411	0.470	0.027	0.015	0.470	0.035	0.127										
228	WV	Fort Martin Power Station	3943	2	D039432	0.467	0.015	0.027	0.467	0.035	0.127										
229	MO	Labadie		3	D021033	0.462	0.036	0.005	0.462	0.034	0.125										
230	AR	Independence		2	D066412	0.455	0.028	0.013	0.455	0.034	0.123										
231	TX	Limestone	298	LIM1		0.449	0.033	0.007	0.449	0.033	0.122										
232	MO	Labadie		1	D021031	0.448	0.035	0.005	0.448	0.033	0.121										
233	IN	R Gallagher	1008	1,2	D01008C01	0.445	0.033	0.006	0.445	0.033	0.120										
234	OH	Miami Fort Power Station		8	D028328	0.441	0.028	0.012	0.441	0.033	0.119										
235	MD	Morgantown	1573	2	D015732	0.438	0.033	0.007	0.438	0.032	0.119										
236	MD	Dickerson	1572	1,2,3	D01572C23	0.437	0.018	0.021	0.437	0.032	0.118										
237	NY	Northport	2516	3	D025163	0.436	0.022	0.017	0.436	0.032	0.118										
238	NC	Belews Creek	8042	2	D080422	0.436	0.020	0.018	0.436	0.032	0.118										
239	NC	Belews Creek	8042	1	D080421	0.432	0.020	0.019	0.432	0.032	0.117										
240	MO	New Madrid Power Plant		2	D021672	0.423	0.018	0.019	0.423	0.031	0.115										

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241	OH	Eastlake	2837	1	D028371	0.419	0.032	0.005	0.419	0.031	0.114										
242	KY	Green River		5	D013575	0.415	0.033	0.004	0.415	0.031	0.112										
243	KY	D B Wilson		W1	D06823W1	0.406	0.032	0.004	0.406	0.030	0.110										
244	MA	Salem Harbor Station	1626	1		0.406	0.021	0.005	0.292	0.022	0.079	0.027	0.009	0.406	0.030	0.110	0.019	0.010	0.329	0.024	0.089
245	OH	Eastlake	2837	2	D028372	0.400	0.031	0.005	0.400	0.030	0.108										
246	IN	R Gallagher	1008	3,4	D01008C02	0.399	0.030	0.006	0.399	0.029	0.108										
247	OH	J M Stuart	2850	3	D028503	0.398	0.026	0.010	0.398	0.029	0.108										
248	MI	River Rouge		3	D017403	0.390	0.023	0.012	0.390	0.029	0.106										
249	KY	Ghent	1356	1,2 … (1,4)	D01356C01	0.387	0.024	0.011	0.387	0.029	0.105										
250	WI	Genoa	4143	1		0.386	0.028	0.007	0.386	0.029	0.105										
251	OH	Cardinal	2828	2	D028282	0.379	0.028	0.006	0.379	0.028	0.103										
252	IL	Wood River Power Station		5	D008985	0.371	0.027	0.006	0.371	0.027	0.101										
253	OH	Conesville	2840	4	D028504	0.364	0.027	0.006	0.364	0.027	0.099										
254	GA	Yates		Y5BR	D00728Y5R	0.364	0.029	0.003	0.364	0.027	0.099										
255	OH	J M Stuart	2850	1	D028501	0.360	0.024	0.008	0.360	0.027	0.098										
256	MI	Monroe	1733	3,4	D01733C34	0.357	0.016	0.015	0.357	0.026	0.097										
257	KY	H L Spurlock	6041	1	D060411	0.355	0.028	0.003	0.355	0.026	0.096										
258	IN	Cayuga	1001	2	D010012	0.355	0.021	0.011	0.355	0.026	0.096										
259	KY	Green River		4	D013574	0.352	0.028	0.003	0.352	0.026	0.095										
260	OH	Eastlake	2837	3	D028373	0.348	0.027	0.004	0.348	0.026	0.094										
261	KS	La Cygne	1241	1		0.347	0.026	0.005	0.347	0.026	0.094	0.018	0.006	0.270	0.020	0.073	0.015	0.005	0.221	0.016	0.060
262	KY	H L Spurlock	6041	2	D060412	0.346	0.025	0.006	0.346	0.026	0.094										
263	NH	Schiller	2367	6		0.330	0.020	0.005	0.271	0.020	0.074	0.017	0.005	0.248	0.018	0.067	0.018	0.012	0.330	0.024	0.090
264	NH	Schiller	2367	4		0.326	0.019	0.005	0.268	0.020	0.073	0.017	0.005	0.245	0.018	0.066	0.017	0.012	0.326	0.024	0.088
265	OK	Muskogee	2952	4		0.323	0.021	0.008	0.323	0.024	0.088										
266	OH	Eastlake	2837	4,6, (5)	x17	0.321	0.020	0.008	0.321	0.024	0.087										
267	AL	E C Gaston	26	5		0.319	0.014	0.015	0.319	0.024	0.087										
268	KY	East Bend	6018	2	D060182	0.318	0.018	0.011	0.318	0.024	0.086										
269	WV	Longview Power	56671	1		0.316	0.021	0.007	0.316	0.023	0.086										
270	IN	Cayuga	1001	1	D010011	0.314	0.018	0.010	0.314	0.023	0.085										
271	OK	Muskogee		5	D029525	0.296	0.019	0.007	0.296	0.022	0.080										
272	KY	E W Brown	1355	2,3	D01355C03	0.295	0.009	0.017	0.295	0.022	0.080										
273	NC	Marshall	2727	3	D027273	0.293	0.018	0.008	0.293	0.022	0.080										
274	IL	Joppa Steam		1, 2	D00887CS1	0.287	0.023	0.002	0.287	0.021	0.078										
275	IL	Joppa Steam		3, 4	D00887CS2	0.286	0.024	0.002	0.286	0.021	0.078										
276	IL	Marion		4	D009764	0.277	0.021	0.003	0.277	0.020	0.075										
277	PA	Shawville	3131	1	D031311	0.273	0.018	0.007	0.273	0.020	0.074										
278	OH	J M Stuart	2850	2	D028502	0.273	0.014	0.010	0.273	0.020	0.074										
279	TX	Welsh Power Plant	6139	3		0.271	0.020	0.004	0.271	0.020	0.074										
280	PA	Shawville	3131	2	D031312	0.267	0.018	0.006	0.267	0.020	0.072										

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281	AR	Flint Creek Power Plant	6138	1		0.262	0.017	0.007	0.262	0.019	0.071										
282	TX	Welsh Power Plant	6139	2		0.261	0.020	0.003	0.261	0.019	0.071										
283	TX	Welsh Power Plant	6139	1		0.260	0.019	0.004	0.260	0.019	0.071										
284	MO	Meramec		3	D021043	0.251	0.019	0.003	0.251	0.019	0.068										
285	GA	Bowen	703	1BLR	D007031LR	0.242	0.008	0.013	0.242	0.018	0.066										
286	OH	W H Sammis	2866	7	D028667	0.233	0.010	0.010	0.233	0.017	0.063										
287	GA	Bowen	703	4BLR	D007034LR	0.231	0.005	0.016	0.231	0.017	0.063										
288	DE	Edge Moor	593	5	D005935	0.229	0.016	0.005	0.229	0.017	0.062										
289	OH	W H Sammis	2866	6	D02866M6A	0.217	0.011	0.009	0.217	0.016	0.059										
290	NY	NRG Dunkirk Power		3	D02554C03	0.214	0.015	0.005	0.214	0.016	0.058										
291	TN	Cumberland	3399	1		0.214	0.014	0.005	0.214	0.016	0.058										
292	OH	W H Sammis	2866	1,2	D02866C01	0.206	0.007	0.011	0.206	0.015	0.056										
293	OK	Hugo		1	D067721	0.204	0.015	0.004	0.204	0.015	0.055										
294	OH	W H Sammis	2866	3,4	D02866C02	0.202	0.007	0.011	0.202	0.015	0.055										
295	GA	Bowen	703	2BLR	D007032LR	0.197	0.004	0.013	0.197	0.015	0.054										
296	NC	Cliffside	2721	5	D027215	0.197	0.012	0.005	0.197	0.015	0.053										
297	MO	Sikeston		1	D067681	0.190	0.014	0.003	0.190	0.014	0.052										
298	IN	Alcoa Allowance Management Inc	6705	4	D067054	0.188	0.010	0.007	0.188	0.014	0.051										
299	KS	Quindaro	1295	2		0.151	0.010	0.004	0.151	0.011	0.041										
300	KS	Tecumseh Energy Center	1252	10		0.148	0.010	0.004	0.148	0.011	0.040										
301	SC	Winyah	6249	1	D062491	0.145	0.005	0.008	0.145	0.011	0.039										
302	OH	W H Sammis	2866	5	D028665	0.143	0.004	0.008	0.143	0.011	0.039										
303	IN	Alcoa Allowance Management Inc	6705	3	x02	0.137	0.004	0.008	0.137	0.010	0.037										
304	GA	Bowen	703	3BLR	D007033LR	0.121	0.005	0.006	0.121	0.009	0.033										
305	ME	William F Wyman	1507	3		0.076	0.006	0.001	0.076	0.006	0.021										
306	ME	William F Wyman	1507	1		0.041	0.003	0.001	0.041	0.003	0.011										
307	ME	William F Wyman	1507	2		0.040	0.003	0.001	0.040	0.003	0.011										
308	OH	Miami Fort Generating Station	2832	5-1, 5-2, 6	D02832C06	0.022	0.002	0.000	0.022	0.002	0.006										
309	IL	Newton		1	D060171	0.000															
310	MA	Salem Harbor Station	1626	3	D016263	0.000															
311	NY	CCI Roseton LLC	8006	1	D080061	0.000											0.000	0.000	0.000	0.000	0.000

F.4 2015 EGU Ranking Visibility Impairing Sources to Brigantine

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1	VA	Yorktown Power Station	3809	3	D038093	10.926	0.718	0.106	9.450	0.671	2.274	0.513	0.090	6.925	0.493	1.706	0.878	0.078	10.926	0.778	2.605
2	PA	Homer City	3122	1	D031221	9.168	0.419	0.058	5.779	0.391	1.370	0.580	0.121	8.273	0.572	1.960	0.613	0.193	9.168	0.657	2.229
3	PA	Homer City	3122	2	D031222	8.113	0.370	0.052	5.036	0.346	1.219	0.511	0.108	7.250	0.507	1.750	0.541	0.174	8.113	0.583	1.996
4	OH	Muskingum River	2872	5	D028725	7.685	0.431	0.006	4.877	0.358	1.260	0.632	0.042	7.685	0.551	1.895	0.324	0.014	3.808	0.278	0.987
5	WV	Harrison Power Station		1 (25%), 2 (20%	D03944C01	7.017	0.047	0.070	1.323	0.097	0.353	0.114	0.498	7.017	0.508	1.755	0.058	0.116	1.975	0.145	0.524
6	VA	Yorktown Power Station	3809	1,2	D03809CS0	6.975	0.396	0.054	5.074	0.369	1.295	0.331	0.114	5.104	0.366	1.285	0.540	0.076	6.975	0.504	1.740
7	OH	Avon Lake Power Plant	2836	12	D0283612	6.720	0.284	0.025	3.496	0.255	0.906	0.503	0.061	6.444	0.462	1.603	0.549	0.044	6.720	0.486	1.681
8	NJ	B L England	2378	2,3	x12	5.641	0.227	0.271	5.641	0.410	1.433	0.086	0.066	1.745	0.127	0.458	0.047	0.053	1.128	0.083	0.302
9	OH	Muskingum River	2872	1,2,3,4	D02872C04	4.437	0.201	0.011	2.465	0.175	0.628	0.302	0.094	4.437	0.325	1.146	0.152	0.032	2.068	0.152	0.548
10	PA	Montour	3149	1	D031491	4.353	0.061	0.062	1.414	0.102	0.370	0.168	0.211	4.353	0.313	1.107	0.134	0.233	4.169	0.304	1.076
11	PA	Montour	3149	2	D031492	4.098	0.050	0.062	1.337	0.093	0.337	0.138	0.210	4.098	0.288	1.022	0.110	0.232	3.884	0.284	1.006
12	MI	Belle River		2	D060342	3.985	0.057	0.027	0.944	0.070	0.254	0.126	0.061	2.102	0.154	0.556	0.234	0.118	3.985	0.291	1.030
13	PA	Brunner Island	3140	1,2	D03140C12	3.974	0.062	0.089	1.714	0.126	0.455	0.195	0.157	3.974	0.291	1.030	0.157	0.166	3.657	0.267	0.950
14	PA	Brunner Island	3140	3	D031403	3.839	0.072	0.085	1.748	0.130	0.471	0.193	0.106	3.417	0.247	0.881	0.190	0.149	3.839	0.280	0.994
15	IN	Rockport	6166	MB1,MB2	D06166C02	3.835	0.167	0.081	2.834	0.205	0.735	0.269	0.056	3.835	0.267	0.950	0.128	0.078	2.330	0.171	0.615
16	MD	Herbert A Wagner	1554	3	D015543	3.827	0.083	0.009	1.270	0.075	0.275	0.236	0.029	3.827	0.217	0.778	0.216	0.008	2.505	0.184	0.660
17	MI	Belle River		1	D060341	3.686	0.050	0.027	0.873	0.064	0.235	0.112	0.061	1.945	0.143	0.515	0.208	0.119	3.686	0.269	0.957
18	PA	Shawville	3131	3,4	D03131CS1	3.604	0.094	0.022	1.298	0.095	0.346	0.174	0.062	2.642	0.195	0.699	0.249	0.071	3.604	0.263	0.936
19	KY	Big Sandy	1353	BSU1,BSU2	D01353C02	3.517	0.287	0.027	3.517	0.259	0.920	0.269	0.026	3.297	0.243	0.865	0.255	0.036	3.278	0.240	0.855
20	OH	Gen J M Gavin	8102	1	D081021	3.330	0.238	0.039	3.330	0.228	0.815	0.157	0.092	2.646	0.206	0.739	0.159	0.056	2.420	0.178	0.638
21	PA	Homer City		3	D031223	3.258	0.050	0.064	1.409	0.095	0.345	0.058	0.132	2.203	0.158	0.569	0.074	0.212	3.258	0.238	0.850
22	WV	Kammer	3947	1,2,3	D03947C03	3.214	0.114	0.019	1.472	0.110	0.398	0.205	0.076	3.214	0.232	0.829	0.124	0.032	1.752	0.129	0.466
23	MI	St. Clair	1743	1,2,3,4,...6	x09	3.145	0.045	0.024	0.782	0.057	0.210	0.096	0.062	1.776	0.131	0.474	0.172	0.106	3.145	0.230	0.822
24	OH	Gen J M Gavin	8102	2	D081022	3.073	0.223	0.034	3.073	0.212	0.759	0.147	0.082	2.447	0.190	0.681	0.149	0.050	2.236	0.164	0.591
25	PA	Keystone	3136	1	D031361	2.828	0.110	0.066	1.955	0.145	0.525	0.118	0.114	2.492	0.193	0.691	0.165	0.086	2.828	0.207	0.742
26	MI	St. Clair	1743	7	D017437	2.822	0.072	0.010	0.927	0.068	0.248	0.146	0.026	1.925	0.142	0.513	0.215	0.036	2.822	0.207	0.741
27	PA	Keystone	3136	2	D031362	2.731	0.105	0.065	1.888	0.141	0.508	0.113	0.112	2.405	0.187	0.671	0.158	0.084	2.731	0.200	0.718
28	GA	Harllee Branch	709	3&4	D00709C02	2.643	0.210	0.024	2.643	0.193	0.692	0.184	0.016	2.244	0.165	0.593	0.188	0.016	2.285	0.168	0.604
29	MD	C P Crane	1552	2	D015522	2.617	0.045	0.041	1.076	0.071	0.259	0.079	0.175	2.617	0.211	0.756	0.071	0.105	1.994	0.147	0.529
30	WV	Pleasants Power Station	6004	1	D060041	2.577	0.056	0.024	0.929	0.066	0.241	0.086	0.160	2.577	0.205	0.734	0.069	0.048	1.319	0.097	0.353
31	MI	Trenton Channel	1745	9A	D017459A	2.552	0.059	0.009	0.762	0.056	0.206	0.126	0.019	1.624	0.120	0.434	0.192	0.035	2.552	0.187	0.672
32	OH	W H Zimmer Generating Station	6019	1	D060191	2.551	0.149	0.055	2.385	0.168	0.606	0.147	0.075	2.551	0.183	0.659	0.116	0.079	2.196	0.161	0.581
33	IN	Wabash River Gen Station	1010	2,3,4,5,6	D01010C05	2.543	0.215	0.013	2.543	0.187	0.673	0.158	0.029	2.115	0.154	0.556	0.113	0.013	1.404	0.103	0.375
34	MD	Brandon Shores	602	2	D006022	2.457	0.022	0.026	0.668	0.040	0.146	0.059	0.100	2.457	0.133	0.481	0.056	0.034	1.006	0.074	0.270
35	OH	Killen Station	6031	2	D060312	2.360	0.114	0.045	1.907	0.132	0.476	0.133	0.069	2.360	0.167	0.603	0.094	0.066	1.807	0.133	0.480
36	TN	Johnsonville	3406	1 thru 10	D03406C10	2.355	0.065	0.010	0.862	0.062	0.225	0.177	0.007	1.896	0.151	0.545	0.188	0.022	2.355	0.173	0.622
37	MD	Brandon Shores	602	1	D006021	2.308	0.023	0.019	0.632	0.036	0.131	0.064	0.074	2.308	0.115	0.418	0.060	0.025	0.958	0.071	0.258
38	MA	Brayton Point	1619	4	x07	2.300	0.102	0.040	1.596	0.117	0.425	0.113	0.051	1.845	0.136	0.491	0.148	0.056	2.300	0.169	0.608
39	OH	Kyger Creek	2876	1,2,3,4,5	D02876C01	2.275	0.128	0.031	2.275	0.132	0.476	0.086	0.090	1.775	0.146	0.527	0.053	0.035	0.988	0.073	0.266
40	WV	Kanawha River	3936	1,2	D03936C02	2.257	0.134	0.017	1.707	0.125	0.453	0.079	0.017	1.071	0.079	0.288	0.167	0.034	2.257	0.166	0.597

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41	IN	Tanners Creek	988	U4	D00988U4	2.194	0.179	0.013	2.194	0.158	0.569	0.131	0.027	1.796	0.131	0.474	0.076	0.024	1.124	0.083	0.301
42	KY	Mill Creek	1364	1,2,3	x05	2.166	0.082	0.020	1.115	0.084	0.307	0.164	0.035	2.166	0.164	0.592	0.086	0.036	1.374	0.101	0.367
43	MI	St. Clair	1743	6	D017436	1.985	0.090	0.006	1.058	0.078	0.286	0.162	0.014	1.978	0.145	0.523	0.164	0.013	1.985	0.146	0.526
44	GA	Yates		Y6BR	D00728Y6R	1.904	0.120	0.011	1.482	0.108	0.391	0.156	0.011	1.904	0.138	0.497	0.108	0.018	1.412	0.104	0.377
45	PA	Martins Creek	3148	3,4	x21	1.861	0.001	0.095	1.139	0.081	0.295	0.003	0.135	1.741	0.116	0.420	0.002	0.161	1.861	0.137	0.495
46	NY	Somerset Operating Company (Kintigh)		1	D060821	1.795	0.077	0.024	1.183	0.084	0.304	0.098	0.045	1.795	0.119	0.430	0.078	0.018	1.076	0.079	0.289
47	MI	J H Campbell		3 (50%)	D01710M3A	1.781	0.066	0.005	0.785	0.059	0.216	0.149	0.012	1.781	0.133	0.480	0.090	0.008	1.095	0.081	0.294
48	ME	William F Wyman	1507	4	D015074	1.648	0.062	0.022	0.930	0.070	0.254	0.050	0.025	0.808	0.062	0.227	0.116	0.031	1.648	0.121	0.439
49	MA	Canal Station	1599	2	D015992	1.639	0.054	0.040	1.080	0.079	0.286	0.076	0.069	1.639	0.120	0.435	0.058	0.056	1.294	0.095	0.346
50	NC	Roxboro	2712	3A,3B	D02712C03	1.602	0.077	0.033	1.109	0.091	0.333	0.046	0.041	0.957	0.073	0.265	0.066	0.076	1.602	0.118	0.427
51	MA	Canal Station	1599	1	D015991	1.570	0.069	0.025	1.072	0.078	0.284	0.097	0.042	1.570	0.115	0.417	0.090	0.042	1.478	0.109	0.395
52	MD	C P Crane	1552	1	D015521	1.537	0.022	0.027	0.636	0.041	0.150	0.039	0.113	1.537	0.128	0.462	0.036	0.068	1.173	0.086	0.315
53	NC	Roxboro	2712	4A,4B	D02712C04	1.530	0.080	0.029	1.152	0.091	0.329	0.048	0.037	0.936	0.070	0.256	0.068	0.067	1.530	0.113	0.408
54	PA	Cheswick	8226	1	D082261	1.504	0.025	0.048	1.066	0.062	0.225	0.035	0.073	1.504	0.091	0.329	0.031	0.096	1.437	0.106	0.384
55	MD	Chalk Point	1571	1,2	D01571CE2	1.502	0.069	0.002	0.792	0.058	0.212	0.077	0.003	0.957	0.066	0.240	0.131	0.003	1.502	0.111	0.401
56	OH	Conesville	2840	5,6	D02840C06	1.498	0.051	0.023	0.670	0.062	0.225	0.047	0.086	1.498	0.112	0.404	0.037	0.075	1.270	0.094	0.340
57	AL	E C Gaston	26	1, 2	D00026CAN	1.492	0.064	0.005	0.764	0.057	0.208	0.068	0.006	0.813	0.061	0.221	0.113	0.020	1.492	0.110	0.398
58	IL	Powerton		51,52,61,62	D00879C06	1.485	0.063	0.017	0.885	0.066	0.242	0.086	0.052	1.485	0.115	0.415	0.103	0.014	1.308	0.096	0.350
59	WV	Mitchell (WV)	3948	1,2	D03948C02	1.442	0.032	0.020	0.605	0.043	0.157	0.056	0.080	1.442	0.113	0.411	0.038	0.033	0.801	0.059	0.216
60	IN	Michigan City Generating Station		12	D0099712	1.350	0.101	0.004	1.161	0.086	0.314	0.095	0.010	1.199	0.087	0.317	0.113	0.007	1.350	0.099	0.361
61	MI	J H Campbell		A,B,1,2	D01710C09	1.299	0.051	0.004	0.601	0.045	0.165	0.098	0.014	1.299	0.093	0.337	0.072	0.008	0.893	0.066	0.240
62	IN	Whitewater Valley		1, 2	D01040C12	1.270	0.087	0.003	1.000	0.074	0.268	0.101	0.013	1.270	0.094	0.340	0.054	0.008	0.697	0.051	0.188
63	TX	Big Brown	3497	1		1.222	0.068	0.004	0.806	0.059	0.216	0.058	0.003	0.693	0.051	0.186	0.100	0.009	1.222	0.090	0.328
64	CT	Bridgeport Harbor Station	568	BHB3		1.218	0.050	0.056	1.134	0.089	0.322	0.033	0.036	0.742	0.058	0.213	0.032	0.075	1.218	0.090	0.326
65	KY	Ghent	1356	3,4 ... (2,3)	D01356C02	1.189	0.081	0.022	1.144	0.085	0.311	0.088	0.020	1.189	0.089	0.324	0.050	0.026	0.846	0.062	0.228
66	TX	Big Brown	3497	2		1.180	0.065	0.004	0.779	0.057	0.208	0.056	0.003	0.670	0.049	0.179	0.096	0.010	1.180	0.087	0.316
67	NY	Oswego Harbor Power	2594	6	x15	1.057	0.052	0.029	0.912	0.067	0.245	0.061	0.032	1.057	0.077	0.282	0.056	0.033	1.000	0.074	0.269
68	MD	Morgantown	1573	1	D015731	1.005	0.038	0.006	0.521	0.036	0.133	0.052	0.013	0.734	0.054	0.197	0.071	0.019	1.005	0.074	0.270
69	IN	Tanners Creek	988	U1,U2,U3	D00988C03	1.000	0.074	0.011	1.000	0.070	0.257	0.054	0.025	0.893	0.065	0.237	0.031	0.021	0.589	0.044	0.159
70	NY	Cayuga Operating Company, LLC		1 (33%), 2 (33%	D02535C01	0.980	0.065	0.016	0.980	0.067	0.246	0.057	0.028	0.962	0.070	0.256	0.044	0.024	0.769	0.057	0.207
71	NH	Merrimack	2364	2	D023642	0.971	0.014	0.020	0.786	0.028	0.103	0.016	0.033	0.971	0.041	0.151	0.013	0.069	0.936	0.069	0.252
72	IN	IPL - Harding Street Station (EW Stout)		50	D0099050	0.946	0.084	0.003	0.946	0.071	0.259	0.075	0.008	0.927	0.069	0.250	0.046	0.005	0.578	0.043	0.156
73	NH	Newington	8002	1	D080021	0.929	0.037	0.022	0.768	0.049	0.180	0.027	0.027	0.621	0.045	0.166	0.041	0.042	0.929	0.069	0.250
74	NJ	Hudson Generating Station	2403	2	D024032	0.914	0.020	0.038	0.659	0.049	0.177	0.060	0.018	0.914	0.065	0.238	0.017	0.040	0.651	0.048	0.176
75	TX	Martin Lake	6146	1		0.893	0.044	0.006	0.563	0.041	0.151	0.038	0.005	0.488	0.036	0.131	0.065	0.015	0.893	0.066	0.240
76	IN	IPL - Petersburg Generating Station		3	D009943	0.876	0.049	0.023	0.862	0.060	0.218	0.045	0.031	0.876	0.064	0.232	0.032	0.024	0.631	0.047	0.170
77	WV	John E Amos	3935	1,2	D03935C02	0.864	0.047	0.021	0.864	0.057	0.207	0.034	0.021	0.660	0.046	0.167	0.031	0.027	0.652	0.048	0.176
78	IN	IPL - Harding Street Station (EW Stout)		60	D0099060	0.860	0.076	0.002	0.860	0.065	0.236	0.068	0.007	0.839	0.062	0.226	0.042	0.005	0.521	0.039	0.141
79	TX	Martin Lake	6146	3		0.847	0.042	0.005	0.535	0.039	0.143	0.036	0.005	0.463	0.034	0.124	0.061	0.014	0.847	0.063	0.228
80	MI	J C Weadock		7, 8	D01720C09	0.841	0.028	0.006	0.385	0.029	0.105	0.062	0.014	0.841	0.063	0.228	0.033	0.011	0.489	0.036	0.132

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81	GA	Harllee Branch	709	1,2	D00709C01	0.828	0.065	0.007	0.815	0.060	0.218	0.069	0.005	0.828	0.061	0.224	0.058	0.005	0.709	0.052	0.191
82	TX	Monticello	6147	1		0.827	0.045	0.003	0.534	0.040	0.145	0.039	0.003	0.461	0.034	0.125	0.066	0.008	0.827	0.061	0.223
83	MO	Sibley		1, 2, 3	D02094C01	0.816	0.058	0.016	0.816	0.061	0.222	0.045	0.018	0.662	0.052	0.191	0.039	0.010	0.544	0.040	0.147
84	MI	Trenton Channel	1745	16,17,18,19	x10	0.765	0.015	0.005	0.222	0.017	0.061	0.030	0.010	0.438	0.033	0.120	0.049	0.019	0.765	0.056	0.206
85	KY	Paradise	1378	2	D013782	0.738	0.024	0.008	0.376	0.026	0.096	0.046	0.017	0.738	0.052	0.192	0.034	0.019	0.595	0.044	0.161
86	KY	Paradise	1378	3	D013783	0.729	0.016	0.016	0.331	0.026	0.096	0.030	0.036	0.716	0.055	0.201	0.024	0.040	0.729	0.054	0.197
87	IA	Ottumwa		1	D062541	0.719	0.042	0.017	0.719	0.049	0.180	0.039	0.020	0.689	0.049	0.178	0.017	0.011	0.319	0.024	0.087
88	TX	Martin Lake	6146	2		0.709	0.034	0.005	0.451	0.032	0.118	0.029	0.005	0.391	0.028	0.103	0.049	0.014	0.709	0.052	0.191
89	MA	Brayton Point	1619	2	D016192	0.682	0.015	0.026	0.509	0.033	0.123	0.018	0.044	0.679	0.052	0.191	0.018	0.042	0.682	0.050	0.184
90	IA	George Neal South		4	D073434	0.673	0.035	0.015	0.567	0.042	0.153	0.038	0.024	0.673	0.051	0.188	0.019	0.009	0.318	0.023	0.086
91	OH	J M Stuart	2850	4	D028404	0.669	0.033	0.011	0.511	0.037	0.134	0.043	0.014	0.669	0.048	0.175	0.033	0.014	0.524	0.039	0.142
92	IN	Clifty Creek	983	4,5,6	D00983C02	0.668	0.020	0.020	0.668	0.033	0.122	0.020	0.021	0.663	0.034	0.124	0.011	0.025	0.406	0.030	0.110
93	OK	Northeastern		3313, 3314	D02963C10	0.663	0.053	0.010	0.663	0.052	0.192	0.031	0.013	0.531	0.036	0.132	0.025	0.007	0.354	0.026	0.096
94	IN	Gibson	6113	1,2,3	D06113C03	0.652	0.040	0.020	0.556	0.050	0.181	0.034	0.022	0.562	0.046	0.169	0.030	0.028	0.652	0.048	0.176
95	KY	John S. Cooper	1384	1,2	D01384CS1	0.613	0.028	0.004	0.368	0.026	0.095	0.027	0.005	0.373	0.026	0.097	0.037	0.018	0.613	0.045	0.166
96	KY	Paradise	1378	1	D01720C09	0.592	0.019	0.006	0.301	0.021	0.078	0.037	0.014	0.592	0.042	0.154	0.027	0.015	0.481	0.036	0.130
97	IN	IPL - Petersburg Generating Station		4	D009944	0.588	0.035	0.014	0.588	0.040	0.147	0.032	0.019	0.588	0.043	0.156	0.022	0.014	0.412	0.030	0.112
98	IN	Clifty Creek	983	1,2,3	D00983C01	0.566	0.022	0.014	0.566	0.030	0.110	0.022	0.015	0.561	0.030	0.111	0.012	0.018	0.335	0.025	0.091
99	OH	Cardinal	2828	3	D028283	0.529	0.013	0.009	0.309	0.018	0.066	0.021	0.029	0.529	0.042	0.154	0.011	0.013	0.278	0.021	0.075
100	KY	Mill Creek	1364	4	D013644	0.528	0.005	0.011	0.270	0.013	0.049	0.010	0.019	0.528	0.024	0.088	0.005	0.021	0.293	0.022	0.079
101	MN	Sherburne County		1, 2	D06090CS1	0.487	0.006	0.024	0.454	0.025	0.092	0.006	0.027	0.487	0.028	0.101	0.002	0.014	0.180	0.013	0.049
102	VA	Chesterfield Power Station	3797	5	D037975	0.466	0.024	0.006	0.408	0.024	0.089	0.024	0.014	0.466	0.032	0.117	0.017	0.014	0.345	0.025	0.093
103	MA	Brayton Point	1619	3	D016193	0.452	0.013	0.014	0.317	0.023	0.083	0.014	0.019	0.344	0.028	0.101	0.019	0.021	0.452	0.033	0.122
104	OK	Grand River Dam Authority		1	D001651	0.447	0.022	0.000	0.256	0.018	0.067	0.038	0.000	0.447	0.031	0.115	0.025	0.000	0.275	0.020	0.075
105	MO	Labadie		4	D021034	0.434	0.020	0.004	0.263	0.020	0.072	0.033	0.006	0.434	0.032	0.118	0.034	0.004	0.423	0.031	0.115
106	DE	Indian River	594	4	D005944	0.409	0.030	0.004	0.381	0.028	0.103	0.034	0.003	0.409	0.030	0.111	0.027	0.003	0.334	0.025	0.091
107	NH	Merrimack	2364	1	D023641	0.394	0.005	0.008	0.321	0.011	0.039	0.006	0.013	0.394	0.016	0.058	0.005	0.028	0.375	0.028	0.102
108	MI	Monroe	1733	1,2	D01733C12	0.389	0.006	0.010	0.203	0.013	0.049	0.012	0.022	0.389	0.028	0.103	0.009	0.018	0.314	0.023	0.085
109	IL	Kincaid Generating Station		1, 2	D00876C02	0.369	0.017	0.005	0.223	0.018	0.066	0.014	0.013	0.369	0.023	0.084	0.017	0.008	0.278	0.021	0.075
110	MA	Brayton Point	1619	1	D016191	0.333	0.015	0.007	0.255	0.018	0.066	0.018	0.011	0.327	0.025	0.090	0.019	0.011	0.333	0.025	0.090
111	TN	Kingston	3407	1,2,3,4,5	D03407C15	0.304	0.010	0.005	0.225	0.012	0.045	0.007	0.004	0.150	0.009	0.033	0.013	0.014	0.304	0.022	0.082
112	TN	Kingston	3407	6,7,8,9	D03407C69	0.296	0.010	0.004	0.221	0.012	0.045	0.007	0.004	0.147	0.009	0.032	0.013	0.013	0.296	0.022	0.080
113	VA	Chesterfield Power Station	3797	4	D037974	0.294	0.018	0.003	0.245	0.017	0.063	0.017	0.009	0.294	0.021	0.079	0.013	0.009	0.251	0.019	0.068
114	GA	Yates		Y7BR	D00728Y7R	0.281	0.000	0.011	0.219	0.009	0.035	0.000	0.011	0.281	0.009	0.034	0.000	0.018	0.210	0.016	0.057
115	NH	Schiller	2367	4		0.279	0.016	0.004	0.230	0.017	0.061	0.014	0.004	0.210	0.015	0.056	0.015	0.010	0.279	0.021	0.076
116	IL	Baldwin Energy Complex		1,2	D008892	0.278	0.011	0.007	0.199	0.015	0.056	0.016	0.009	0.278	0.021	0.076	0.012	0.007	0.219	0.016	0.060
117	MI	Dan E Karn	1702	3,4 (1,2)	D01702C09	0.272	0.009	0.002	0.120	0.009	0.034	0.020	0.005	0.272	0.021	0.076	0.011	0.004	0.163	0.012	0.044
118	NH	Schiller	2367	6		0.264	0.016	0.003	0.216	0.016	0.060	0.014	0.004	0.198	0.015	0.055	0.015	0.009	0.264	0.020	0.072
119	WI	Columbia		1	D080231	0.195	0.006	0.005	0.156	0.010	0.036	0.007	0.014	0.195	0.018	0.065	0.005	0.006	0.119	0.009	0.032
120	GA	Scherer		4	D062574	0.172	0.002	0.013	0.164	0.013	0.046	0.002	0.014	0.172	0.014	0.051	0.001	0.008	0.103	0.008	0.028

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
121	WI	Columbia		2	D080232	0.164	0.006	0.004	0.139	0.008	0.031	0.006	0.012	0.164	0.015	0.057	0.005	0.005	0.113	0.008	0.031
122	GA	Scherer		1	D062571	0.160	0.002	0.013	0.155	0.013	0.046	0.002	0.015	0.160	0.014	0.050	0.001	0.008	0.099	0.007	0.027
123	SC	Wateree	3297	WAT1	D03297WT1	0.137	0.005	0.007	0.137	0.010	0.035	0.002	0.004	0.073	0.006	0.021	0.002	0.003	0.064	0.005	0.017
124	SC	Wateree	3297	WAT2	D03297WT2	0.131	0.005	0.006	0.131	0.009	0.032	0.002	0.004	0.070	0.005	0.019	0.002	0.003	0.055	0.004	0.015
125	GA	Scherer		2	D062572	0.122	0.001	0.010	0.118	0.010	0.035	0.001	0.011	0.122	0.010	0.038	0.001	0.006	0.075	0.006	0.020
126	VA	Bremo Power Station		4	D037964	0.117	0.000	0.006	0.117	0.005	0.018	0.000	0.009	0.111	0.007	0.027	0.000	0.008	0.092	0.007	0.025
127	IN	R M Schahfer Generating Station		14	D0608514	0.100	0.003	0.005	0.100	0.006	0.023	0.002	0.016	0.098	0.016	0.057	0.003	0.006	0.099	0.007	0.027
128	IN	R M Schahfer Generating Station		15	D0608515	0.088	0.002	0.005	0.088	0.006	0.022	0.002	0.014	0.087	0.013	0.048	0.002	0.006	0.086	0.006	0.023
129	KS	La Cygne	1241	1		0.045	0.004	0.000	0.045	0.004	0.013	0.003	0.000	0.035	0.003	0.009	0.002	0.000	0.029	0.002	0.008
130	KS	La Cygne		2	D012412	0.015	0.001	0.000	0.015	0.001	0.004	0.001	0.000	0.014	0.001	0.004	0.001	0.000	0.010	0.001	0.003

F.5 2011 EGU Ranking Visibility Impairing Sources to Campobello/Roosevelt

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
1	OH	Kyger Creek	2876	1,2,3,4,5	D02876C01	17.633	1.326	0.097	17.633	2.645	6.276	1.102	0.264	16.838	2.541	6.063	0.982	0.182	14.310	2.198	5.356
2	VA	Chesterfield Power Station	3797	5	D037975	8.186	0.407	0.027	5.253	0.863	2.312	0.391	0.021	4.976	0.819	2.202	0.645	0.027	8.186	1.314	3.403
3	MA	Brayton Point	1619	3	D016193	7.891	0.593	0.056	7.891	1.270	3.298	0.391	0.044	5.276	0.867	2.321	0.299	0.040	4.090	0.679	1.844
4	MI	Monroe	1733	1,2	D01733C12	7.430	0.300	0.040	4.118	0.683	1.856	0.222	0.091	3.789	0.631	1.719	0.484	0.128	7.430	1.201	3.133
5	OH	Muskingum River	2872	1,2,3,4	D02872C04	6.764	0.535	0.022	6.764	1.098	2.888	0.349	0.051	4.836	0.798	2.147	0.266	0.043	3.737	0.622	1.698
6	OH	Walter C Beckford Generating Station		6	D028306	5.377	0.420	0.012	5.226	0.859	2.301	0.416	0.028	5.377	0.883	2.361	0.235	0.012	2.979	0.498	1.376
7	NH	Merrimack	2364	2	D023642	5.225	0.362	0.070	5.225	0.859	2.301	0.374	0.045	5.071	0.835	2.240	0.343	0.036	4.582	0.757	2.044
8	OH	Avon Lake Power Plant	2836	12	D0283612	4.573	0.351	0.027	4.573	0.755	2.041	0.180	0.042	2.676	0.449	1.244	0.325	0.032	4.306	0.713	1.933
9	IN	Rockport	6166	MB1,MB2	D06166C02	3.936	0.270	0.056	3.936	0.654	1.781	0.165	0.054	2.641	0.444	1.229	0.158	0.029	2.255	0.380	1.058
10	OH	Eastlake		5	D028375	3.621	0.235	0.018	3.048	0.510	1.406	0.197	0.029	2.721	0.456	1.264	0.273	0.027	3.621	0.603	1.649
11	PA	Homer City	3122	2	D031222	3.603	0.289	0.010	3.603	0.600	1.641	0.195	0.026	2.667	0.448	1.240	0.182	0.016	2.381	0.400	1.114
12	PA	Homer City	3122	1	D031221	3.578	0.289	0.008	3.578	0.596	1.631	0.195	0.021	2.603	0.437	1.212	0.181	0.013	2.341	0.394	1.097
13	MA	Brayton Point	1619	2	D016192	3.397	0.245	0.037	3.397	0.567	1.555	0.149	0.032	2.182	0.368	1.026	0.200	0.039	2.877	0.482	1.332
14	IN	Wabash River Gen Station	1010	2,3,4,5,6	D01010C05	3.110	0.230	0.028	3.110	0.520	1.432	0.147	0.022	2.035	0.343	0.960	0.139	0.016	1.864	0.315	0.883
15	MA	Brayton Point	1619	1	D016191	2.993	0.225	0.023	2.993	0.501	1.382	0.141	0.023	1.977	0.334	0.934	0.189	0.024	2.562	0.430	1.194
16	PA	Shawville	3131	3,4	D03131CS1	2.818	0.225	0.009	2.818	0.472	1.306	0.148	0.018	1.997	0.337	0.943	0.093	0.011	1.259	0.214	0.605
17	PA	Cheswick	8226	1	D082261	2.735	0.215	0.012	2.735	0.459	1.270	0.144	0.040	2.212	0.373	1.039	0.099	0.015	1.371	0.233	0.657
18	IN	Clifty Creek	983	4,5,6	D00983C02	2.640	0.184	0.009	2.324	0.391	1.089	0.191	0.028	2.640	0.443	1.228	0.117	0.011	1.538	0.261	0.734
19	NH	Merrimack	2364	1	D023641	2.555	0.181	0.031	2.555	0.429	1.191	0.187	0.020	2.494	0.419	1.164	0.172	0.016	2.258	0.380	1.060
20	OH	W H Zimmer Generating Station	6019	1	D060191	2.520	0.139	0.028	2.013	0.340	0.950	0.135	0.073	2.520	0.424	1.176	0.098	0.039	1.654	0.280	0.787
21	VA	Yorktown Power Station	3809	1,2	D03809CS0	2.504	0.181	0.027	2.504	0.421	1.169	0.114	0.018	1.579	0.267	0.753	0.187	0.013	2.402	0.404	1.124
22	NC	L V Sutton		3	D027133	2.446	0.190	0.013	2.446	0.411	1.143	0.111	0.020	1.567	0.266	0.747	0.037	0.011	0.574	0.098	0.280
23	TN	Johnsonville	3406	1 thru 10	D03406C10	2.436	0.191	0.012	2.436	0.409	1.139	0.055	0.011	0.787	0.134	0.382	0.065	0.011	0.911	0.155	0.441
24	NH	Newington	8002	1	D080021	2.314	0.175	0.017	2.314	0.389	1.085	0.107	0.032	1.681	0.285	0.799	0.084	0.015	1.188	0.202	0.572
25	PA	Keystone	3136	1	D031361	2.264	0.162	0.026	2.264	0.381	1.062	0.116	0.065	2.183	0.368	1.026	0.106	0.041	1.776	0.301	0.843
26	PA	Keystone	3136	2	D031362	2.254	0.162	0.026	2.254	0.380	1.058	0.115	0.064	2.172	0.367	1.021	0.106	0.041	1.768	0.299	0.839
27	MD	Chalk Point	1571	1,2	D01571CE2	2.252	0.140	0.024	1.975	0.333	0.933	0.163	0.017	2.165	0.365	1.018	0.171	0.016	2.252	0.379	1.057
28	KY	Big Sandy	1353	BSU1,BSU2	D01353C02	2.220	0.172	0.013	2.220	0.374	1.043	0.153	0.030	2.199	0.371	1.033	0.164	0.020	2.213	0.373	1.040
29	OH	Walter C Beckford Generating Station		5 (50%)	D02830M51	2.164	0.170	0.005	2.100	0.354	0.989	0.168	0.012	2.164	0.365	1.018	0.095	0.005	1.202	0.204	0.578
30	VA	Chesapeake Energy Center		4	D038034	2.142	0.161	0.017	2.142	0.361	1.008	0.071	0.014	1.019	0.174	0.492	0.092	0.009	1.210	0.206	0.582
31	ME	William F Wyman	1507	4	D015074	2.134	0.133	0.044	2.134	0.360	1.005	0.114	0.023	1.653	0.280	0.787	0.096	0.013	1.309	0.222	0.628
32	OH	Muskingum River	2872	5	D028725	2.071	0.170	0.003	2.071	0.349	0.976	0.110	0.005	1.376	0.233	0.659	0.085	0.006	1.089	0.185	0.525
33	MI	Trenton Channel	1745	9A	D017459A	2.048	0.096	0.009	1.261	0.214	0.606	0.089	0.014	1.239	0.210	0.595	0.148	0.022	2.048	0.345	0.966
34	MA	Canal Station	1599	1	D015991	2.009	0.146	0.021	2.009	0.339	0.948	0.116	0.021	1.648	0.279	0.784	0.088	0.018	1.277	0.217	0.613
35	GA	Harllee Branch	709	3&4	D00709C02	1.990	0.134	0.019	1.845	0.312	0.874	0.137	0.028	1.990	0.336	0.940	0.066	0.012	0.943	0.161	0.456
36	PA	Portland		3 (2)	d031132	1.985	0.125	0.008	1.597	0.270	0.761	0.150	0.015	1.985	0.335	0.937	0.130	0.022	1.830	0.309	0.867
37	IN	Clifty Creek	983	1,2,3	D00983C01	1.952	0.141	0.005	1.757	0.297	0.834	0.147	0.016	1.952	0.329	0.922	0.090	0.006	1.150	0.195	0.554
38	MI	St. Clair	1743	1,2,3,4,...6	x09	1.942	0.081	0.034	1.387	0.236	0.664	0.103	0.042	1.745	0.295	0.829	0.102	0.058	1.942	0.328	0.918
39	MI	St. Clair	1743	7	D017437	1.893	0.123	0.014	1.640	0.277	0.781	0.141	0.016	1.893	0.320	0.896	0.116	0.019	1.627	0.275	0.775
40	IN	Tanners Creek	988	U4	D00988U4	1.893	0.149	0.009	1.893	0.320	0.896	0.141	0.015	1.877	0.317	0.889	0.079	0.008	1.041	0.177	0.502

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
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41	NY	Cayuga Operating Company, LLC		1 (33%), 2 (33	D02535C01	1.793	0.136	0.013	**1.793**	0.303	0.851	0.109	0.013	**1.468**	0.249	0.702	0.097	0.020	**1.406**	0.238	0.673
42	OH	Cardinal	2828	3	D028283	1.791	0.146	0.004	**1.791**	0.303	0.850	0.109	0.007	**1.383**	0.235	0.663	0.064	0.005	0.829	0.141	0.402
43	PA	Brunner Island	3140	3	D031403	1.745	0.059	0.026	**1.024**	0.174	0.495	0.068	0.076	**1.745**	0.296	0.829	0.083	0.050	**1.608**	0.273	0.766
44	IL	Powerton		51,52,61,62	D00879C06	1.717	0.044	0.014	0.696	0.119	0.339	0.051	0.015	0.796	0.136	0.387	0.109	0.033	**1.717**	0.291	0.816
45	PA	Martins Creek	3148	3,4	x21	1.648	0.028	0.039	0.814	0.139	0.395	0.033	0.102	**1.648**	0.280	0.784	0.026	0.075	**1.230**	0.210	0.591
46	PA	Brunner Island	3140	1,2	D03140C12	1.641	0.051	0.021	0.867	0.148	0.420	0.085	0.051	**1.641**	0.278	0.781	0.059	0.046	**1.271**	0.216	0.610
47	VA	Chesapeake Energy Center		3	D038033	1.599	0.116	0.017	**1.599**	0.271	0.762	0.050	0.014	0.775	0.132	0.376	0.064	0.009	0.878	0.150	0.426
48	PA	Montour	3149	1	D031491	1.590	0.103	0.029	**1.590**	0.269	0.758	0.051	0.053	**1.272**	0.216	0.611	0.056	0.052	**1.300**	0.221	0.624
49	PA	Montour	3149	2	D031492	1.569	0.104	0.026	**1.569**	0.266	0.748	0.052	0.048	**1.213**	0.207	0.583	0.056	0.047	**1.245**	0.212	0.598
50	SC	Wateree	3297	WAT1	D03297WT1	1.555	0.124	0.005	**1.555**	0.263	0.742	0.053	0.007	0.719	0.123	0.350	0.028	0.004	0.384	0.066	0.188
51	NC	L V Sutton		1, 2	D02713C02	1.497	0.119	0.006	**1.497**	0.254	0.715	0.064	0.008	0.865	0.147	0.419	0.022	0.004	0.320	0.055	0.157
52	MI	Belle River		2	D060342	1.484	0.064	0.027	**1.097**	0.187	0.529	0.072	0.029	**1.216**	0.207	0.585	0.086	0.037	**1.484**	0.252	0.709
53	MI	Belle River		1	D060341	1.465	0.063	0.027	**1.083**	0.184	0.522	0.071	0.029	**1.199**	0.204	0.577	0.084	0.037	**1.465**	0.249	0.700
54	VA	Chesterfield Power Station	3797	3,7,8A	x28	1.433	0.112	0.007	**1.433**	0.243	0.686	0.100	0.006	**1.273**	0.216	0.611					
55	NC	H F Lee Steam Electric Plant		3	D027093	1.429	0.112	0.007	**1.429**	0.242	0.683	0.023	0.005	0.336	0.058	0.165	0.023	0.006	0.347	0.059	0.170
56	WV	Harrison Power Station		1 (25%), 2 (2	D03944C01	1.392	0.032	0.023	0.666	0.114	0.324	0.030	0.084	**1.392**	0.237	0.667	0.019	0.053	0.877	0.150	0.425
57	VA	Yorktown Power Station	3809	3	D038093	1.386	0.103	0.012	**1.386**	0.235	0.664	0.058	0.007	0.780	0.133	0.379	0.088	0.008	**1.151**	0.196	0.554
58	NJ	B L England	2378	1		1.382	0.079	0.009	**1.061**	0.180	0.512	0.082	0.011	**1.123**	0.191	0.541	0.105	0.010	**1.382**	0.234	0.662
59	SC	Jefferies	3319	4		1.381	0.107	0.008	**1.381**	0.234	0.661	0.104	0.010	**1.368**	0.232	0.656	0.038	0.003	0.499	0.085	0.244
60	SC	Jefferies	3319	3		1.380	0.107	0.008	**1.380**	0.234	0.661	0.105	0.009	**1.373**	0.233	0.658	0.040	0.003	0.514	0.088	0.251
61	NY	Somerset Operating Company (Kintigh)		1	D060821	1.353	0.084	0.029	**1.353**	0.230	0.648	0.065	0.043	**1.303**	0.222	0.625	0.064	0.040	**1.257**	0.214	0.604
62	MD	C P Crane	1552	2	D015522	1.341	0.053	0.010	0.757	0.129	0.368	0.083	0.019	**1.231**	0.209	0.592	0.087	0.024	**1.341**	0.228	0.643
63	MI	J H Campbell		3 (50%)	D01710M3A	1.339	0.062	0.023	**1.024**	0.174	0.495	0.088	0.024	**1.339**	0.227	0.642	0.063	0.029	**1.105**	0.188	0.533
64	MA	Canal Station	1599	2	D015992	1.322	0.084	0.026	**1.322**	0.225	0.634	0.072	0.031	**1.238**	0.210	0.595	0.049	0.019	0.826	0.141	0.401
65	IL	Kincaid Generating Station		1, 2	D00876C02	1.301	0.044	0.062	**1.292**	0.220	0.620	0.040	0.051	**1.105**	0.188	0.533	0.055	0.053	**1.301**	0.221	0.624
66	KY	Mill Creek	1364	1,2,3	x05	1.281	0.070	0.012	0.985	0.168	0.476	0.079	0.028	**1.281**	0.218	0.615	0.041	0.022	0.759	0.130	0.369
67	SC	Wateree	3297	WAT2	D03297WT2	1.280	0.103	0.004	**1.280**	0.217	0.614	0.040	0.005	0.535	0.091	0.262	0.018	0.003	0.247	0.042	0.122
68	OH	Gen J M Gavin	8102	2	D081022	1.269	0.101	0.005	**1.269**	0.215	0.609	0.076	0.020	**1.153**	0.196	0.555	0.070	0.014	**1.009**	0.172	0.487
69	OH	Gen J M Gavin	8102	1	D081021	1.252	0.099	0.005	**1.252**	0.213	0.602	0.075	0.019	**1.135**	0.193	0.547	0.069	0.014	0.994	0.169	0.480
70	MD	Morgantown	1573	1	D015731	1.237	0.098	0.005	**1.237**	0.210	0.594	0.096	0.003	**1.181**	0.201	0.568	0.095	0.003	**1.183**	0.201	0.569
71	WV	Kammer	3947	1,2,3	D03947C03	1.237	0.095	0.008	**1.237**	0.210	0.594	0.065	0.021	**1.036**	0.176	0.500	0.043	0.013	0.675	0.115	0.329
72	PA	Portland		2 (1)	d031131	1.210	0.080	0.003	0.991	0.169	0.479	0.095	0.006	**1.210**	0.206	0.582	0.089	0.009	**1.171**	0.199	0.564
73	MD	C P Crane	1552	1	D015521	1.208	0.048	0.009	0.683	0.117	0.332	0.075	0.017	**1.111**	0.189	0.535	0.079	0.021	**1.208**	0.205	0.581
74	DE	Indian River	594	4	D005944	1.207	0.060	0.007	0.809	0.138	0.393	0.086	0.015	**1.207**	0.205	0.581	0.033	0.009	0.504	0.086	0.247
75	KY	John S. Cooper	1384	1,2	D01384CS1	1.192	0.094	0.005	**1.192**	0.203	0.574	0.032	0.006	0.459	0.079	0.225	0.021	0.003	0.285	0.049	0.140
76	MA	Brayton Point	1619	4	x07	1.187	0.079	0.020	**1.187**	0.202	0.571	0.068	0.022	**1.082**	0.184	0.522	0.037	0.014	0.608	0.104	0.296
77	PA	Sunbury		4	D031524	1.185	0.096	0.003	**1.185**	0.201	0.570	0.060	0.007	0.794	0.135	0.386	0.041	0.005	0.558	0.095	0.273
78	TN	Kingston	3407	6,7,8,9	D03407C69	1.176	0.096	0.002	**1.176**	0.200	0.566	0.044	0.003	0.571	0.097	0.279	0.040	0.002	0.510	0.087	0.250
79	IN	Gibson	6113	1,2,3	D06113C03	1.174	0.030	0.066	**1.174**	0.200	0.565	0.021	0.053	0.894	0.153	0.433	0.014	0.026	0.487	0.084	0.238
80	MI	J H Campbell		A,B,1,2	D01710C09	1.167	0.051	0.016	0.806	0.138	0.391	0.082	0.015	**1.167**	0.198	0.562	0.053	0.018	0.863	0.147	0.418

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81	SC	Canadys Steam		CAN3	D03280CN3	1.154	0.089	0.007	**1.154**	0.196	0.556	0.067	0.006	0.885	0.151	0.429	0.030	0.003	0.389	0.067	0.191
82	MI	St. Clair	1743	6	D017436	1.145	0.074	0.009	**1.001**	0.170	0.484	0.087	0.009	**1.145**	0.195	0.551	0.069	0.012	0.976	0.166	0.472
83	PA	Armstrong Power Station		1	D031781	1.116	0.089	0.004	**1.116**	0.190	0.538	0.067	0.008	0.898	0.153	0.435					
84	IN	R M Schahfer Generating Station		14	D0608514	1.115	0.032	0.008	0.480	0.082	0.235	0.089	0.004	**1.115**	0.189	0.537	0.066	0.014	0.963	0.164	0.466
85	PA	Armstrong Power Station		2	D031782	1.098	0.087	0.004	**1.098**	0.187	0.529	0.066	0.008	0.888	0.151	0.430					
86	TN	Kingston	3407	1,2,3,4,5	D03407C15	1.089	0.088	0.002	**1.089**	0.185	0.525	0.041	0.004	0.533	0.091	0.260	0.037	0.003	0.476	0.081	0.233
87	NY	Oswego Harbor Power	2594	5	D025945	1.082	0.075	0.015	**1.082**	0.184	0.522										
88	MO	Sibley		1, 2, 3	D02094C01	1.071	0.078	0.011	**1.071**	0.182	0.517	0.046	0.005	0.622	0.106	0.303	0.081	0.005	**1.036**	0.176	0.500
89	IN	IPL - Petersburg Generating Station		4	D009944	1.060	0.075	0.013	**1.060**	0.180	0.511	0.044	0.013	0.684	0.117	0.333	0.038	0.007	0.535	0.091	0.261
90	IA	Ottumwa		1	D062541	1.042	0.070	0.017	**1.042**	0.177	0.503	0.031	0.008	0.469	0.080	0.230	0.054	0.017	0.848	0.145	0.411
91	VA	Chesterfield Power Station	3797	4	D037974	1.039	0.052	0.007	0.700	0.119	0.341	0.048	0.005	0.629	0.107	0.307	0.080	0.007	**1.039**	0.177	0.502
92	KY	Paradise	1378	2	D013782	1.030	0.080	0.006	**1.030**	0.175	0.497	0.037	0.005	0.496	0.085	0.242	0.053	0.003	0.672	0.115	0.327
93	PA	Sunbury		3	D031523	1.019	0.082	0.003	**1.019**	0.173	0.492	0.051	0.005	0.680	0.116	0.331	0.049	0.004	0.640	0.109	0.312
94	MD	Herbert A Wagner	1554	3	D015543	1.015	0.039	0.007	0.548	0.094	0.268	0.065	0.009	0.883	0.150	0.428	0.071	0.013	**1.015**	0.173	0.490
95	KY	Paradise	1378	3	D013783	1.010	0.048	0.036	**1.010**	0.172	0.488	0.024	0.031	0.672	0.115	0.327	0.032	0.019	0.615	0.105	0.300
96	NH	Schiller	2367	6		1.006	0.050	0.029	0.954	0.163	0.462	0.057	0.027	**1.006**	0.171	0.486	0.055	0.025	0.961	0.164	0.465
97	VA	Chesapeake Energy Center		2	D038032	0.993	0.072	0.011	0.993	0.169	0.480	0.031	0.007	0.455	0.078	0.223	0.040	0.005	0.545	0.093	0.266
98	NH	Schiller	2367	4		0.992	0.050	0.028	0.941	0.160	0.455	0.056	0.026	0.992	0.169	0.480	0.054	0.024	0.948	0.162	0.459
99	IN	Michigan City Generating Station		12	D0099712	0.991	0.025	0.004	0.349	0.060	0.171	0.078	0.005	0.991	0.169	0.479	0.062	0.010	0.864	0.147	0.419
100	MI	Trenton Channel	1745	16,17,18,19	x10	0.989	0.037	0.010	0.565	0.097	0.276	0.035	0.015	0.606	0.104	0.296	0.059	0.023	0.989	0.169	0.478
101	GA	Harllee Branch	709	1,2	D00709C01	0.968	0.068	0.009	0.921	0.157	0.446	0.067	0.014	0.968	0.165	0.468	0.037	0.007	0.528	0.090	0.258
102	AL	E C Gaston	26	3, 4	D00026CBN	0.955	0.040	0.003	0.522	0.089	0.255	0.054	0.009	0.749	0.128	0.364	0.070	0.010	0.955	0.163	0.462
103	AL	E C Gaston	26	1, 2	D00026CAN	0.939	0.042	0.003	0.534	0.091	0.261	0.061	0.007	0.812	0.138	0.394	0.068	0.010	0.939	0.160	0.455
104	IN	R M Schahfer Generating Station		15	D0608515	0.909	0.024	0.009	0.399	0.068	0.196	0.067	0.008	0.909	0.155	0.440	0.053	0.020	0.875	0.149	0.424
105	KY	Paradise	1378	1	D01720C09	0.906	0.070	0.006	0.906	0.154	0.439	0.032	0.004	0.438	0.075	0.215	0.046	0.003	0.590	0.101	0.288
106	SC	H B Robinson		1	D032511	0.897	0.069	0.006	0.897	0.153	0.434	0.017	0.005	0.267	0.046	0.131	0.013	0.005	0.207	0.036	0.102
107	MI	Dan E Karn	1702	3,4 (1,2)	D01702C09	0.886	0.053	0.020	0.886	0.151	0.429	0.033	0.018	0.616	0.105	0.300	0.041	0.022	0.757	0.129	0.368
108	AL	Colbert	47	1, 2, 3, 4	D00047C14	0.886	0.063	0.011	0.886	0.151	0.429										
109	MI	J C Weadock		7, 8	D01720C09	0.864	0.055	0.016	0.864	0.147	0.419	0.034	0.015	0.585	0.100	0.286	0.041	0.016	0.689	0.118	0.336
110	MA	Salem Harbor Station	1626	1		0.856	0.062	0.010	0.856	0.146	0.415	0.046	0.016	0.742	0.127	0.361	0.038	0.018	0.674	0.115	0.328
111	AR	White Bluff		1	D060091	0.851	0.049	0.021	0.851	0.145	0.413										
112	NC	Mayo	6250	1A,1B	D06250C05	0.846	0.065	0.006	0.846	0.144	0.410	0.029	0.005	0.412	0.071	0.202	0.045	0.008	0.628	0.107	0.306
113	AR	White Bluff		2	D060092	0.843	0.048	0.022	0.843	0.144	0.409										
114	WV	Kanawha River	3936	1,2	D03936C02	0.837	0.060	0.006	0.794	0.135	0.386	0.053	0.017	0.837	0.143	0.406	0.054	0.007	0.730	0.125	0.355
115	MD	Brandon Shores	602	2	D006022	0.836	0.012	0.022	0.414	0.071	0.203	0.023	0.030	0.639	0.109	0.312	0.022	0.046	0.836	0.143	0.406
116	WV	Phil Sporn	3938	11,21,31,41	D03938C04	0.830	0.064	0.005	0.830	0.141	0.403										
117	PA	Sunbury		1A, 1B	D03152CS1	0.830	0.067	0.002	0.830	0.141	0.403	0.041	0.004	0.551	0.094	0.269	0.034	0.003	0.448	0.077	0.219
118	MD	Brandon Shores	602	1	D006021	0.807	0.013	0.020	0.401	0.069	0.197	0.023	0.028	0.623	0.107	0.304	0.023	0.043	0.807	0.138	0.392
119	TN	Gallatin	3403	3,4	D03403C34	0.798	0.062	0.005	0.798	0.136	0.387										
120	WI	Columbia		2	D080232	0.789	0.054	0.011	0.789	0.135	0.383	0.048	0.011	0.706	0.121	0.344	0.035	0.010	0.538	0.092	0.263

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121	IN	IPL - Petersburg Generating Station		3	D009943	0.789	0.052	0.013	0.789	0.135	0.383	0.031	0.013	0.522	0.089	0.255	0.026	0.007	0.397	0.068	0.195
122	KY	Ghent	1356	3,4 … (2,3)	D01356C02	0.787	0.040	0.010	0.601	0.103	0.293	0.044	0.021	0.787	0.134	0.382	0.025	0.007	0.387	0.066	0.190
123	IA	George Neal South		4	D073434	0.781	0.025	0.008	0.397	0.068	0.195	0.028	0.009	0.446	0.076	0.218	0.048	0.017	0.781	0.133	0.380
124	VA	Chesapeake Energy Center		1	D038031	0.762	0.052	0.012	0.762	0.130	0.370	0.022	0.008	0.360	0.062	0.177	0.029	0.006	0.414	0.071	0.203
125	NY	Oswego Harbor Power	2594	6	x15	0.761	0.050	0.013	0.761	0.130	0.370	0.035	0.018	0.641	0.110	0.313	0.044	0.017	0.738	0.126	0.359
126	IN	Gibson	6113	5	D061135	0.755	0.044	0.018	0.755	0.129	0.367										
127	MO	New Madrid Power Plant		1	D021671	0.739	0.020	0.040	0.739	0.127	0.360										
128	TX	Big Brown	3497	2		0.738	0.053	0.004	0.674	0.115	0.328	0.058	0.004	0.738	0.126	0.359	0.019	0.000	0.235	0.040	0.116
129	IN	Gibson	6113	4	D061135	0.738	0.015	0.046	0.738	0.126	0.359										
130	WI	Columbia		1	D080231	0.733	0.051	0.010	0.733	0.125	0.356	0.044	0.009	0.638	0.109	0.311	0.033	0.009	0.502	0.086	0.246
131	GA	Yates		Y6BR	D00728Y6R	0.731	0.047	0.004	0.607	0.104	0.296	0.056	0.005	0.731	0.125	0.356	0.033	0.002	0.419	0.072	0.205
132	KY	Mill Creek	1364	4	D013644	0.725	0.049	0.004	0.627	0.107	0.306	0.053	0.008	0.725	0.124	0.353	0.028	0.007	0.421	0.072	0.206
133	KY	Shawnee		1,2,3,4,5	D01379C15	0.723	0.038	0.022	0.723	0.124	0.352										
134	NC	Cape Fear	2708	6		0.723	0.054	0.006	0.723	0.123	0.352	0.015	0.004	0.225	0.039	0.111	0.017	0.004	0.245	0.042	0.121
135	GA	Jack McDonough		MB1, MB2	D00710C01	0.715	0.056	0.003	0.715	0.122	0.348	0.043	0.006	0.593	0.101	0.289	0.024	0.003	0.318	0.054	0.156
136	IN	IPL - Harding Street Station (EW Stout)		50	D0099050	0.708	0.056	0.003	0.708	0.121	0.344	0.041	0.002	0.525	0.090	0.256	0.034	0.002	0.435	0.074	0.213
137	TX	Big Brown	3497	1		0.705	0.050	0.004	0.643	0.110	0.314	0.055	0.004	0.705	0.120	0.343	0.018	0.000	0.224	0.038	0.110
138	OK	Northeastern		3313, 3314	D02963C10	0.700	0.034	0.024	0.700	0.120	0.341	0.029	0.026	0.667	0.114	0.325	0.022	0.007	0.354	0.061	0.174
139	TN	Gallatin	3403	1,2	D03403C12	0.698	0.054	0.004	0.698	0.119	0.340										
140	MN	Sherburne County		1, 2	D06090CS1	0.697	0.032	0.025	0.697	0.119	0.339	0.034	0.020	0.642	0.110	0.313	0.024	0.024	0.588	0.101	0.287
141	IN	Alcoa Allowance Management Inc	6705	1,2	D06705C02	0.691	0.015	0.042	0.691	0.118	0.337										
142	IN	IPL - Petersburg Generating Station		1 (50%)	D00994M1B	0.685	0.052	0.005	0.685	0.117	0.333										
143	OH	Eastlake	2837	1	D028371	0.681	0.053	0.004	0.681	0.116	0.332										
144	IN	Tanners Creek	988	U1,U2,U3	D00988C03	0.677	0.048	0.006	0.643	0.110	0.313	0.046	0.011	0.677	0.116	0.330	0.025	0.006	0.375	0.064	0.184
145	TN	John Sevier	3405	1,2	D03405C12	0.675	0.052	0.004	0.675	0.115	0.329	0.035	0.007	0.503	0.086	0.246	0.022	0.004	0.305	0.052	0.150
146	IN	Whitewater Valley		1, 2	D01040C12	0.666	0.054	0.002	0.666	0.114	0.324	0.053	0.002	0.658	0.112	0.321	0.027	0.001	0.339	0.058	0.167
147	TN	John Sevier	3405	3,4	D03405C34	0.660	0.051	0.004	0.660	0.113	0.321	0.034	0.007	0.493	0.084	0.241	0.021	0.004	0.298	0.051	0.147
148	OH	Eastlake	2837	2	D028372	0.654	0.051	0.004	0.654	0.112	0.319										
149	WV	Pleasants Power Station	6004	1	D060041	0.646	0.045	0.009	0.644	0.110	0.314	0.032	0.022	0.646	0.110	0.315	0.026	0.026	0.628	0.108	0.306
150	OH	Killen Station	6031	2	D060312	0.641	0.038	0.007	0.545	0.093	0.266	0.030	0.023	0.641	0.110	0.312	0.038	0.013	0.614	0.105	0.300
151	IN	IPL - Harding Street Station (EW Stout)		60	D0099060	0.640	0.051	0.003	0.640	0.109	0.312	0.038	0.002	0.476	0.081	0.233	0.031	0.002	0.394	0.067	0.193
152	IN	Merom		2SG1	D062132G1	0.634	0.048	0.005	0.634	0.108	0.309										
153	IA	Louisa		101	D06664101	0.633	0.035	0.017	0.633	0.108	0.308										
154	KS	Nearman Creek	6064	N1		0.631	0.032	0.021	0.631	0.108	0.308										
155	IL	Baldwin Energy Complex		1,2	D008892	0.623	0.045	0.006	0.613	0.105	0.299	0.047	0.005	0.622	0.106	0.303	0.048	0.004	0.623	0.106	0.304
156	OH	Conesville	2840	5,6	D02840C06	0.619	0.025	0.016	0.495	0.085	0.242	0.016	0.035	0.619	0.106	0.302	0.011	0.021	0.394	0.068	0.193
157	SC	Winyah	6249	2,3,4	x23	0.609	0.040	0.010	0.609	0.104	0.297										
158	IN	IPL - Eagle Valley Generating Station		5, 6	D00991C56	0.607	0.047	0.004	0.607	0.104	0.296										
159	WV	Albright Power Station	3942	3	D039423	0.607	0.048	0.002	0.607	0.104	0.296	0.025	0.005	0.350	0.060	0.172	0.022	0.004	0.312	0.053	0.153
160	MO	New Madrid Power Plant		2	D021672	0.599	0.020	0.030	0.599	0.103	0.292										

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161	NY	Huntley Power	2549	67,68	D02549C01	0.599	0.042	0.008	0.599	0.102	0.292										
162	CT	Bridgeport Harbor Station	568	BHB3		0.592	0.015	0.012	0.330	0.057	0.162	0.025	0.024	0.592	0.101	0.289	0.019	0.018	0.451	0.077	0.221
163	KY	Shawnee		6,7,8,9,10	D01379C60	0.589	0.034	0.015	0.589	0.101	0.288										
164	TX	Martin Lake	6146	1		0.582	0.038	0.007	0.535	0.091	0.262	0.041	0.007	0.582	0.099	0.284	0.014	0.001	0.174	0.030	0.086
165	OH	Eastlake	2837	3	D028373	0.566	0.044	0.003	0.566	0.097	0.276										
166	IN	IPL - Petersburg Generating Station		2(50%)	D00994M2B	0.562	0.035	0.012	0.562	0.096	0.274										
167	NJ	B L England	2378	2,3	x12	0.561	0.024	0.014	0.461	0.079	0.226	0.025	0.017	0.509	0.087	0.249	0.032	0.014	0.561	0.096	0.274
168	KS	La Cygne		2	D012412	0.556	0.030	0.017	0.556	0.095	0.272	0.035	0.010	0.539	0.092	0.263	0.021	0.007	0.333	0.057	0.164
169	WV	Pleasants Power Station	6004	2	D060042	0.553	0.040	0.006	0.553	0.094	0.270	0.028	0.015	0.524	0.090	0.256	0.023	0.018	0.496	0.085	0.243
170	GA	Yates		Y7BR	D00728Y7R	0.544	0.035	0.003	0.451	0.077	0.221	0.042	0.004	0.544	0.093	0.266	0.025	0.001	0.311	0.053	0.153
171	CT	Middletown	562	4		0.542	0.031	0.014	0.542	0.093	0.265										
172	TX	Martin Lake	6146	2		0.536	0.035	0.006	0.490	0.084	0.240	0.039	0.006	0.536	0.092	0.262	0.013	0.001	0.162	0.028	0.080
173	MO	Labadie		3	D021033	0.534	0.039	0.006	0.534	0.091	0.261										
174	MO	Labadie		4	D021034	0.528	0.039	0.005	0.528	0.090	0.258	0.030	0.005	0.420	0.072	0.206	0.024	0.003	0.325	0.056	0.160
175	WV	John E Amos	3935	1,2	D03935C02	0.526	0.035	0.004	0.465	0.079	0.228	0.032	0.012	0.526	0.090	0.257	0.031	0.008	0.465	0.080	0.228
176	PA	Homer City		3	D031223	0.524	0.035	0.008	0.520	0.089	0.254	0.020	0.023	0.524	0.090	0.256	0.020	0.018	0.464	0.079	0.227
177	MI	River Rouge		3	D017403	0.519	0.031	0.013	0.519	0.089	0.254										
178	VA	Bremo Power Station		4	D037964	0.514	0.028	0.004	0.393	0.067	0.193	0.029	0.005	0.416	0.071	0.204	0.038	0.005	0.514	0.088	0.251
179	AR	Independence		1	D066411	0.513	0.028	0.014	0.513	0.088	0.251										
180	NC	Riverbend	2732	9		0.513	0.042	0.001	0.513	0.088	0.251										
181	IN	IPL - Harding Street Station (EW Stout)	990	70	D0099070	0.509	0.035	0.007	0.509	0.087	0.249										
182	GA	Scherer		4	D062574	0.509	0.029	0.003	0.386	0.066	0.189	0.036	0.007	0.509	0.087	0.249	0.029	0.005	0.408	0.070	0.200
183	OH	J M Stuart	2850	4	D028404	0.507	0.034	0.003	0.448	0.077	0.220	0.028	0.014	0.507	0.087	0.248	0.034	0.008	0.503	0.086	0.246
184	MO	Labadie		1	D021031	0.507	0.037	0.005	0.507	0.087	0.248										
185	GA	Scherer		1	D062571	0.506	0.028	0.004	0.379	0.065	0.186	0.035	0.007	0.506	0.086	0.247	0.028	0.005	0.402	0.069	0.197
186	GA	Scherer		2	D062572	0.499	0.028	0.004	0.375	0.064	0.184	0.035	0.007	0.499	0.085	0.244	0.028	0.005	0.397	0.068	0.194
187	TX	Martin Lake	6146	3		0.498	0.032	0.006	0.458	0.078	0.224	0.035	0.006	0.498	0.085	0.244	0.012	0.001	0.149	0.025	0.073
188	AR	Independence		2	D066412	0.497	0.028	0.013	0.497	0.085	0.243										
189	KY	Green River		5	D013575	0.496	0.040	0.001	0.496	0.085	0.243										
190	NE	Nebraska City Station		1	D060961	0.495	0.034	0.008	0.495	0.085	0.242										
191	KY	D B Wilson		W1	D06823W1	0.493	0.039	0.002	0.493	0.084	0.241										
192	WI	Edgewater (4050)	4050	5		0.485	0.033	0.007	0.485	0.083	0.237										
193	VA	Clinch River	3775	1,2	D03775C02	0.472	0.034	0.006	0.472	0.081	0.231										
194	PA	Shawville	3131	1	D031311	0.467	0.036	0.003	0.467	0.080	0.229										
195	PA	Shawville	3131	2	D031312	0.461	0.036	0.003	0.461	0.079	0.225										
196	MN	Sherburne County		3	D060903	0.454	0.025	0.013	0.454	0.078	0.222										
197	SC	Urquhart		URQ3	D03295UQ3	0.451	0.036	0.001	0.451	0.077	0.221										
198	OH	Cardinal	2828	1	D028281	0.451	0.035	0.002	0.451	0.077	0.221										
199	NY	Northport	2516	1,2,4,ugt001	x14	0.447	0.019	0.012	0.376	0.064	0.184	0.021	0.016	0.447	0.077	0.219					
200	OH	Eastlake	2837	4,6, (5)	x17	0.446	0.032	0.005	0.446	0.076	0.219										

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201	NY	Dynegy Danskammer	2480	1,2,3	x13	0.437	0.027	0.010	0.437	0.075	0.214										
202	TX	Monticello	6147	1		0.433	0.029	0.004	0.395	0.068	0.194	0.032	0.004	0.433	0.074	0.212	0.011	0.000	0.133	0.023	0.066
203	IL	Newton		2	D060172	0.428	0.030	0.006	0.428	0.073	0.210										
204	KY	Green River		4	D013574	0.422	0.034	0.001	0.422	0.072	0.207										
205	MI	Monroe	1733	3,4	D01733C34	0.408	0.022	0.012	0.408	0.070	0.200										
206	WV	Mitchell (WV)	3948	1,2	D03948C02	0.408	0.030	0.004	0.408	0.070	0.200	0.020	0.009	0.350	0.060	0.172	0.015	0.008	0.273	0.047	0.134
207	SC	McMeekin		MCM2	D03287MM2	0.392	0.032	0.001	0.392	0.067	0.192										
208	NC	Roxboro	2712	4A,4B	D02712C04	0.386	0.025	0.007	0.386	0.066	0.189	0.012	0.005	0.201	0.034	0.099	0.016	0.008	0.294	0.050	0.145
209	TN	Cumberland	3399	1		0.384	0.027	0.005	0.384	0.066	0.188										
210	MO	Rush Island		2	D061552	0.382	0.029	0.003	0.382	0.065	0.187										
211	SC	McMeekin		MCM1	D03287MM1	0.376	0.030	0.001	0.376	0.064	0.184										
212	NC	Roxboro	2712	3A,3B	D02712C03	0.376	0.022	0.009	0.376	0.064	0.184	0.011	0.006	0.201	0.034	0.099	0.014	0.011	0.301	0.052	0.148
213	MO	Rush Island		1	D061551	0.375	0.028	0.003	0.375	0.064	0.184										
214	MN	Black Dog		3, 4	D01904CS1	0.372	0.009	0.021	0.372	0.064	0.182										
215	TX	Monticello	6147	2		0.369	0.028	0.003	0.369	0.063	0.181										
216	TX	Monticello	6147	3		0.364	0.025	0.006	0.364	0.062	0.178										
217	MO	Thomas Hill Energy Center		MB3	D02168MB3	0.363	0.024	0.006	0.363	0.062	0.178										
218	PA	Hatfield's Ferry Power Station	3179	3	x20	0.363	0.007	0.023	0.363	0.062	0.178										
219	ME	William F Wyman	1507	3		0.362	0.022	0.008	0.362	0.062	0.178										
220	OK	Sooner	6095	1		0.359	0.018	0.012	0.359	0.061	0.176										
221	OK	Sooner		2	D060952	0.356	0.017	0.012	0.356	0.061	0.175										
222	OK	Grand River Dam Authority		1	D001651	0.351	0.017	0.011	0.333	0.057	0.163	0.021	0.008	0.351	0.060	0.172	0.012	0.003	0.184	0.032	0.091
223	WV	Fort Martin Power Station	3943	1	D039431	0.345	0.016	0.012	0.345	0.059	0.169										
224	IN	R Gallagher	1008	1,2	D01008C01	0.344	0.024	0.004	0.344	0.059	0.169										
225	OH	Miami Fort Generating Station	2832	7	D028327	0.338	0.020	0.008	0.338	0.058	0.166										
226	OH	Cardinal	2828	2	D028282	0.336	0.025	0.003	0.336	0.058	0.165										
227	MD	Herbert A Wagner	1554	1,2,4	x08	0.335	0.021	0.007	0.335	0.057	0.165										
228	NC	Roxboro	2712	2	D027122	0.334	0.023	0.005	0.334	0.057	0.164										
229	CT	New Haven Harbor	6156	NHB1		0.323	0.018	0.009	0.323	0.055	0.159										
230	NC	Marshall	2727	1,2	x11	0.319	0.018	0.009	0.319	0.055	0.156										
231	TX	H W Pirkey Power Plant	7902	1		0.315	0.021	0.005	0.315	0.054	0.155										
232	IN	R Gallagher	1008	3,4	D01008C02	0.309	0.022	0.004	0.309	0.053	0.152										
233	WV	Fort Martin Power Station	3943	2	D039432	0.308	0.015	0.011	0.308	0.053	0.151										
234	OH	Miami Fort Power Station		8	D028328	0.307	0.018	0.008	0.307	0.053	0.151										
235	WI	Genoa	4143	1		0.302	0.020	0.005	0.302	0.052	0.148										
236	MD	Dickerson	1572	1,2,3	D01572C23	0.301	0.009	0.016	0.301	0.052	0.148										
237	NJ	Hudson Generating Station	2403	2	D024032	0.298	0.013	0.007	0.242	0.041	0.119	0.016	0.009	0.298	0.051	0.146	0.015	0.010	0.298	0.051	0.147
238	WI	Nelson Dewey	4054	2		0.297	0.022	0.003	0.297	0.051	0.146										
239	NY	CCI Roseton LLC	8006	2	D080062	0.297	0.016	0.009	0.297	0.051	0.146										
240	DE	Edge Moor	593	5	D005935	0.295	0.023	0.002	0.295	0.051	0.145										

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241	WI	South Oak Creek		7, 8	D04041CS4	0.292	0.019	0.005	0.292	0.050	0.143										
242	IL	Joppa Steam		1, 2	D00887CS1	0.292	0.020	0.004	0.292	0.050	0.143										
243	TX	Limestone	298	LIM2		0.289	0.017	0.007	0.289	0.050	0.142										
244	IL	Joppa Steam		3, 4	D00887CS2	0.289	0.021	0.004	0.289	0.049	0.142										
245	WV	Longview Power	56671	1		0.288	0.021	0.003	0.288	0.049	0.142										
246	IA	Walter Scott Jr. Energy Center		3	D010823	0.286	0.016	0.007	0.286	0.049	0.140										
247	NC	Marshall	2727	4	D027274	0.283	0.014	0.009	0.283	0.049	0.139										
248	OK	Muskogee	2952	4		0.282	0.014	0.009	0.282	0.048	0.139										
249	NY	NRG Dunkirk Power		3	D02554C03	0.276	0.019	0.004	0.276	0.047	0.135										
250	IL	Wood River Power Station		5	D008985	0.275	0.019	0.004	0.275	0.047	0.135										
251	WV	Mountaineer (1301)	6264	1	D062641	0.272	0.019	0.004	0.272	0.047	0.134										
252	TX	Limestone	298	LIM1		0.269	0.016	0.007	0.269	0.046	0.132										
253	SC	Williams	3298	WIL1	D03298WL1	0.266	0.010	0.012	0.266	0.046	0.131										
254	IN	Cayuga	1001	2	D010012	0.265	0.010	0.012	0.265	0.045	0.130										
255	WV	Mount Storm Power Station	3954	1,2	D03954CS0	0.262	0.015	0.007	0.262	0.045	0.129										
256	KS	La Cygne	1241	1		0.262	0.016	0.006	0.262	0.045	0.129	0.014	0.003	0.214	0.037	0.105	0.010	0.002	0.145	0.025	0.071
257	WV	John E Amos	3935	3	D039353	0.259	0.016	0.006	0.259	0.044	0.128										
258	OK	Muskogee		5	D029525	0.257	0.014	0.008	0.257	0.044	0.126										
259	OK	Hugo		1	D067721	0.255	0.018	0.003	0.255	0.044	0.125										
260	OH	Conesville	2840	4	D028504	0.253	0.018	0.003	0.253	0.043	0.124										
261	IL	Marion		4	D009764	0.249	0.017	0.004	0.249	0.043	0.123										
262	IN	Cayuga	1001	1	D010011	0.239	0.009	0.011	0.239	0.041	0.118										
263	VA	Chesterfield Power Station	3797	6	D037976	0.239	0.016	0.004	0.239	0.041	0.117										
264	KY	Ghent	1356	1,2 … (1,4)	D01356C01	0.236	0.013	0.006	0.236	0.041	0.116										
265	MD	Morgantown	1573	2	D015732	0.232	0.016	0.004	0.232	0.040	0.114										
266	KY	E W Brown	1355	2,3	D01355C03	0.230	0.009	0.010	0.230	0.039	0.113										
267	AR	Flint Creek Power Plant	6138	1		0.222	0.011	0.007	0.222	0.038	0.109										
268	NC	Roxboro	2712	1	D027121	0.218	0.014	0.004	0.218	0.037	0.107										
269	NC	Belews Creek	8042	2	D080422	0.217	0.012	0.006	0.217	0.037	0.107										
270	NC	Belews Creek	8042	1	D080421	0.214	0.012	0.006	0.214	0.037	0.105										
271	ME	William F Wyman	1507	1		0.213	0.011	0.006	0.213	0.036	0.105										
272	IA	George Neal North		3	D010913	0.209	0.012	0.006	0.209	0.036	0.103										
273	ME	William F Wyman	1507	2		0.206	0.011	0.006	0.206	0.035	0.102										
274	NC	Marshall	2727	3	D027273	0.204	0.015	0.002	0.204	0.035	0.101										
275	OH	W H Sammis	2866	7	D028667	0.203	0.010	0.006	0.203	0.035	0.100										
276	KY	East Bend	6018	2	D060182	0.200	0.010	0.006	0.200	0.034	0.098										
277	OH	W H Sammis	2866	6	D02866M6A	0.194	0.011	0.005	0.194	0.033	0.096										
278	IL	Joliet 29		81, 82	D00384C82	0.193	0.013	0.003	0.193	0.033	0.095										
279	MO	Sikeston		1	D067681	0.191	0.012	0.004	0.191	0.033	0.094										
280	NY	Northport	2516	3	D025163	0.189	0.011	0.005	0.189	0.032	0.093										

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
281	OH	J M Stuart	2850	3	D028503	0.187	0.013	0.003	0.187	0.032	0.092										
282	MO	Meramec		3	D021043	0.187	0.012	0.004	0.187	0.032	0.092										
283	KY	H L Spurlock	6041	1	D060411	0.183	0.014	0.001	0.183	0.031	0.090										
284	IN	Alcoa Allowance Management Inc	6705	4	D067054	0.178	0.009	0.006	0.178	0.031	0.088										
285	TX	Welsh Power Plant	6139	3		0.176	0.010	0.004	0.176	0.030	0.087										
286	KS	Quindaro	1295	2		0.173	0.009	0.005	0.173	0.030	0.085										
287	OH	J M Stuart	2850	1	D028501	0.173	0.012	0.002	0.173	0.030	0.085										
288	KY	H L Spurlock	6041	2	D060412	0.171	0.013	0.002	0.171	0.029	0.084										
289	OH	W H Sammis	2866	1,2	D02866C01	0.170	0.007	0.007	0.170	0.029	0.084										
290	GA	Bowen	703	1BLR	D007031LR	0.168	0.006	0.007	0.168	0.029	0.083										
291	OH	W H Sammis	2866	3,4	D02866C02	0.165	0.007	0.007	0.165	0.028	0.081										
292	TX	Welsh Power Plant	6139	1		0.159	0.009	0.004	0.159	0.027	0.078										
293	TX	Welsh Power Plant	6139	2		0.156	0.010	0.003	0.156	0.027	0.077										
294	GA	Bowen	703	4BLR	D007034LR	0.148	0.004	0.009	0.148	0.025	0.073										
295	AL	Greene County	10	1		0.140	0.011	0.001	0.140	0.024	0.069										
296	GA	Yates		Y5BR	D00728Y5R	0.135	0.010	0.001	0.135	0.023	0.067										
297	NJ	Mercer Generating Station	2408	1	D024081	0.131	0.007	0.004	0.131	0.023	0.065										
298	IN	Alcoa Allowance Management Inc	6705	3	x02	0.129	0.004	0.007	0.129	0.022	0.064										
299	NC	Cliffside	2721	5	D027215	0.127	0.009	0.001	0.127	0.022	0.063										
300	OH	J M Stuart	2850	2	D028502	0.120	0.007	0.003	0.120	0.021	0.059										
301	NJ	Mercer Generating Station	2408	2	D024082	0.117	0.006	0.004	0.117	0.020	0.058										
302	GA	Bowen	703	2BLR	D007032LR	0.115	0.003	0.006	0.115	0.020	0.057										
303	OH	W H Sammis	2866	5	D028665	0.115	0.004	0.005	0.115	0.020	0.057										
304	AL	E C Gaston	26	5		0.101	0.004	0.004	0.101	0.017	0.050										
305	SC	Winyah	6249	1	D062491	0.092	0.004	0.003	0.092	0.016	0.045										
306	GA	Bowen	703	3BLR	D007033LR	0.085	0.004	0.003	0.085	0.015	0.042										
307	KS	Tecumseh Energy Center	1252	10		0.082	0.004	0.003	0.082	0.014	0.040										
308	OH	Miami Fort Generating Station	2832	5-1, 5-2, 6	D02832C06	0.015	0.001	0.000	0.015	0.003	0.008										
309	IL	Newton		1	D060171	0.000															
310	MA	Salem Harbor Station	1626	3	D016263	0.000															
311	NY	CCI Roseton LLC	8006	1	D080061	0.000											0.000	0.000	0.000	0.000	0.000

F.6 2015 EGU Ranking Visibility Impairing Sources to Campobello/Roosevelt

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
1	OH	Avon Lake Power Plant	2836	12	D0283612	5.945	0.464	0.028	**5.945**	0.981	**2.590**	0.238	0.044	**3.479**	0.570	**1.554**	0.429	0.033	**5.598**	0.917	**2.446**
2	PA	Homer City	3122	1	D031221	5.122	0.383	0.022	**5.122**	0.812	**2.172**	0.258	0.060	**3.727**	0.644	**1.745**	0.240	0.037	**3.351**	0.559	**1.535**
3	VA	Yorktown Power Station	3809	3	D038093	4.508	0.334	0.039	**4.508**	0.749	**2.015**	0.188	0.022	**2.536**	0.427	**1.180**	0.285	0.025	**3.742**	0.622	**1.700**
4	PA	Homer City	3122	2	D031222	4.482	0.338	0.020	**4.482**	0.719	**1.939**	0.228	0.054	**3.318**	0.571	**1.559**	0.212	0.033	**2.962**	0.496	**1.368**
5	ME	William F Wyman	1507	4	D015074	4.240	0.254	0.111	**4.240**	0.736	**1.980**	0.218	0.059	**3.284**	0.560	**1.529**	0.183	0.033	**2.600**	0.437	**1.211**
6	MA	Brayton Point	1619	4	x07	3.688	0.238	0.066	**3.688**	0.614	**1.670**	0.204	0.073	**3.361**	0.563	**1.538**	0.111	0.045	**1.888**	0.319	0.894
7	OH	Muskingum River	2872	5	D028725	3.314	0.276	0.003	**3.314**	0.563	**1.538**	0.178	0.006	**2.203**	0.375	**1.040**	0.138	0.007	**1.743**	0.295	0.828
8	MA	Canal Station	1599	1	D015991	2.938	0.202	0.038	**2.938**	0.488	**1.341**	0.160	0.038	**2.411**	0.406	**1.122**	0.122	0.033	**1.869**	0.316	0.885
9	PA	Shawville	3131	3,4	D03131CS1	2.700	0.212	0.010	**2.700**	0.451	**1.242**	0.139	0.020	**1.914**	0.325	0.905	0.088	0.012	**1.207**	0.205	0.580
10	IN	Rockport	6166	MB1,MB2	D06166C02	2.694	0.178	0.046	**2.694**	0.456	**1.256**	0.108	0.045	**1.807**	0.314	0.876	0.104	0.024	**1.543**	0.262	0.736
11	NH	Newington	8002	1	D080021	2.381	0.129	0.045	**2.381**	0.355	0.987	0.079	0.085	**1.730**	0.336	0.936	0.062	0.040	**1.223**	0.208	0.588
12	MA	Canal Station	1599	2	D015992	2.359	0.140	0.053	**2.359**	0.395	**1.094**	0.120	0.064	**2.208**	0.376	**1.043**	0.082	0.040	**1.473**	0.250	0.704
13	VA	Yorktown Power Station	3809	1,2	D03809CS0	2.302	0.168	0.022	**2.302**	0.387	**1.072**	0.105	0.015	**1.452**	0.246	0.689	0.173	0.011	**2.209**	0.372	**1.038**
14	MI	Trenton Channel	1745	9A	D017459A	1.943	0.091	0.009	**1.196**	0.205	0.577	0.085	0.013	**1.175**	0.201	0.565	0.142	0.020	**1.943**	0.328	0.918
15	KY	Big Sandy	1353	BSU1,BSU2	D01353C02	1.929	0.152	0.010	**1.929**	0.329	0.917	0.135	0.023	**1.911**	0.322	0.897	0.145	0.015	**1.923**	0.325	0.910
16	IN	Wabash River Gen Station	1010	2,3,4,5,6	D01010C05	1.769	0.133	0.014	**1.769**	0.300	0.838	0.085	0.011	**1.157**	0.197	0.555	0.080	0.008	**1.060**	0.180	0.512
17	GA	Harllee Branch	709	3&4	D00709C02	1.736	0.120	0.015	**1.609**	0.275	0.770	0.123	0.021	**1.736**	0.295	0.823	0.059	0.010	0.823	0.140	0.399
18	OH	W H Zimmer Generating Station	6019	1	D060191	1.727	0.086	0.024	**1.379**	0.226	0.635	0.084	0.062	**1.727**	0.300	0.837	0.061	0.033	**1.133**	0.193	0.546
19	PA	Keystone	3136	1	D031361	1.697	0.108	0.025	**1.697**	0.273	0.763	0.077	0.062	**1.637**	0.287	0.802	0.071	0.039	**1.332**	0.226	0.639
20	OH	Muskingum River	2872	1,2,3,4	D02872C04	1.697	0.130	0.007	**1.697**	0.280	0.782	0.085	0.016	**1.213**	0.206	0.581	0.065	0.013	0.937	0.160	0.454
21	PA	Brunner Island	3140	1,2	D03140C12	1.660	0.052	0.021	0.877	0.151	0.427	0.087	0.051	**1.660**	0.283	0.792	0.060	0.046	**1.285**	0.219	0.617
22	PA	Keystone	3136	2	D031362	1.640	0.104	0.024	**1.640**	0.263	0.735	0.074	0.061	**1.581**	0.278	0.778	0.068	0.039	**1.287**	0.219	0.618
23	PA	Brunner Island	3140	3	D031403	1.551	0.050	0.025	0.910	0.155	0.437	0.058	0.072	**1.551**	0.269	0.753	0.071	0.048	**1.429**	0.243	0.684
24	OH	Gen J M Gavin	8102	1	D081021	1.523	0.105	0.010	**1.523**	0.235	0.660	0.079	0.039	**1.380**	0.243	0.683	0.073	0.028	**1.209**	0.206	0.581
25	MI	Belle River		2	D060342	1.510	0.064	0.029	**1.116**	0.191	0.538	0.071	0.031	**1.237**	0.211	0.594	0.085	0.040	**1.510**	0.256	0.721
26	WV	Harrison Power Station		1 (25%), 2 (20%	D03944C01	1.474	0.033	0.025	0.705	0.120	0.341	0.032	0.089	**1.474**	0.251	0.704	0.020	0.056	0.928	0.159	0.449
27	IN	Tanners Creek	988	U4	D00988U4	1.460	0.113	0.008	**1.460**	0.248	0.695	0.107	0.013	**1.448**	0.247	0.693	0.060	0.007	0.803	0.137	0.390
28	PA	Montour	3149	1	D031491	1.412	0.084	0.028	**1.412**	0.231	0.649	0.042	0.051	**1.130**	0.194	0.547	0.046	0.050	**1.155**	0.197	0.556
29	OH	Gen J M Gavin	8102	2	D081022	1.404	0.098	0.009	**1.404**	0.219	0.617	0.074	0.035	**1.275**	0.224	0.630	0.068	0.025	**1.116**	0.190	0.538
30	MI	Belle River		1	D060341	1.395	0.056	0.029	**1.031**	0.176	0.497	0.063	0.031	**1.142**	0.195	0.548	0.075	0.040	**1.395**	0.237	0.668
31	MI	St. Clair	1743	6	D017436	1.394	0.095	0.008	**1.219**	0.211	0.594	0.110	0.008	**1.394**	0.242	0.679	0.088	0.011	**1.188**	0.202	0.571
32	MI	St. Clair	1743	7	D017437	1.365	0.083	0.014	**1.182**	0.198	0.559	0.096	0.016	**1.365**	0.229	0.642	0.078	0.019	**1.173**	0.199	0.565
33	TN	Johnsonville	3406	1 thru 10	D03406C10	1.331	0.115	0.003	**1.331**	0.240	0.674	0.033	0.003	0.430	0.073	0.209	0.039	0.003	0.498	0.085	0.243
34	PA	Montour	3149	2	D031492	1.327	0.069	0.028	**1.327**	0.200	0.564	0.035	0.051	**1.026**	0.178	0.502	0.038	0.049	**1.053**	0.180	0.508
35	KY	Mill Creek	1364	1,2,3	x05	1.251	0.074	0.010	0.962	0.173	0.487	0.083	0.023	**1.251**	0.218	0.613	0.044	0.018	0.741	0.127	0.361
36	IL	Powerton		51,52,61,62	D00879C06	1.222	0.030	0.012	0.496	0.085	0.243	0.035	0.012	0.566	0.097	0.276	0.074	0.027	**1.222**	0.208	0.587
37	MI	St. Clair	1743	1,2,3,4,...6	x09	1.214	0.047	0.024	0.868	0.146	0.414	0.059	0.030	**1.092**	0.184	0.518	0.059	0.042	**1.214**	0.207	0.584
38	IN	Michigan City Generating Station		12	D0099712	1.203	0.031	0.004	0.424	0.073	0.207	0.099	0.004	**1.203**	0.211	0.593	0.078	0.009	**1.049**	0.178	0.506
39	WV	Kammer	3947	1,2,3	D03947C03	1.186	0.095	0.007	**1.186**	0.208	0.586	0.065	0.018	0.993	0.170	0.479	0.043	0.011	0.647	0.111	0.315
40	MD	Herbert A Wagner	1554	3	D015543	1.141	0.050	0.002	0.616	0.107	0.303	0.084	0.002	0.993	0.176	0.498	0.092	0.003	**1.141**	0.194	0.549

	Facility Info					2002 Meteorology					2011 Meteorology					2015 Meteorology				
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41	NY	Somerset Operating Company (Kintigh)		1	D060821	1.053	0.081	0.014	1.053	0.195	0.549	0.063	0.020	1.015	0.172	0.485	0.063	0.019	0.979	0.167	0.473
42	OH	Killen Station	6031	2	D060312	1.053	0.053	0.017	0.895	0.143	0.406	0.041	0.056	1.053	0.200	0.564	0.052	0.032	1.009	0.172	0.487
43	MA	Brayton Point	1619	2	D016192	0.989	0.035	0.039	0.989	0.153	0.432	0.021	0.034	0.636	0.115	0.325	0.028	0.041	0.838	0.143	0.406
44	NH	Merrimack	2364	2	D023642	0.985	0.031	0.082	0.985	0.234	0.657	0.032	0.053	0.956	0.176	0.497	0.029	0.042	0.864	0.148	0.419
45	MI	J H Campbell		3 (50%)	D01710M3A	0.936	0.056	0.006	0.716	0.128	0.363	0.079	0.006	0.936	0.175	0.493	0.057	0.008	0.773	0.132	0.375
46	OH	Kyger Creek	2876	1,2,3,4,5	D02876C01	0.929	0.053	0.012	0.929	0.134	0.380	0.044	0.034	0.888	0.161	0.455	0.039	0.023	0.754	0.129	0.367
47	MD	C P Crane	1552	2	D015522	0.900	0.026	0.013	0.508	0.081	0.232	0.041	0.025	0.827	0.137	0.387	0.043	0.031	0.900	0.154	0.436
48	PA	Homer City		3	D031223	0.889	0.047	0.017	0.882	0.131	0.371	0.027	0.049	0.889	0.157	0.444	0.027	0.038	0.787	0.134	0.382
49	KY	Ghent	1356	3,4 ... (2,3)	D01356C02	0.880	0.046	0.010	0.672	0.116	0.328	0.050	0.022	0.880	0.149	0.422	0.029	0.007	0.433	0.074	0.212
50	NH	Schiller	2367	4		0.847	0.042	0.025	0.803	0.138	0.391	0.047	0.023	0.847	0.145	0.411	0.045	0.022	0.809	0.138	0.393
51	PA	Martins Creek	3148	3,4	x21	0.831	0.001	0.026	0.410	0.057	0.161	0.001	0.068	0.831	0.145	0.411	0.001	0.050	0.620	0.106	0.302
52	NH	Schiller	2367	6		0.813	0.042	0.022	0.771	0.132	0.373	0.047	0.020	0.813	0.139	0.394	0.046	0.019	0.777	0.133	0.377
53	IN	Whitewater Valley		1, 2	D01040C12	0.796	0.064	0.002	0.796	0.136	0.386	0.063	0.003	0.786	0.135	0.382	0.032	0.002	0.406	0.069	0.199
54	WV	Kanawha River	3936	1,2	D03936C02	0.789	0.056	0.006	0.749	0.128	0.363	0.049	0.017	0.789	0.137	0.387	0.050	0.007	0.689	0.118	0.335
55	CT	Bridgeport Harbor Station	568	BHB3		0.774	0.023	0.013	0.431	0.075	0.214	0.038	0.026	0.774	0.132	0.375	0.029	0.020	0.589	0.101	0.288
56	MI	J H Campbell		A,B,1,2	D01710C09	0.758	0.039	0.006	0.523	0.091	0.259	0.062	0.005	0.758	0.138	0.392	0.040	0.006	0.560	0.096	0.274
57	MI	J C Weadock		7, 8	D01720C09	0.730	0.048	0.013	0.730	0.126	0.357	0.030	0.011	0.495	0.085	0.241	0.036	0.013	0.582	0.100	0.284
58	IN	IPL - Petersburg Generating Station		3	D009943	0.723	0.040	0.020	0.723	0.124	0.351	0.023	0.019	0.479	0.088	0.250	0.020	0.010	0.364	0.062	0.179
59	MA	Brayton Point	1619	3	D016193	0.704	0.032	0.020	0.704	0.107	0.304	0.021	0.016	0.471	0.076	0.217	0.016	0.014	0.365	0.063	0.179
60	IA	Ottumwa		1	D062541	0.690	0.037	0.019	0.690	0.114	0.324	0.016	0.009	0.311	0.052	0.148	0.028	0.018	0.562	0.096	0.274
61	IN	Tanners Creek	988	U1,U2,U3	D00988C03	0.684	0.047	0.006	0.649	0.110	0.312	0.045	0.012	0.684	0.118	0.334	0.025	0.007	0.379	0.065	0.186
62	IN	IPL - Harding Street Station (EW Stout)		50	D0099050	0.679	0.054	0.002	0.679	0.117	0.331	0.040	0.002	0.503	0.087	0.246	0.033	0.002	0.418	0.071	0.205
63	IN	Gibson	6113	1,2,3	D06113C03	0.651	0.031	0.020	0.651	0.106	0.301	0.022	0.016	0.496	0.078	0.221	0.015	0.008	0.270	0.046	0.133
64	GA	Yates		Y6BR	D00728Y6R	0.649	0.041	0.004	0.538	0.093	0.264	0.049	0.005	0.649	0.112	0.318	0.029	0.002	0.372	0.064	0.182
65	MO	Sibley		1, 2, 3	D02094C01	0.644	0.042	0.017	0.644	0.122	0.347	0.025	0.009	0.374	0.069	0.197	0.043	0.009	0.623	0.106	0.304
66	WV	Pleasants Power Station	6004	1	D060041	0.630	0.036	0.010	0.629	0.095	0.271	0.026	0.025	0.630	0.105	0.297	0.021	0.030	0.613	0.105	0.299
67	PA	Cheswick	8226	1	D082261	0.628	0.024	0.012	0.628	0.075	0.213	0.016	0.039	0.508	0.115	0.325	0.011	0.015	0.315	0.054	0.155
68	IN	IPL - Harding Street Station (EW Stout)		60	D0099060	0.615	0.049	0.002	0.615	0.106	0.301	0.037	0.002	0.458	0.079	0.224	0.030	0.001	0.379	0.065	0.186
69	OH	Conesville	2840	5,6	D02840C06	0.605	0.035	0.012	0.484	0.098	0.277	0.022	0.026	0.605	0.101	0.288	0.016	0.016	0.386	0.066	0.189
70	NY	Oswego Harbor Power	2594	6	x15	0.593	0.035	0.013	0.593	0.100	0.283	0.025	0.017	0.500	0.088	0.249	0.031	0.016	0.576	0.098	0.281
71	NY	Cayuga Operating Company, LLC		1 (33%), 2 (33%	D02535C01	0.579	0.040	0.006	0.579	0.095	0.269	0.032	0.006	0.474	0.078	0.223	0.028	0.009	0.454	0.078	0.222
72	TX	Big Brown	3497	1		0.576	0.041	0.003	0.526	0.091	0.259	0.045	0.004	0.576	0.100	0.284	0.015	0.000	0.183	0.031	0.090
73	MA	Brayton Point	1619	1	D016191	0.570	0.036	0.010	0.570	0.095	0.270	0.022	0.010	0.377	0.068	0.194	0.030	0.011	0.488	0.083	0.239
74	MI	Trenton Channel	1745	16,17,18,19	x10	0.562	0.023	0.004	0.321	0.057	0.162	0.022	0.006	0.344	0.059	0.168	0.037	0.010	0.562	0.096	0.274
75	TX	Big Brown	3497	2		0.553	0.039	0.004	0.504	0.088	0.250	0.043	0.004	0.553	0.096	0.274	0.014	0.000	0.176	0.030	0.087
76	NC	Roxboro	2712	4A,4B	D02712C04	0.545	0.039	0.008	0.545	0.097	0.275	0.018	0.006	0.283	0.050	0.141	0.025	0.010	0.415	0.071	0.203
77	GA	Harllee Branch	709	1,2	D00709C01	0.532	0.039	0.003	0.506	0.088	0.251	0.039	0.006	0.532	0.091	0.258	0.021	0.003	0.290	0.050	0.143
78	NC	Roxboro	2712	3A,3B	D02712C03	0.524	0.037	0.009	0.524	0.096	0.273	0.018	0.006	0.280	0.050	0.142	0.024	0.011	0.420	0.072	0.206
79	MD	C P Crane	1552	1	D015521	0.505	0.013	0.008	0.286	0.045	0.128	0.021	0.016	0.465	0.076	0.217	0.022	0.020	0.505	0.087	0.247
80	NJ	B L England	2378	2,3	x12	0.504	0.021	0.014	0.414	0.072	0.205	0.022	0.017	0.458	0.080	0.227	0.028	0.014	0.504	0.086	0.246

	Facility Info					2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
81	IN	IPL - Petersburg Generating Station		4	D009944	0.485	0.028	0.012	0.485	0.083	0.236	0.017	0.011	0.313	0.058	0.166	0.014	0.006	0.245	0.042	0.120
82	IA	George Neal South		4	D073434	0.469	0.012	0.007	0.239	0.041	0.117	0.014	0.008	0.268	0.046	0.131	0.024	0.015	0.469	0.080	0.230
83	KY	Paradise	1378	2	D013782	0.455	0.034	0.004	0.455	0.079	0.224	0.016	0.003	0.219	0.039	0.112	0.022	0.002	0.297	0.051	0.146
84	WV	Mitchell (WV)	3948	1,2	D03948C02	0.450	0.027	0.006	0.450	0.068	0.194	0.018	0.013	0.386	0.065	0.185	0.013	0.012	0.301	0.052	0.148
85	MD	Chalk Point	1571	1,2	D01571CE2	0.450	0.030	0.001	0.394	0.064	0.182	0.035	0.000	0.432	0.074	0.210	0.037	0.000	0.450	0.077	0.220
86	OK	Northeastern		3313, 3314	D02963C10	0.447	0.026	0.007	0.447	0.067	0.192	0.022	0.007	0.426	0.061	0.174	0.017	0.002	0.226	0.039	0.111
87	MI	Monroe	1733	1,2	D01733C12	0.442	0.009	0.007	0.245	0.033	0.095	0.007	0.016	0.226	0.047	0.133	0.014	0.022	0.442	0.076	0.217
88	AL	E C Gaston	26	1, 2	D00026CAN	0.442	0.020	0.001	0.251	0.043	0.124	0.029	0.003	0.382	0.066	0.188	0.033	0.004	0.442	0.076	0.216
89	MD	Brandon Shores	602	2	D006022	0.439	0.013	0.006	0.217	0.039	0.113	0.024	0.008	0.336	0.067	0.190	0.024	0.013	0.439	0.075	0.215
90	MD	Brandon Shores	602	1	D006021	0.424	0.014	0.004	0.211	0.039	0.110	0.026	0.006	0.327	0.066	0.189	0.026	0.009	0.424	0.073	0.208
91	TX	Martin Lake	6146	1		0.412	0.026	0.006	0.379	0.066	0.189	0.029	0.006	0.412	0.072	0.205	0.010	0.001	0.123	0.021	0.061
92	TX	Monticello	6147	1		0.395	0.027	0.003	0.361	0.062	0.176	0.030	0.003	0.395	0.068	0.192	0.010	0.000	0.122	0.021	0.060
93	TX	Martin Lake	6146	3		0.391	0.025	0.005	0.359	0.063	0.179	0.027	0.006	0.391	0.068	0.195	0.009	0.001	0.117	0.020	0.058
94	DE	Indian River	594	4	D005944	0.387	0.020	0.002	0.259	0.046	0.131	0.029	0.004	0.387	0.068	0.193	0.011	0.002	0.162	0.028	0.080
95	KY	Paradise	1378	3	D013783	0.378	0.022	0.009	0.378	0.063	0.180	0.011	0.008	0.251	0.039	0.111	0.014	0.005	0.230	0.039	0.113
96	NH	Merrimack	2364	1	D023641	0.377	0.011	0.034	0.377	0.093	0.263	0.011	0.022	0.368	0.068	0.195	0.010	0.017	0.333	0.057	0.164
97	KY	Paradise	1378	1	D01720C09	0.363	0.027	0.003	0.363	0.063	0.179	0.012	0.003	0.176	0.031	0.090	0.018	0.002	0.237	0.041	0.116
98	WV	John E Amos	3935	1,2	D03935C02	0.357	0.018	0.005	0.315	0.048	0.137	0.017	0.015	0.357	0.066	0.188	0.016	0.010	0.316	0.054	0.155
99	KY	John S. Cooper	1384	1,2	D01384CS1	0.340	0.026	0.002	0.340	0.057	0.163	0.009	0.002	0.131	0.023	0.065	0.006	0.001	0.081	0.014	0.040
100	TX	Martin Lake	6146	2		0.315	0.020	0.005	0.289	0.052	0.150	0.022	0.006	0.315	0.057	0.163	0.007	0.001	0.095	0.016	0.047
101	OH	Cardinal	2828	3	D028283	0.302	0.012	0.004	0.302	0.033	0.094	0.009	0.008	0.233	0.034	0.098	0.005	0.006	0.140	0.024	0.069
102	MO	Labadie		4	D021034	0.300	0.021	0.004	0.300	0.052	0.147	0.017	0.003	0.239	0.041	0.118	0.013	0.002	0.185	0.032	0.091
103	IN	Clifty Creek	983	4,5,6	D00983C02	0.300	0.011	0.006	0.264	0.036	0.103	0.012	0.018	0.300	0.063	0.178	0.007	0.007	0.175	0.030	0.086
104	MN	Sherburne County		1, 2	D06090CS1	0.295	0.003	0.019	0.295	0.046	0.131	0.003	0.015	0.272	0.037	0.106	0.002	0.018	0.249	0.043	0.122
105	OH	J M Stuart	2850	4	D028404	0.289	0.017	0.003	0.256	0.041	0.117	0.014	0.013	0.289	0.055	0.157	0.017	0.007	0.287	0.049	0.141
106	KY	Mill Creek	1364	4	D013644	0.276	0.004	0.006	0.239	0.022	0.063	0.005	0.013	0.276	0.036	0.104	0.003	0.011	0.160	0.028	0.079
107	IN	Clifty Creek	983	1,2,3	D00983C01	0.268	0.013	0.004	0.241	0.035	0.100	0.013	0.013	0.268	0.054	0.155	0.008	0.005	0.158	0.027	0.078
108	MD	Morgantown	1573	1	D015731	0.252	0.018	0.004	0.252	0.045	0.128	0.018	0.002	0.240	0.041	0.116	0.017	0.003	0.241	0.041	0.118
109	MI	Dan E Karn	1702	3,4 (1,2)	D01702C09	0.232	0.015	0.004	0.232	0.041	0.116	0.009	0.004	0.161	0.028	0.079	0.012	0.005	0.198	0.034	0.097
110	IN	R M Schahfer Generating Station		14	D0608514	0.219	0.001	0.007	0.094	0.018	0.050	0.003	0.004	0.219	0.014	0.041	0.002	0.013	0.189	0.033	0.093
111	NJ	Hudson Generating Station	2403	2	D024032	0.218	0.009	0.006	0.177	0.030	0.087	0.011	0.007	0.218	0.037	0.107	0.010	0.008	0.218	0.037	0.107
112	OK	Grand River Dam Authority		1	D001651	0.216	0.013	0.000	0.205	0.027	0.077	0.016	0.000	0.216	0.033	0.096	0.009	0.000	0.113	0.019	0.056
113	IN	R M Schahfer Generating Station		15	D0608515	0.194	0.001	0.006	0.085	0.015	0.043	0.002	0.006	0.194	0.016	0.046	0.002	0.014	0.186	0.032	0.092
114	VA	Chesterfield Power Station	3797	5	D037975	0.180	0.009	0.002	0.116	0.021	0.059	0.008	0.001	0.110	0.019	0.055	0.014	0.002	0.180	0.031	0.089
115	WI	Columbia		1	D080231	0.172	0.004	0.008	0.172	0.026	0.073	0.004	0.007	0.149	0.022	0.063	0.003	0.007	0.118	0.020	0.058
116	IL	Kincaid Generating Station		1, 2	D00876C02	0.165	0.008	0.004	0.164	0.026	0.074	0.007	0.004	0.140	0.023	0.065	0.010	0.004	0.165	0.028	0.081
117	WI	Columbia		2	D080232	0.157	0.004	0.007	0.157	0.024	0.068	0.004	0.006	0.140	0.022	0.062	0.003	0.006	0.107	0.018	0.053
118	SC	Wateree	3297	WAT1	D03297WT1	0.146	0.003	0.003	0.146	0.013	0.038	0.001	0.004	0.068	0.011	0.031	0.001	0.002	0.036	0.006	0.018
119	TN	Kingston	3407	1,2,3,4,5	D03407C15	0.141	0.006	0.002	0.141	0.018	0.051	0.003	0.003	0.069	0.013	0.036	0.003	0.002	0.061	0.011	0.030
120	SC	Wateree	3297	WAT2	D03297WT2	0.140	0.003	0.003	0.140	0.012	0.035	0.001	0.003	0.059	0.009	0.026	0.001	0.002	0.027	0.005	0.013

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
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121	TN	Kingston	3407	6,7,8,9	D03407C69	0.139	0.007	0.002	0.139	0.018	0.051	0.003	0.003	0.067	0.012	0.036	0.003	0.002	0.060	0.010	0.030
122	IL	Baldwin Energy Complex		1,2	D008892	0.120	0.006	0.005	0.118	0.023	0.065	0.006	0.004	0.119	0.021	0.061	0.006	0.004	0.120	0.021	0.059
123	VA	Chesterfield Power Station	3797	4	D037974	0.119	0.006	0.001	0.081	0.014	0.040	0.005	0.001	0.072	0.013	0.036	0.009	0.001	0.119	0.020	0.059
124	GA	Scherer		1	D062571	0.097	0.001	0.004	0.073	0.010	0.029	0.001	0.008	0.097	0.018	0.052	0.001	0.006	0.077	0.013	0.038
125	GA	Scherer		4	D062574	0.097	0.001	0.004	0.073	0.010	0.029	0.001	0.008	0.097	0.018	0.052	0.001	0.006	0.077	0.013	0.038
126	GA	Scherer		2	D062572	0.073	0.000	0.003	0.055	0.008	0.022	0.000	0.006	0.073	0.014	0.039	0.000	0.004	0.058	0.010	0.029
127	GA	Yates		Y7BR	D00728Y7R	0.045	0.000	0.004	0.037	0.009	0.025	0.000	0.005	0.045	0.011	0.033	0.000	0.002	0.026	0.004	0.013
128	KS	La Cygne	1241	1		0.037	0.003	0.000	0.037	0.006	0.017	0.002	0.000	0.030	0.005	0.015	0.002	0.000	0.020	0.004	0.010
129	VA	Bremo Power Station		4	D037964	0.015	0.000	0.001	0.012	0.002	0.007	0.000	0.001	0.012	0.003	0.009	0.000	0.001	0.015	0.003	0.008
130	KS	La Cygne		2	D012412	0.010	0.001	0.000	0.010	0.002	0.005	0.001	0.000	0.010	0.002	0.005	0.000	0.000	0.006	0.001	0.003

F.7 2011 EGU Ranking Visibility Impairing Sources to Great Gulf

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
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1	OH	Kyger Creek	2876	1,2,3,4,5	D02876C01	21.224	**1.357**	0.230	**18.740**	**2.362**	**6.856**	**1.341**	0.456	**21.224**	**2.637**	**7.493**	0.761	0.324	**12.660**	**1.655**	**5.101**
2	NH	Merrimack	2364	2	D023642	7.187	0.250	0.037	**3.292**	0.457	**1.596**	0.481	0.140	**7.187**	0.973	**3.204**	0.392	0.160	**6.379**	0.868	**2.891**
3	OH	Muskingum River	2872	1,2,3,4	D02872C04	7.157	0.522	0.031	**6.391**	0.870	**2.896**	0.526	0.093	**7.157**	0.969	**3.193**	0.396	0.040	**5.031**	0.691	**2.346**
4	OH	Avon Lake Power Plant	2836	12	D0283612	7.072	0.314	0.027	**3.923**	0.543	**1.875**	0.484	0.127	**7.072**	0.958	**3.161**	0.344	0.096	**5.081**	0.697	**2.367**
5	MI	Monroe	1733	1,2	D01733C12	5.653	0.253	0.061	**3.608**	0.500	**1.736**	0.324	0.165	**5.653**	0.773	**2.602**	0.291	0.146	**5.052**	0.694	**2.355**
6	PA	Homer City	3122	2	D031222	5.311	0.350	0.016	**4.215**	0.582	**2.001**	0.282	0.044	**3.749**	0.519	**1.799**	0.441	0.019	**5.311**	0.728	**2.462**
7	PA	Homer City	3122	1	D031221	5.262	0.350	0.013	**4.176**	0.577	**1.984**	0.281	0.036	**3.646**	0.505	**1.753**	0.441	0.016	**5.262**	0.721	**2.442**
8	OH	Eastlake		5	D028375	5.149	0.203	0.030	**2.668**	0.372	**1.312**	0.393	0.054	**5.149**	0.706	**2.395**	0.238	0.068	**3.523**	0.489	**1.699**
9	IN	Wabash River Gen Station	1010	2,3,4,5,6	D01010C05	4.496	0.293	0.018	**3.579**	0.496	**1.724**	0.265	0.025	**3.330**	0.462	**1.613**	0.368	0.022	**4.496**	0.620	**2.121**
10	OH	Walter C Beckford Generating Station		6	D028306	4.487	0.372	0.010	**4.396**	0.606	**2.079**	0.349	0.040	**4.487**	0.618	**2.117**	0.244	0.019	**3.015**	0.420	**1.471**
11	IN	Rockport	6166	MB1,MB2	D06166C02	3.890	0.193	0.051	**2.802**	0.391	**1.374**	0.210	0.127	**3.890**	0.538	**1.860**	0.124	0.048	**1.975**	0.277	0.988
12	IN	Clifty Creek	983	4,5,6	D00983C02	3.885	0.160	0.016	**2.007**	0.281	**1.003**	0.258	0.080	**3.885**	0.538	**1.858**	0.168	0.025	**2.210**	0.309	**1.099**
13	PA	Cheswick	8226	1	D082261	3.748	0.299	0.027	**3.748**	0.519	**1.798**	0.175	0.063	**2.738**	0.382	**1.344**	0.241	0.027	**3.078**	0.428	**1.500**
14	VA	Chesterfield Power Station	3797	5	D037975	3.654	0.280	0.037	**3.654**	0.506	**1.757**	0.188	0.023	**2.420**	0.338	**1.197**	0.278	0.032	**3.572**	0.495	**1.721**
15	NH	Merrimack	2364	1	D023641	3.474	0.125	0.017	**1.620**	0.228	0.817	0.241	0.061	**3.474**	0.482	**1.677**	0.196	0.071	**3.070**	0.427	**1.496**
16	KY	Big Sandy	1353	BSU1,BSU2	D01353C02	3.396	0.200	0.026	**2.588**	0.361	**1.275**	0.227	0.068	**3.396**	0.471	**1.642**	0.138	0.037	**2.015**	0.282	**1.007**
17	GA	Harllee Branch	709	3&4	D00709C02	3.221	0.266	0.015	**3.221**	0.448	**1.564**	0.068	0.020	**1.009**	0.142	0.517	0.137	0.024	**1.845**	0.259	0.926
18	PA	Keystone	3136	1	D031361	3.171	0.200	0.034	**2.695**	0.376	**1.325**	0.140	0.097	**2.738**	0.382	**1.345**	0.228	0.048	**3.171**	0.441	**1.541**
19	PA	Keystone	3136	2	D031362	3.156	0.200	0.034	**2.683**	0.374	**1.319**	0.140	0.096	**2.723**	0.380	**1.338**	0.227	0.047	**3.156**	0.439	**1.535**
20	OH	W H Zimmer Generating Station	6019	1	D060191	2.979	0.119	0.028	**1.682**	0.236	0.847	0.130	0.128	**2.979**	0.415	**1.455**	0.088	0.054	**1.633**	0.229	0.823
21	IN	Clifty Creek	983	1,2,3	D00983C01	2.785	0.123	0.009	**1.501**	0.211	0.759	0.198	0.045	**2.785**	0.388	**1.366**	0.129	0.014	**1.635**	0.230	0.824
22	MA	Brayton Point	1619	3	D016193	2.719	0.213	0.024	**2.719**	0.379	**1.336**	0.180	0.041	**2.537**	0.354	**1.252**	0.160	0.051	**2.422**	0.339	**1.198**
23	WV	Harrison Power Station		1 (25%), 2 (20	D03944C01	2.693	0.037	0.048	0.989	0.140	0.507	0.045	0.186	**2.693**	0.376	**1.324**	0.042	0.062	**1.204**	0.170	0.614
24	MI	St. Clair	1743	7	D017437	2.509	0.094	0.007	**1.159**	0.163	0.591	0.201	0.018	**2.509**	0.350	**1.239**	0.156	0.023	**2.051**	0.287	**1.024**
25	NY	Somerset Operating Company (Kintigh)		1	D060821	2.411	0.068	0.025	**1.075**	0.152	0.550	0.096	0.055	**1.740**	0.244	0.875	0.105	0.103	**2.411**	0.337	**1.193**
26	IL	Powerton		51,52,61,62	D00879C06	2.349	0.036	0.014	0.567	0.080	0.293	0.078	0.024	**1.173**	0.165	0.598	0.161	0.044	**2.349**	0.328	**1.164**
27	MI	Trenton Channel	1745	9A	D017459A	2.245	0.105	0.014	**1.361**	0.192	0.691	0.163	0.033	**2.245**	0.314	**1.115**	0.113	0.025	**1.586**	0.223	0.801
28	IL	Kincaid Generating Station		1, 2	D00876C02	2.231	0.039	0.060	**1.138**	0.160	0.581	0.072	0.100	**1.987**	0.279	0.993	0.062	0.130	**2.231**	0.312	**1.109**
29	OH	Muskingum River	2872	5	D028725	2.224	0.167	0.004	**1.958**	0.275	0.980	0.182	0.012	**2.224**	0.311	**1.106**	0.124	0.005	**1.471**	0.207	0.745
30	NY	Oswego Harbor Power	2594	6	x15	2.185	0.050	0.010	0.686	0.097	0.354	0.129	0.061	**2.185**	0.306	**1.087**	0.098	0.063	**1.853**	0.260	0.929
31	MI	St. Clair	1743	1,2,3,4,...6	x09	2.153	0.075	0.023	**1.130**	0.159	0.577	0.130	0.057	**2.153**	0.301	**1.072**	0.082	0.069	**1.734**	0.243	0.872
32	OH	Cardinal	2828	3	D028283	2.102	0.178	0.006	**2.102**	0.294	**1.048**	0.141	0.017	**1.818**	0.255	0.912	0.126	0.006	**1.517**	0.213	0.767
33	PA	Shawville	3131	3,4	D03131CS1	1.939	0.160	0.009	**1.939**	0.272	0.971	0.129	0.033	**1.856**	0.260	0.931	0.148	0.016	**1.879**	0.264	0.942
34	PA	Martins Creek	3148	3,4	x21	1.938	0.017	0.038	0.635	0.090	0.328	0.025	0.142	**1.938**	0.272	0.970	0.020	0.085	**1.218**	0.172	0.621
35	MI	J H Campbell		A,B,1,2	D01710C09	1.904	0.036	0.011	0.538	0.076	0.279	0.099	0.020	**1.358**	0.191	0.689	0.119	0.046	**1.904**	0.267	0.954
36	OH	Gen J M Gavin	8102	2	D081022	1.900	0.121	0.016	**1.579**	0.222	0.797	0.127	0.039	**1.900**	0.267	0.952	0.062	0.019	0.925	0.131	0.475
37	MD	Chalk Point	1571	1,2	D01571CE2	1.888	0.107	0.015	**1.398**	0.197	0.709	0.122	0.042	**1.888**	0.265	0.946	0.112	0.015	**1.447**	0.204	0.733
38	ME	William F Wyman	1507	4	D015074	1.882	0.060	0.057	**1.349**	0.190	0.685	0.084	0.079	**1.882**	0.264	0.943	0.067	0.040	**1.230**	0.173	0.627
39	OH	Gen J M Gavin	8102	1	D081021	1.870	0.120	0.016	**1.556**	0.219	0.786	0.125	0.038	**1.870**	0.262	0.937	0.061	0.018	0.910	0.129	0.467
40	OH	Walter C Beckford Generating Station		5 (50%)	D02830M51	1.812	0.150	0.004	**1.767**	0.248	0.888	0.141	0.017	**1.812**	0.254	0.910	0.098	0.008	**1.218**	0.172	0.620

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
41	IN	Tanners Creek	988	U4	D00988U4	1.785	0.147	0.009	**1.785**	0.251	0.897	0.109	0.020	**1.472**	0.207	0.745	0.092	0.013	**1.211**	0.171	0.617
42	NY	Cayuga Operating Company, LLC		1 (33%), 2 (33	D02535C01	1.766	0.139	0.015	**1.766**	0.248	0.888	0.092	0.015	**1.231**	0.173	0.627	0.089	0.029	**1.353**	0.191	0.687
43	IN	Gibson	6113	1,2,3	D06113C03	1.722	0.027	0.051	0.909	0.128	0.467	0.036	0.112	**1.722**	0.242	0.866	0.018	0.037	0.638	0.090	0.330
44	WV	Kammer	3947	1,2,3	D03947C03	1.697	0.105	0.013	**1.347**	0.190	0.684	0.103	0.045	**1.697**	0.238	0.854	0.096	0.018	**1.314**	0.185	0.668
45	MI	St. Clair	1743	6	D017436	1.672	0.054	0.005	0.665	0.094	0.344	0.134	0.012	**1.672**	0.235	0.843	0.099	0.016	**1.311**	0.185	0.666
46	VA	Yorktown Power Station	3809	1,2	D03809CS0	1.670	0.083	0.025	**1.241**	0.175	0.632	0.055	0.013	0.786	0.111	0.405	0.117	0.028	**1.670**	0.235	0.841
47	GA	Harllee Branch	709	1,2	D00709C01	1.605	0.132	0.008	**1.605**	0.226	0.810	0.045	0.012	0.652	0.092	0.337	0.068	0.012	0.923	0.130	0.474
48	PA	Montour	3149	1	D031491	1.598	0.080	0.025	**1.200**	0.169	0.611	0.063	0.075	**1.598**	0.225	0.806	0.065	0.048	**1.301**	0.183	0.662
49	NH	Newington	8002	1	D080021	1.576	0.056	0.050	**1.218**	0.172	0.620	0.091	0.034	**1.439**	0.203	0.729	0.089	0.048	**1.576**	0.222	0.796
50	MI	J H Campbell		3 (50%)	D01710M3A	1.543	0.045	0.015	0.690	0.098	0.356	0.112	0.023	**1.543**	0.217	0.780	0.084	0.040	**1.424**	0.200	0.722
51	MI	Belle River		2	D060342	1.528	0.060	0.017	0.888	0.125	0.456	0.091	0.042	**1.528**	0.215	0.772	0.073	0.054	**1.465**	0.206	0.742
52	PA	Montour	3149	2	D031492	1.518	0.081	0.023	**1.181**	0.167	0.602	0.064	0.068	**1.518**	0.213	0.767	0.066	0.043	**1.254**	0.177	0.639
53	WV	Pleasants Power Station	6004	1	D060041	1.516	0.041	0.019	0.695	0.098	0.359	0.059	0.072	**1.516**	0.213	0.767	0.037	0.024	0.700	0.099	0.361
54	MI	Belle River		1	D060341	1.507	0.059	0.017	0.875	0.124	0.450	0.089	0.042	**1.507**	0.212	0.762	0.071	0.054	**1.448**	0.204	0.733
55	NJ	B L England	2378	1		1.471	0.056	0.015	0.817	0.116	0.421	0.111	0.018	**1.471**	0.207	0.745	0.065	0.009	0.840	0.119	0.432
56	PA	Portland		3 (2)	d031132	1.429	0.065	0.009	0.844	0.119	0.434	0.100	0.025	**1.429**	0.201	0.724	0.080	0.021	**1.167**	0.165	0.595
57	WI	Columbia		1	D080231	1.411	0.025	0.007	0.367	0.052	0.191	0.062	0.010	0.827	0.117	0.425	0.097	0.026	**1.411**	0.199	0.715
58	TN	Johnsonville	3406	1 thru 10	D03406C10	1.395	0.102	0.020	**1.395**	0.196	0.707	0.092	0.024	**1.328**	0.187	0.675	0.069	0.011	0.919	0.130	0.472
59	OH	Killen Station	6031	2	D060312	1.366	0.041	0.013	0.616	0.087	0.318	0.063	0.056	**1.366**	0.192	0.693	0.030	0.019	0.559	0.079	0.290
60	WV	Kanawha River	3936	1,2	D03936C02	1.345	0.069	0.017	0.987	0.139	0.506	0.077	0.040	**1.345**	0.189	0.683	0.066	0.021	0.995	0.140	0.510
61	WI	Columbia		2	D080232	1.339	0.030	0.009	0.442	0.063	0.230	0.068	0.011	0.903	0.128	0.464	0.091	0.025	**1.339**	0.189	0.680
62	PA	Brunner Island	3140	3	D031403	1.271	0.058	0.021	0.902	0.127	0.463	0.048	0.060	**1.247**	0.176	0.635	0.058	0.053	**1.271**	0.179	0.647
63	PA	Brunner Island	3140	1,2	D03140C12	1.256	0.052	0.024	0.880	0.124	0.452	0.047	0.061	**1.256**	0.177	0.639	0.051	0.046	**1.118**	0.158	0.571
64	MA	Brayton Point	1619	2	D016192	1.244	0.078	0.011	**1.025**	0.145	0.525	0.076	0.029	**1.209**	0.170	0.616	0.067	0.042	**1.244**	0.175	0.633
65	WV	Pleasants Power Station	6004	2	D060042	1.186	0.037	0.014	0.576	0.082	0.298	0.053	0.050	**1.186**	0.167	0.605	0.033	0.017	0.568	0.080	0.294
66	PA	Armstrong Power Station		1	D031781	1.180	0.097	0.006	**1.180**	0.166	0.602	0.065	0.018	0.955	0.135	0.490					
67	MI	Trenton Channel	1745	16,17,18,19	x10	1.173	0.041	0.018	0.682	0.097	0.352	0.069	0.033	**1.173**	0.165	0.598	0.044	0.026	0.806	0.114	0.415
68	MD	C P Crane	1552	2	D015522	1.171	0.039	0.008	0.536	0.076	0.278	0.067	0.035	**1.171**	0.165	0.597	0.069	0.016	0.980	0.138	0.502
69	PA	Armstrong Power Station		2	D031782	1.163	0.095	0.006	**1.163**	0.164	0.593	0.064	0.019	0.955	0.135	0.490					
70	OH	Conesville	2840	5,6	D02840C06	1.128	0.028	0.025	0.607	0.086	0.314	0.029	0.068	**1.128**	0.159	0.576	0.016	0.033	0.565	0.080	0.293
71	MN	Sherburne County		1, 2	D06090CS1	1.123	0.031	0.026	0.646	0.091	0.334	0.049	0.032	0.925	0.131	0.475	0.058	0.039	**1.123**	0.158	0.574
72	MD	Morgantown	1573	1	D015731	1.120	0.080	0.003	0.948	0.134	0.486	0.089	0.009	**1.120**	0.158	0.572	0.082	0.003	0.969	0.137	0.497
73	IL	Baldwin Energy Complex		1,2	D008892	1.103	0.068	0.007	0.853	0.120	0.438	0.071	0.007	0.896	0.127	0.460	0.087	0.009	**1.103**	0.156	0.564
74	MO	Sibley		1, 2, 3	D02094C01	1.102	0.069	0.009	0.892	0.126	0.458	0.059	0.009	0.776	0.110	0.400	0.088	0.009	**1.102**	0.155	0.563
75	VA	Yorktown Power Station	3809	3	D038093	1.095	0.043	0.013	0.637	0.090	0.330	0.030	0.007	0.421	0.060	0.219	0.075	0.020	**1.095**	0.154	0.560
76	MI	Dan E Karn	1702	3,4 (1,2)	D01702C09	1.068	0.033	0.012	0.514	0.073	0.267	0.074	0.019	**1.068**	0.151	0.546	0.065	0.027	**1.063**	0.150	0.544
77	IN	IPL - Harding Street Station (EW Stout)		50	D0099050	1.057	0.069	0.002	0.808	0.114	0.416	0.053	0.003	0.643	0.091	0.332	0.090	0.003	**1.057**	0.149	0.541
78	PA	Homer City		3	D031223	1.053	0.043	0.019	0.705	0.100	0.364	0.032	0.059	**1.053**	0.149	0.539	0.048	0.026	0.850	0.120	0.437
79	MD	C P Crane	1552	1	D015521	1.052	0.035	0.007	0.484	0.069	0.251	0.060	0.031	**1.052**	0.148	0.538	0.063	0.014	0.884	0.125	0.454
80	GA	Yates		Y6BR	D00728Y6R	1.051	0.084	0.003	0.993	0.140	0.509	0.044	0.005	0.559	0.079	0.290	0.086	0.006	**1.051**	0.148	0.537

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81	SC	Wateree	3297	WAT1	D03297WT1	1.049	0.087	0.004	**1.049**	0.148	0.537	0.025	0.003	0.318	0.045	0.166	0.035	0.005	0.458	0.065	0.238
82	IN	Michigan City Generating Station		12	D0099712	1.043	0.041	0.003	0.501	0.071	0.260	0.083	0.008	**1.043**	0.147	0.534	0.061	0.013	0.846	0.120	0.435
83	VA	Chesterfield Power Station	3797	3,7,8A	x28	1.042	0.081	0.010	**1.042**	0.147	0.533	0.051	0.009	0.690	0.098	0.356					
84	IA	Ottumwa		1	D062541	1.040	0.032	0.008	0.466	0.066	0.242	0.057	0.012	0.788	0.111	0.406	0.076	0.015	**1.040**	0.147	0.532
85	MA	Brayton Point	1619	1	D016191	1.018	0.069	0.007	0.866	0.122	0.445	0.070	0.019	**1.018**	0.144	0.521	0.059	0.028	1.000	0.141	0.512
86	KY	John S. Cooper	1384	1,2	D01384CS1	1.016	0.050	0.005	0.627	0.089	0.324	0.072	0.017	**1.016**	0.143	0.520	0.054	0.007	0.698	0.099	0.360
87	MD	Brandon Shores	602	2	D006022	1.005	0.012	0.017	0.332	0.047	0.173	0.015	0.071	**1.005**	0.142	0.515	0.017	0.021	0.440	0.062	0.229
88	WV	John E Amos	3935	1,2	D03935C02	0.990	0.039	0.013	0.599	0.085	0.310	0.051	0.035	0.990	0.140	0.507	0.027	0.017	0.500	0.071	0.260
89	NY	Oswego Harbor Power	2594	5	D025945	0.986	0.075	0.011	0.986	0.139	0.505										
90	DE	Indian River	594	4	D005944	0.978	0.019	0.003	0.250	0.035	0.130	0.078	0.007	0.978	0.138	0.501	0.015	0.002	0.194	0.028	0.101
91	MI	J C Weadock		7, 8	D01720C09	0.975	0.034	0.009	0.498	0.070	0.258	0.070	0.014	0.961	0.136	0.493	0.064	0.021	0.975	0.138	0.500
92	IA	George Neal South		4	D073434	0.970	0.029	0.009	0.433	0.061	0.225	0.054	0.013	0.764	0.108	0.394	0.063	0.021	0.970	0.137	0.497
93	OK	Northeastern		3313, 3314	D02963C10	0.967	0.054	0.030	0.967	0.137	0.496	0.040	0.024	0.740	0.105	0.382	0.041	0.006	0.539	0.076	0.279
94	IN	IPL - Petersburg Generating Station		4	D009944	0.965	0.067	0.010	0.883	0.125	0.454	0.067	0.017	0.965	0.136	0.495	0.042	0.009	0.587	0.083	0.304
95	AL	E C Gaston	26	1, 2	D00026CAN	0.963	0.070	0.005	0.855	0.121	0.439	0.066	0.013	0.906	0.128	0.465	0.073	0.011	0.963	0.136	0.494
96	MD	Brandon Shores	602	1	D006021	0.959	0.012	0.016	0.323	0.046	0.169	0.016	0.067	0.959	0.135	0.492	0.017	0.020	0.429	0.061	0.223
97	IN	IPL - Harding Street Station (EW Stout)		60	D0099060	0.957	0.062	0.002	0.733	0.104	0.378	0.049	0.003	0.582	0.082	0.301	0.081	0.003	0.957	0.135	0.491
98	PA	Sunbury		4	D031524	0.952	0.079	0.001	0.915	0.129	0.470	0.055	0.007	0.700	0.099	0.361	0.077	0.006	0.952	0.134	0.488
99	KY	Mill Creek	1364	1,2,3	x05	0.945	0.066	0.016	0.945	0.133	0.485	0.051	0.028	0.907	0.128	0.466	0.040	0.017	0.653	0.092	0.338
100	KY	Ghent	1356	3,4 … (2,3)	D01356C02	0.938	0.036	0.009	0.514	0.073	0.266	0.044	0.037	0.938	0.132	0.481	0.037	0.013	0.577	0.082	0.299
101	IN	R M Schahfer Generating Station		14	D0608514	0.937	0.052	0.006	0.664	0.094	0.343	0.067	0.010	0.888	0.126	0.456	0.064	0.018	0.937	0.132	0.481
102	SC	Canadys Steam		CAN3	D03280CN3	0.935	0.078	0.004	0.935	0.132	0.480	0.024	0.003	0.312	0.044	0.162	0.026	0.003	0.337	0.048	0.176
103	NC	L V Sutton		3	D027133	0.935	0.042	0.006	0.556	0.079	0.288	0.069	0.013	0.935	0.132	0.480	0.034	0.010	0.509	0.072	0.264
104	GA	Jack McDonough		MB1, MB2	D00710C01	0.919	0.077	0.003	0.919	0.130	0.472	0.031	0.006	0.422	0.060	0.220	0.040	0.003	0.491	0.070	0.255
105	AL	E C Gaston	26	3, 4	D00026CBN	0.915	0.067	0.005	0.823	0.116	0.424	0.060	0.013	0.839	0.119	0.432	0.070	0.010	0.915	0.129	0.470
106	KY	Paradise	1378	3	D013783	0.910	0.036	0.039	0.861	0.122	0.443	0.022	0.056	0.910	0.129	0.467	0.027	0.037	0.744	0.105	0.383
107	OH	J M Stuart	2850	4	D028404	0.900	0.031	0.007	0.432	0.061	0.225	0.050	0.028	0.900	0.127	0.462	0.027	0.010	0.426	0.060	0.221
108	WV	Phil Sporn	3938	11,21,31,41	D03938C04	0.897	0.065	0.013	0.897	0.127	0.461										
109	TN	Kingston	3407	6,7,8,9	D03407C69	0.873	0.074	0.002	0.873	0.123	0.449	0.051	0.004	0.618	0.087	0.320	0.061	0.003	0.731	0.103	0.377
110	SC	Wateree	3297	WAT2	D03297WT2	0.873	0.073	0.003	0.873	0.123	0.448	0.022	0.003	0.280	0.040	0.146	0.029	0.003	0.369	0.052	0.192
111	PA	Portland		2 (1)	d031131	0.862	0.040	0.003	0.494	0.070	0.256	0.065	0.010	0.862	0.122	0.443	0.051	0.008	0.674	0.095	0.348
112	NH	Schiller	2367	6		0.839	0.026	0.008	0.391	0.055	0.204	0.043	0.030	0.839	0.119	0.432	0.028	0.020	0.556	0.079	0.288
113	GA	Scherer		4	D062574	0.837	0.070	0.003	0.837	0.118	0.431	0.022	0.006	0.319	0.045	0.166	0.051	0.006	0.658	0.093	0.340
114	TX	Big Brown	3497	2		0.828	0.069	0.004	0.828	0.117	0.426	0.065	0.001	0.754	0.107	0.388	0.041	0.001	0.471	0.067	0.244
115	NH	Schiller	2367	4		0.827	0.026	0.008	0.386	0.055	0.201	0.042	0.029	0.827	0.117	0.426	0.028	0.020	0.549	0.078	0.284
116	SC	Jefferies	3319	4		0.826	0.067	0.005	0.826	0.117	0.425	0.034	0.005	0.443	0.063	0.230	0.018	0.004	0.250	0.035	0.131
117	SC	Jefferies	3319	3		0.824	0.067	0.005	0.824	0.117	0.424	0.034	0.005	0.443	0.063	0.230	0.019	0.004	0.264	0.038	0.138
118	GA	Scherer		1	D062571	0.816	0.068	0.004	0.816	0.115	0.420	0.022	0.006	0.316	0.045	0.165	0.049	0.007	0.637	0.090	0.330
119	GA	Scherer		2	D062572	0.812	0.068	0.003	0.812	0.115	0.418	0.022	0.006	0.310	0.044	0.162	0.049	0.006	0.630	0.089	0.326
120	TN	Kingston	3407	1,2,3,4,5	D03407C15	0.809	0.068	0.003	0.809	0.114	0.417	0.047	0.004	0.577	0.082	0.299	0.056	0.003	0.680	0.096	0.351

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121	PA	Sunbury		3	D031523	0.799	0.068	0.002	0.799	0.113	0.411	0.047	0.007	0.608	0.086	0.315	0.064	0.006	0.793	0.112	0.409
122	KY	Paradise	1378	2	D013782	0.791	0.062	0.007	0.791	0.112	0.407	0.042	0.007	0.563	0.080	0.292	0.045	0.007	0.594	0.084	0.308
123	TX	Big Brown	3497	1		0.790	0.066	0.004	0.790	0.112	0.407	0.062	0.001	0.718	0.102	0.370	0.039	0.001	0.449	0.064	0.233
124	IN	Whitewater Valley		1, 2	D01040C12	0.787	0.067	0.002	0.787	0.111	0.405	0.045	0.002	0.540	0.077	0.280	0.057	0.003	0.687	0.097	0.355
125	MD	Herbert A Wagner	1554	3	D015543	0.785	0.037	0.005	0.485	0.069	0.252	0.047	0.021	0.785	0.111	0.404	0.050	0.006	0.644	0.091	0.333
126	GA	Yates		Y7BR	D00728Y7R	0.781	0.062	0.002	0.737	0.104	0.380	0.033	0.004	0.417	0.059	0.217	0.063	0.005	0.781	0.110	0.402
127	WV	Mitchell (WV)	3948	1,2	D03948C02	0.770	0.033	0.007	0.458	0.065	0.238	0.037	0.030	0.770	0.109	0.397	0.030	0.010	0.468	0.066	0.243
128	MO	New Madrid Power Plant		1	D021671	0.765	0.025	0.041	0.765	0.108	0.394										
129	MO	Labadie		4	D021034	0.764	0.029	0.006	0.400	0.057	0.208	0.062	0.005	0.764	0.108	0.394	0.048	0.006	0.614	0.087	0.318
130	IN	R M Schahfer Generating Station		15	D0608515	0.764	0.038	0.007	0.514	0.073	0.267	0.050	0.015	0.741	0.105	0.382	0.044	0.023	0.764	0.108	0.394
131	VA	Chesapeake Energy Center		4	D038034	0.757	0.041	0.013	0.623	0.088	0.322	0.039	0.008	0.537	0.076	0.278	0.057	0.009	0.757	0.107	0.390
132	WV	Albright Power Station	3942	3	D039423	0.749	0.061	0.002	0.728	0.103	0.376	0.050	0.013	0.728	0.103	0.376	0.062	0.004	0.749	0.106	0.386
133	AL	Colbert	47	1, 2, 3, 4	D00047C14	0.746	0.050	0.015	0.746	0.105	0.384										
134	NC	Mayo	6250	1A,1B	D06250C05	0.735	0.057	0.007	0.735	0.104	0.379	0.022	0.006	0.322	0.046	0.168	0.042	0.009	0.575	0.081	0.298
135	IN	IPL - Petersburg Generating Station		3	D009943	0.727	0.047	0.010	0.651	0.092	0.337	0.046	0.017	0.727	0.103	0.375	0.029	0.009	0.439	0.062	0.228
136	KY	Paradise	1378	1	D01720C09	0.699	0.054	0.007	0.699	0.099	0.361	0.037	0.007	0.499	0.071	0.259	0.040	0.006	0.526	0.075	0.273
137	NJ	B L England	2378	2,3	x12	0.693	0.017	0.022	0.454	0.064	0.236	0.034	0.026	0.693	0.098	0.358	0.020	0.013	0.376	0.053	0.196
138	KY	Shawnee		1,2,3,4,5	D01379C15	0.677	0.035	0.024	0.677	0.096	0.350										
139	IN	Gibson	6113	5	D061135	0.670	0.041	0.018	0.670	0.095	0.346										
140	KS	La Cygne		2	D012412	0.666	0.043	0.015	0.666	0.094	0.344	0.041	0.015	0.634	0.090	0.328	0.036	0.016	0.596	0.084	0.308
141	PA	Sunbury		1A, 1B	D03152CS1	0.660	0.056	0.001	0.649	0.092	0.335	0.038	0.005	0.496	0.070	0.257	0.053	0.005	0.660	0.093	0.341
142	AR	White Bluff		1	D060091	0.647	0.038	0.019	0.647	0.092	0.334										
143	IN	Gibson	6113	4	D061135	0.646	0.014	0.042	0.646	0.091	0.334										
144	CT	Bridgeport Harbor Station	568	BHB3		0.645	0.012	0.020	0.373	0.053	0.194	0.009	0.018	0.314	0.044	0.163	0.020	0.035	0.645	0.091	0.333
145	TX	Martin Lake	6146	1		0.643	0.049	0.007	0.643	0.091	0.333	0.046	0.002	0.553	0.078	0.287	0.029	0.002	0.347	0.049	0.181
146	AR	White Bluff		2	D060092	0.643	0.036	0.020	0.643	0.091	0.332										
147	MA	Canal Station	1599	1	D015991	0.635	0.039	0.011	0.572	0.081	0.296	0.037	0.018	0.635	0.090	0.328	0.025	0.007	0.368	0.052	0.192
148	MO	New Madrid Power Plant		2	D021672	0.630	0.024	0.030	0.630	0.089	0.326										
149	IN	IPL - Eagle Valley Generating Station		5, 6	D00991C56	0.624	0.052	0.003	0.624	0.088	0.323										
150	NE	Nebraska City Station		1	D060961	0.624	0.041	0.013	0.624	0.088	0.322										
151	IN	Merom		2SG1	D062132G1	0.614	0.051	0.003	0.614	0.087	0.318										
152	IN	Tanners Creek	988	U1,U2,U3	D00988C03	0.612	0.047	0.006	0.612	0.087	0.316	0.035	0.013	0.555	0.079	0.288	0.030	0.009	0.443	0.063	0.230
153	TX	Martin Lake	6146	2		0.592	0.046	0.006	0.592	0.084	0.306	0.043	0.002	0.515	0.073	0.267	0.027	0.001	0.323	0.046	0.168
154	IN	IPL - Petersburg Generating Station		1 (50%)	D00994M1B	0.584	0.047	0.005	0.584	0.083	0.302										
155	OH	Eastlake	2837	1	D028371	0.581	0.045	0.006	0.581	0.082	0.301										
156	NY	Huntley Power	2549	67,68	D02549C01	0.580	0.043	0.008	0.580	0.082	0.300										
157	MA	Brayton Point	1619	4	x07	0.575	0.031	0.012	0.490	0.069	0.255	0.030	0.020	0.575	0.081	0.298	0.025	0.020	0.510	0.072	0.264
158	SC	H B Robinson		1	D032511	0.575	0.045	0.006	0.575	0.081	0.297	0.015	0.005	0.229	0.033	0.120	0.022	0.009	0.360	0.051	0.187
159	IN	Alcoa Allowance Management Inc	6705	1,2	D06705C02	0.572	0.013	0.036	0.572	0.081	0.296										
160	OK	Grand River Dam Authority		1	D001651	0.559	0.036	0.012	0.559	0.079	0.289	0.027	0.010	0.428	0.061	0.223	0.030	0.003	0.374	0.053	0.194

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161	OH	Eastlake	2837	2	D028372	0.556	0.043	0.005	0.556	0.079	0.288										
162	VA	Chesapeake Energy Center		3	D038033	0.553	0.029	0.013	0.483	0.068	0.250	0.027	0.008	0.399	0.057	0.207	0.039	0.009	0.553	0.078	0.286
163	MI	River Rouge		3	D017403	0.553	0.037	0.011	0.553	0.078	0.286										
164	KY	Mill Creek	1364	4	D013644	0.551	0.044	0.005	0.551	0.078	0.285	0.033	0.009	0.478	0.068	0.248	0.027	0.005	0.371	0.053	0.193
165	TX	Martin Lake	6146	3		0.550	0.042	0.006	0.550	0.078	0.285	0.040	0.002	0.473	0.067	0.246	0.025	0.001	0.297	0.042	0.155
166	KY	Shawnee		6,7,8,9,10	D01379C60	0.549	0.031	0.017	0.549	0.078	0.284										
167	IN	IPL - Harding Street Station (EW Stout)	990	70	D0099070	0.545	0.043	0.005	0.545	0.077	0.283										
168	NJ	Hudson Generating Station	2403	2	D024032	0.540	0.011	0.007	0.198	0.028	0.104	0.012	0.018	0.353	0.050	0.184	0.018	0.029	0.540	0.076	0.280
169	OH	Cardinal	2828	1	D028281	0.537	0.043	0.004	0.537	0.076	0.279										
170	TN	John Sevier	3405	1,2	D03405C12	0.532	0.044	0.003	0.532	0.075	0.276	0.035	0.008	0.491	0.070	0.255	0.039	0.005	0.498	0.071	0.258
171	MA	Salem Harbor Station	1626	1		0.525	0.016	0.010	0.299	0.042	0.156	0.026	0.019	0.525	0.074	0.272	0.025	0.016	0.469	0.066	0.243
172	TN	John Sevier	3405	3,4	D03405C34	0.520	0.043	0.003	0.520	0.074	0.269	0.034	0.008	0.482	0.068	0.250	0.038	0.005	0.487	0.069	0.253
173	VA	Chesterfield Power Station	3797	4	D037974	0.516	0.037	0.008	0.516	0.073	0.267	0.026	0.004	0.350	0.050	0.182	0.035	0.007	0.474	0.067	0.246
174	NC	H F Lee Steam Electric Plant		3	D027093	0.515	0.035	0.010	0.515	0.073	0.267	0.028	0.005	0.369	0.052	0.192	0.031	0.008	0.453	0.064	0.236
175	MO	Rush Island		1	D061551	0.503	0.040	0.004	0.503	0.071	0.261										
176	MO	Rush Island		2	D061552	0.500	0.040	0.004	0.500	0.071	0.259										
177	NC	L V Sutton		1, 2	D02713C02	0.499	0.025	0.004	0.328	0.046	0.171	0.039	0.005	0.499	0.071	0.259	0.021	0.006	0.304	0.043	0.158
178	IL	Newton		2	D060172	0.497	0.039	0.004	0.497	0.070	0.258										
179	MA	Canal Station	1599	2	D015992	0.496	0.025	0.015	0.460	0.065	0.239	0.020	0.023	0.496	0.070	0.257	0.018	0.011	0.336	0.048	0.175
180	AR	Independence		1	D066411	0.484	0.027	0.015	0.484	0.069	0.251										
181	NC	Cape Fear	2708	6		0.483	0.034	0.008	0.483	0.068	0.250	0.023	0.005	0.313	0.044	0.163	0.027	0.012	0.445	0.063	0.231
182	OH	Eastlake	2837	3	D028373	0.483	0.037	0.005	0.483	0.068	0.250										
183	TX	Monticello	6147	1		0.481	0.039	0.004	0.481	0.068	0.249	0.036	0.001	0.427	0.060	0.222	0.023	0.001	0.267	0.038	0.139
184	AR	Independence		2	D066412	0.466	0.027	0.013	0.466	0.066	0.242										
185	NY	Dynegy Danskammer	2480	1,2,3	x13	0.463	0.035	0.005	0.463	0.066	0.240										
186	IN	IPL - Petersburg Generating Station		2(50%)	D00994M2B	0.462	0.031	0.009	0.462	0.065	0.240										
187	OK	Muskogee	2952	4		0.461	0.030	0.011	0.461	0.065	0.240										
188	VA	Bremo Power Station		4	D037964	0.459	0.034	0.003	0.427	0.060	0.222	0.021	0.007	0.313	0.044	0.163	0.034	0.006	0.459	0.065	0.238
189	MN	Sherburne County		3	D060903	0.458	0.026	0.014	0.458	0.065	0.238										
190	KS	Nearman Creek	6064	N1		0.456	0.024	0.016	0.456	0.065	0.237										
191	TX	Monticello	6147	2		0.450	0.036	0.003	0.450	0.064	0.234										
192	KY	D B Wilson		W1	D06823W1	0.449	0.036	0.003	0.449	0.064	0.233										
193	KY	Green River		5	D013575	0.441	0.036	0.002	0.441	0.063	0.229										
194	TN	Gallatin	3403	3,4	D03403C34	0.439	0.034	0.005	0.439	0.062	0.228										
195	TX	Monticello	6147	3		0.434	0.032	0.006	0.434	0.061	0.225										
196	OK	Muskogee		5	D029525	0.424	0.028	0.009	0.424	0.060	0.220										
197	TX	Limestone	298	LIM2		0.422	0.027	0.010	0.422	0.060	0.219										
198	MI	Monroe	1733	3,4	D01733C34	0.422	0.019	0.018	0.422	0.060	0.219										
199	SC	Urquhart		URQ3	D03295UQ3	0.420	0.036	0.001	0.420	0.060	0.218										
200	OH	Eastlake	2837	4,6, (5)	x17	0.418	0.028	0.009	0.418	0.059	0.217										

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201	TX	H W Pirkey Power Plant	7902	1		0.413	0.030	0.006	0.413	0.059	0.215										
202	WV	Fort Martin Power Station	3943	1	D039431	0.406	0.021	0.014	0.406	0.058	0.211										
203	OH	Cardinal	2828	2	D028282	0.405	0.031	0.004	0.405	0.057	0.210										
204	OK	Sooner	6095	1		0.396	0.024	0.010	0.396	0.056	0.206										
205	NC	Riverbend	2732	9		0.394	0.034	0.001	0.394	0.056	0.205										
206	MO	Labadie		3	D021033	0.393	0.028	0.006	0.393	0.056	0.204										
207	TX	Limestone	298	LIM1		0.392	0.025	0.009	0.392	0.056	0.204										
208	OK	Hugo		1	D067721	0.392	0.031	0.003	0.392	0.056	0.204										
209	OK	Sooner		2	D060952	0.391	0.023	0.011	0.391	0.055	0.203										
210	TN	Gallatin	3403	1,2	D03403C12	0.387	0.030	0.004	0.387	0.055	0.201										
211	MO	Labadie		1	D021031	0.381	0.028	0.006	0.381	0.054	0.198										
212	NY	Northport	2516	1,2,4,ugt001	x14	0.381	0.014	0.019	0.381	0.054	0.198	0.014	0.011	0.289	0.041	0.151					
213	IA	Louisa		101	D06664101	0.381	0.021	0.012	0.381	0.054	0.198										
214	KY	Green River		4	D013574	0.375	0.031	0.002	0.375	0.053	0.195										
215	WV	John E Amos	3935	3	D039353	0.374	0.017	0.015	0.374	0.053	0.195										
216	WV	Fort Martin Power Station	3943	2	D039432	0.363	0.019	0.012	0.363	0.052	0.189										
217	MO	Thomas Hill Energy Center		MB3	D02168MB3	0.358	0.024	0.007	0.358	0.051	0.186										
218	WV	Longview Power	56671	1		0.353	0.028	0.003	0.353	0.050	0.184										
219	VA	Clinch River	3775	1,2	D03775C02	0.349	0.026	0.004	0.349	0.050	0.182										
220	VA	Chesapeake Energy Center		2	D038032	0.348	0.018	0.008	0.302	0.043	0.158	0.019	0.005	0.283	0.040	0.148	0.025	0.005	0.348	0.049	0.181
221	IN	R Gallagher	1008	1,2	D01008C01	0.346	0.025	0.005	0.346	0.049	0.180										
222	MN	Black Dog		3, 4	D01904CS1	0.340	0.010	0.020	0.340	0.048	0.177										
223	NC	Roxboro	2712	4A,4B	D02712C04	0.340	0.022	0.007	0.340	0.048	0.177	0.008	0.005	0.157	0.022	0.082	0.015	0.010	0.279	0.040	0.146
224	NC	Roxboro	2712	3A,3B	D02712C03	0.334	0.020	0.009	0.334	0.047	0.174	0.007	0.007	0.164	0.023	0.086	0.013	0.012	0.290	0.041	0.151
225	WV	Mountaineer (1301)	6264	1	D062641	0.333	0.019	0.010	0.333	0.047	0.173										
226	WV	Mount Storm Power Station	3954	1,2	D03954CS0	0.330	0.018	0.011	0.330	0.047	0.172										
227	PA	Shawville	3131	1	D031311	0.324	0.025	0.003	0.324	0.046	0.169										
228	PA	Shawville	3131	2	D031312	0.319	0.025	0.003	0.319	0.045	0.166										
229	OH	W H Sammis	2866	7	D028667	0.314	0.013	0.014	0.314	0.045	0.164										
230	IA	Walter Scott Jr. Energy Center		3	D010823	0.314	0.017	0.010	0.314	0.045	0.164										
231	OH	Miami Fort Generating Station	2832	7	D028327	0.311	0.020	0.007	0.311	0.044	0.162										
232	IN	R Gallagher	1008	3,4	D01008C02	0.310	0.022	0.005	0.310	0.044	0.162										
233	NY	CCI Roseton LLC	8006	2	D080062	0.306	0.020	0.007	0.306	0.043	0.160										
234	IL	Joppa Steam		1, 2	D00887CS1	0.305	0.023	0.004	0.305	0.043	0.159										
235	IL	Joppa Steam		3, 4	D00887CS2	0.302	0.023	0.004	0.302	0.043	0.158										
236	WI	Nelson Dewey	4054	2		0.301	0.022	0.004	0.301	0.043	0.157										
237	PA	Hatfield's Ferry Power Station	3179	3	x20	0.300	0.010	0.016	0.300	0.043	0.157										
238	AR	Flint Creek Power Plant	6138	1		0.299	0.016	0.010	0.299	0.042	0.156										
239	NC	Roxboro	2712	2	D027122	0.297	0.020	0.005	0.297	0.042	0.155										
240	ME	William F Wyman	1507	3		0.294	0.016	0.010	0.294	0.042	0.153										

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241	OH	W H Sammis	2866	6	D02866M6A	0.292	0.014	0.012	0.292	0.041	0.152										
242	IN	Cayuga	1001	2	D010012	0.290	0.014	0.011	0.290	0.041	0.151										
243	OH	Conesville	2840	4	D028504	0.285	0.020	0.005	0.285	0.040	0.149										
244	SC	McMeekin		MCM2	D03287MM2	0.284	0.024	0.001	0.284	0.040	0.148										
245	MD	Herbert A Wagner	1554	1,2,4	x08	0.282	0.020	0.004	0.282	0.040	0.147										
246	OH	Miami Fort Power Station		8	D028328	0.282	0.018	0.007	0.282	0.040	0.147										
247	OH	W H Sammis	2866	1,2	D02866C01	0.279	0.009	0.015	0.279	0.040	0.146										
248	WI	Edgewater (4050)	4050	5		0.276	0.019	0.005	0.276	0.039	0.144										
249	KS	La Cygne	1241	1		0.276	0.020	0.005	0.276	0.039	0.144	0.018	0.003	0.238	0.034	0.124	0.017	0.005	0.251	0.036	0.131
250	OH	W H Sammis	2866	3,4	D02866C02	0.274	0.009	0.015	0.274	0.039	0.143										
251	VA	Chesapeake Energy Center		1	D038031	0.273	0.013	0.009	0.252	0.036	0.132	0.014	0.006	0.226	0.032	0.118	0.018	0.006	0.273	0.039	0.143
252	SC	McMeekin		MCM1	D03287MM1	0.272	0.023	0.001	0.272	0.039	0.142										
253	SC	Winyah	6249	2,3,4	x23	0.269	0.019	0.005	0.269	0.038	0.140										
254	IA	George Neal North		3	D010913	0.266	0.015	0.008	0.266	0.038	0.139										
255	CT	Middletown	562	4		0.265	0.007	0.016	0.265	0.038	0.139										
256	MD	Dickerson	1572	1,2,3	D01572C23	0.265	0.015	0.008	0.265	0.038	0.138										
257	WI	South Oak Creek		7, 8	D04041CS4	0.264	0.018	0.005	0.264	0.037	0.138										
258	IN	Cayuga	1001	1	D010011	0.259	0.012	0.010	0.259	0.037	0.135										
259	IL	Marion		4	D009764	0.253	0.017	0.005	0.253	0.036	0.132										
260	NC	Marshall	2727	1,2	x11	0.251	0.014	0.007	0.251	0.036	0.131										
261	IL	Joliet 29		81, 82	D00384C82	0.244	0.017	0.004	0.244	0.035	0.128										
262	TX	Welsh Power Plant	6139	3		0.239	0.015	0.005	0.239	0.034	0.125										
263	NY	NRG Dunkirk Power		3	D02554C03	0.238	0.017	0.003	0.238	0.034	0.124										
264	TX	Welsh Power Plant	6139	1		0.225	0.015	0.005	0.225	0.032	0.117										
265	NC	Marshall	2727	4	D027274	0.223	0.012	0.008	0.223	0.032	0.117										
266	TX	Welsh Power Plant	6139	2		0.222	0.015	0.004	0.222	0.031	0.116										
267	CT	New Haven Harbor	6156	NHB1		0.222	0.007	0.012	0.222	0.031	0.116										
268	GA	Yates		Y5BR	D00728Y5R	0.216	0.018	0.001	0.216	0.031	0.113										
269	KY	E W Brown	1355	2,3	D01355C03	0.213	0.008	0.010	0.213	0.030	0.111										
270	AL	Greene County	10	1		0.211	0.018	0.001	0.211	0.030	0.110										
271	TN	Cumberland	3399	1		0.209	0.014	0.005	0.209	0.030	0.109										
272	GA	Bowen	703	1BLR	D007031LR	0.206	0.008	0.010	0.206	0.029	0.107										
273	NC	Roxboro	2712	1	D027121	0.202	0.013	0.005	0.202	0.029	0.106										
274	OH	J M Stuart	2850	3	D028503	0.199	0.012	0.006	0.199	0.028	0.104										
275	OH	W H Sammis	2866	5	D028665	0.196	0.005	0.011	0.196	0.028	0.102										
276	KY	Ghent	1356	1,2 ... (1,4)	D01356C01	0.195	0.012	0.005	0.195	0.028	0.102										
277	MO	Sikeston		1	D067681	0.193	0.012	0.005	0.193	0.027	0.101										
278	IL	Wood River Power Station		5	D008985	0.190	0.013	0.004	0.190	0.027	0.099										
279	GA	Bowen	703	4BLR	D007034LR	0.189	0.004	0.012	0.189	0.027	0.099										
280	ME	William F Wyman	1507	1		0.184	0.008	0.008	0.184	0.026	0.096										

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281	MO	Meramec		3	D021043	0.182	0.012	0.004	0.182	0.026	0.095										
282	NY	Northport	2516	3	D025163	0.181	0.008	0.008	0.181	0.026	0.095										
283	ME	William F Wyman	1507	2		0.181	0.007	0.008	0.181	0.026	0.095										
284	OH	J M Stuart	2850	1	D028501	0.178	0.011	0.004	0.178	0.025	0.093										
285	WI	Genoa	4143	1		0.174	0.012	0.003	0.174	0.025	0.091										
286	MD	Morgantown	1573	2	D015732	0.170	0.013	0.002	0.170	0.024	0.089										
287	VA	Chesterfield Power Station	3797	6	D037976	0.166	0.010	0.005	0.166	0.024	0.087										
288	KY	East Bend	6018	2	D060182	0.165	0.009	0.005	0.165	0.023	0.086										
289	KY	H L Spurlock	6041	2	D060412	0.164	0.011	0.004	0.164	0.023	0.086										
290	KY	H L Spurlock	6041	1	D060411	0.163	0.012	0.002	0.163	0.023	0.085										
291	GA	Bowen	703	2BLR	D007032LR	0.160	0.004	0.010	0.160	0.023	0.084										
292	NC	Belews Creek	8042	2	D080422	0.159	0.011	0.003	0.159	0.023	0.083										
293	NC	Marshall	2727	3	D027273	0.159	0.012	0.002	0.159	0.023	0.083										
294	NC	Belews Creek	8042	1	D080421	0.156	0.010	0.003	0.156	0.022	0.082										
295	IN	Alcoa Allowance Management Inc	6705	4	D067054	0.151	0.008	0.005	0.151	0.021	0.079										
296	AL	E C Gaston	26	5		0.148	0.007	0.006	0.148	0.021	0.078										
297	OH	J M Stuart	2850	2	D028502	0.141	0.007	0.006	0.141	0.020	0.074										
298	SC	Williams	3298	WIL1	D03298WL1	0.139	0.006	0.006	0.139	0.020	0.073										
299	KS	Quindaro	1295	2		0.126	0.007	0.004	0.126	0.018	0.066										
300	IN	Alcoa Allowance Management Inc	6705	3	x02	0.110	0.003	0.006	0.110	0.016	0.058										
301	NC	Cliffside	2721	5	D027215	0.109	0.008	0.002	0.109	0.015	0.057										
302	GA	Bowen	703	3BLR	D007033LR	0.104	0.004	0.005	0.104	0.015	0.054										
303	KS	Tecumseh Energy Center	1252	10		0.097	0.006	0.003	0.097	0.014	0.051										
304	DE	Edge Moor	593	5	D005935	0.093	0.007	0.001	0.093	0.013	0.049										
305	NJ	Mercer Generating Station	2408	1	D024081	0.077	0.004	0.003	0.077	0.011	0.040										
306	NJ	Mercer Generating Station	2408	2	D024082	0.069	0.003	0.003	0.069	0.010	0.036										
307	SC	Winyah	6249	1	D062491	0.039	0.002	0.001	0.039	0.006	0.021										
308	OH	Miami Fort Generating Station	2832	5-1, 5-2, 6	D02832C06	0.014	0.001	0.000	0.014	0.002	0.008										
309	IL	Newton		1	D060171	0.000															
310	MA	Salem Harbor Station	1626	3	D016263	0.000															
311	NY	CCI Roseton LLC	8006	1	D080061	0.000											0.000	0.000	0.000	0.000	0.000

F.8 2015 EGU Ranking Visibility Impairing Sources to Great Gulf

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
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1	OH	Avon Lake Power Plant	2836	12	D0283612	8.928	0.415	0.028	4.952	0.701	2.380	0.640	0.132	8.928	1.199	3.859	0.455	0.100	6.415	0.873	2.906
2	PA	Homer City	3122	1	D031221	7.293	0.464	0.039	5.787	0.792	2.661	0.373	0.104	5.053	0.753	2.541	0.584	0.045	7.293	0.986	3.245
3	PA	Homer City	3122	2	D031222	6.430	0.409	0.034	5.103	0.701	2.380	0.329	0.093	4.538	0.669	2.277	0.516	0.041	6.430	0.875	2.911
4	ME	William F Wyman	1507	4	D015074	4.076	0.114	0.148	2.922	0.421	1.476	0.160	0.204	4.076	0.582	2.003	0.127	0.104	2.665	0.372	1.311
5	OH	Muskingum River	2872	5	D028725	3.584	0.272	0.004	3.155	0.441	1.541	0.295	0.015	3.584	0.494	1.718	0.201	0.006	2.371	0.332	1.175
6	VA	Yorktown Power Station	3809	3	D038093	3.562	0.139	0.042	2.073	0.290	1.032	0.097	0.022	1.368	0.192	0.693	0.244	0.066	3.562	0.494	1.716
7	KY	Big Sandy	1353	BSU1,BSU2	D01353C02	2.906	0.176	0.020	2.214	0.314	1.116	0.201	0.052	2.906	0.404	1.418	0.122	0.028	1.724	0.242	0.868
8	NH	Merrimack	2364	2	D023642	2.893	0.021	0.043	1.325	0.105	0.384	0.041	0.163	2.893	0.332	1.177	0.033	0.187	2.568	0.359	1.266
9	WV	Harrison Power Station		1 (25%), 2 (20%	D03944C01	2.840	0.039	0.051	1.043	0.147	0.533	0.047	0.198	2.840	0.398	1.397	0.044	0.066	1.270	0.179	0.646
10	GA	Harllee Branch	709	3&4	D00709C02	2.809	0.237	0.011	2.809	0.397	1.395	0.061	0.015	0.880	0.123	0.447	0.123	0.018	1.609	0.226	0.812
11	IN	Rockport	6166	MB1,MB2	D06166C02	2.742	0.127	0.042	1.975	0.272	0.971	0.138	0.105	2.742	0.391	1.376	0.082	0.039	1.392	0.196	0.706
12	IN	Wabash River Gen Station	1010	2,3,4,5,6	D01010C05	2.569	0.170	0.009	2.045	0.287	1.021	0.153	0.012	1.903	0.266	0.950	0.213	0.011	2.569	0.359	1.267
13	OH	Killen Station	6031	2	D060312	2.426	0.057	0.030	1.093	0.141	0.512	0.087	0.134	2.426	0.356	1.258	0.041	0.045	0.992	0.140	0.509
14	OH	Gen J M Gavin	8102	1	D081021	2.398	0.126	0.033	1.995	0.256	0.915	0.132	0.077	2.398	0.336	1.190	0.064	0.037	1.167	0.165	0.595
15	PA	Keystone	3136	1	D031361	2.275	0.134	0.033	1.933	0.268	0.959	0.094	0.093	1.965	0.302	1.072	0.153	0.045	2.275	0.318	1.129
16	OH	Gen J M Gavin	8102	2	D081022	2.203	0.118	0.029	1.830	0.237	0.850	0.123	0.069	2.203	0.309	1.098	0.060	0.033	1.072	0.151	0.548
17	PA	Keystone	3136	2	D031362	2.190	0.128	0.032	1.862	0.258	0.924	0.090	0.091	1.889	0.292	1.041	0.146	0.045	2.190	0.307	1.090
18	NH	Newington	8002	1	D080021	2.182	0.041	0.127	1.685	0.274	0.979	0.067	0.088	1.992	0.252	0.900	0.066	0.123	2.182	0.305	1.086
19	MI	Trenton Channel	1745	9A	D017459A	2.124	0.100	0.013	1.288	0.182	0.657	0.156	0.030	2.124	0.298	1.059	0.108	0.023	1.501	0.211	0.759
20	OH	W H Zimmer Generating Station	6019	1	D060191	2.103	0.074	0.023	1.187	0.157	0.569	0.081	0.108	2.103	0.305	1.084	0.054	0.046	1.152	0.163	0.588
21	MI	St. Clair	1743	6	D017436	2.043	0.068	0.004	0.813	0.117	0.426	0.171	0.011	2.043	0.291	1.038	0.126	0.014	1.602	0.225	0.808
22	PA	Shawville	3131	3,4	D03131CS1	1.855	0.151	0.010	1.855	0.259	0.924	0.121	0.036	1.775	0.253	0.906	0.139	0.017	1.797	0.252	0.903
23	MI	St. Clair	1743	7	D017437	1.798	0.064	0.007	0.830	0.114	0.416	0.136	0.018	1.798	0.247	0.885	0.105	0.023	1.470	0.207	0.744
24	MA	Brayton Point	1619	4	x07	1.772	0.092	0.038	1.513	0.211	0.760	0.090	0.064	1.772	0.248	0.889	0.074	0.062	1.572	0.221	0.794
25	OH	Muskingum River	2872	1,2,3,4	D02872C04	1.772	0.127	0.010	1.582	0.219	0.789	0.128	0.029	1.772	0.252	0.903	0.096	0.013	1.246	0.176	0.634
26	NY	Oswego Harbor Power	2594	6	x15	1.767	0.035	0.010	0.555	0.073	0.266	0.091	0.059	1.767	0.242	0.868	0.069	0.061	1.498	0.211	0.758
27	NY	Somerset Operating Company (Kintigh)		1	D060821	1.740	0.066	0.012	0.776	0.127	0.460	0.093	0.026	1.256	0.193	0.694	0.102	0.049	1.740	0.244	0.875
28	PA	Homer City		3	D031223	1.681	0.056	0.040	1.126	0.156	0.564	0.042	0.125	1.681	0.272	0.969	0.064	0.054	1.357	0.191	0.689
29	IL	Powerton		51,52,61,62	D00879C06	1.665	0.024	0.011	0.402	0.058	0.212	0.053	0.020	0.832	0.118	0.430	0.109	0.036	1.665	0.234	0.839
30	WV	Kammer	3947	1,2,3	D03947C03	1.649	0.105	0.011	1.309	0.186	0.671	0.103	0.037	1.649	0.226	0.811	0.096	0.015	1.277	0.180	0.650
31	MI	Belle River		2	D060342	1.572	0.059	0.019	0.914	0.127	0.461	0.090	0.045	1.572	0.219	0.786	0.072	0.059	1.507	0.212	0.762
32	VA	Yorktown Power Station	3809	1,2	D03809CS0	1.515	0.077	0.021	1.126	0.158	0.572	0.051	0.011	0.713	0.101	0.368	0.109	0.023	1.515	0.213	0.766
33	MI	Belle River		1	D060341	1.473	0.053	0.019	0.855	0.116	0.422	0.080	0.045	1.473	0.203	0.730	0.064	0.059	1.414	0.199	0.717
34	WV	Pleasants Power Station	6004	1	D060041	1.424	0.033	0.022	0.653	0.090	0.329	0.048	0.081	1.424	0.211	0.759	0.030	0.027	0.657	0.093	0.340
35	PA	Montour	3149	1	D031491	1.406	0.065	0.024	1.056	0.145	0.525	0.052	0.072	1.406	0.202	0.726	0.054	0.046	1.145	0.162	0.585
36	OH	Kyger Creek	2876	1,2,3,4,5	D02876C01	1.397	0.054	0.030	1.234	0.136	0.493	0.053	0.059	1.397	0.183	0.659	0.030	0.042	0.833	0.118	0.429
37	IN	Tanners Creek	988	U4	D00988U4	1.383	0.112	0.008	1.383	0.193	0.696	0.083	0.017	1.140	0.161	0.584	0.071	0.012	0.939	0.133	0.482
38	MI	St. Clair	1743	1,2,3,4,...6	x09	1.373	0.043	0.017	0.721	0.097	0.354	0.075	0.041	1.373	0.187	0.674	0.047	0.049	1.106	0.156	0.565
39	WV	Kanawha River	3936	1,2	D03936C02	1.282	0.065	0.017	0.941	0.132	0.481	0.072	0.040	1.282	0.182	0.657	0.061	0.021	0.948	0.134	0.486
40	PA	Brunner Island	3140	1,2	D03140C12	1.269	0.054	0.024	0.889	0.126	0.459	0.049	0.061	1.269	0.178	0.643	0.053	0.045	1.130	0.159	0.577

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41	IN	Michigan City Generating Station		12	D0099712	1.254	0.052	0.003	0.602	0.088	0.321	0.105	0.008	1.254	0.181	0.654	0.077	0.012	1.018	0.144	0.521
42	PA	Montour	3149	2	D031492	1.249	0.054	0.024	0.973	0.126	0.457	0.043	0.072	1.249	0.186	0.671	0.044	0.046	1.033	0.146	0.529
43	MI	J H Campbell		A,B,1,2	D01710C09	1.220	0.028	0.004	0.345	0.051	0.186	0.075	0.007	0.870	0.132	0.480	0.091	0.016	**1.220**	0.172	0.621
44	NH	Merrimack	2364	1	D023641	1.162	0.007	0.018	0.542	0.042	0.153	0.014	0.066	**1.162**	0.132	0.480	0.012	0.077	**1.027**	0.145	0.526
45	PA	Brunner Island	3140	3	D031403	1.146	0.049	0.020	0.813	0.112	0.408	0.041	0.057	**1.125**	0.160	0.580	0.049	0.050	**1.146**	0.162	0.585
46	OH	Conesville	2840	5,6	D02840C06	1.088	0.039	0.019	0.585	0.094	0.344	0.041	0.052	**1.088**	0.151	0.546	0.022	0.025	0.545	0.077	0.282
47	MI	J H Campbell		3 (50%)	D01710M3A	1.074	0.041	0.004	0.480	0.072	0.265	0.101	0.006	**1.074**	0.172	0.623	0.076	0.011	0.991	0.140	0.508
48	PA	Martins Creek	3148	3,4	x21	1.056	0.001	0.025	0.346	0.043	0.158	0.001	0.094	**1.056**	0.156	0.564	0.001	0.056	0.664	0.094	0.343
49	KY	Ghent	1356	3,4 … (2,3)	D01356C02	1.043	0.042	0.009	0.571	0.082	0.298	0.051	0.038	**1.043**	0.144	0.524	0.042	0.014	0.641	0.091	0.332
50	IN	IPL - Harding Street Station (EW Stout)		50	D0099050	1.019	0.067	0.002	0.779	0.110	0.402	0.052	0.002	0.620	0.087	0.319	0.087	0.002	**1.019**	0.144	0.522
51	IN	Whitewater Valley		1, 2	D01040C12	0.940	0.080	0.002	0.940	0.133	0.482	0.054	0.003	0.646	0.091	0.334	0.068	0.003	0.821	0.116	0.423
52	MA	Canal Station	1599	1	D015991	0.937	0.054	0.019	0.844	0.119	0.434	0.052	0.032	0.937	0.136	0.495	0.035	0.013	0.543	0.077	0.282
53	GA	Yates		Y6BR	D00728Y6R	0.935	0.073	0.003	0.884	0.124	0.450	0.039	0.005	0.498	0.071	0.260	0.075	0.007	0.935	0.132	0.480
54	KY	Mill Creek	1364	1,2,3	x05	0.931	0.070	0.013	0.931	0.135	0.490	0.054	0.023	0.894	0.125	0.454	0.042	0.014	0.644	0.091	0.333
55	IN	IPL - Harding Street Station (EW Stout)		60	D0099060	0.925	0.061	0.001	0.708	0.100	0.366	0.047	0.002	0.563	0.079	0.290	0.079	0.002	0.925	0.131	0.475
56	IN	Gibson	6113	1,2,3	D06113C03	0.925	0.028	0.016	0.488	0.071	0.261	0.037	0.034	0.925	0.117	0.425	0.018	0.011	0.343	0.049	0.179
57	MD	Herbert A Wagner	1554	3	D015543	0.924	0.048	0.001	0.571	0.080	0.292	0.061	0.005	0.924	0.106	0.388	0.065	0.001	0.757	0.107	0.390
58	MA	Canal Station	1599	2	D015992	0.896	0.042	0.030	0.832	0.117	0.426	0.033	0.046	0.896	0.130	0.473	0.030	0.023	0.607	0.086	0.314
59	GA	Harllee Branch	709	1,2	D00709C01	0.881	0.076	0.003	0.881	0.128	0.466	0.026	0.005	0.358	0.050	0.183	0.040	0.005	0.507	0.072	0.263
60	MI	J C Weadock		7, 8	D01720C09	0.827	0.030	0.007	0.422	0.060	0.220	0.061	0.011	0.815	0.116	0.423	0.056	0.016	0.827	0.117	0.425
61	WV	Mitchell (WV)	3948	1,2	D03948C02	0.811	0.029	0.011	0.482	0.065	0.239	0.033	0.046	0.811	0.128	0.465	0.027	0.016	0.493	0.070	0.256
62	WV	John E Amos	3935	1,2	D03935C02	0.807	0.021	0.017	0.489	0.061	0.223	0.027	0.044	0.807	0.116	0.422	0.014	0.021	0.408	0.058	0.212
63	CT	Bridgeport Harbor Station	568	BHB3		0.799	0.018	0.022	0.462	0.066	0.240	0.014	0.019	0.389	0.055	0.201	0.031	0.038	0.799	0.113	0.412
64	TN	Johnsonville	3406	1 thru 10	D03406C10	0.772	0.061	0.005	0.772	0.107	0.391	0.055	0.006	0.735	0.100	0.363	0.042	0.003	0.508	0.072	0.264
65	MD	C P Crane	1552	2	D015522	0.759	0.019	0.010	0.348	0.048	0.177	0.033	0.046	0.759	0.128	0.466	0.034	0.021	0.635	0.090	0.328
66	PA	Cheswick	8226	1	D082261	0.743	0.033	0.027	0.743	0.097	0.355	0.019	0.061	0.543	0.133	0.482	0.027	0.026	0.611	0.086	0.316
67	NH	Schiller	2367	4		0.711	0.021	0.007	0.332	0.047	0.171	0.035	0.026	0.711	0.101	0.367	0.023	0.018	0.471	0.067	0.245
68	MO	Sibley		1, 2, 3	D02094C01	0.692	0.037	0.014	0.560	0.083	0.302	0.032	0.013	0.488	0.073	0.268	0.047	0.014	0.692	0.098	0.357
69	IN	IPL - Petersburg Generating Station		3	D009943	0.683	0.036	0.015	0.612	0.082	0.300	0.035	0.025	0.683	0.099	0.360	0.022	0.014	0.413	0.058	0.215
70	NH	Schiller	2367	6		0.671	0.022	0.006	0.313	0.045	0.166	0.036	0.023	0.671	0.095	0.347	0.024	0.015	0.445	0.063	0.231
71	OK	Northeastern		3313, 3314	D02963C10	0.670	0.041	0.009	0.670	0.080	0.291	0.030	0.007	0.513	0.060	0.221	0.031	0.002	0.373	0.053	0.194
72	IA	Ottumwa		1	D062541	0.649	0.017	0.009	0.291	0.043	0.157	0.030	0.013	0.492	0.070	0.255	0.040	0.017	0.649	0.092	0.336
73	MI	Trenton Channel	1745	16,17,18,19	x10	0.646	0.026	0.008	0.376	0.055	0.200	0.043	0.014	0.646	0.093	0.340	0.028	0.011	0.444	0.063	0.231
74	TX	Big Brown	3497	1		0.646	0.053	0.004	0.646	0.092	0.336	0.050	0.001	0.587	0.083	0.304	0.031	0.001	0.367	0.052	0.191
75	NJ	B L England	2378	2,3	x12	0.630	0.015	0.022	0.413	0.060	0.220	0.029	0.026	0.630	0.090	0.328	0.017	0.013	0.342	0.049	0.178
76	IN	Tanners Creek	988	U1,U2,U3	D00988C03	0.623	0.046	0.007	0.623	0.086	0.316	0.035	0.015	0.566	0.081	0.295	0.029	0.010	0.452	0.064	0.235
77	TX	Big Brown	3497	2		0.620	0.051	0.004	0.620	0.089	0.324	0.048	0.001	0.564	0.080	0.292	0.030	0.001	0.352	0.050	0.183
78	MA	Brayton Point	1619	2	D016192	0.617	0.011	0.012	0.509	0.037	0.137	0.011	0.031	0.600	0.068	0.250	0.009	0.044	0.617	0.087	0.319
79	MD	Brandon Shores	602	2	D006022	0.611	0.013	0.004	0.202	0.028	0.103	0.016	0.019	0.611	0.057	0.209	0.018	0.006	0.268	0.038	0.140
80	MD	Brandon Shores	602	1	D006021	0.599	0.014	0.003	0.202	0.028	0.102	0.018	0.014	0.599	0.051	0.188	0.019	0.004	0.268	0.038	0.140

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81	NY	Cayuga Operating Company, LLC		1 (33%), 2 (33%	D02535C01	0.595	0.041	0.007	0.595	0.077	0.283	0.027	0.007	0.415	0.055	0.204	0.026	0.014	0.456	0.065	0.237
82	IA	George Neal South		4	D073434	0.580	0.015	0.007	0.258	0.036	0.133	0.027	0.011	0.456	0.062	0.228	0.032	0.019	0.580	0.082	0.300
83	OH	J M Stuart	2850	4	D028404	0.543	0.015	0.006	0.261	0.035	0.127	0.025	0.025	0.543	0.081	0.296	0.013	0.009	0.257	0.036	0.134
84	IN	Clifty Creek	983	4,5,6	D00983C02	0.540	0.010	0.010	0.279	0.033	0.121	0.016	0.052	0.540	0.112	0.407	0.010	0.016	0.307	0.044	0.160
85	NC	Roxboro	2712	4A,4B	D02712C04	0.473	0.035	0.008	0.473	0.070	0.255	0.013	0.006	0.218	0.031	0.114	0.023	0.011	0.389	0.055	0.202
86	MI	Monroe	1733	1,2	D01733C12	0.460	0.007	0.011	0.294	0.031	0.113	0.010	0.030	0.460	0.066	0.241	0.009	0.027	0.411	0.058	0.214
87	IN	IPL - Petersburg Generating Station		4	D009944	0.457	0.026	0.009	0.419	0.056	0.204	0.025	0.015	0.457	0.066	0.243	0.016	0.008	0.278	0.039	0.145
88	NC	Roxboro	2712	3A,3B	D02712C03	0.456	0.033	0.010	0.456	0.069	0.255	0.012	0.007	0.224	0.032	0.116	0.022	0.013	0.396	0.056	0.206
89	TX	Martin Lake	6146	1		0.456	0.035	0.006	0.456	0.065	0.239	0.033	0.002	0.392	0.055	0.204	0.020	0.001	0.246	0.035	0.128
90	IN	Clifty Creek	983	1,2,3	D00983C01	0.453	0.011	0.007	0.244	0.030	0.110	0.018	0.037	0.453	0.090	0.328	0.012	0.011	0.266	0.038	0.139
91	AL	E C Gaston	26	1, 2	D00026CAN	0.452	0.033	0.002	0.401	0.057	0.210	0.032	0.006	0.425	0.060	0.220	0.035	0.005	0.452	0.064	0.235
92	TX	Monticello	6147	1		0.439	0.035	0.003	0.439	0.062	0.227	0.033	0.001	0.390	0.055	0.203	0.021	0.001	0.244	0.035	0.127
93	MO	Labadie		4	D021034	0.432	0.016	0.004	0.226	0.033	0.120	0.034	0.003	0.432	0.061	0.222	0.026	0.004	0.347	0.049	0.181
94	TX	Martin Lake	6146	3		0.432	0.033	0.005	0.432	0.062	0.227	0.031	0.002	0.371	0.053	0.193	0.019	0.001	0.233	0.033	0.122
95	MD	C P Crane	1552	1	D015521	0.420	0.010	0.007	0.193	0.027	0.098	0.017	0.029	0.420	0.075	0.275	0.017	0.013	0.353	0.050	0.184
96	MN	Sherburne County		1, 2	D06090CS1	0.400	0.003	0.019	0.230	0.036	0.132	0.004	0.024	0.330	0.046	0.169	0.005	0.029	0.400	0.057	0.208
97	NJ	Hudson Generating Station	2403	2	D024032	0.399	0.008	0.005	0.147	0.020	0.076	0.009	0.014	0.261	0.037	0.136	0.013	0.022	0.399	0.057	0.208
98	OK	Grand River Dam Authority		1	D001651	0.391	0.028	0.000	0.391	0.045	0.167	0.021	0.000	0.299	0.034	0.126	0.023	0.000	0.261	0.037	0.136
99	MD	Chalk Point	1571	1,2	D01571CE2	0.370	0.023	0.000	0.274	0.038	0.141	0.027	0.001	0.370	0.045	0.166	0.024	0.000	0.283	0.040	0.148
100	KY	Paradise	1378	2	D013782	0.365	0.026	0.005	0.365	0.051	0.187	0.018	0.005	0.260	0.037	0.138	0.019	0.005	0.275	0.039	0.143
101	MA	Brayton Point	1619	3	D016193	0.354	0.011	0.009	0.354	0.033	0.121	0.010	0.015	0.330	0.040	0.148	0.009	0.019	0.315	0.045	0.164
102	TX	Martin Lake	6146	2		0.349	0.026	0.005	0.349	0.051	0.189	0.025	0.002	0.303	0.043	0.158	0.016	0.001	0.190	0.027	0.099
103	WI	Columbia		1	D080231	0.327	0.002	0.005	0.085	0.012	0.045	0.005	0.008	0.191	0.021	0.079	0.008	0.020	0.327	0.046	0.170
104	DE	Indian River	594	4	D005944	0.323	0.006	0.001	0.082	0.012	0.043	0.027	0.002	0.323	0.046	0.169	0.005	0.000	0.064	0.009	0.034
105	KY	Paradise	1378	3	D013783	0.300	0.016	0.009	0.284	0.042	0.154	0.010	0.014	0.300	0.039	0.143	0.012	0.009	0.245	0.035	0.128
106	KY	Paradise	1378	1	D01720C09	0.292	0.021	0.004	0.292	0.041	0.150	0.014	0.004	0.209	0.030	0.111	0.015	0.004	0.220	0.031	0.115
107	KY	John S. Cooper	1384	1,2	D01384CS1	0.288	0.014	0.002	0.178	0.025	0.093	0.020	0.006	0.288	0.042	0.154	0.015	0.002	0.198	0.028	0.104
108	OH	Cardinal	2828	3	D028283	0.282	0.014	0.007	0.282	0.034	0.125	0.011	0.020	0.243	0.052	0.190	0.010	0.008	0.203	0.029	0.106
109	MI	Dan E Karn	1702	3,4 (1,2)	D01702C09	0.281	0.009	0.002	0.135	0.019	0.072	0.021	0.004	0.281	0.041	0.150	0.019	0.006	0.280	0.040	0.146
110	WI	Columbia		2	D080232	0.265	0.002	0.005	0.087	0.013	0.047	0.006	0.007	0.179	0.020	0.074	0.008	0.015	0.265	0.038	0.138
111	MA	Brayton Point	1619	1	D016191	0.258	0.011	0.003	0.219	0.023	0.084	0.011	0.008	0.258	0.032	0.117	0.009	0.013	0.254	0.036	0.132
112	IL	Kincaid Generating Station		1, 2	D00876C02	0.231	0.007	0.004	0.118	0.018	0.067	0.013	0.007	0.205	0.032	0.119	0.011	0.009	0.231	0.033	0.121
113	MD	Morgantown	1573	1	D015731	0.227	0.015	0.002	0.192	0.027	0.101	0.016	0.007	0.227	0.038	0.140	0.015	0.002	0.197	0.028	0.103
114	IL	Baldwin Energy Complex		1,2	D008892	0.224	0.009	0.006	0.173	0.024	0.088	0.009	0.006	0.182	0.026	0.094	0.011	0.008	0.224	0.032	0.117
115	IN	R M Schahfer Generating Station		14	D0608514	0.223	0.002	0.006	0.158	0.012	0.045	0.002	0.010	0.211	0.020	0.074	0.002	0.017	0.223	0.032	0.117
116	IN	R M Schahfer Generating Station		15	D0608515	0.200	0.001	0.005	0.134	0.010	0.038	0.002	0.010	0.194	0.020	0.073	0.001	0.016	0.200	0.028	0.104
117	KY	Mill Creek	1364	4	D013644	0.191	0.004	0.007	0.191	0.019	0.069	0.003	0.014	0.166	0.028	0.104	0.002	0.009	0.129	0.018	0.068
118	GA	Scherer		4	D062574	0.131	0.002	0.004	0.131	0.010	0.036	0.001	0.007	0.050	0.012	0.044	0.001	0.007	0.103	0.015	0.054
119	GA	Scherer		1	D062571	0.128	0.001	0.004	0.128	0.009	0.033	0.000	0.007	0.050	0.012	0.044	0.001	0.008	0.100	0.014	0.053
120	SC	Wateree	3297	WAT1	D03297WT1	0.104	0.002	0.002	0.104	0.008	0.029	0.001	0.002	0.032	0.004	0.015	0.001	0.003	0.046	0.006	0.024

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Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
121	TN	Kingston	3407	1,2,3,4,5	D03407C15	0.098	0.005	0.002	0.098	0.012	0.043	0.003	0.003	0.070	0.011	0.041	0.004	0.003	0.082	0.012	0.043
122	TN	Kingston	3407	6,7,8,9	D03407C69	0.098	0.005	0.002	0.098	0.012	0.043	0.003	0.003	0.069	0.011	0.041	0.004	0.003	0.082	0.012	0.043
123	GA	Scherer		2	D062572	0.097	0.001	0.003	0.097	0.007	0.024	0.000	0.005	0.037	0.009	0.034	0.001	0.006	0.075	0.011	0.039
124	VA	Chesterfield Power Station	3797	5	D037975	0.089	0.006	0.002	0.089	0.013	0.047	0.004	0.001	0.059	0.008	0.031	0.006	0.002	0.087	0.012	0.045
125	GA	Yates		Y7BR	D00728Y7R	0.083	0.000	0.003	0.079	0.006	0.021	0.000	0.005	0.045	0.009	0.032	0.000	0.007	0.083	0.012	0.044
126	SC	Wateree	3297	WAT2	D03297WT2	0.082	0.002	0.002	0.082	0.007	0.028	0.001	0.002	0.026	0.004	0.014	0.001	0.002	0.035	0.005	0.018
127	VA	Chesterfield Power Station	3797	4	D037974	0.060	0.004	0.001	0.060	0.009	0.032	0.003	0.001	0.041	0.006	0.021	0.004	0.001	0.056	0.008	0.029
128	KS	La Cygne	1241	1		0.036	0.003	0.000	0.036	0.005	0.020	0.003	0.000	0.031	0.005	0.018	0.003	0.000	0.033	0.005	0.017
129	VA	Bremo Power Station		4	D037964	0.019	0.000	0.001	0.018	0.001	0.005	0.000	0.002	0.013	0.003	0.011	0.000	0.002	0.019	0.003	0.010
130	KS	La Cygne		2	D012412	0.012	0.001	0.000	0.012	0.002	0.006	0.001	0.000	0.011	0.002	0.006	0.001	0.000	0.010	0.001	0.005

F.9 2011 EGU Ranking Visibility Impairing Sources to Lye Brook

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
1	OH	Kyger Creek	2876	1,2,3,4,5	D02876C01	25.684	**1.675**	0.153	**20.443**	**2.479**	**7.784**	**1.972**	0.310	**25.684**	**3.026**	**9.083**	**1.746**	0.222	**22.034**	**2.648**	**8.197**
2	OH	Muskingum River	2872	1,2,3,4	D02872C04	11.450	0.998	0.045	**11.450**	**1.463**	**5.067**	0.490	0.124	**6.654**	0.876	**3.246**	0.824	0.043	**9.476**	**1.226**	**4.357**
3	NH	Merrimack	2364	2	D023642	11.001	0.373	0.139	**5.539**	0.735	**2.770**	0.716	0.292	**11.001**	**1.410**	**4.910**	0.174	0.042	**2.320**	0.314	**1.255**
4	VA	Chesterfield Power Station	3797	5	D037975	7.733	0.287	0.034	**3.464**	0.466	**1.820**	0.331	0.059	**4.201**	0.562	**2.168**	0.634	0.077	**7.733**	**1.011**	**3.685**
5	OH	Walter C Beckford Generating Station		6	D028306	7.704	0.689	0.019	**7.704**	**1.008**	**3.674**	0.496	0.056	**5.986**	0.791	**2.963**	0.481	0.037	**5.605**	0.743	**2.799**
6	PA	Homer City	3122	2	D031222	6.283	0.538	0.014	**5.976**	0.790	**2.959**	0.527	0.052	**6.283**	0.829	**3.090**	0.497	0.028	**5.683**	0.753	**2.833**
7	PA	Homer City	3122	1	D031221	6.173	0.537	0.012	**5.942**	0.786	**2.945**	0.527	0.043	**6.173**	0.815	**3.043**	0.497	0.022	**5.620**	0.745	**2.805**
8	NY	Cayuga Operating Company, LLC		1 (33%), 2 (33	D02535C01	5.805	0.170	0.035	**2.208**	0.299	**1.198**	0.426	0.110	**5.805**	0.768	**2.886**	0.184	0.055	**2.568**	0.347	**1.380**
9	OH	Avon Lake Power Plant	2836	12	D0283612	5.614	0.286	0.027	**3.364**	0.453	**1.772**	0.374	0.111	**5.242**	0.696	**2.640**	0.446	0.073	**5.614**	0.744	**2.803**
10	NH	Merrimack	2364	1	D023641	5.262	0.187	0.061	**2.672**	0.361	**1.432**	0.358	0.128	**5.262**	0.699	**2.649**	0.087	0.019	**1.134**	0.155	0.633
11	MI	Monroe	1733	1,2	D01733C12	5.110	0.334	0.074	**4.405**	0.588	**2.262**	0.295	0.177	**5.110**	0.679	**2.581**	0.238	0.131	**3.985**	0.534	**2.067**
12	PA	Cheswick	8226	1	D082261	5.108	0.389	0.025	**4.466**	0.596	**2.290**	0.376	0.096	**5.108**	0.679	**2.580**	0.409	0.055	**5.014**	0.667	**2.538**
13	IN	Wabash River Gen Station	1010	2,3,4,5,6	D01010C05	4.556	0.328	0.031	**3.862**	0.518	**2.009**	0.380	0.042	**4.556**	0.608	**2.331**	0.304	0.044	**3.748**	0.503	**1.956**
14	IN	Clifty Creek	983	4,5,6	D00983C02	4.325	0.299	0.022	**3.447**	0.463	**1.812**	0.321	0.080	**4.325**	0.578	**2.225**	0.187	0.036	**2.395**	0.324	**1.293**
15	PA	Keystone	3136	1	D031361	4.247	0.290	0.042	**3.582**	0.481	**1.876**	0.267	0.126	**4.247**	0.568	**2.189**	0.246	0.096	**3.697**	0.496	**1.931**
16	PA	Keystone	3136	2	D031362	4.225	0.289	0.042	**3.566**	0.479	**1.869**	0.266	0.125	**4.225**	0.565	**2.179**	0.245	0.096	**3.678**	0.494	**1.922**
17	IN	Rockport	6166	MB1,MB2	D06166C02	4.056	0.253	0.098	**3.783**	0.507	**1.972**	0.243	0.133	**4.056**	0.543	**2.101**	0.176	0.063	**2.564**	0.347	**1.378**
18	OH	Eastlake		5	D028375	3.814	0.197	0.029	**2.427**	0.329	**1.309**	0.176	0.049	**2.425**	0.328	**1.308**	0.276	0.077	**3.814**	0.511	**1.987**
19	KY	Big Sandy	1353	BSU1,BSU2	D01353C02	3.579	0.219	0.018	**2.545**	0.344	**1.368**	0.271	0.046	**3.409**	0.458	**1.793**	0.284	0.048	**3.579**	0.481	**1.875**
20	OH	Cardinal	2828	3	D028283	3.546	0.283	0.006	**3.107**	0.419	**1.647**	0.220	0.024	**2.624**	0.355	**1.408**	0.322	0.008	**3.546**	0.476	**1.860**
21	OH	W H Zimmer Generating Station	6019	1	D060191	3.489	0.221	0.041	**2.826**	0.381	**1.509**	0.167	0.156	**3.489**	0.469	**1.832**	0.186	0.105	**3.140**	0.423	**1.663**
22	OH	Muskingum River	2872	5	D028725	3.430	0.313	0.006	**3.430**	0.461	**1.804**	0.196	0.018	**2.300**	0.312	**1.245**	0.286	0.008	**3.154**	0.425	**1.670**
23	NY	Somerset Operating Company (Kintigh)		1	D060821	3.427	0.068	0.074	**1.536**	0.209	0.848	0.165	0.152	**3.427**	0.461	**1.802**	0.101	0.128	**2.472**	0.335	**1.332**
24	IN	Clifty Creek	983	1,2,3	D00983C01	3.127	0.229	0.012	**2.588**	0.350	**1.390**	0.246	0.044	**3.127**	0.421	**1.657**	0.144	0.020	**1.753**	0.238	0.962
25	OH	Walter C Beckford Generating Station		5 (50%)	D02830M51	3.079	0.278	0.008	**3.079**	0.415	**1.633**	0.200	0.024	**2.410**	0.326	**1.300**	0.194	0.016	**2.255**	0.306	**1.222**
26	MA	Brayton Point	1619	3	D016193	2.992	0.117	0.024	**1.511**	0.206	0.835	0.204	0.044	**2.660**	0.360	**1.426**	0.250	0.029	**2.992**	0.403	**1.591**
27	PA	Portland		3 (2)	d031132	2.831	0.172	0.044	**2.323**	0.315	**1.256**	0.216	0.047	**2.831**	0.382	**1.511**	0.210	0.050	**2.807**	0.379	**1.499**
28	NY	Oswego Harbor Power	2594	6	x15	2.803	0.109	0.054	**1.751**	0.238	0.961	0.100	0.074	**1.880**	0.255	**1.029**	0.158	0.101	**2.803**	0.378	**1.497**
29	VA	Yorktown Power Station	3809	1,2	D03809CS0	2.767	0.079	0.034	**1.213**	0.166	0.676	0.146	0.073	**2.363**	0.320	**1.277**	0.212	0.045	**2.767**	0.374	**1.479**
30	PA	Montour	3149	1	D031491	2.765	0.132	0.076	**2.238**	0.303	**1.213**	0.090	0.165	**2.765**	0.373	**1.479**	0.088	0.096	**1.989**	0.270	**1.085**
31	IN	Tanners Creek	988	U4	D00988U4	2.748	0.245	0.010	**2.748**	0.371	**1.470**	0.130	0.027	**1.681**	0.229	0.925	0.136	0.025	**1.725**	0.235	0.947
32	MD	Chalk Point	1571	1,2	D01571CE2	2.637	0.129	0.021	**1.608**	0.219	0.886	0.157	0.061	**2.352**	0.319	**1.271**	0.219	0.026	**2.637**	0.356	**1.415**
33	PA	Montour	3149	2	D031492	2.602	0.133	0.069	**2.175**	0.295	**1.181**	0.091	0.149	**2.602**	0.352	**1.397**	0.089	0.087	**1.898**	0.258	**1.038**
34	WV	Harrison Power Station		1 (25%), 2 (20	D03944C01	2.594	0.092	0.047	**1.494**	0.204	0.826	0.059	0.179	**2.594**	0.351	**1.393**	0.070	0.063	**1.439**	0.196	0.797
35	WV	Kammer	3947	1,2,3	D03947C03	2.563	0.224	0.014	**2.563**	0.347	**1.377**	0.138	0.056	**2.091**	0.284	**1.138**	0.188	0.022	**2.251**	0.305	**1.220**
36	PA	Brunner Island	3140	1,2	D03140C12	2.459	0.103	0.055	**1.701**	0.231	0.935	0.073	0.154	**2.459**	0.333	**1.325**	0.077	0.123	**2.168**	0.294	**1.177**
37	PA	Shawville	3131	3,4	D03131CS1	2.444	0.206	0.022	**2.444**	0.331	**1.318**	0.152	0.044	**2.107**	0.286	**1.146**	0.171	0.037	**2.236**	0.303	**1.212**
38	NH	Newington	8002	1	D080021	2.420	0.069	0.027	**1.023**	0.140	0.573	0.139	0.085	**2.420**	0.328	**1.306**	0.059	0.012	0.770	0.105	0.434
39	NY	Oswego Harbor Power	2594	5	D025945	2.416	0.163	0.061	**2.416**	0.327	**1.303**										
40	ME	William F Wyman	1507	4	D015074	2.283	0.031	0.007	0.403	0.055	0.230	0.118	0.094	**2.283**	0.309	**1.236**	0.061	0.015	0.814	0.111	0.458

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
41	PA	Martins Creek	3148	3,4	x21	2.256	0.040	0.063	**1.118**	0.153	0.625	0.045	0.127	**1.864**	0.253	**1.020**	0.042	0.165	**2.256**	0.306	**1.222**
42	GA	Harllee Branch	709	3&4	D00709C02	2.182	0.176	0.028	**2.182**	0.296	**1.184**	0.104	0.026	**1.395**	0.190	0.773	0.099	0.017	**1.247**	0.170	0.694
43	IN	Gibson	6113	1,2,3	D06113C03	2.178	0.031	0.063	**1.010**	0.138	0.566	0.048	0.152	**2.178**	0.295	**1.182**	0.023	0.092	**1.251**	0.171	0.696
44	OH	Gen J M Gavin	8102	2	D081022	2.043	0.126	0.008	**1.441**	0.196	0.798	0.152	0.039	**2.043**	0.277	**1.113**	0.110	0.019	**1.380**	0.188	0.765
45	OH	Gen J M Gavin	8102	1	D081021	2.012	0.125	0.008	**1.422**	0.194	0.787	0.150	0.038	**2.012**	0.273	**1.097**	0.109	0.018	**1.360**	0.185	0.755
46	MI	St. Clair	1743	7	D017437	2.002	0.151	0.018	**1.815**	0.247	0.995	0.169	0.017	**2.002**	0.272	**1.092**	0.136	0.020	**1.673**	0.228	0.920
47	IL	Kincaid Generating Station		1, 2	D00876C02	2.001	0.055	0.080	**1.458**	0.199	0.807	0.076	0.109	**2.001**	0.272	**1.091**	0.081	0.086	**1.807**	0.246	0.990
48	MD	Morgantown	1573	1	D015731	1.974	0.115	0.004	**1.273**	0.174	0.708	0.108	0.008	**1.245**	0.170	0.693	0.179	0.005	**1.974**	0.268	**1.077**
49	VA	Chesapeake Energy Center		4	D038034	1.919	0.083	0.022	**1.124**	0.153	0.628	0.109	0.019	**1.380**	0.188	0.765	0.156	0.023	**1.919**	0.261	**1.049**
50	OH	Conesville	2840	5,6	D02840C06	1.915	0.038	0.040	0.843	0.115	0.474	0.040	0.136	**1.915**	0.260	**1.047**	0.041	0.060	**1.099**	0.150	0.614
51	MI	St. Clair	1743	1,2,3,4,...6	x09	1.871	0.116	0.057	**1.867**	0.254	**1.022**	0.113	0.061	**1.871**	0.254	**1.024**	0.072	0.060	**1.427**	0.194	0.790
52	PA	Brunner Island	3140	3	D031403	1.746	0.117	0.043	**1.725**	0.235	0.948	0.060	0.094	**1.663**	0.226	0.915	0.070	0.091	**1.746**	0.237	0.959
53	PA	Sunbury		4	D031524	1.745	0.144	0.012	**1.672**	0.227	0.920	0.137	0.026	**1.745**	0.237	0.958	0.095	0.009	**1.115**	0.152	0.623
54	OK	Northeastern		3313, 3314	D02963C10	1.700	0.099	0.059	**1.700**	0.231	0.935	0.050	0.024	0.789	0.108	0.445	0.042	0.029	0.764	0.105	0.431
55	MI	Trenton Channel	1745	9A	D017459A	1.643	0.133	0.020	**1.643**	0.224	0.904	0.119	0.019	**1.485**	0.202	0.821	0.092	0.020	**1.202**	0.164	0.669
56	MO	Sibley		1, 2, 3	D02094C01	1.610	0.136	0.014	**1.610**	0.219	0.887	0.082	0.010	0.984	0.135	0.552	0.062	0.012	0.790	0.108	0.445
57	PA	Portland		2 (1)	d031131	1.604	0.107	0.017	**1.332**	0.182	0.739	0.132	0.017	**1.604**	0.218	0.884	0.130	0.018	**1.596**	0.217	0.880
58	VA	Yorktown Power Station	3809	3	D038093	1.527	0.045	0.016	0.656	0.090	0.371	0.063	0.024	0.934	0.128	0.524	0.122	0.021	**1.527**	0.208	0.843
59	PA	Sunbury		3	D031523	1.486	0.125	0.011	**1.465**	0.200	0.810	0.116	0.023	**1.486**	0.202	0.822	0.082	0.011	0.991	0.135	0.556
60	TX	Big Brown	3497	2		1.467	0.134	0.003	**1.467**	0.200	0.811	0.100	0.002	**1.090**	0.149	0.609	0.088	0.001	0.955	0.131	0.536
61	MI	Belle River		2	D060342	1.460	0.090	0.046	**1.460**	0.199	0.808	0.083	0.048	**1.405**	0.192	0.779	0.051	0.038	0.964	0.132	0.541
62	AL	E C Gaston	26	3, 4	D00026CBN	1.445	0.125	0.010	**1.445**	0.197	0.800	0.072	0.008	0.858	0.117	0.483	0.100	0.015	**1.232**	0.168	0.686
63	MI	Belle River		1	D060341	1.441	0.088	0.046	**1.441**	0.196	0.798	0.081	0.048	**1.388**	0.189	0.769	0.051	0.038	0.953	0.130	0.535
64	MI	J H Campbell		3 (50%)	D01710M3A	1.440	0.074	0.025	**1.063**	0.145	0.595	0.103	0.031	**1.440**	0.196	0.797	0.090	0.029	**1.280**	0.175	0.712
65	PA	Armstrong Power Station		1	D031781	1.433	0.123	0.010	**1.433**	0.195	0.793	0.086	0.022	**1.160**	0.158	0.647					
66	MA	Brayton Point	1619	2	D016192	1.433	0.040	0.015	0.591	0.081	0.335	0.096	0.032	**1.378**	0.188	0.764	0.118	0.016	**1.433**	0.195	0.793
67	VA	Chesapeake Energy Center		3	D038033	1.417	0.056	0.022	0.838	0.115	0.471	0.072	0.019	0.978	0.134	0.548	0.110	0.022	**1.417**	0.193	0.785
68	PA	Armstrong Power Station		2	D031782	1.414	0.121	0.011	**1.414**	0.193	0.783	0.084	0.024	**1.158**	0.158	0.646					
69	MI	J H Campbell		A,B,1,2	D01710C09	1.403	0.067	0.023	0.971	0.133	0.545	0.108	0.023	**1.403**	0.191	0.777	0.095	0.033	**1.379**	0.188	0.765
70	TX	Big Brown	3497	1		1.398	0.127	0.003	**1.398**	0.191	0.775	0.095	0.002	**1.039**	0.142	0.582	0.084	0.001	0.909	0.124	0.511
71	KY	Mill Creek	1364	1,2,3	x05	1.378	0.108	0.020	**1.370**	0.187	0.760	0.088	0.040	**1.378**	0.188	0.764	0.048	0.028	0.825	0.113	0.465
72	IL	Baldwin Energy Complex		1,2	D008892	1.358	0.106	0.005	**1.188**	0.162	0.662	0.118	0.009	**1.358**	0.185	0.754	0.060	0.011	0.765	0.105	0.432
73	MD	C P Crane	1552	2	D015522	1.308	0.066	0.012	0.842	0.115	0.474	0.079	0.042	**1.308**	0.178	0.727	0.059	0.027	0.926	0.127	0.520
74	TN	Johnsonville	3406	1 thru 10	D03406C10	1.304	0.098	0.024	**1.304**	0.178	0.725	0.099	0.022	**1.299**	0.177	0.722	0.087	0.013	**1.073**	0.147	0.600
75	AL	E C Gaston	26	1, 2	D00026CAN	1.302	0.115	0.006	**1.302**	0.178	0.723	0.081	0.007	0.948	0.130	0.532	0.102	0.017	**1.267**	0.173	0.705
76	IL	Powerton		51,52,61,62	D00879C06	1.297	0.056	0.020	0.814	0.111	0.458	0.066	0.028	**1.007**	0.138	0.564	0.095	0.026	**1.297**	0.177	0.721
77	PA	Homer City		3	D031223	1.280	0.062	0.018	0.855	0.117	0.481	0.052	0.066	**1.280**	0.175	0.712	0.053	0.026	0.850	0.116	0.478
78	MI	Dan E Karn	1702	3,4 (1,2)	D01702C09	1.277	0.035	0.015	0.534	0.073	0.303	0.088	0.031	**1.277**	0.174	0.710	0.078	0.035	**1.211**	0.165	0.675
79	PA	Sunbury		1A, 1B	D03152CS1	1.263	0.102	0.009	**1.186**	0.162	0.661	0.099	0.019	**1.263**	0.172	0.702	0.066	0.008	0.787	0.108	0.444
80	KS	La Cygne		2	D012412	1.261	0.087	0.030	**1.261**	0.172	0.701	0.071	0.025	**1.029**	0.141	0.576	0.038	0.022	0.644	0.088	0.364

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81	NC	H F Lee Steam Electric Plant		3	D027093	1.248	0.035	0.007	0.450	0.062	0.256	0.058	0.010	0.733	0.100	0.414	0.107	0.009	**1.248**	0.170	0.695
82	MD	Brandon Shores	602	2	D006022	1.238	0.018	0.028	0.501	0.069	0.285	0.022	0.092	**1.238**	0.169	0.689	0.020	0.035	0.592	0.081	0.335
83	MA	Brayton Point	1619	1	D016191	1.230	0.036	0.009	0.480	0.066	0.273	0.091	0.020	**1.182**	0.161	0.659	0.104	0.011	**1.230**	0.168	0.685
84	MI	J C Weadock		7, 8	D01720C09	1.224	0.037	0.011	0.517	0.071	0.294	0.090	0.024	**1.224**	0.167	0.682	0.075	0.025	**1.075**	0.147	0.601
85	VA	Chesterfield Power Station	3797	3,7,8A	x28	1.222	0.081	0.008	0.959	0.131	0.538	0.100	0.014	**1.222**	0.167	0.680					
86	WV	Pleasants Power Station	6004	1	D060041	1.215	0.093	0.020	**1.215**	0.166	0.677	0.057	0.052	**1.175**	0.160	0.655	0.072	0.034	**1.147**	0.157	0.640
87	TN	Kingston	3407	6,7,8,9	D03407C69	1.209	0.111	0.003	**1.209**	0.165	0.674	0.078	0.006	0.899	0.123	0.505	0.082	0.003	0.908	0.124	0.510
88	WI	Columbia		2	D080232	1.205	0.058	0.011	0.731	0.100	0.413	0.078	0.015	0.999	0.137	0.560	0.095	0.018	**1.205**	0.164	0.671
89	IN	R M Schahfer Generating Station		15	D0608515	1.187	0.041	0.010	0.549	0.075	0.311	0.096	0.015	**1.187**	0.162	0.662	0.040	0.017	0.619	0.085	0.350
90	MD	Brandon Shores	602	1	D006021	1.181	0.019	0.026	0.487	0.067	0.277	0.022	0.086	**1.181**	0.161	0.659	0.021	0.032	0.574	0.079	0.325
91	MD	C P Crane	1552	1	D015521	1.176	0.060	0.011	0.760	0.104	0.429	0.072	0.038	**1.176**	0.161	0.656	0.054	0.024	0.834	0.114	0.469
92	WI	Columbia		1	D080231	1.139	0.052	0.010	0.663	0.091	0.375	0.068	0.015	0.885	0.121	0.497	0.090	0.016	**1.139**	0.156	0.636
93	MI	St. Clair	1743	6	D017436	1.137	0.085	0.011	**1.031**	0.141	0.577	0.095	0.011	**1.137**	0.155	0.634	0.090	0.016	**1.131**	0.154	0.632
94	KY	John S. Cooper	1384	1,2	D01384CS1	1.124	0.066	0.007	0.783	0.107	0.441	0.035	0.009	0.471	0.065	0.268	0.093	0.012	**1.124**	0.153	0.627
95	WV	Albright Power Station	3942	3	D039423	1.120	0.101	0.003	**1.120**	0.153	0.625	0.076	0.009	0.916	0.125	0.514	0.096	0.007	**1.097**	0.150	0.613
96	TN	Kingston	3407	1,2,3,4,5	D03407C15	1.120	0.102	0.003	**1.120**	0.153	0.625	0.072	0.007	0.841	0.115	0.473	0.076	0.003	0.843	0.115	0.474
97	WV	Kanawha River	3936	1,2	D03936C02	1.119	0.080	0.006	0.927	0.127	0.520	0.073	0.031	**1.119**	0.153	0.625	0.075	0.023	**1.057**	0.144	0.592
98	TX	Martin Lake	6146	1		1.090	0.096	0.006	**1.090**	0.149	0.609	0.071	0.004	0.808	0.111	0.455	0.063	0.002	0.693	0.095	0.391
99	GA	Harllee Branch	709	1,2	D00709C01	1.080	0.087	0.014	**1.080**	0.147	0.604	0.049	0.015	0.689	0.094	0.389	0.050	0.009	0.634	0.087	0.359
100	NC	L V Sutton		3	D027133	1.076	0.037	0.006	0.463	0.063	0.263	0.086	0.014	**1.076**	0.147	0.602	0.063	0.019	0.877	0.120	0.493
101	IN	IPL - Petersburg Generating Station		4	D009944	1.074	0.082	0.012	**1.009**	0.138	0.565	0.076	0.024	**1.074**	0.147	0.601	0.070	0.029	**1.056**	0.144	0.591
102	MN	Sherburne County		1, 2	D06090CS1	1.066	0.056	0.026	0.881	0.121	0.495	0.061	0.038	**1.066**	0.146	0.596	0.036	0.028	0.686	0.094	0.388
103	WV	Pleasants Power Station	6004	2	D060042	1.041	0.083	0.014	**1.041**	0.142	0.582	0.051	0.036	0.940	0.128	0.527	0.064	0.024	0.949	0.130	0.533
104	VA	Chesterfield Power Station	3797	4	D037974	1.024	0.037	0.007	0.470	0.064	0.267	0.046	0.013	0.623	0.085	0.353	0.076	0.020	**1.024**	0.140	0.573
105	TX	Martin Lake	6146	2		1.012	0.090	0.005	**1.012**	0.138	0.567	0.067	0.003	0.751	0.103	0.424	0.059	0.001	0.646	0.089	0.366
106	MD	Herbert A Wagner	1554	3	D015543	1.008	0.057	0.009	0.703	0.096	0.397	0.067	0.027	**1.008**	0.138	0.565	0.062	0.011	0.774	0.106	0.437
107	DE	Indian River	594	4	D005944	1.002	0.017	0.004	0.230	0.032	0.132	0.089	0.005	**1.002**	0.137	0.561	0.024	0.006	0.323	0.044	0.184
108	OH	Killen Station	6031	2	D060312	1.001	0.059	0.012	0.769	0.105	0.433	0.047	0.041	0.946	0.129	0.531	0.064	0.029	**1.001**	0.137	0.561
109	KY	Paradise	1378	3	D013783	0.987	0.033	0.057	0.969	0.133	0.544	0.027	0.064	0.987	0.135	0.553	0.036	0.050	0.936	0.128	0.525
110	IN	Michigan City Generating Station		12	D0099712	0.962	0.054	0.008	0.659	0.090	0.373	0.083	0.007	0.962	0.132	0.540	0.055	0.008	0.670	0.092	0.379
111	NC	Mayo	6250	1A,1B	D06250C05	0.962	0.051	0.007	0.615	0.084	0.348	0.040	0.013	0.566	0.078	0.321	0.082	0.008	0.962	0.132	0.540
112	WV	Phil Sporn	3938	11,21,31,41	D03938C04	0.959	0.082	0.008	0.959	0.131	0.538										
113	GA	Jack McDonough		MB1, MB2	D00710C01	0.956	0.082	0.007	0.956	0.131	0.536	0.032	0.005	0.390	0.054	0.222	0.023	0.002	0.270	0.037	0.154
114	IN	IPL - Harding Street Station (EW Stout)		50	D0099050	0.949	0.084	0.004	0.949	0.130	0.532	0.061	0.003	0.690	0.094	0.390	0.055	0.005	0.637	0.087	0.360
115	KY	Ghent	1356	3,4 ... (2,3)	D01356C02	0.945	0.063	0.013	0.811	0.111	0.457	0.048	0.040	0.945	0.129	0.530	0.044	0.026	0.747	0.102	0.421
116	TX	Martin Lake	6146	3		0.932	0.082	0.005	0.932	0.127	0.523	0.061	0.004	0.692	0.095	0.391	0.054	0.001	0.593	0.081	0.336
117	IA	Ottumwa		1	D062541	0.927	0.072	0.014	0.927	0.127	0.520	0.053	0.013	0.712	0.098	0.402	0.044	0.017	0.659	0.090	0.373
118	IN	Tanners Creek	988	U1,U2,U3	D00988C03	0.920	0.079	0.007	0.920	0.126	0.516	0.046	0.019	0.705	0.097	0.399	0.044	0.016	0.643	0.088	0.364
119	MO	Labadie		4	D021034	0.906	0.038	0.006	0.470	0.064	0.267	0.077	0.008	0.906	0.124	0.509	0.041	0.009	0.539	0.074	0.306
120	GA	Yates		Y6BR	D00728Y6R	0.895	0.079	0.005	0.895	0.122	0.503	0.042	0.002	0.478	0.066	0.272	0.056	0.005	0.650	0.089	0.368

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121	VA	Chesapeake Energy Center		2	D038032	0.894	0.037	0.013	0.538	0.074	0.305	0.050	0.012	0.658	0.090	0.372	0.070	0.013	0.894	0.122	0.502
122	NJ	B L England	2378	1		0.889	0.045	0.006	0.541	0.074	0.307	0.072	0.011	0.889	0.122	0.500	0.068	0.015	0.888	0.121	0.499
123	OH	J M Stuart	2850	4	D028404	0.869	0.053	0.005	0.620	0.085	0.351	0.041	0.020	0.650	0.089	0.367	0.061	0.020	0.869	0.119	0.489
124	IN	IPL - Petersburg Generating Station		3	D009943	0.864	0.057	0.012	0.746	0.102	0.421	0.054	0.026	0.864	0.118	0.486	0.048	0.029	0.833	0.114	0.469
125	IN	IPL - Harding Street Station (EW Stout)		60	D0099060	0.859	0.077	0.004	0.859	0.118	0.483	0.056	0.003	0.627	0.086	0.355	0.050	0.004	0.576	0.079	0.327
126	WV	Mitchell (WV)	3948	1,2	D03948C02	0.854	0.072	0.007	0.854	0.117	0.480	0.043	0.033	0.818	0.112	0.461	0.065	0.010	0.804	0.110	0.453
127	KY	Mill Creek	1364	4	D013644	0.854	0.074	0.006	0.854	0.117	0.480	0.058	0.011	0.741	0.101	0.418	0.033	0.008	0.448	0.061	0.255
128	IA	George Neal South		4	D073434	0.842	0.048	0.013	0.660	0.090	0.373	0.060	0.018	0.842	0.115	0.474	0.060	0.018	0.834	0.114	0.469
129	TN	John Sevier	3405	1,2	D03405C12	0.840	0.057	0.005	0.659	0.090	0.373	0.064	0.014	0.840	0.115	0.473	0.043	0.007	0.538	0.074	0.305
130	TX	Monticello	6147	1		0.834	0.075	0.003	0.834	0.114	0.469	0.056	0.002	0.620	0.085	0.351	0.049	0.001	0.537	0.074	0.305
131	TN	John Sevier	3405	3,4	D03405C34	0.823	0.056	0.005	0.644	0.088	0.364	0.063	0.014	0.823	0.113	0.463	0.042	0.007	0.527	0.072	0.299
132	MI	Trenton Channel	1745	16,17,18,19	x10	0.799	0.053	0.022	0.799	0.109	0.450	0.045	0.021	0.714	0.098	0.403	0.041	0.023	0.685	0.094	0.387
133	IN	Whitewater Valley		1, 2	D01040C12	0.789	0.071	0.002	0.789	0.108	0.445	0.054	0.004	0.621	0.085	0.352	0.061	0.004	0.700	0.096	0.395
134	NY	Dynegy Danskammer	2480	1,2,3	x13	0.788	0.051	0.022	0.788	0.108	0.444										
135	TX	Monticello	6147	2		0.783	0.071	0.003	0.783	0.107	0.441										
136	OH	Cardinal	2828	1	D028281	0.778	0.069	0.004	0.778	0.107	0.439										
137	WV	John E Amos	3935	1,2	D03935C02	0.766	0.046	0.004	0.531	0.073	0.302	0.053	0.018	0.766	0.105	0.432	0.048	0.017	0.698	0.096	0.394
138	IN	Merom		2SG1	D062132G1	0.762	0.066	0.005	0.762	0.104	0.429										
139	MO	Thomas Hill Energy Center		MB3	D02168MB3	0.758	0.058	0.012	0.758	0.104	0.427										
140	IN	R M Schahfer Generating Station		14	D0608514	0.748	0.054	0.007	0.658	0.090	0.372	0.062	0.008	0.748	0.102	0.422	0.051	0.014	0.687	0.094	0.388
141	CT	Bridgeport Harbor Station	568	BHB3		0.742	0.020	0.011	0.331	0.045	0.189	0.040	0.029	0.742	0.102	0.418	0.018	0.028	0.501	0.069	0.285
142	AR	White Bluff		1	D060091	0.738	0.045	0.023	0.738	0.101	0.416										
143	MA	Canal Station	1599	1	D015991	0.734	0.021	0.014	0.374	0.051	0.213	0.057	0.012	0.734	0.101	0.414	0.058	0.009	0.715	0.098	0.404
144	AR	White Bluff		2	D060092	0.734	0.044	0.025	0.734	0.100	0.414										
145	MI	River Rouge		3	D017403	0.732	0.048	0.020	0.732	0.100	0.413										
146	IN	IPL - Eagle Valley Generating Station		5, 6	D00991C56	0.732	0.063	0.005	0.732	0.100	0.413										
147	TX	Monticello	6147	3		0.724	0.063	0.005	0.724	0.099	0.409										
148	OK	Sooner	6095	1		0.716	0.047	0.020	0.716	0.098	0.405										
149	SC	Wateree	3297	WAT1	D03297WT1	0.713	0.061	0.004	0.694	0.095	0.392	0.062	0.005	0.713	0.098	0.402	0.057	0.009	0.703	0.096	0.397
150	OK	Sooner		2	D060952	0.707	0.045	0.021	0.707	0.097	0.399										
151	NE	Nebraska City Station		1	D060961	0.697	0.053	0.012	0.697	0.095	0.394										
152	VA	Chesapeake Energy Center		1	D038031	0.696	0.026	0.015	0.441	0.060	0.251	0.036	0.013	0.519	0.071	0.295	0.051	0.014	0.696	0.095	0.393
153	TX	H W Pirkey Power Plant	7902	1		0.695	0.060	0.005	0.695	0.095	0.392										
154	KY	Paradise	1378	2	D013782	0.694	0.055	0.010	0.694	0.095	0.392	0.052	0.012	0.683	0.094	0.386	0.056	0.008	0.683	0.094	0.386
155	AL	Colbert	47	1, 2, 3, 4	D00047C14	0.690	0.041	0.023	0.690	0.094	0.390										
156	SC	Jefferies	3319	4		0.683	0.054	0.004	0.616	0.084	0.349	0.051	0.005	0.601	0.082	0.340	0.056	0.008	0.683	0.094	0.386
157	TX	Limestone	298	LIM2		0.681	0.053	0.011	0.681	0.093	0.385										
158	VA	Bremo Power Station		4	D037964	0.671	0.035	0.007	0.452	0.062	0.257	0.036	0.021	0.613	0.084	0.347	0.042	0.021	0.671	0.092	0.379
159	SC	Canadys Steam		CAN3	D03280CN3	0.670	0.057	0.005	0.670	0.092	0.379	0.049	0.005	0.582	0.080	0.330	0.033	0.007	0.431	0.059	0.245
160	AR	Independence		1	D066411	0.669	0.042	0.021	0.669	0.092	0.378										

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161	MO	New Madrid Power Plant		1	D021671	0.668	0.019	0.042	0.668	0.091	0.377										
162	GA	Yates		Y7BR	D00728Y7R	0.665	0.058	0.004	0.665	0.091	0.376	0.031	0.002	0.355	0.049	0.203	0.042	0.004	0.484	0.066	0.275
163	SC	Jefferies	3319	3		0.663	0.054	0.004	0.617	0.085	0.349	0.051	0.005	0.603	0.083	0.341	0.055	0.007	0.663	0.091	0.375
164	IN	Gibson	6113	5	D061135	0.662	0.047	0.015	0.662	0.091	0.374										
165	IN	IPL - Petersburg Generating Station		1 (50%)	D00994M1B	0.655	0.057	0.005	0.655	0.090	0.371										
166	MO	Rush Island		2	D061552	0.655	0.057	0.004	0.655	0.090	0.371										
167	MN	Sherburne County		3	D060903	0.650	0.046	0.014	0.650	0.089	0.368										
168	IN	IPL - Harding Street Station (EW Stout)	990	70	D0099070	0.648	0.050	0.011	0.648	0.089	0.367										
169	AR	Independence		2	D066412	0.648	0.042	0.018	0.648	0.089	0.367										
170	NC	Cape Fear	2708	6		0.640	0.030	0.009	0.420	0.058	0.239	0.034	0.008	0.449	0.062	0.256	0.052	0.008	0.640	0.088	0.362
171	MA	Salem Harbor Station	1626	1		0.640	0.022	0.015	0.405	0.056	0.231	0.041	0.018	0.640	0.088	0.362	0.019	0.006	0.273	0.037	0.156
172	KS	Nearman Creek	6064	N1		0.636	0.038	0.021	0.636	0.087	0.360										
173	TX	Limestone	298	LIM1		0.633	0.049	0.010	0.633	0.087	0.358										
174	KY	Shawnee		1,2,3,4,5	D01379C15	0.627	0.031	0.027	0.627	0.086	0.355										
175	NC	L V Sutton		1, 2	D02713C02	0.625	0.022	0.003	0.264	0.036	0.151	0.052	0.006	0.625	0.086	0.354	0.038	0.011	0.534	0.073	0.303
176	MO	Rush Island		1	D061551	0.622	0.055	0.003	0.622	0.085	0.352										
177	IA	Louisa		101	D06664101	0.619	0.040	0.018	0.619	0.085	0.350										
178	KY	Paradise	1378	1	D01720C09	0.616	0.048	0.009	0.616	0.084	0.349	0.045	0.012	0.609	0.083	0.345	0.049	0.007	0.604	0.083	0.342
179	WV	Fort Martin Power Station	3943	1	D039431	0.604	0.035	0.021	0.604	0.083	0.342										
180	TN	Gallatin	3403	3,4	D03403C34	0.604	0.051	0.006	0.604	0.083	0.342										
181	SC	Wateree	3297	WAT2	D03297WT2	0.599	0.050	0.003	0.570	0.078	0.323	0.052	0.004	0.599	0.082	0.339	0.047	0.007	0.572	0.078	0.324
182	MA	Canal Station	1599	2	D015992	0.597	0.012	0.019	0.334	0.046	0.191	0.034	0.021	0.597	0.082	0.338	0.040	0.012	0.561	0.077	0.318
183	IL	Newton		2	D060172	0.596	0.051	0.005	0.596	0.082	0.338										
184	NY	Huntley Power	2549	67,68	D02549C01	0.594	0.038	0.017	0.594	0.081	0.337										
185	MA	Brayton Point	1619	4	x07	0.593	0.015	0.010	0.272	0.037	0.156	0.032	0.016	0.517	0.071	0.294	0.040	0.016	0.593	0.081	0.336
186	GA	Scherer		4	D062574	0.583	0.047	0.007	0.583	0.080	0.331	0.031	0.006	0.395	0.054	0.225	0.027	0.005	0.343	0.047	0.195
187	OH	Cardinal	2828	2	D028282	0.578	0.050	0.004	0.578	0.079	0.328										
188	GA	Scherer		1	D062571	0.576	0.046	0.008	0.576	0.079	0.326	0.030	0.007	0.395	0.054	0.225	0.026	0.005	0.340	0.047	0.194
189	NY	CCI Roseton LLC	8006	2	D080062	0.570	0.027	0.026	0.570	0.078	0.323										
190	GA	Scherer		2	D062572	0.568	0.046	0.007	0.568	0.078	0.322	0.030	0.006	0.389	0.053	0.222	0.026	0.005	0.335	0.046	0.191
191	OK	Grand River Dam Authority		1	D001651	0.564	0.040	0.013	0.564	0.077	0.320	0.040	0.011	0.541	0.074	0.307	0.042	0.010	0.555	0.076	0.315
192	WV	Longview Power	56671	1		0.562	0.047	0.005	0.562	0.077	0.319										
193	NY	Northport	2516	1,2,4,ugt001	x14	0.560	0.027	0.013	0.422	0.058	0.240	0.033	0.019	0.560	0.077	0.318					
194	IN	Gibson	6113	4	D061135	0.559	0.016	0.036	0.559	0.077	0.317										
195	MO	New Madrid Power Plant		2	D021672	0.547	0.019	0.032	0.547	0.075	0.310										
196	WV	Fort Martin Power Station	3943	2	D039432	0.543	0.032	0.018	0.543	0.074	0.308										
197	TN	Gallatin	3403	1,2	D03403C12	0.537	0.045	0.005	0.537	0.074	0.305										
198	IN	Alcoa Allowance Management Inc	6705	1,2	D06705C02	0.524	0.016	0.032	0.524	0.072	0.298										
199	KS	La Cygne	1241	1		0.520	0.039	0.009	0.520	0.071	0.295	0.031	0.006	0.393	0.054	0.224	0.019	0.008	0.292	0.040	0.167
200	IN	IPL - Petersburg Generating Station		2(50%)	D00994M2B	0.519	0.038	0.011	0.519	0.071	0.295										

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201	NH	Schiller	2367	6		0.512	0.013	0.007	0.210	0.029	0.120	0.027	0.020	0.512	0.070	0.291	0.016	0.004	0.219	0.030	0.125
202	OH	Eastlake	2837	1	D028371	0.508	0.042	0.006	0.508	0.070	0.289										
203	NH	Schiller	2367	4		0.505	0.013	0.007	0.207	0.028	0.118	0.027	0.020	0.505	0.069	0.287	0.016	0.004	0.216	0.030	0.124
204	KY	Shawnee		6,7,8,9,10	D01379C60	0.502	0.028	0.019	0.502	0.069	0.285										
205	CT	Middletown	562	4		0.502	0.022	0.024	0.502	0.069	0.285										
206	SC	H B Robinson		1	D032511	0.502	0.032	0.006	0.409	0.056	0.233	0.040	0.007	0.502	0.069	0.285	0.029	0.011	0.428	0.059	0.243
207	IN	R Gallagher	1008	1,2	D01008C01	0.501	0.041	0.005	0.501	0.069	0.284										
208	MI	Monroe	1733	3,4	D01733C34	0.492	0.025	0.021	0.492	0.067	0.279										
209	OH	Eastlake	2837	2	D028372	0.487	0.040	0.005	0.487	0.067	0.277										
210	MO	Labadie		3	D021033	0.473	0.039	0.006	0.473	0.065	0.269										
211	WV	Mount Storm Power Station	3954	1,2	D03954CS0	0.470	0.032	0.011	0.470	0.064	0.267										
212	OK	Muskogee	2952	4		0.469	0.031	0.012	0.469	0.064	0.267										
213	WI	South Oak Creek		7, 8	D04041CS4	0.466	0.034	0.010	0.466	0.064	0.265										
214	WI	Edgewater (4050)	4050	5		0.461	0.034	0.009	0.461	0.063	0.262										
215	NJ	B L England	2378	2,3	x12	0.459	0.014	0.009	0.240	0.033	0.138	0.022	0.016	0.412	0.057	0.235	0.021	0.022	0.459	0.063	0.261
216	WI	Nelson Dewey	4054	2		0.457	0.038	0.005	0.457	0.063	0.260										
217	VA	Clinch River	3775	1,2	D03775C02	0.449	0.036	0.006	0.449	0.062	0.256										
218	IN	R Gallagher	1008	3,4	D01008C02	0.447	0.037	0.005	0.447	0.061	0.255										
219	MO	Labadie		1	D021031	0.446	0.036	0.005	0.446	0.061	0.254										
220	MN	Black Dog		3, 4	D01904CS1	0.438	0.015	0.025	0.438	0.060	0.250										
221	PA	Hatfield's Ferry Power Station	3179	3	x20	0.437	0.014	0.026	0.437	0.060	0.249										
222	IA	Walter Scott Jr. Energy Center		3	D010823	0.436	0.028	0.013	0.436	0.060	0.248										
223	OK	Muskogee		5	D029525	0.430	0.030	0.011	0.430	0.059	0.245										
224	OH	Miami Fort Generating Station	2832	7	D028327	0.430	0.033	0.007	0.430	0.059	0.245										
225	NC	Roxboro	2712	3A,3B	D02712C03	0.423	0.017	0.011	0.304	0.042	0.174	0.015	0.021	0.385	0.053	0.220	0.023	0.016	0.423	0.058	0.241
226	OH	Eastlake	2837	3	D028373	0.422	0.035	0.005	0.422	0.058	0.240										
227	NC	Roxboro	2712	4A,4B	D02712C04	0.415	0.019	0.009	0.301	0.041	0.172	0.016	0.017	0.357	0.049	0.204	0.026	0.013	0.415	0.057	0.236
228	MD	Herbert A Wagner	1554	1,2,4	x08	0.415	0.031	0.008	0.415	0.057	0.236										
229	PA	Shawville	3131	1	D031311	0.411	0.031	0.007	0.411	0.056	0.234										
230	PA	Shawville	3131	2	D031312	0.403	0.031	0.007	0.403	0.055	0.230										
231	OH	Miami Fort Power Station		8	D028328	0.385	0.029	0.007	0.385	0.053	0.220										
232	IN	Cayuga	1001	2	D010012	0.385	0.015	0.020	0.385	0.053	0.219										
233	TX	Welsh Power Plant	6139	3		0.383	0.030	0.006	0.383	0.053	0.219										
234	OH	Conesville	2840	4	D028504	0.382	0.028	0.008	0.382	0.052	0.218										
235	OK	Hugo		1	D067721	0.379	0.031	0.004	0.379	0.052	0.216										
236	OH	Eastlake	2837	4,6, (5)	x17	0.378	0.027	0.008	0.378	0.052	0.216										
237	NJ	Hudson Generating Station	2403	2	D024032	0.374	0.024	0.010	0.361	0.050	0.206	0.021	0.014	0.374	0.051	0.213	0.019	0.016	0.372	0.051	0.212
238	MD	Dickerson	1572	1,2,3	D01572C23	0.374	0.022	0.013	0.374	0.051	0.213										
239	TX	Welsh Power Plant	6139	2		0.368	0.030	0.005	0.368	0.051	0.210										
240	TX	Welsh Power Plant	6139	1		0.368	0.029	0.005	0.368	0.051	0.210										

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241	IA	George Neal North		3	D010913	0.363	0.025	0.009	0.363	0.050	0.207										
242	NC	Riverbend	2732	9		0.356	0.032	0.002	0.356	0.049	0.203										
243	IN	Cayuga	1001	1	D010011	0.348	0.013	0.019	0.348	0.048	0.199										
244	IL	Joliet 29		81, 82	D00384C82	0.340	0.023	0.008	0.340	0.047	0.194										
245	AR	Flint Creek Power Plant	6138	1		0.335	0.021	0.010	0.335	0.046	0.191										
246	KY	Green River		5	D013575	0.312	0.026	0.003	0.312	0.043	0.178										
247	IL	Marion		4	D009764	0.311	0.026	0.004	0.311	0.043	0.177										
248	AL	Greene County	10	1		0.307	0.027	0.001	0.307	0.042	0.176										
249	CT	New Haven Harbor	6156	NHB1		0.307	0.018	0.010	0.307	0.042	0.175										
250	KY	D B Wilson		W1	D06823W1	0.306	0.025	0.003	0.306	0.042	0.175										
251	WV	Mountaineer (1301)	6264	1	D062641	0.303	0.023	0.005	0.303	0.042	0.173										
252	WV	John E Amos	3935	3	D039353	0.298	0.021	0.007	0.298	0.041	0.170										
253	TN	Cumberland	3399	1		0.288	0.018	0.009	0.288	0.040	0.165										
254	OH	W H Sammis	2866	7	D028667	0.287	0.016	0.011	0.287	0.039	0.164										
255	KY	Ghent	1356	1,2 … (1,4)	D01356C01	0.287	0.021	0.006	0.287	0.039	0.164										
256	NC	Marshall	2727	1,2	x11	0.277	0.014	0.012	0.277	0.038	0.158										
257	SC	Urquhart		URQ3	D03295UQ3	0.275	0.024	0.001	0.275	0.038	0.157										
258	OH	W H Sammis	2866	6	D02866M6A	0.274	0.017	0.009	0.274	0.038	0.157										
259	KY	Green River		4	D013574	0.268	0.022	0.003	0.268	0.037	0.153										
260	NC	Belews Creek	8042	2	D080422	0.266	0.010	0.015	0.266	0.037	0.152										
261	NC	Belews Creek	8042	1	D080421	0.265	0.009	0.015	0.265	0.036	0.152										
262	AL	E C Gaston	26	5		0.264	0.013	0.011	0.264	0.036	0.151										
263	IL	Wood River Power Station		5	D008985	0.261	0.019	0.005	0.261	0.036	0.149										
264	KY	East Bend	6018	2	D060182	0.260	0.017	0.008	0.260	0.036	0.149										
265	SC	Winyah	6249	2,3,4	x23	0.260	0.017	0.007	0.260	0.036	0.148										
266	OH	J M Stuart	2850	3	D028503	0.259	0.020	0.005	0.259	0.036	0.148										
267	GA	Bowen	703	1BLR	D007031LR	0.258	0.008	0.015	0.258	0.035	0.147										
268	NC	Roxboro	2712	2	D027122	0.255	0.017	0.006	0.255	0.035	0.146										
269	KY	H L Spurlock	6041	1	D060411	0.255	0.022	0.002	0.255	0.035	0.146										
270	NC	Marshall	2727	4	D027274	0.254	0.011	0.012	0.254	0.035	0.145										
271	KY	E W Brown	1355	2,3	D01355C03	0.253	0.012	0.011	0.253	0.035	0.145										
272	GA	Bowen	703	4BLR	D007034LR	0.250	0.005	0.018	0.250	0.034	0.143										
273	IL	Joppa Steam		1, 2	D00887CS1	0.244	0.019	0.004	0.244	0.034	0.140										
274	OH	W H Sammis	2866	1,2	D02866C01	0.242	0.011	0.011	0.242	0.033	0.138										
275	IL	Joppa Steam		3, 4	D00887CS2	0.242	0.019	0.003	0.242	0.033	0.138										
276	KY	H L Spurlock	6041	2	D060412	0.239	0.020	0.003	0.239	0.033	0.137										
277	OH	J M Stuart	2850	1	D028501	0.239	0.019	0.004	0.239	0.033	0.137										
278	OH	W H Sammis	2866	3,4	D02866C02	0.236	0.010	0.011	0.236	0.032	0.135										
279	WI	Genoa	4143	1		0.232	0.017	0.004	0.232	0.032	0.133										
280	MD	Morgantown	1573	2	D015732	0.230	0.018	0.003	0.230	0.032	0.132										

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281	NY	NRG Dunkirk Power		3	D02554C03	0.227	0.014	0.007	0.227	0.031	0.130										
282	NY	Northport	2516	3	D025163	0.218	0.015	0.005	0.218	0.030	0.125										
283	MO	Sikeston		1	D067681	0.217	0.016	0.004	0.217	0.030	0.124										
284	MO	Meramec		3	D021043	0.216	0.017	0.003	0.216	0.030	0.124										
285	SC	McMeekin		MCM2	D03287MM2	0.210	0.018	0.001	0.210	0.029	0.120										
286	GA	Bowen	703	2BLR	D007032LR	0.206	0.004	0.015	0.206	0.028	0.118										
287	SC	McMeekin		MCM1	D03287MM1	0.202	0.017	0.002	0.202	0.028	0.116										
288	GA	Yates		Y5BR	D00728Y5R	0.196	0.017	0.002	0.196	0.027	0.112										
289	NJ	Mercer Generating Station	2408	1	D024081	0.183	0.010	0.007	0.183	0.025	0.105										
290	NC	Roxboro	2712	1	D027121	0.180	0.011	0.006	0.180	0.025	0.103										
291	KS	Quindaro	1295	2		0.175	0.011	0.005	0.175	0.024	0.100										
292	OH	J M Stuart	2850	2	D028502	0.168	0.011	0.005	0.168	0.023	0.096										
293	OH	W H Sammis	2866	5	D028665	0.165	0.007	0.009	0.165	0.023	0.095										
294	NJ	Mercer Generating Station	2408	2	D024082	0.164	0.009	0.007	0.164	0.023	0.094										
295	NC	Marshall	2727	3	D027273	0.158	0.012	0.003	0.158	0.022	0.091										
296	VA	Chesterfield Power Station	3797	6	D037976	0.158	0.011	0.004	0.158	0.022	0.091										
297	KS	Tecumseh Energy Center	1252	10		0.156	0.010	0.005	0.156	0.021	0.089										
298	IN	Alcoa Allowance Management Inc	6705	4	D067054	0.154	0.010	0.005	0.154	0.021	0.088										
299	GA	Bowen	703	3BLR	D007033LR	0.128	0.005	0.007	0.128	0.018	0.073										
300	SC	Williams	3298	WIL1	D03298WL1	0.108	0.005	0.005	0.108	0.015	0.062										
301	NC	Cliffside	2721	5	D027215	0.108	0.007	0.003	0.108	0.015	0.062										
302	IN	Alcoa Allowance Management Inc	6705	3	x02	0.102	0.004	0.006	0.102	0.014	0.059										
303	DE	Edge Moor	593	5	D005935	0.086	0.006	0.002	0.086	0.012	0.049										
304	ME	William F Wyman	1507	3		0.065	0.005	0.002	0.065	0.009	0.038										
305	SC	Winyah	6249	1	D062491	0.042	0.002	0.002	0.042	0.006	0.024										
306	ME	William F Wyman	1507	1		0.038	0.002	0.001	0.038	0.005	0.022										
307	ME	William F Wyman	1507	2		0.037	0.002	0.001	0.037	0.005	0.021										
308	OH	Miami Fort Generating Station	2832	5-1, 5-2, 6	D02832C06	0.022	0.002	0.000	0.022	0.003	0.013										
309	IL	Newton		1	D060171	0.000															
310	MA	Salem Harbor Station	1626	3	D016263	0.000															
311	NY	CCI Roseton LLC	8006	1	D080061	0.000											0.000	0.000	0.000	0.000	0.000

F.10 2015 EGU Ranking Visibility Impairing Sources to Lye Brook

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
1	PA	Homer City	3122	1	D031221	8.638	0.712	0.033	**8.316**	**1.059**	**3.837**	0.699	0.145	**8.638**	**1.191**	**4.252**	0.659	0.064	**7.865**	**1.028**	**3.738**
2	PA	Homer City	3122	2	D031222	7.666	0.628	0.029	**7.291**	0.938	**3.448**	0.616	0.129	**7.666**	**1.057**	**3.833**	0.581	0.057	**6.933**	0.911	**3.362**
3	OH	Avon Lake Power Plant	2836	12	D0283612	7.223	0.378	0.028	**4.329**	0.585	**2.249**	0.494	0.040	**6.745**	0.766	**2.878**	0.589	0.076	**7.223**	0.948	**3.480**
4	OH	Muskingum River	2872	5	D028725	5.560	0.508	0.007	**5.560**	0.739	**2.786**	0.319	0.012	**3.728**	0.478	**1.866**	0.464	0.009	**5.112**	0.680	**2.582**
5	VA	Yorktown Power Station	3809	3	D038093	4.990	0.145	0.053	**2.144**	0.289	**1.160**	0.203	0.037	**3.051**	0.349	**1.387**	0.395	0.067	**4.990**	0.664	**2.527**
6	ME	William F Wyman	1507	4	D015074	4.634	0.058	0.018	0.818	0.112	0.459	0.224	0.033	**4.634**	0.373	**1.478**	0.116	0.037	**1.651**	0.225	0.909
7	NH	Merrimack	2364	2	D023642	3.277	0.032	0.161	**1.650**	0.286	**1.146**	0.061	0.068	**3.277**	0.190	0.771	0.015	0.049	0.691	0.095	0.391
8	PA	Keystone	3136	1	D031361	3.184	0.194	0.040	**2.685**	0.341	**1.357**	0.178	0.211	**3.184**	0.565	**2.179**	0.165	0.092	**2.771**	0.374	**1.482**
9	KY	Big Sandy	1353	BSU1,BSU2	D01353C02	3.090	0.193	0.014	**2.197**	0.301	**1.204**	0.239	0.058	**2.943**	0.431	**1.693**	0.251	0.037	**3.090**	0.416	**1.639**
10	PA	Keystone	3136	2	D031362	3.074	0.186	0.040	**2.595**	0.328	**1.308**	0.171	0.207	**3.074**	0.548	**2.120**	0.158	0.090	**2.676**	0.362	**1.434**
11	IN	Rockport	6166	MB1,MB2	D06166C02	2.845	0.166	0.081	**2.653**	0.360	**1.427**	0.160	0.121	**2.845**	0.409	**1.610**	0.116	0.052	**1.798**	0.244	0.986
12	OH	Muskingum River	2872	1,2,3,4	D02872C04	2.761	0.242	0.013	**2.761**	0.371	**1.469**	0.119	0.013	**1.605**	0.193	0.785	0.200	0.013	**2.285**	0.310	**1.237**
13	WV	Harrison Power Station		1 (25%), 2 (20%	D03944C01	2.732	0.096	0.050	**1.574**	0.214	0.865	0.061	0.159	**2.732**	0.325	**1.295**	0.073	0.067	**1.516**	0.206	0.837
14	IN	Wabash River Gen Station	1010	2,3,4,5,6	D01010C05	2.577	0.190	0.015	**2.185**	0.298	**1.192**	0.220	0.029	**2.577**	0.362	**1.436**	0.176	0.022	**2.120**	0.288	**1.153**
15	NH	Newington	8002	1	D080021	2.546	0.051	0.067	**1.076**	0.174	0.710	0.102	0.023	**2.546**	0.183	0.747	0.044	0.031	0.809	0.111	0.456
16	WV	Kammer	3947	1,2,3	D03947C03	2.515	0.224	0.012	**2.515**	0.343	**1.363**	0.138	0.027	**2.052**	0.241	0.973	0.188	0.018	**2.209**	0.299	**1.198**
17	VA	Yorktown Power Station	3809	1,2	D03809CS0	2.514	0.073	0.028	**1.102**	0.148	0.608	0.135	0.033	**2.147**	0.246	0.993	0.197	0.037	**2.514**	0.340	**1.353**
18	PA	Montour	3149	1	D031491	2.474	0.108	0.073	**2.002**	0.265	**1.066**	0.074	0.100	**2.474**	0.255	**1.029**	0.072	0.092	**1.779**	0.242	0.976
19	PA	Brunner Island	3140	1,2	D03140C12	2.472	0.106	0.054	**1.710**	0.235	0.949	0.075	0.171	**2.472**	0.361	**1.431**	0.079	0.122	**2.179**	0.295	**1.183**
20	OH	W H Zimmer Generating Station	6019	1	D060191	2.453	0.137	0.035	**1.987**	0.252	**1.015**	0.103	0.165	**2.453**	0.394	**1.554**	0.115	0.089	**2.208**	0.299	**1.198**
21	OH	Gen J M Gavin	8102	1	D081021	2.403	0.131	0.016	**1.698**	0.215	0.872	0.157	0.041	**2.403**	0.289	**1.160**	0.114	0.037	**1.625**	0.221	0.895
22	NY	Somerset Operating Company (Kintigh)		1	D060821	2.374	0.066	0.035	**1.064**	0.150	0.612	0.160	0.033	**2.374**	0.281	**1.128**	0.098	0.061	**1.712**	0.233	0.941
23	PA	Shawville	3131	3,4	D03131CS1	2.364	0.194	0.024	**2.364**	0.316	**1.263**	0.143	0.086	**2.037**	0.335	**1.333**	0.161	0.040	**2.163**	0.293	**1.175**
24	NY	Oswego Harbor Power	2594	6	x15	2.265	0.077	0.052	**1.415**	0.189	0.769	0.071	0.058	**1.520**	0.189	0.770	0.112	0.098	**2.265**	0.307	**1.227**
25	PA	Montour	3149	2	D031492	2.243	0.089	0.073	**1.874**	0.237	0.956	0.061	0.099	**2.243**	0.235	0.951	0.059	0.092	**1.636**	0.223	0.901
26	OH	Gen J M Gavin	8102	2	D081022	2.224	0.123	0.014	**1.568**	0.200	0.814	0.147	0.037	**2.224**	0.268	**1.079**	0.107	0.033	**1.502**	0.205	0.830
27	IN	Tanners Creek	988	U4	D00988U4	2.134	0.187	0.009	**2.134**	0.285	**1.144**	0.099	0.032	**1.306**	0.192	0.779	0.104	0.021	**1.340**	0.183	0.744
28	PA	Homer City		3	D031223	2.042	0.082	0.037	**1.365**	0.176	0.716	0.069	0.126	**2.042**	0.287	**1.149**	0.070	0.056	**1.356**	0.185	0.752
29	OH	Conesville	2840	5,6	D02840C06	1.953	0.053	0.031	0.859	0.123	0.507	0.057	0.074	**1.953**	0.192	0.782	0.058	0.046	**1.120**	0.153	0.626
30	NY	Cayuga Operating Company, LLC		1 (33%), 2 (33%	D02535C01	1.929	0.050	0.017	0.734	0.097	0.402	0.124	0.018	**1.929**	0.208	0.843	0.054	0.026	0.853	0.117	0.480
31	GA	Harllee Branch	709	3&4	D00709C02	1.905	0.157	0.021	**1.905**	0.259	**1.043**	0.093	0.017	**1.218**	0.160	0.654	0.089	0.013	**1.088**	0.149	0.608
32	MA	Brayton Point	1619	4	x07	1.811	0.045	0.032	0.832	0.114	0.469	0.096	0.037	**1.578**	0.194	0.790	0.119	0.049	**1.811**	0.246	0.993
33	OH	Killen Station	6031	2	D060312	1.699	0.082	0.029	**1.305**	0.163	0.666	0.065	0.110	**1.606**	0.258	**1.037**	0.089	0.069	**1.699**	0.231	0.934
34	PA	Brunner Island	3140	3	D031403	1.592	0.099	0.042	**1.573**	0.207	0.838	0.051	0.072	**1.516**	0.180	0.735	0.060	0.087	**1.592**	0.217	0.878
35	MI	Trenton Channel	1745	9A	D017459A	1.555	0.127	0.018	**1.555**	0.212	0.860	0.114	0.016	**1.405**	0.190	0.773	0.088	0.018	**1.137**	0.155	0.635
36	MI	Belle River		2	D060342	1.504	0.089	0.049	**1.504**	0.203	0.825	0.082	0.020	**1.448**	0.149	0.608	0.051	0.041	0.993	0.136	0.557
37	MI	St. Clair	1743	7	D017437	1.435	0.102	0.018	**1.300**	0.176	0.716	0.114	0.016	**1.435**	0.191	0.777	0.092	0.020	**1.199**	0.164	0.668
38	MI	Belle River		1	D060341	1.409	0.079	0.049	**1.409**	0.189	0.767	0.073	0.020	**1.357**	0.135	0.554	0.045	0.041	0.932	0.127	0.523
39	MI	St. Clair	1743	6	D017436	1.384	0.108	0.010	**1.255**	0.173	0.705	0.122	0.014	**1.384**	0.198	0.803	0.114	0.014	**1.377**	0.188	0.764
40	KY	Mill Creek	1364	1,2,3	x05	1.338	0.115	0.016	**1.329**	0.191	0.777	0.093	0.049	**1.338**	0.208	0.845	0.051	0.023	0.801	0.110	0.451

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41	NH	Merrimack	2364	1	D023641	1.277	0.011	0.066	0.649	0.115	0.474	0.021	0.028	1.277	0.073	0.300	0.005	0.020	0.275	0.038	0.157
42	OH	Kyger Creek	2876	1,2,3,4,5	D02876C01	1.238	0.066	0.020	0.985	0.127	0.523	0.078	0.046	1.238	0.182	0.743	0.069	0.030	1.062	0.145	0.594
43	PA	Martins Creek	3148	3,4	x21	1.209	0.002	0.042	0.599	0.065	0.269	0.002	0.121	0.999	0.183	0.747	0.002	0.109	1.209	0.165	0.673
44	MI	St. Clair	1743	1,2,3,4,...6	x09	1.186	0.067	0.040	1.184	0.157	0.643	0.065	0.022	1.186	0.128	0.526	0.041	0.042	0.905	0.124	0.508
45	IN	Michigan City Generating Station		12	D0099712	1.173	0.068	0.007	0.803	0.110	0.452	0.105	0.006	1.173	0.162	0.662	0.069	0.007	0.817	0.112	0.460
46	MD	Herbert A Wagner	1554	3	D015543	1.141	0.074	0.002	0.795	0.111	0.456	0.086	0.002	1.141	0.129	0.528	0.079	0.003	0.876	0.120	0.493
47	TX	Big Brown	3497	1		1.140	0.104	0.003	1.140	0.156	0.638	0.077	0.004	0.847	0.119	0.489	0.069	0.001	0.741	0.102	0.418
48	MO	Sibley		1, 2, 3	D02094C01	1.128	0.072	0.023	1.128	0.139	0.570	0.043	0.015	0.690	0.086	0.354	0.033	0.019	0.553	0.076	0.314
49	WV	Pleasants Power Station	6004	1	D060041	1.111	0.076	0.023	1.111	0.144	0.589	0.046	0.055	1.075	0.150	0.613	0.059	0.039	1.049	0.143	0.587
50	TX	Big Brown	3497	2		1.094	0.100	0.003	1.094	0.150	0.614	0.074	0.004	0.813	0.115	0.471	0.066	0.001	0.712	0.097	0.402
51	PA	Cheswick	8226	1	D082261	1.092	0.043	0.024	0.955	0.100	0.411	0.042	0.137	1.092	0.264	1.061	0.045	0.054	1.072	0.146	0.599
52	MI	J H Campbell		3 (50%)	D01710M3A	1.070	0.066	0.007	0.790	0.107	0.442	0.093	0.007	1.070	0.146	0.600	0.081	0.008	0.952	0.130	0.534
53	WV	Kanawha River	3936	1,2	D03936C02	1.066	0.075	0.006	0.883	0.119	0.490	0.068	0.040	1.066	0.159	0.648	0.070	0.024	1.007	0.138	0.564
54	MA	Canal Station	1599	1	D015991	1.056	0.029	0.025	0.537	0.079	0.328	0.078	0.014	1.056	0.135	0.554	0.080	0.016	1.028	0.140	0.575
55	KY	Ghent	1356	3,4 ... (2,3)	D01356C02	1.041	0.072	0.013	0.892	0.125	0.512	0.055	0.046	1.041	0.148	0.608	0.050	0.026	0.822	0.112	0.463
56	MA	Canal Station	1599	2	D015992	1.039	0.020	0.038	0.582	0.086	0.355	0.056	0.017	1.039	0.107	0.441	0.067	0.024	0.978	0.134	0.548
57	MI	J C Weadock		7, 8	D01720C09	1.036	0.032	0.009	0.438	0.060	0.250	0.078	0.010	1.036	0.129	0.529	0.065	0.020	0.909	0.124	0.511
58	IN	Gibson	6113	1,2,3	D06113C03	0.978	0.032	0.019	0.453	0.075	0.309	0.050	0.045	0.978	0.140	0.575	0.024	0.028	0.562	0.077	0.319
59	MD	C P Crane	1552	2	D015522	0.972	0.033	0.016	0.626	0.071	0.296	0.039	0.020	0.972	0.087	0.361	0.029	0.034	0.688	0.094	0.389
60	OK	Northeastern		3313, 3314	D02963C10	0.960	0.075	0.017	0.960	0.135	0.554	0.038	0.034	0.446	0.106	0.438	0.032	0.008	0.432	0.059	0.246
61	IN	Tanners Creek	988	U1,U2,U3	D00988C03	0.946	0.077	0.008	0.946	0.125	0.512	0.045	0.031	0.725	0.113	0.465	0.043	0.018	0.661	0.091	0.374
62	IN	Whitewater Valley		1, 2	D01040C12	0.944	0.085	0.003	0.944	0.129	0.529	0.065	0.006	0.743	0.103	0.426	0.073	0.005	0.837	0.115	0.471
63	CT	Bridgeport Harbor Station	568	BHB3		0.929	0.030	0.012	0.415	0.062	0.257	0.061	0.024	0.929	0.125	0.514	0.028	0.030	0.628	0.086	0.355
64	IL	Powerton		51,52,61,62	D00879C06	0.921	0.038	0.017	0.578	0.080	0.332	0.045	0.011	0.715	0.081	0.337	0.065	0.021	0.921	0.126	0.517
65	MI	J H Campbell		A,B,1,2	D01710C09	0.908	0.051	0.008	0.629	0.086	0.357	0.082	0.009	0.908	0.133	0.546	0.072	0.011	0.893	0.122	0.502
66	IN	IPL - Harding Street Station (EW Stout)		50	D0099050	0.906	0.082	0.003	0.906	0.125	0.512	0.060	0.005	0.659	0.095	0.393	0.053	0.004	0.608	0.083	0.345
67	IN	IPL - Petersburg Generating Station		3	D009943	0.888	0.044	0.018	0.766	0.091	0.376	0.041	0.057	0.888	0.146	0.597	0.037	0.042	0.855	0.117	0.481
68	WV	Mitchell (WV)	3948	1,2	D03948C02	0.830	0.065	0.011	0.830	0.111	0.457	0.039	0.022	0.796	0.089	0.369	0.058	0.015	0.782	0.107	0.441
69	IN	IPL - Harding Street Station (EW Stout)		60	D0099060	0.823	0.075	0.003	0.823	0.113	0.466	0.054	0.005	0.601	0.087	0.358	0.049	0.003	0.552	0.076	0.313
70	GA	Yates		Y6BR	D00728Y6R	0.799	0.069	0.005	0.799	0.109	0.448	0.037	0.005	0.427	0.061	0.254	0.049	0.005	0.580	0.079	0.329
71	TX	Martin Lake	6146	1		0.770	0.067	0.005	0.770	0.106	0.436	0.050	0.006	0.571	0.082	0.341	0.044	0.001	0.489	0.067	0.278
72	TX	Monticello	6147	1		0.763	0.069	0.003	0.763	0.104	0.430	0.051	0.003	0.567	0.080	0.331	0.045	0.001	0.492	0.067	0.280
73	TX	Martin Lake	6146	3		0.729	0.064	0.005	0.729	0.100	0.414	0.048	0.006	0.541	0.078	0.324	0.042	0.001	0.463	0.064	0.263
74	TN	Johnsonville	3406	1 thru 10	D03406C10	0.725	0.059	0.006	0.725	0.095	0.393	0.059	0.003	0.722	0.091	0.375	0.052	0.003	0.597	0.082	0.338
75	MD	Brandon Shores	602	2	D006022	0.690	0.019	0.008	0.279	0.040	0.165	0.023	0.005	0.690	0.041	0.169	0.021	0.009	0.330	0.045	0.188
76	IN	Clifty Creek	983	4,5,6	D00983C02	0.682	0.019	0.014	0.544	0.048	0.201	0.020	0.038	0.682	0.086	0.354	0.012	0.023	0.378	0.052	0.215
77	MD	Brandon Shores	602	1	D006021	0.664	0.021	0.006	0.274	0.039	0.163	0.025	0.003	0.664	0.042	0.173	0.023	0.007	0.323	0.044	0.184
78	IA	Ottumwa		1	D062541	0.641	0.038	0.016	0.641	0.079	0.327	0.028	0.013	0.493	0.060	0.250	0.023	0.019	0.456	0.063	0.259
79	AL	E C Gaston	26	1, 2	D00026CAN	0.611	0.055	0.003	0.611	0.084	0.349	0.039	0.005	0.445	0.063	0.263	0.048	0.007	0.594	0.081	0.337
80	GA	Harllee Branch	709	1,2	D00709C01	0.596	0.050	0.006	0.596	0.082	0.339	0.029	0.004	0.380	0.048	0.201	0.029	0.004	0.350	0.048	0.200

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81	NC	Roxboro	2712	3A,3B	D02712C03	0.592	0.029	0.012	0.426	0.059	0.245	0.024	0.012	0.540	0.053	0.220	0.038	0.017	0.592	0.081	0.336
82	TX	Martin Lake	6146	2		0.588	0.051	0.005	0.588	0.082	0.339	0.038	0.006	0.437	0.065	0.268	0.034	0.001	0.376	0.052	0.214
83	NC	Roxboro	2712	4A,4B	D02712C04	0.585	0.030	0.010	0.424	0.058	0.243	0.025	0.010	0.503	0.052	0.218	0.039	0.015	0.585	0.080	0.332
84	IN	IPL - Petersburg Generating Station		4	D009944	0.566	0.031	0.011	0.531	0.061	0.255	0.029	0.034	0.566	0.094	0.386	0.026	0.025	0.556	0.076	0.315
85	MD	C P Crane	1552	1	D015521	0.565	0.017	0.010	0.366	0.039	0.164	0.020	0.013	0.565	0.048	0.201	0.015	0.022	0.401	0.055	0.228
86	IN	Clifty Creek	983	1,2,3	D00983C01	0.564	0.021	0.010	0.467	0.045	0.187	0.022	0.027	0.564	0.073	0.303	0.013	0.016	0.316	0.043	0.181
87	WV	John E Amos	3935	1,2	D03935C02	0.550	0.024	0.005	0.381	0.043	0.179	0.028	0.024	0.550	0.078	0.322	0.025	0.021	0.501	0.069	0.284
88	MO	Labadie		4	D021034	0.523	0.021	0.004	0.271	0.037	0.153	0.042	0.006	0.523	0.071	0.294	0.023	0.006	0.311	0.043	0.178
89	MD	Chalk Point	1571	1,2	D01571CE2	0.518	0.028	0.001	0.316	0.042	0.175	0.034	0.002	0.462	0.052	0.218	0.048	0.001	0.518	0.071	0.294
90	OH	J M Stuart	2850	4	D028404	0.512	0.026	0.005	0.365	0.045	0.187	0.020	0.028	0.382	0.070	0.291	0.030	0.017	0.512	0.070	0.291
91	IA	George Neal South		4	D073434	0.495	0.024	0.011	0.388	0.053	0.219	0.030	0.009	0.495	0.058	0.239	0.030	0.015	0.490	0.067	0.279
92	MI	Trenton Channel	1745	16,17,18,19	x10	0.442	0.033	0.009	0.442	0.062	0.258	0.028	0.009	0.395	0.055	0.227	0.025	0.010	0.379	0.052	0.216
93	NH	Schiller	2367	4		0.428	0.011	0.006	0.175	0.024	0.101	0.023	0.005	0.428	0.041	0.172	0.013	0.004	0.183	0.025	0.105
94	NJ	B L England	2378	2,3	x12	0.425	0.012	0.009	0.222	0.030	0.125	0.019	0.023	0.381	0.063	0.259	0.018	0.021	0.425	0.058	0.242
95	MI	Monroe	1733	1,2	D01733C12	0.418	0.010	0.013	0.360	0.034	0.142	0.009	0.016	0.418	0.037	0.153	0.007	0.023	0.326	0.045	0.186
96	NH	Schiller	2367	6		0.418	0.011	0.005	0.171	0.023	0.097	0.023	0.005	0.418	0.040	0.168	0.013	0.003	0.178	0.024	0.102
97	MN	Sherburne County		1, 2	D06090CS1	0.403	0.005	0.020	0.333	0.037	0.152	0.005	0.020	0.403	0.038	0.159	0.003	0.021	0.260	0.036	0.148
98	MD	Morgantown	1573	1	D015731	0.395	0.021	0.003	0.255	0.036	0.149	0.020	0.003	0.249	0.033	0.139	0.033	0.004	0.395	0.054	0.225
99	OH	Cardinal	2828	3	D028283	0.372	0.023	0.007	0.326	0.043	0.181	0.018	0.022	0.276	0.058	0.242	0.026	0.009	0.372	0.051	0.212
100	MA	Brayton Point	1619	2	D016192	0.362	0.006	0.016	0.149	0.032	0.135	0.014	0.018	0.348	0.046	0.192	0.017	0.017	0.362	0.050	0.206
101	OK	Grand River Dam Authority		1	D001651	0.348	0.031	0.000	0.348	0.045	0.187	0.031	0.000	0.334	0.045	0.188	0.032	0.000	0.343	0.047	0.196
102	IL	Baldwin Energy Complex		1,2	D008892	0.341	0.014	0.004	0.298	0.027	0.112	0.015	0.010	0.341	0.038	0.159	0.008	0.010	0.192	0.026	0.110
103	KY	Mill Creek	1364	4	D013644	0.339	0.007	0.009	0.339	0.024	0.098	0.005	0.025	0.294	0.045	0.188	0.003	0.013	0.178	0.024	0.102
104	MI	Dan E Karn	1702	3,4 (1,2)	D01702C09	0.334	0.010	0.003	0.140	0.019	0.081	0.025	0.004	0.334	0.042	0.176	0.022	0.007	0.317	0.044	0.181
105	KY	Paradise	1378	3	D013783	0.325	0.015	0.014	0.319	0.042	0.176	0.012	0.020	0.325	0.048	0.199	0.017	0.012	0.308	0.042	0.176
106	DE	Indian River	594	4	D005944	0.322	0.006	0.001	0.074	0.010	0.042	0.030	0.002	0.322	0.047	0.194	0.008	0.001	0.104	0.014	0.060
107	KY	Paradise	1378	2	D013782	0.319	0.023	0.007	0.319	0.045	0.186	0.022	0.009	0.314	0.045	0.187	0.024	0.005	0.314	0.043	0.179
108	KY	John S. Cooper	1384	1,2	D01384CS1	0.319	0.018	0.002	0.222	0.030	0.126	0.010	0.006	0.134	0.024	0.100	0.026	0.004	0.319	0.044	0.182
109	IN	R M Schahfer Generating Station		15	D0608515	0.280	0.001	0.007	0.129	0.012	0.051	0.003	0.008	0.280	0.016	0.065	0.001	0.012	0.146	0.020	0.084
110	NJ	Hudson Generating Station	2403	2	D024032	0.274	0.017	0.008	0.264	0.036	0.149	0.015	0.013	0.274	0.041	0.170	0.013	0.012	0.272	0.037	0.156
111	MA	Brayton Point	1619	3	D016193	0.258	0.006	0.009	0.130	0.022	0.094	0.011	0.009	0.230	0.030	0.124	0.013	0.011	0.258	0.035	0.148
112	KY	Paradise	1378	1	D01720C09	0.257	0.019	0.006	0.257	0.036	0.150	0.017	0.007	0.254	0.036	0.150	0.019	0.005	0.252	0.035	0.144
113	IL	Kincaid Generating Station		1, 2	D00876C02	0.246	0.010	0.005	0.179	0.023	0.095	0.014	0.005	0.246	0.028	0.116	0.015	0.006	0.222	0.031	0.127
114	MA	Brayton Point	1619	1	D016191	0.228	0.006	0.004	0.089	0.015	0.061	0.014	0.005	0.220	0.029	0.122	0.017	0.005	0.228	0.031	0.131
115	WI	Columbia		1	D080231	0.221	0.005	0.007	0.128	0.018	0.074	0.006	0.013	0.171	0.028	0.115	0.008	0.013	0.221	0.030	0.126
116	WI	Columbia		2	D080232	0.199	0.005	0.006	0.121	0.017	0.069	0.006	0.013	0.165	0.029	0.119	0.008	0.011	0.199	0.027	0.114
117	VA	Chesterfield Power Station	3797	5	D037975	0.189	0.006	0.002	0.085	0.012	0.049	0.007	0.003	0.103	0.015	0.061	0.013	0.004	0.189	0.026	0.108
118	IN	R M Schahfer Generating Station		14	D0608514	0.176	0.002	0.007	0.155	0.013	0.055	0.002	0.007	0.176	0.014	0.058	0.002	0.013	0.162	0.022	0.093
119	VA	Chesterfield Power Station	3797	4	D037974	0.122	0.004	0.001	0.056	0.008	0.032	0.005	0.002	0.074	0.011	0.046	0.009	0.003	0.122	0.017	0.070
120	GA	Scherer		4	D062574	0.118	0.001	0.008	0.118	0.014	0.060	0.001	0.004	0.080	0.008	0.033	0.001	0.006	0.069	0.010	0.040

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
121	GA	Scherer		1	D062571	0.117	0.001	0.009	0.117	0.014	0.060	0.001	0.005	0.080	0.008	0.033	0.001	0.006	0.069	0.010	0.040
122	GA	Scherer		2	D062572	0.089	0.001	0.007	0.089	0.011	0.045	0.000	0.004	0.061	0.006	0.025	0.000	0.005	0.053	0.007	0.030
123	GA	Yates		Y7BR	D00728Y7R	0.078	0.000	0.005	0.078	0.008	0.034	0.000	0.005	0.042	0.007	0.030	0.000	0.005	0.057	0.008	0.033
124	SC	Wateree	3297	WAT1	D03297WT1	0.072	0.002	0.002	0.070	0.006	0.024	0.002	0.008	0.072	0.014	0.059	0.002	0.005	0.071	0.010	0.041
125	SC	Wateree	3297	WAT2	D03297WT2	0.066	0.002	0.002	0.063	0.005	0.022	0.002	0.006	0.066	0.012	0.049	0.001	0.004	0.063	0.009	0.037
126	KS	La Cygne	1241	1		0.066	0.007	0.000	0.066	0.010	0.042	0.005	0.000	0.050	0.008	0.032	0.003	0.000	0.037	0.005	0.021
127	VA	Bremo Power Station		4	D037964	0.060	0.000	0.002	0.040	0.003	0.012	0.000	0.004	0.055	0.006	0.026	0.000	0.005	0.060	0.008	0.034
128	KS	La Cygne		2	D012412	0.021	0.002	0.000	0.021	0.003	0.013	0.002	0.000	0.017	0.002	0.010	0.001	0.000	0.010	0.001	0.006

F.11 2011 EGU Ranking Visibility Impairing Sources to Moosehorn

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
1	OH	Kyger Creek	2876	1,2,3,4,5	D02876C01	17.573	1.306	0.103	17.573	2.649	6.260	1.038	0.273	16.242	2.472	5.901	1.079	0.209	15.976	2.436	5.828
2	MI	Monroe	1733	1,2	D01733C12	7.931	0.341	0.056	4.840	0.802	2.148	0.280	0.102	4.657	0.773	2.075	0.506	0.141	7.931	1.283	3.312
3	VA	Chesterfield Power Station	3797	5	D037975	7.920	0.441	0.027	5.719	0.941	2.493	0.413	0.020	5.274	0.871	2.320	0.616	0.030	7.920	1.281	3.308
4	MA	Brayton Point	1619	3	D016193	6.963	0.520	0.049	6.963	1.135	2.962	0.486	0.050	6.551	1.071	2.809	0.315	0.034	4.252	0.708	1.910
5	OH	Muskingum River	2872	1,2,3,4	D02872C04	6.530	0.515	0.020	6.530	1.068	2.801	0.333	0.054	4.709	0.782	2.096	0.313	0.051	4.424	0.736	1.981
6	OH	Walter C Beckford Generating Station		6	D028306	5.923	0.430	0.011	5.385	0.889	2.363	0.458	0.027	5.923	0.974	2.572	0.238	0.012	3.043	0.512	1.403
7	NH	Merrimack	2364	2	D023642	5.830	0.381	0.071	5.515	0.909	2.414	0.356	0.075	5.256	0.868	2.313	0.440	0.038	5.830	0.959	2.536
8	OH	Avon Lake Power Plant	2836	12	D0283612	5.216	0.398	0.029	5.216	0.862	2.297	0.230	0.055	3.464	0.581	1.583	0.341	0.037	4.608	0.765	2.055
9	IN	Rockport	6166	MB1,MB2	D06166C02	4.072	0.264	0.070	4.072	0.679	1.837	0.171	0.062	2.829	0.477	1.311	0.171	0.035	2.502	0.423	1.168
10	PA	Homer City	3122	2	D031222	3.858	0.307	0.010	3.858	0.645	1.748	0.212	0.032	2.959	0.498	1.367	0.196	0.021	2.634	0.445	1.226
11	PA	Homer City	3122	1	D031221	3.832	0.307	0.008	3.832	0.640	1.737	0.211	0.026	2.881	0.485	1.334	0.196	0.017	2.584	0.436	1.204
12	OH	Eastlake		5	D028375	3.775	0.269	0.021	3.523	0.590	1.608	0.195	0.030	2.726	0.460	1.266	0.279	0.031	3.775	0.631	1.714
13	IN	Wabash River Gen Station	1010	2,3,4,5,6	D01010C05	3.615	0.264	0.033	3.615	0.605	1.647	0.156	0.021	2.146	0.364	1.010	0.159	0.016	2.120	0.359	0.998
14	MA	Brayton Point	1619	2	D016192	3.151	0.225	0.034	3.151	0.530	1.450	0.169	0.031	2.429	0.411	1.136	0.207	0.041	3.008	0.506	1.388
15	NH	Merrimack	2364	1	D023641	2.875	0.191	0.032	2.698	0.455	1.254	0.178	0.033	2.564	0.433	1.195	0.220	0.017	2.875	0.484	1.331
16	PA	Shawville	3131	3,4	D03131CS1	2.827	0.224	0.009	2.827	0.477	1.310	0.148	0.021	2.048	0.347	0.966	0.095	0.012	1.292	0.221	0.620
17	MA	Brayton Point	1619	1	D016191	2.792	0.208	0.022	2.792	0.471	1.295	0.166	0.022	2.280	0.386	1.070	0.199	0.026	2.728	0.460	1.267
18	IN	Clifty Creek	983	4,5,6	D00983C02	2.789	0.181	0.010	2.313	0.391	1.084	0.204	0.025	2.789	0.470	1.294	0.121	0.012	1.600	0.272	0.762
19	PA	Cheswick	8226	1	D082261	2.650	0.207	0.011	2.650	0.447	1.233	0.141	0.041	2.214	0.375	1.040	0.108	0.021	1.561	0.266	0.744
20	OH	W H Zimmer Generating Station	6019	1	D060191	2.645	0.143	0.027	2.057	0.349	0.970	0.149	0.068	2.645	0.447	1.231	0.098	0.040	1.675	0.285	0.797
21	MD	Chalk Point	1571	1,2	D01571CE2	2.553	0.159	0.024	2.224	0.377	1.045	0.153	0.017	2.065	0.350	0.973	0.197	0.014	2.553	0.431	1.190
22	ME	William F Wyman	1507	4	D015074	2.548	0.159	0.051	2.548	0.430	1.188	0.117	0.033	1.824	0.310	0.865	0.118	0.017	1.628	0.277	0.775
23	VA	Yorktown Power Station	3809	1,2	D03809CS0	2.472	0.176	0.028	2.472	0.418	1.155	0.111	0.022	1.609	0.274	0.766	0.175	0.015	2.299	0.389	1.078
24	TN	Johnsonville	3406	1 thru 10	D03406C10	2.432	0.189	0.011	2.432	0.411	1.137	0.063	0.012	0.915	0.157	0.443	0.065	0.011	0.930	0.159	0.450
25	PA	Keystone	3136	1	D031361	2.428	0.173	0.027	2.428	0.411	1.135	0.113	0.075	2.292	0.388	1.075	0.110	0.044	1.875	0.318	0.888
26	PA	Keystone	3136	2	D031362	2.417	0.172	0.027	2.417	0.409	1.130	0.112	0.075	2.280	0.386	1.069	0.110	0.043	1.865	0.317	0.883
27	OH	Walter C Beckford Generating Station		5 (50%)	D02830M51	2.381	0.174	0.005	2.164	0.367	1.018	0.185	0.011	2.381	0.403	1.115	0.096	0.005	1.227	0.210	0.590
28	KY	Big Sandy	1353	BSU1,BSU2	D01353C02	2.303	0.171	0.013	2.231	0.378	1.048	0.150	0.031	2.203	0.373	1.035	0.169	0.021	2.303	0.390	1.080
29	NC	L V Sutton		3	D027133	2.294	0.179	0.011	2.294	0.388	1.076	0.118	0.021	1.682	0.286	0.800	0.035	0.012	0.570	0.098	0.278
30	MI	Trenton Channel	1745	9A	D017459A	2.287	0.109	0.012	1.457	0.248	0.697	0.113	0.016	1.564	0.266	0.746	0.163	0.025	2.287	0.387	1.073
31	MI	St. Clair	1743	7	D017437	2.184	0.128	0.014	1.725	0.293	0.820	0.164	0.016	2.184	0.370	1.027	0.133	0.022	1.878	0.319	0.889
32	GA	Harllee Branch	709	3&4	D00709C02	2.173	0.156	0.019	2.114	0.358	0.996	0.149	0.030	2.173	0.368	1.022	0.073	0.013	1.041	0.178	0.503
33	MI	St. Clair	1743	1,2,3,4,...6	x09	2.153	0.085	0.035	1.462	0.249	0.699	0.113	0.042	1.891	0.321	0.895	0.114	0.063	2.153	0.365	1.013
34	NH	Newington	8002	1	D080021	2.128	0.159	0.016	2.128	0.361	1.002	0.126	0.037	1.976	0.335	0.933	0.115	0.016	1.593	0.271	0.759
35	IN	Clifty Creek	983	1,2,3	D00983C01	2.071	0.139	0.006	1.747	0.297	0.830	0.157	0.014	2.071	0.351	0.976	0.093	0.006	1.196	0.204	0.575
36	IN	Tanners Creek	988	U4	D00988U4	2.023	0.152	0.010	1.970	0.334	0.931	0.152	0.015	2.023	0.343	0.955	0.080	0.007	1.061	0.181	0.512
37	OH	Muskingum River	2872	5	D028725	2.006	0.163	0.002	2.006	0.340	0.947	0.104	0.006	1.334	0.228	0.639	0.101	0.006	1.297	0.221	0.622
38	VA	Chesapeake Energy Center		4	D038034	1.998	0.149	0.016	1.998	0.339	0.943	0.076	0.013	1.080	0.185	0.521	0.089	0.009	1.189	0.203	0.572
39	IL	Powerton		51,52,61,62	D00879C06	1.978	0.047	0.016	0.771	0.132	0.375	0.060	0.015	0.914	0.156	0.442	0.125	0.038	1.978	0.336	0.934
40	MA	Canal Station	1599	1	D015991	1.932	0.113	0.017	1.581	0.269	0.754	0.133	0.026	1.932	0.328	0.913	0.076	0.017	1.120	0.192	0.540

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
41	PA	Portland		3 (2)	d031132	1.909	0.115	0.009	**1.505**	0.256	0.719	0.134	0.022	**1.883**	0.320	0.892	0.132	0.025	**1.909**	0.324	0.903
42	PA	Brunner Island	3140	1,2	D03140C12	1.873	0.048	0.021	0.839	0.144	0.407	0.086	0.068	**1.873**	0.318	0.887	0.062	0.050	**1.360**	0.232	0.652
43	PA	Brunner Island	3140	3	D031403	1.854	0.056	0.031	**1.063**	0.182	0.513	0.068	0.084	**1.854**	0.315	0.878	0.086	0.052	**1.686**	0.287	0.802
44	NY	Cayuga Operating Company, LLC		1 (33%), 2 (33	D02535C01	1.831	0.137	0.014	**1.831**	0.311	0.868	0.113	0.014	**1.528**	0.260	0.729	0.098	0.020	**1.440**	0.246	0.689
45	OH	Cardinal	2828	3	D028283	1.820	0.147	0.004	**1.820**	0.309	0.863	0.109	0.007	**1.404**	0.239	0.672	0.071	0.006	0.923	0.158	0.447
46	MI	Belle River		2	D060342	1.659	0.068	0.030	**1.191**	0.204	0.573	0.077	0.030	**1.298**	0.222	0.623	0.094	0.042	**1.659**	0.282	0.790
47	MI	Belle River		1	D060341	1.637	0.067	0.030	**1.175**	0.201	0.566	0.076	0.029	**1.280**	0.219	0.615	0.093	0.042	**1.637**	0.279	0.780
48	PA	Martins Creek	3148	3,4	x21	1.632	0.026	0.036	0.757	0.130	0.368	0.028	0.104	**1.632**	0.278	0.777	0.026	0.084	**1.356**	0.231	0.650
49	WV	Harrison Power Station		1 (25%), 2 (20	D03944C01	1.576	0.033	0.026	0.711	0.122	0.346	0.034	0.095	**1.576**	0.268	0.752	0.024	0.060	**1.036**	0.177	0.500
50	SC	Wateree	3297	WAT1	D03297WT1	1.575	0.126	0.004	**1.575**	0.268	0.751	0.052	0.007	0.712	0.122	0.346	0.026	0.003	0.357	0.061	0.175
51	VA	Chesterfield Power Station	3797	3,7,8A	x28	1.570	0.123	0.007	**1.570**	0.267	0.749	0.106	0.006	**1.360**	0.232	0.652					
52	NJ	B L England	2378	1		1.511	0.070	0.010	0.974	0.167	0.471	0.076	0.011	**1.051**	0.180	0.507	0.116	0.009	**1.511**	0.257	0.721
53	PA	Montour	3149	1	D031491	1.504	0.096	0.028	**1.504**	0.256	0.718	0.055	0.067	**1.484**	0.253	0.709	0.062	0.061	**1.500**	0.256	0.717
54	MA	Canal Station	1599	2	D015992	1.503	0.074	0.026	**1.216**	0.208	0.585	0.079	0.045	**1.503**	0.256	0.718	0.035	0.025	0.733	0.126	0.356
55	VA	Chesapeake Energy Center		3	D038033	1.501	0.107	0.017	**1.501**	0.256	0.717	0.053	0.013	0.796	0.136	0.387	0.062	0.010	0.871	0.149	0.422
56	MI	J H Campbell		3 (50%)	D01710M3A	1.499	0.067	0.024	**1.115**	0.191	0.537	0.099	0.025	**1.499**	0.255	0.716	0.066	0.034	**1.209**	0.207	0.581
57	PA	Montour	3149	2	D031492	1.484	0.097	0.025	**1.484**	0.253	0.709	0.055	0.060	**1.409**	0.240	0.674	0.062	0.055	**1.434**	0.245	0.686
58	NY	Somerset Operating Company (Kintigh)		1	D060821	1.461	0.087	0.033	**1.461**	0.249	0.699	0.073	0.044	**1.424**	0.243	0.681	0.067	0.042	**1.323**	0.226	0.634
59	MD	Morgantown	1573	1	D015731	1.422	0.113	0.005	**1.422**	0.243	0.680	0.092	0.003	**1.145**	0.196	0.551	0.114	0.003	**1.411**	0.241	0.675
60	NC	L V Sutton		1, 2	D02713C02	1.409	0.112	0.005	**1.409**	0.240	0.674	0.068	0.009	0.936	0.160	0.453	0.023	0.005	0.344	0.059	0.169
61	NC	H F Lee Steam Electric Plant		3	D027093	1.395	0.109	0.006	**1.395**	0.238	0.668	0.032	0.005	0.455	0.078	0.223	0.022	0.007	0.345	0.059	0.169
62	SC	Jefferies	3319	4		1.386	0.107	0.007	**1.386**	0.237	0.664	0.103	0.009	**1.358**	0.232	0.651	0.038	0.003	0.494	0.085	0.242
63	SC	Jefferies	3319	3		1.386	0.108	0.007	**1.386**	0.236	0.664	0.103	0.009	**1.364**	0.233	0.653	0.039	0.003	0.510	0.088	0.250
64	VA	Yorktown Power Station	3809	3	D038093	1.359	0.100	0.013	**1.359**	0.232	0.651	0.051	0.008	0.715	0.123	0.348	0.079	0.009	**1.071**	0.183	0.517
65	IL	Kincaid Generating Station		1, 2	D00876C02	1.351	0.047	0.063	**1.351**	0.231	0.648	0.047	0.051	**1.194**	0.204	0.574	0.056	0.048	**1.276**	0.218	0.613
66	MD	C P Crane	1552	2	D015522	1.347	0.058	0.011	0.835	0.143	0.405	0.079	0.014	**1.125**	0.192	0.542	0.088	0.023	**1.347**	0.230	0.646
67	MI	St. Clair	1743	6	D017436	1.332	0.079	0.010	**1.079**	0.185	0.520	0.101	0.009	**1.332**	0.227	0.639	0.079	0.014	**1.125**	0.192	0.542
68	DE	Indian River	594	4	D005944	1.321	0.055	0.007	0.744	0.128	0.362	0.094	0.015	**1.321**	0.226	0.634	0.032	0.009	0.493	0.085	0.241
69	SC	Wateree	3297	WAT2	D03297WT2	1.298	0.104	0.003	**1.298**	0.222	0.623	0.039	0.005	0.526	0.090	0.257	0.018	0.002	0.244	0.042	0.120
70	MI	J H Campbell		A,B,1,2	D01710C09	1.298	0.056	0.018	0.897	0.154	0.435	0.091	0.017	**1.298**	0.222	0.623	0.056	0.021	0.939	0.161	0.455
71	WV	Kammer	3947	1,2,3	D03947C03	1.285	0.098	0.009	**1.285**	0.219	0.617	0.071	0.026	**1.179**	0.201	0.567	0.054	0.014	0.825	0.141	0.400
72	OH	Gen J M Gavin	8102	2	D081022	1.254	0.099	0.005	**1.254**	0.214	0.602	0.070	0.019	**1.076**	0.184	0.519	0.077	0.017	**1.133**	0.194	0.546
73	KY	Mill Creek	1364	1,2,3	x05	1.248	0.068	0.012	0.973	0.167	0.470	0.076	0.027	**1.248**	0.213	0.600	0.043	0.022	0.789	0.135	0.383
74	IN	Gibson	6113	1,2,3	D06113C03	1.248	0.034	0.068	**1.248**	0.213	0.599	0.021	0.050	0.872	0.149	0.423	0.015	0.029	0.543	0.093	0.265
75	OH	Gen J M Gavin	8102	1	D081021	1.237	0.097	0.005	**1.237**	0.211	0.594	0.069	0.018	**1.059**	0.181	0.511	0.076	0.016	**1.116**	0.191	0.538
76	PA	Portland		2 (1)	d031131	1.222	0.074	0.003	0.934	0.160	0.452	0.085	0.007	**1.116**	0.191	0.538	0.092	0.009	**1.222**	0.209	0.588
77	TN	Kingston	3407	6,7,8,9	D03407C69	1.217	0.098	0.002	**1.217**	0.208	0.585	0.046	0.003	0.596	0.102	0.291	0.049	0.002	0.622	0.107	0.303
78	MD	C P Crane	1552	1	D015521	1.214	0.052	0.010	0.753	0.129	0.366	0.071	0.012	**1.016**	0.174	0.491	0.079	0.021	**1.214**	0.207	0.584
79	PA	Armstrong Power Station		1	D031781	1.206	0.096	0.004	**1.206**	0.206	0.580	0.064	0.008	0.866	0.148	0.420					
80	NY	Oswego Harbor Power	2594	5	D025945	1.204	0.079	0.020	**1.204**	0.206	0.579										

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81	KY	John S. Cooper	1384	1,2	D01384CS1	1.201	0.093	0.006	**1.201**	0.205	0.577	0.035	0.006	0.502	0.086	0.246	0.025	0.004	0.344	0.059	0.169
82	SC	Canadys Steam		CAN3	D03280CN3	1.190	0.092	0.007	**1.190**	0.203	0.572	0.065	0.006	0.864	0.148	0.419	0.029	0.003	0.382	0.066	0.188
83	MA	Brayton Point	1619	4	x07	1.190	0.077	0.016	**1.121**	0.192	0.540	0.076	0.022	**1.190**	0.203	0.572	0.041	0.012	0.648	0.111	0.316
84	PA	Armstrong Power Station		2	D031782	1.187	0.094	0.004	**1.187**	0.203	0.571	0.062	0.009	0.858	0.147	0.416					
85	MO	Sibley		1, 2, 3	D02094C01	1.168	0.085	0.012	**1.168**	0.200	0.562	0.049	0.005	0.657	0.113	0.320	0.081	0.006	**1.045**	0.179	0.505
86	IN	IPL - Petersburg Generating Station		4	D009944	1.143	0.081	0.013	**1.143**	0.195	0.551	0.045	0.013	0.695	0.119	0.339	0.037	0.008	0.534	0.092	0.261
87	IA	Ottumwa		1	D062541	1.132	0.075	0.018	**1.132**	0.194	0.546	0.031	0.008	0.482	0.083	0.236	0.068	0.018	**1.050**	0.180	0.507
88	PA	Sunbury		4	D031524	1.131	0.091	0.003	**1.131**	0.193	0.545	0.068	0.008	0.915	0.157	0.443	0.048	0.006	0.655	0.112	0.319
89	NH	Schiller	2367	6		1.128	0.047	0.028	0.914	0.157	0.443	0.053	0.019	0.871	0.149	0.422	0.065	0.028	**1.128**	0.193	0.544
90	TN	Kingston	3407	1,2,3,4,5	D03407C15	1.127	0.091	0.002	**1.127**	0.193	0.543	0.042	0.004	0.557	0.096	0.272	0.045	0.003	0.578	0.099	0.282
91	MI	Trenton Channel	1745	16,17,18,19	x10	1.118	0.043	0.012	0.655	0.112	0.319	0.045	0.017	0.750	0.129	0.365	0.065	0.027	**1.118**	0.191	0.539
92	NH	Schiller	2367	4		1.114	0.046	0.028	0.902	0.154	0.437	0.052	0.019	0.860	0.147	0.417	0.064	0.028	**1.114**	0.190	0.537
93	IN	R M Schahfer Generating Station		14	D0608514	1.097	0.039	0.009	0.576	0.099	0.281	0.086	0.004	**1.097**	0.188	0.529	0.074	0.016	**1.087**	0.186	0.524
94	MD	Herbert A Wagner	1554	3	D015543	1.081	0.047	0.007	0.651	0.112	0.317	0.062	0.009	0.850	0.146	0.412	0.077	0.013	**1.081**	0.185	0.521
95	GA	Harllee Branch	709	1,2	D00709C01	1.062	0.079	0.008	**1.052**	0.180	0.508	0.072	0.015	**1.062**	0.182	0.513	0.040	0.008	0.583	0.100	0.284
96	IN	Michigan City Generating Station		12	D0099712	1.046	0.030	0.006	0.432	0.074	0.212	0.082	0.005	**1.046**	0.179	0.505	0.072	0.012	**1.013**	0.173	0.489
97	AL	E C Gaston	26	3, 4	D00026CBN	1.044	0.048	0.004	0.628	0.108	0.306	0.052	0.009	0.733	0.126	0.356	0.076	0.010	**1.044**	0.179	0.504
98	WV	Pleasants Power Station	6004	2	D060042	1.044	0.039	0.006	0.543	0.093	0.265	0.027	0.018	0.543	0.093	0.265	0.076	0.010	**1.044**	0.179	0.504
99	KY	Paradise	1378	2	D013782	1.023	0.079	0.006	**1.023**	0.175	0.494	0.037	0.005	0.498	0.086	0.243	0.056	0.004	0.727	0.125	0.354
100	MI	Dan E Karn	1702	3,4 (1,2)	D01702C09	1.021	0.061	0.024	**1.021**	0.175	0.493	0.038	0.020	0.704	0.121	0.342	0.046	0.024	0.847	0.145	0.411
101	VA	Chesterfield Power Station	3797	4	D037974	1.005	0.056	0.006	0.760	0.130	0.369	0.051	0.005	0.666	0.114	0.324	0.076	0.007	**1.005**	0.172	0.486
102	KY	Paradise	1378	3	D013783	1.002	0.047	0.035	**1.002**	0.172	0.484	0.024	0.031	0.668	0.115	0.326	0.034	0.024	0.706	0.121	0.344
103	IN	R M Schahfer Generating Station		15	D0608515	1.001	0.029	0.011	0.493	0.085	0.241	0.066	0.008	0.895	0.153	0.434	0.060	0.023	**1.001**	0.171	0.484
104	MI	J C Weadock		7, 8	D01720C09	0.989	0.063	0.019	0.989	0.169	0.478	0.040	0.016	0.672	0.115	0.327	0.049	0.018	0.815	0.140	0.396
105	PA	Sunbury		3	D031523	0.972	0.077	0.003	0.972	0.166	0.470	0.055	0.007	0.753	0.129	0.366	0.055	0.005	0.724	0.124	0.352
106	AL	E C Gaston	26	1, 2	D00026CAN	0.971	0.050	0.003	0.642	0.110	0.313	0.058	0.008	0.791	0.136	0.384	0.070	0.010	0.971	0.166	0.470
107	VA	Chesapeake Energy Center		2	D038032	0.930	0.067	0.010	0.930	0.159	0.450	0.034	0.007	0.492	0.085	0.241	0.039	0.006	0.540	0.093	0.264
108	NC	Mayo	6250	1A,1B	D06250C05	0.927	0.070	0.007	0.927	0.159	0.449	0.033	0.005	0.464	0.080	0.227	0.049	0.009	0.699	0.120	0.340
109	SC	H B Robinson		1	D032511	0.902	0.069	0.005	0.902	0.155	0.437	0.017	0.005	0.268	0.046	0.132	0.014	0.005	0.235	0.040	0.116
110	KY	Paradise	1378	1	D01720C09	0.901	0.069	0.005	0.901	0.154	0.436	0.032	0.004	0.440	0.076	0.216	0.049	0.004	0.640	0.110	0.312
111	IA	George Neal South		4	D073434	0.897	0.025	0.009	0.419	0.072	0.206	0.028	0.009	0.447	0.077	0.219	0.054	0.020	0.897	0.154	0.435
112	WI	Columbia		2	D080232	0.896	0.061	0.013	0.896	0.154	0.434	0.053	0.011	0.773	0.132	0.375	0.037	0.009	0.558	0.096	0.273
113	AL	Colbert	47	1, 2, 3, 4	D00047C14	0.893	0.063	0.011	0.893	0.153	0.433										
114	MA	Salem Harbor Station	1626	1		0.886	0.055	0.009	0.772	0.132	0.375	0.046	0.027	0.886	0.152	0.429	0.036	0.014	0.610	0.105	0.298
115	WV	Kanawha River	3936	1,2	D03936C02	0.865	0.059	0.006	0.788	0.135	0.383	0.048	0.019	0.813	0.139	0.395	0.063	0.008	0.865	0.148	0.419
116	AR	White Bluff		1	D060091	0.860	0.049	0.021	0.860	0.147	0.417										
117	MD	Brandon Shores	602	2	D006022	0.855	0.015	0.021	0.436	0.075	0.214	0.021	0.028	0.600	0.103	0.293	0.024	0.045	0.855	0.146	0.415
118	NY	Oswego Harbor Power	2594	6	x15	0.855	0.053	0.017	0.855	0.146	0.414	0.035	0.018	0.635	0.109	0.309	0.039	0.021	0.722	0.124	0.351
119	AR	White Bluff		2	D060092	0.852	0.048	0.023	0.852	0.146	0.413										
120	IN	IPL - Petersburg Generating Station		3	D009943	0.849	0.056	0.014	0.849	0.145	0.412	0.031	0.012	0.529	0.091	0.259	0.025	0.008	0.401	0.069	0.197

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121	WI	Columbia		1	D080231	0.844	0.058	0.012	0.844	0.145	0.409	0.049	0.009	0.707	0.121	0.344	0.033	0.009	0.509	0.087	0.249
122	IN	Gibson	6113	5	D061135	0.829	0.050	0.019	0.829	0.142	0.402										
123	MD	Brandon Shores	602	1	D006021	0.827	0.015	0.020	0.425	0.073	0.208	0.022	0.026	0.585	0.100	0.286	0.025	0.043	0.827	0.142	0.401
124	KY	Ghent	1356	3,4 … (2,3)	D01356C02	0.821	0.042	0.010	0.620	0.106	0.302	0.048	0.020	0.821	0.141	0.398	0.026	0.007	0.403	0.069	0.197
125	WV	Phil Sporn	3938	11,21,31,41	D03938C04	0.816	0.063	0.005	0.816	0.140	0.396										
126	TN	Gallatin	3403	3,4	D03403C34	0.795	0.061	0.005	0.795	0.136	0.386										
127	PA	Sunbury		1A, 1B	D03152CS1	0.792	0.063	0.002	0.792	0.136	0.384	0.046	0.005	0.626	0.107	0.305	0.037	0.004	0.499	0.086	0.244
128	OH	Eastlake	2837	1	D028371	0.790	0.060	0.005	0.790	0.135	0.384										
129	GA	Jack McDonough		MB1, MB2	D00710C01	0.781	0.062	0.003	0.781	0.134	0.379	0.043	0.006	0.587	0.101	0.287	0.029	0.003	0.387	0.067	0.190
130	MO	New Madrid Power Plant		1	D021671	0.780	0.022	0.042	0.780	0.134	0.379										
131	IN	Gibson	6113	4	D061135	0.775	0.017	0.046	0.775	0.133	0.377										
132	CT	Bridgeport Harbor Station	568	BHB3		0.758	0.020	0.012	0.382	0.066	0.187	0.026	0.036	0.758	0.130	0.369	0.019	0.014	0.406	0.070	0.199
133	OH	Eastlake	2837	2	D028372	0.758	0.058	0.005	0.758	0.130	0.368										
134	OH	Conesville	2840	5,6	D02840C06	0.757	0.025	0.015	0.492	0.085	0.241	0.017	0.045	0.757	0.130	0.368	0.011	0.024	0.427	0.073	0.209
135	IN	IPL - Harding Street Station (EW Stout)		50	D0099050	0.751	0.059	0.003	0.751	0.129	0.365	0.046	0.002	0.579	0.099	0.283	0.035	0.002	0.447	0.077	0.219
136	TX	Big Brown	3497	2		0.745	0.053	0.004	0.679	0.117	0.331	0.058	0.004	0.745	0.128	0.362	0.019	0.000	0.233	0.040	0.115
137	KY	Shawnee		1,2,3,4,5	D01379C15	0.744	0.039	0.022	0.744	0.128	0.362										
138	IN	IPL - Petersburg Generating Station		1 (50%)	D00994M1B	0.742	0.056	0.005	0.742	0.127	0.361										
139	IN	Merom		2SG1	D062132G1	0.737	0.056	0.005	0.737	0.126	0.358										
140	NC	Cape Fear	2708	6		0.733	0.055	0.006	0.733	0.126	0.357	0.016	0.003	0.236	0.041	0.116	0.017	0.004	0.254	0.044	0.125
141	IN	Alcoa Allowance Management Inc	6705	1,2	D06705C02	0.732	0.015	0.045	0.732	0.126	0.356										
142	GA	Yates		Y6BR	D00728Y6R	0.732	0.054	0.004	0.698	0.120	0.340	0.056	0.005	0.732	0.126	0.356	0.038	0.002	0.491	0.084	0.240
143	IN	Tanners Creek	988	U1,U2,U3	D00988C03	0.722	0.049	0.006	0.671	0.115	0.327	0.049	0.011	0.722	0.124	0.351	0.026	0.006	0.380	0.065	0.187
144	WV	Pleasants Power Station	6004	1	D060041	0.722	0.043	0.009	0.634	0.109	0.309	0.030	0.026	0.679	0.117	0.331	0.029	0.030	0.722	0.124	0.351
145	MN	Sherburne County		1, 2	D06090CS1	0.722	0.033	0.026	0.722	0.124	0.351	0.035	0.020	0.673	0.116	0.328	0.025	0.026	0.618	0.106	0.302
146	IN	Whitewater Valley		1, 2	D01040C12	0.718	0.054	0.002	0.670	0.115	0.326	0.057	0.002	0.718	0.123	0.349	0.030	0.001	0.386	0.066	0.189
147	OK	Northeastern		3313, 3314	D02963C10	0.714	0.035	0.024	0.714	0.122	0.347	0.031	0.027	0.710	0.122	0.345	0.024	0.008	0.384	0.066	0.188
148	VA	Chesapeake Energy Center		1	D038031	0.713	0.048	0.011	0.713	0.122	0.347	0.024	0.007	0.385	0.066	0.189	0.028	0.006	0.413	0.071	0.203
149	TX	Big Brown	3497	1		0.712	0.050	0.004	0.648	0.111	0.316	0.055	0.004	0.712	0.122	0.346	0.018	0.000	0.222	0.038	0.109
150	KS	Nearman Creek	6064	N1		0.706	0.035	0.023	0.706	0.121	0.344										
151	KY	Mill Creek	1364	4	D013644	0.703	0.047	0.004	0.618	0.106	0.301	0.051	0.008	0.703	0.121	0.342	0.029	0.007	0.436	0.075	0.214
152	TN	John Sevier	3405	1,2	D03405C12	0.703	0.054	0.004	0.703	0.121	0.342	0.035	0.008	0.516	0.089	0.252	0.026	0.005	0.369	0.063	0.181
153	IL	Baldwin Energy Complex		1,2	D008892	0.703	0.048	0.006	0.654	0.112	0.319	0.048	0.005	0.640	0.110	0.312	0.053	0.005	0.703	0.121	0.342
154	OH	Killen Station	6031	2	D060312	0.703	0.039	0.009	0.577	0.099	0.282	0.036	0.022	0.703	0.121	0.342	0.040	0.014	0.651	0.112	0.317
155	IA	Louisa		101	D06664101	0.699	0.039	0.019	0.699	0.120	0.340										
156	TN	Gallatin	3403	1,2	D03403C12	0.696	0.054	0.004	0.696	0.119	0.339										
157	TN	John Sevier	3405	3,4	D03405C34	0.687	0.053	0.004	0.687	0.118	0.334	0.034	0.008	0.505	0.087	0.247	0.025	0.005	0.361	0.062	0.177
158	IN	IPL - Harding Street Station (EW Stout)		60	D0099060	0.679	0.053	0.003	0.679	0.117	0.331	0.041	0.002	0.524	0.090	0.256	0.032	0.002	0.404	0.070	0.198
159	NY	Huntley Power	2549	67,68	D02549C01	0.678	0.044	0.012	0.678	0.116	0.330										
160	OH	Eastlake	2837	3	D028373	0.656	0.050	0.004	0.656	0.113	0.320										

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161	CT	Middletown	562	4		0.648	0.034	0.020	0.648	0.111	0.316										
162	IN	IPL - Eagle Valley Generating Station		5, 6	D00991C56	0.644	0.049	0.004	0.644	0.111	0.314										
163	MO	New Madrid Power Plant		2	D021672	0.634	0.021	0.031	0.634	0.109	0.309										
164	KY	Shawnee		6,7,8,9,10	D01379C60	0.608	0.034	0.016	0.608	0.104	0.297										
165	IN	IPL - Petersburg Generating Station		2(50%)	D00994M2B	0.601	0.038	0.012	0.601	0.103	0.293										
166	WV	Albright Power Station	3942	3	D039423	0.599	0.047	0.002	0.599	0.103	0.292	0.027	0.005	0.394	0.068	0.193	0.025	0.004	0.349	0.060	0.171
167	PA	Homer City		3	D031223	0.591	0.038	0.008	0.552	0.095	0.270	0.020	0.028	0.591	0.101	0.288	0.022	0.023	0.543	0.093	0.265
168	KS	La Cygne		2	D012412	0.588	0.030	0.016	0.563	0.097	0.275	0.037	0.012	0.588	0.101	0.287	0.022	0.008	0.359	0.062	0.176
169	TX	Martin Lake	6146	1		0.588	0.038	0.007	0.540	0.093	0.264	0.041	0.007	0.588	0.101	0.287	0.013	0.001	0.173	0.030	0.085
170	NJ	B L England	2378	2,3	x12	0.588	0.022	0.015	0.449	0.077	0.220	0.023	0.016	0.474	0.082	0.232	0.036	0.013	0.588	0.101	0.287
171	SC	Winyah	6249	2,3,4	x23	0.587	0.039	0.009	0.587	0.101	0.287										
172	MI	River Rouge		3	D017403	0.583	0.035	0.013	0.583	0.100	0.285										
173	OH	J M Stuart	2850	4	D028404	0.561	0.034	0.005	0.473	0.081	0.231	0.033	0.013	0.561	0.096	0.274	0.036	0.009	0.539	0.093	0.263
174	NY	Northport	2516	1,2,4,ugt001	x14	0.554	0.025	0.012	0.451	0.078	0.221	0.024	0.022	0.554	0.095	0.271					
175	WI	Edgewater (4050)	4050	5		0.547	0.037	0.008	0.547	0.094	0.267										
176	IN	IPL - Harding Street Station (EW Stout)	990	70	D0099070	0.547	0.037	0.009	0.547	0.094	0.267										
177	GA	Yates		Y7BR	D00728Y7R	0.545	0.040	0.003	0.520	0.089	0.254	0.041	0.004	0.545	0.094	0.266	0.028	0.002	0.365	0.063	0.179
178	TX	Martin Lake	6146	2		0.541	0.035	0.006	0.495	0.085	0.242	0.039	0.006	0.541	0.093	0.264	0.013	0.001	0.160	0.028	0.079
179	MO	Labadie		3	D021033	0.539	0.039	0.006	0.539	0.093	0.263										
180	MO	Labadie		4	D021034	0.532	0.039	0.005	0.532	0.091	0.260	0.030	0.005	0.424	0.073	0.208	0.024	0.004	0.329	0.057	0.162
181	NC	Riverbend	2732	9		0.524	0.042	0.001	0.524	0.090	0.256										
182	OH	Eastlake	2837	4,6, (5)	x17	0.519	0.037	0.006	0.519	0.089	0.254										
183	GA	Scherer		4	D062574	0.513	0.034	0.003	0.453	0.078	0.222	0.036	0.007	0.513	0.088	0.251	0.032	0.005	0.455	0.078	0.223
184	AR	Independence		1	D066411	0.512	0.028	0.014	0.512	0.088	0.250										
185	MO	Labadie		1	D021031	0.511	0.037	0.005	0.511	0.088	0.250										
186	GA	Scherer		1	D062571	0.510	0.033	0.004	0.443	0.076	0.217	0.035	0.007	0.510	0.088	0.249	0.031	0.006	0.449	0.077	0.220
187	MI	Monroe	1733	3,4	D01733C34	0.504	0.025	0.016	0.504	0.087	0.247										
188	NE	Nebraska City Station		1	D060961	0.504	0.034	0.008	0.504	0.087	0.247										
189	TX	Martin Lake	6146	3		0.504	0.032	0.006	0.462	0.079	0.226	0.035	0.006	0.504	0.087	0.246	0.012	0.001	0.148	0.025	0.073
190	GA	Scherer		2	D062572	0.503	0.033	0.004	0.439	0.076	0.215	0.035	0.007	0.503	0.086	0.246	0.031	0.005	0.443	0.076	0.217
191	WV	John E Amos	3935	1,2	D03935C02	0.500	0.035	0.004	0.464	0.080	0.227	0.029	0.012	0.500	0.086	0.245	0.033	0.009	0.499	0.086	0.244
192	VA	Bremo Power Station		4	D037964	0.498	0.033	0.004	0.456	0.078	0.223	0.027	0.003	0.368	0.063	0.181	0.037	0.005	0.498	0.086	0.244
193	KY	Green River		5	D013575	0.496	0.039	0.002	0.496	0.085	0.243										
194	AR	Independence		2	D066412	0.495	0.028	0.013	0.495	0.085	0.242										
195	KY	D B Wilson		W1	D06823W1	0.492	0.039	0.002	0.492	0.085	0.241										
196	VA	Clinch River	3775	1,2	D03775C02	0.490	0.035	0.005	0.490	0.084	0.240										
197	SC	Urquhart		URQ3	D03295UQ3	0.482	0.039	0.001	0.482	0.083	0.236										
198	PA	Shawville	3131	1	D031311	0.473	0.036	0.003	0.473	0.081	0.231										
199	IL	Newton		2	D060172	0.471	0.033	0.006	0.471	0.081	0.231										
200	MN	Sherburne County		3	D060903	0.470	0.025	0.013	0.470	0.081	0.230										

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201	PA	Shawville	3131	2	D031312	0.466	0.036	0.003	0.466	0.080	0.228										
202	OH	Cardinal	2828	1	D028281	0.458	0.035	0.002	0.458	0.079	0.224										
203	TX	Monticello	6147	1		0.437	0.029	0.004	0.398	0.069	0.195	0.032	0.004	0.437	0.075	0.214	0.011	0.000	0.132	0.023	0.065
204	NY	Dynegy Danskammer	2480	1,2,3	x13	0.431	0.026	0.010	0.431	0.074	0.211										
205	WV	Mitchell (WV)	3948	1,2	D03948C02	0.429	0.031	0.005	0.429	0.074	0.210	0.023	0.012	0.421	0.072	0.206	0.018	0.009	0.326	0.056	0.160
206	OK	Sooner	6095	1		0.426	0.021	0.014	0.426	0.073	0.209										
207	OK	Sooner		2	D060952	0.423	0.020	0.015	0.423	0.073	0.207										
208	KY	Green River		4	D013574	0.420	0.033	0.001	0.420	0.072	0.206										
209	NC	Roxboro	2712	4A,4B	D02712C04	0.405	0.027	0.007	0.405	0.070	0.199	0.012	0.005	0.211	0.036	0.104	0.019	0.010	0.349	0.060	0.172
210	SC	McMeekin		MCM2	D03287MM2	0.400	0.032	0.001	0.400	0.069	0.196										
211	MO	Rush Island		2	D061552	0.396	0.030	0.003	0.396	0.068	0.194										
212	NC	Roxboro	2712	3A,3B	D02712C03	0.391	0.024	0.008	0.391	0.067	0.192	0.011	0.006	0.211	0.036	0.104	0.017	0.013	0.359	0.062	0.176
213	MO	Rush Island		1	D061551	0.391	0.029	0.003	0.391	0.067	0.192										
214	CT	New Haven Harbor	6156	NHB1		0.390	0.023	0.009	0.390	0.067	0.191										
215	MD	Herbert A Wagner	1554	1,2,4	x08	0.389	0.026	0.006	0.389	0.067	0.191										
216	MO	Thomas Hill Energy Center		MB3	D02168MB3	0.388	0.026	0.006	0.388	0.067	0.190										
217	TN	Cumberland	3399	1		0.386	0.027	0.005	0.386	0.066	0.189										
218	SC	McMeekin		MCM1	D03287MM1	0.383	0.031	0.001	0.383	0.066	0.188										
219	MN	Black Dog		3, 4	D01904CS1	0.378	0.009	0.022	0.378	0.065	0.186										
220	ME	William F Wyman	1507	3		0.376	0.022	0.009	0.376	0.065	0.184										
221	TX	Monticello	6147	2		0.372	0.028	0.003	0.372	0.064	0.183										
222	TX	Monticello	6147	3		0.367	0.025	0.006	0.367	0.063	0.180										
223	PA	Hatfield's Ferry Power Station	3179	3	x20	0.365	0.007	0.023	0.365	0.063	0.179										
224	OK	Grand River Dam Authority		1	D001651	0.364	0.017	0.010	0.328	0.057	0.161	0.021	0.009	0.364	0.063	0.179	0.013	0.003	0.198	0.034	0.097
225	NC	Roxboro	2712	2	D027122	0.355	0.024	0.005	0.355	0.061	0.174										
226	OH	Miami Fort Generating Station	2832	7	D028327	0.352	0.021	0.008	0.352	0.061	0.173										
227	OH	Cardinal	2828	2	D028282	0.342	0.026	0.003	0.342	0.059	0.168										
228	IN	R Gallagher	1008	1,2	D01008C01	0.338	0.024	0.004	0.338	0.058	0.166										
229	WV	Fort Martin Power Station	3943	1	D039431	0.334	0.016	0.011	0.334	0.058	0.164										
230	WI	South Oak Creek		7, 8	D04041CS4	0.324	0.021	0.006	0.324	0.056	0.159										
231	OH	Miami Fort Power Station		8	D028328	0.320	0.018	0.008	0.320	0.055	0.157										
232	NC	Marshall	2727	1,2	x11	0.319	0.018	0.008	0.319	0.055	0.157										
233	TX	H W Pirkey Power Plant	7902	1		0.319	0.021	0.005	0.319	0.055	0.157										
234	NJ	Hudson Generating Station	2403	2	D024032	0.311	0.013	0.008	0.259	0.045	0.127	0.017	0.008	0.311	0.054	0.153	0.014	0.009	0.280	0.048	0.138
235	IN	Cayuga	1001	2	D010012	0.308	0.011	0.014	0.308	0.053	0.151										
236	WI	Nelson Dewey	4054	2		0.306	0.022	0.003	0.306	0.053	0.150										
237	IN	R Gallagher	1008	3,4	D01008C02	0.303	0.021	0.004	0.303	0.052	0.149										
238	IL	Joppa Steam		1, 2	D00887CS1	0.301	0.021	0.004	0.301	0.052	0.148										
239	WV	Fort Martin Power Station	3943	2	D039432	0.299	0.015	0.010	0.299	0.052	0.147										
240	IL	Joppa Steam		3, 4	D00887CS2	0.298	0.021	0.003	0.298	0.051	0.146										

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241	WI	Genoa	4143	1		0.295	0.020	0.005	0.295	0.051	0.145										
242	TX	Limestone	298	LIM2		0.295	0.017	0.007	0.295	0.051	0.145										
243	OK	Muskogee	2952	4		0.294	0.016	0.009	0.294	0.051	0.144										
244	MD	Dickerson	1572	1,2,3	D01572C23	0.290	0.009	0.014	0.290	0.050	0.143										
245	IA	Walter Scott Jr. Energy Center		3	D010823	0.287	0.016	0.007	0.287	0.049	0.141										
246	WV	Longview Power	56671	1		0.287	0.021	0.003	0.287	0.049	0.141										
247	IL	Wood River Power Station		5	D008985	0.285	0.019	0.004	0.285	0.049	0.140										
248	KS	La Cygne	1241	1		0.282	0.017	0.006	0.282	0.049	0.139	0.015	0.003	0.220	0.038	0.108	0.011	0.002	0.157	0.027	0.077
249	NC	Marshall	2727	4	D027274	0.282	0.014	0.009	0.282	0.049	0.139										
250	NY	CCI Roseton LLC	8006	2	D080062	0.281	0.014	0.009	0.281	0.048	0.138										
251	DE	Edge Moor	593	5	D005935	0.279	0.022	0.002	0.279	0.048	0.137										
252	NY	NRG Dunkirk Power		3	D02554C03	0.279	0.017	0.006	0.279	0.048	0.137										
253	IN	Cayuga	1001	1	D010011	0.278	0.009	0.014	0.278	0.048	0.137										
254	VA	Chesterfield Power Station	3797	6	D037976	0.276	0.017	0.006	0.276	0.048	0.136										
255	TX	Limestone	298	LIM1		0.274	0.016	0.007	0.274	0.047	0.135										
256	WV	Mountaineer (1301)	6264	1	D062641	0.272	0.019	0.004	0.272	0.047	0.134										
257	OK	Hugo		1	D067721	0.272	0.019	0.004	0.272	0.047	0.134										
258	OK	Muskogee		5	D029525	0.268	0.015	0.007	0.268	0.046	0.132										
259	IL	Marion		4	D009764	0.264	0.018	0.004	0.264	0.045	0.130										
260	WV	John E Amos	3935	3	D039353	0.262	0.016	0.006	0.262	0.045	0.129										
261	MD	Morgantown	1573	2	D015732	0.261	0.018	0.004	0.261	0.045	0.128										
262	SC	Williams	3298	WIL1	D03298WL1	0.261	0.010	0.012	0.261	0.045	0.128										
263	WV	Mount Storm Power Station	3954	1,2	D03954CS0	0.257	0.014	0.007	0.257	0.044	0.126										
264	OH	Conesville	2840	4	D028504	0.256	0.018	0.003	0.256	0.044	0.126										
265	KY	E W Brown	1355	2,3	D01355C03	0.246	0.009	0.011	0.246	0.042	0.121										
266	KY	Ghent	1356	1,2 ... (1,4)	D01356C01	0.243	0.014	0.006	0.243	0.042	0.120										
267	NC	Roxboro	2712	1	D027121	0.236	0.015	0.005	0.236	0.041	0.116										
268	NY	Northport	2516	3	D025163	0.232	0.014	0.005	0.232	0.040	0.114										
269	AR	Flint Creek Power Plant	6138	1		0.226	0.012	0.007	0.226	0.039	0.111										
270	ME	William F Wyman	1507	1		0.225	0.011	0.008	0.225	0.039	0.111										
271	IA	George Neal North		3	D010913	0.223	0.012	0.006	0.223	0.038	0.110										
272	NC	Belews Creek	8042	2	D080422	0.221	0.013	0.005	0.221	0.038	0.109										
273	ME	William F Wyman	1507	2		0.219	0.010	0.008	0.219	0.038	0.108										
274	NC	Belews Creek	8042	1	D080421	0.218	0.012	0.005	0.218	0.037	0.107										
275	NC	Marshall	2727	3	D027273	0.207	0.015	0.002	0.207	0.036	0.102										
276	KY	East Bend	6018	2	D060182	0.205	0.011	0.006	0.205	0.035	0.101										
277	OH	W H Sammis	2866	7	D028667	0.204	0.010	0.006	0.204	0.035	0.101										
278	MO	Sikeston		1	D067681	0.204	0.013	0.004	0.204	0.035	0.101										
279	IL	Joliet 29		81, 82	D00384C82	0.204	0.013	0.004	0.204	0.035	0.101										
280	OH	J M Stuart	2850	3	D028503	0.203	0.013	0.004	0.203	0.035	0.100										

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
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281	OH	W H Sammis	2866	6	D02866M6A	0.195	0.011	0.005	0.195	0.034	0.096										
282	KS	Quindaro	1295	2		0.194	0.010	0.006	0.194	0.034	0.096										
283	KY	H L Spurlock	6041	1	D060411	0.190	0.015	0.001	0.190	0.033	0.094										
284	MO	Meramec		3	D021043	0.189	0.012	0.004	0.189	0.033	0.093										
285	OH	J M Stuart	2850	1	D028501	0.186	0.012	0.003	0.186	0.032	0.092										
286	IN	Alcoa Allowance Management Inc	6705	4	D067054	0.185	0.009	0.006	0.185	0.032	0.091										
287	TX	Welsh Power Plant	6139	3		0.179	0.010	0.004	0.179	0.031	0.088										
288	KY	H L Spurlock	6041	2	D060412	0.179	0.013	0.002	0.179	0.031	0.088										
289	AL	Greene County	10	1		0.174	0.013	0.001	0.174	0.030	0.086										
290	GA	Bowen	703	1BLR	D007031LR	0.172	0.007	0.007	0.172	0.030	0.085										
291	OH	W H Sammis	2866	1,2	D02866C01	0.171	0.007	0.007	0.171	0.029	0.084										
292	OH	W H Sammis	2866	3,4	D02866C02	0.167	0.007	0.007	0.167	0.029	0.082										
293	TX	Welsh Power Plant	6139	1		0.161	0.009	0.004	0.161	0.028	0.080										
294	TX	Welsh Power Plant	6139	2		0.158	0.010	0.003	0.158	0.027	0.078										
295	GA	Yates		Y5BR	D00728Y5R	0.155	0.012	0.001	0.155	0.027	0.077										
296	GA	Bowen	703	4BLR	D007034LR	0.151	0.004	0.008	0.151	0.026	0.074										
297	IN	Alcoa Allowance Management Inc	6705	3	x02	0.137	0.004	0.008	0.137	0.024	0.068										
298	OH	J M Stuart	2850	2	D028502	0.135	0.007	0.004	0.135	0.023	0.067										
299	NC	Cliffside	2721	5	D027215	0.130	0.009	0.001	0.130	0.022	0.064										
300	GA	Bowen	703	2BLR	D007032LR	0.121	0.003	0.006	0.121	0.021	0.060										
301	NJ	Mercer Generating Station	2408	1	D024081	0.120	0.006	0.004	0.120	0.021	0.059										
302	OH	W H Sammis	2866	5	D028665	0.116	0.004	0.005	0.116	0.020	0.057										
303	AL	E C Gaston	26	5		0.113	0.005	0.004	0.113	0.019	0.056										
304	NJ	Mercer Generating Station	2408	2	D024082	0.107	0.005	0.003	0.107	0.019	0.053										
305	SC	Winyah	6249	1	D062491	0.088	0.004	0.003	0.088	0.015	0.044										
306	GA	Bowen	703	3BLR	D007033LR	0.088	0.004	0.003	0.088	0.015	0.043										
307	KS	Tecumseh Energy Center	1252	10		0.085	0.004	0.003	0.085	0.015	0.042										
308	OH	Miami Fort Generating Station	2832	5-1, 5-2, 6	D02832C06	0.016	0.001	0.000	0.016	0.003	0.008										
309	IL	Newton		1	D060171	0.000															
310	MA	Salem Harbor Station	1626	3	D016263	0.000															
311	NY	CCI Roseton LLC	8006	1	D080061	0.000											0.000	0.000	0.000	0.000	0.000

F.12 2015 EGU Ranking Visibility Impairing Sources to Moosehorn

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
1	OH	Avon Lake Power Plant	2836	12	D0283612	6.767	0.527	0.030	**6.767**	**1.112**	**2.908**	0.304	0.057	**4.493**	0.731	**1.969**	0.451	0.039	**5.978**	0.982	**2.593**
2	PA	Homer City	3122	1	D031221	5.555	0.408	0.023	**5.555**	0.868	**2.311**	0.281	0.073	**4.178**	0.717	**1.934**	0.260	0.047	**3.746**	0.627	**1.701**
3	ME	William F Wyman	1507	4	D015074	5.081	0.302	0.130	**5.081**	0.873	**2.325**	0.223	0.085	**3.636**	0.628	**1.705**	0.224	0.043	**3.246**	0.545	**1.490**
4	PA	Homer City	3122	2	D031222	4.850	0.360	0.020	**4.850**	0.769	**2.064**	0.248	0.066	**3.720**	0.638	**1.730**	0.230	0.043	**3.312**	0.556	**1.518**
5	VA	Yorktown Power Station	3809	3	D038093	4.410	0.323	0.040	**4.410**	0.734	**1.976**	0.166	0.025	**2.321**	0.392	**1.085**	0.257	0.029	**3.475**	0.583	**1.588**
6	MA	Brayton Point	1619	4	x07	3.648	0.232	0.050	**3.436**	0.575	**1.569**	0.230	0.070	**3.648**	0.611	**1.662**	0.124	0.040	**1.987**	0.337	0.938
7	OH	Muskingum River	2872	5	D028725	3.211	0.265	0.003	**3.211**	0.546	**1.493**	0.169	0.007	**2.135**	0.363	**1.007**	0.163	0.008	**2.076**	0.352	0.978
8	MA	Canal Station	1599	1	D015991	2.831	0.157	0.031	**2.318**	0.386	**1.071**	0.184	0.048	**2.831**	0.475	**1.306**	0.105	0.031	**1.642**	0.280	0.782
9	IN	Rockport	6166	MB1,MB2	D06166C02	2.798	0.174	0.058	**2.798**	0.476	**1.308**	0.112	0.051	**1.943**	0.338	0.940	0.113	0.029	**1.719**	0.292	0.817
10	MA	Canal Station	1599	2	D015992	2.759	0.123	0.054	**2.233**	0.366	**1.015**	0.131	0.092	**2.759**	0.460	**1.268**	0.059	0.051	**1.345**	0.229	0.645
11	PA	Shawville	3131	3,4	D03131CS1	2.710	0.211	0.010	**2.710**	0.452	**1.245**	0.140	0.022	**1.963**	0.334	0.929	0.089	0.013	**1.239**	0.212	0.595
12	VA	Yorktown Power Station	3809	1,2	D03809CS0	2.271	0.163	0.023	**2.271**	0.382	**1.059**	0.103	0.018	**1.478**	0.250	0.700	0.162	0.012	**2.112**	0.358	0.995
13	MI	Trenton Channel	1745	9A	D017459A	2.169	0.104	0.011	**1.382**	0.236	0.663	0.108	0.014	**1.483**	0.253	0.709	0.156	0.023	**2.169**	0.368	**1.020**
14	NH	Newington	8002	1	D080021	2.064	0.117	0.043	**2.064**	0.330	0.918	0.093	0.096	**1.917**	0.390	**1.079**	0.085	0.042	**1.545**	0.263	0.737
15	IN	Wabash River Gen Station	1010	2,3,4,5,6	D01010C05	2.061	0.153	0.017	**2.061**	0.348	0.968	0.090	0.010	**1.223**	0.208	0.586	0.092	0.008	**1.209**	0.207	0.581
16	KY	Big Sandy	1353	BSU1,BSU2	D01353C02	2.001	0.151	0.010	**1.938**	0.331	0.921	0.133	0.024	**1.913**	0.322	0.897	0.150	0.016	**2.001**	0.340	0.945
17	GA	Harllee Branch	709	3&4	D00709C02	1.895	0.139	0.014	**1.844**	0.315	0.879	0.133	0.023	**1.895**	0.321	0.894	0.065	0.010	0.908	0.155	0.440
18	PA	Brunner Island	3140	1,2	D03140C12	1.894	0.049	0.021	0.848	0.146	0.413	0.088	0.067	**1.894**	0.322	0.897	0.064	0.049	**1.375**	0.235	0.659
19	PA	Keystone	3136	1	D031361	1.824	0.116	0.026	**1.824**	0.292	0.816	0.075	0.072	**1.722**	0.306	0.854	0.074	0.042	**1.409**	0.240	0.674
20	OH	W H Zimmer Generating Station	6019	1	D060191	1.815	0.088	0.023	**1.411**	0.230	0.647	0.092	0.058	**1.815**	0.311	0.867	0.061	0.034	**1.149**	0.196	0.553
21	PA	Keystone	3136	2	D031362	1.763	0.111	0.025	**1.763**	0.281	0.786	0.072	0.071	**1.663**	0.297	0.829	0.071	0.041	**1.361**	0.232	0.652
22	MI	Belle River		2	D060342	1.689	0.067	0.032	**1.212**	0.207	0.583	0.076	0.032	**1.321**	0.225	0.632	0.093	0.046	**1.689**	0.287	0.803
23	WV	Harrison Power Station		1 (25%), 2 (20%	D03944C01	1.667	0.034	0.027	0.753	0.128	0.364	0.035	0.101	**1.667**	0.284	0.794	0.025	0.064	**1.096**	0.187	0.529
24	PA	Brunner Island	3140	3	D031403	1.649	0.048	0.030	0.946	0.162	0.457	0.057	0.080	**1.649**	0.287	0.801	0.073	0.050	**1.500**	0.256	0.716
25	OH	Muskingum River	2872	1,2,3,4	D02872C04	1.637	0.125	0.006	**1.637**	0.270	0.756	0.081	0.017	**1.181**	0.202	0.568	0.076	0.016	**1.109**	0.190	0.535
26	MI	St. Clair	1743	6	D017436	1.621	0.101	0.009	**1.313**	0.227	0.638	0.129	0.008	**1.621**	0.282	0.788	0.101	0.012	**1.369**	0.234	0.656
27	MI	St. Clair	1743	7	D017437	1.573	0.087	0.014	**1.242**	0.208	0.587	0.111	0.016	**1.573**	0.262	0.734	0.090	0.021	**1.352**	0.231	0.648
28	MI	Belle River		1	D060341	1.561	0.060	0.032	**1.120**	0.191	0.540	0.068	0.032	**1.220**	0.207	0.583	0.083	0.046	**1.561**	0.266	0.744
29	IN	Tanners Creek	988	U4	D00988U4	1.560	0.116	0.009	**1.519**	0.258	0.723	0.116	0.013	**1.560**	0.266	0.744	0.061	0.006	0.818	0.140	0.397
30	OH	Gen J M Gavin	8102	1	D081021	1.519	0.102	0.010	**1.519**	0.232	0.653	0.073	0.037	**1.301**	0.228	0.640	0.080	0.033	**1.370**	0.234	0.656
31	IL	Powerton		51,52,61,62	D00879C06	1.406	0.032	0.014	0.548	0.095	0.269	0.041	0.012	0.650	0.111	0.315	0.085	0.031	**1.406**	0.240	0.673
32	OH	Gen J M Gavin	8102	2	D081022	1.399	0.096	0.009	**1.399**	0.217	0.610	0.068	0.033	**1.200**	0.210	0.591	0.075	0.029	**1.264**	0.216	0.607
33	MI	St. Clair	1743	1,2,3,4,...6	x09	1.344	0.049	0.025	0.913	0.154	0.436	0.065	0.030	**1.180**	0.198	0.558	0.066	0.045	**1.344**	0.229	0.644
34	PA	Montour	3149	1	D031491	1.340	0.079	0.027	**1.340**	0.219	0.615	0.045	0.064	**1.321**	0.227	0.639	0.051	0.059	**1.336**	0.228	0.641
35	TN	Johnsonville	3406	1 thru 10	D03406C10	1.328	0.114	0.003	**1.328**	0.240	0.674	0.038	0.003	0.500	0.085	0.242	0.039	0.003	0.508	0.087	0.248
36	IN	Michigan City Generating Station		12	D0099712	1.268	0.038	0.005	0.524	0.090	0.255	0.104	0.004	**1.268**	0.222	0.625	0.091	0.011	**1.229**	0.210	0.591
37	PA	Montour	3149	2	D031492	1.265	0.065	0.027	**1.265**	0.190	0.535	0.037	0.063	**1.200**	0.210	0.591	0.042	0.058	**1.222**	0.209	0.587
38	WV	Kammer	3947	1,2,3	D03947C03	1.238	0.098	0.007	**1.238**	0.216	0.608	0.071	0.021	**1.135**	0.192	0.542	0.054	0.012	0.795	0.136	0.386
39	MD	Herbert A Wagner	1554	3	D015543	1.234	0.061	0.002	0.742	0.129	0.367	0.080	0.002	0.970	0.169	0.477	0.099	0.003	**1.234**	0.211	0.593
40	KY	Mill Creek	1364	1,2,3	x05	1.222	0.072	0.010	0.952	0.171	0.482	0.081	0.022	**1.222**	0.213	0.599	0.045	0.018	0.772	0.132	0.375

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41	OH	Killen Station	6031	2	D060312	1.156	0.053	0.021	0.948	0.155	0.438	0.050	0.052	1.156	0.211	0.595	0.055	0.033	1.071	0.183	0.517
42	NY	Somerset Operating Company (Kintigh)		1	D060821	1.136	0.084	0.016	1.136	0.207	0.584	0.071	0.021	1.107	0.190	0.535	0.065	0.020	1.028	0.176	0.497
43	MI	J H Campbell		3 (50%)	D01710M3A	1.024	0.061	0.007	0.761	0.139	0.394	0.089	0.007	1.024	0.198	0.557	0.059	0.009	0.825	0.141	0.401
44	PA	Homer City		3	D031223	1.022	0.050	0.017	0.956	0.138	0.392	0.027	0.059	1.022	0.180	0.508	0.029	0.048	0.940	0.161	0.455
45	CT	Bridgeport Harbor Station	568	BHB3		1.016	0.030	0.013	0.511	0.089	0.254	0.040	0.038	1.016	0.164	0.465	0.030	0.015	0.543	0.093	0.265
46	NH	Merrimack	2364	2	D023642	0.998	0.032	0.083	0.944	0.242	0.679	0.030	0.087	0.899	0.246	0.690	0.037	0.044	0.998	0.171	0.482
47	NH	Schiller	2367	4		0.950	0.039	0.025	0.769	0.133	0.376	0.043	0.017	0.733	0.125	0.356	0.053	0.025	0.950	0.163	0.459
48	OH	Kyger Creek	2876	1,2,3,4,5	D02876C01	0.934	0.052	0.013	0.934	0.135	0.383	0.041	0.035	0.864	0.159	0.451	0.043	0.027	0.850	0.146	0.412
49	MA	Brayton Point	1619	2	D016192	0.929	0.032	0.036	0.929	0.142	0.402	0.024	0.032	0.716	0.118	0.336	0.029	0.043	0.886	0.152	0.429
50	KY	Ghent	1356	3,4 ... (2,3)	D01356C02	0.918	0.047	0.010	0.694	0.119	0.339	0.054	0.021	0.918	0.156	0.441	0.030	0.007	0.450	0.077	0.221
51	NH	Schiller	2367	6		0.913	0.039	0.021	0.740	0.126	0.357	0.044	0.015	0.705	0.121	0.344	0.054	0.021	0.913	0.156	0.442
52	MD	C P Crane	1552	2	D015522	0.896	0.029	0.014	0.555	0.090	0.255	0.039	0.018	0.749	0.119	0.338	0.044	0.030	0.896	0.154	0.434
53	IN	Whitewater Valley		1, 2	D01040C12	0.858	0.064	0.002	0.801	0.137	0.389	0.068	0.003	0.858	0.147	0.416	0.036	0.002	0.461	0.079	0.226
54	PA	Martins Creek	3148	3,4	x21	0.848	0.001	0.024	0.393	0.053	0.151	0.001	0.069	0.848	0.149	0.422	0.001	0.056	0.705	0.121	0.343
55	MI	J C Weadock		7, 8	D01720C09	0.837	0.055	0.015	0.837	0.144	0.408	0.035	0.012	0.568	0.097	0.277	0.043	0.014	0.689	0.118	0.336
56	MI	J H Campbell		A,B,1,2	D01710C09	0.834	0.043	0.006	0.576	0.101	0.287	0.069	0.006	0.834	0.154	0.435	0.043	0.007	0.604	0.104	0.295
57	WV	Kanawha River	3936	1,2	D03936C02	0.816	0.055	0.006	0.743	0.127	0.361	0.045	0.019	0.767	0.133	0.378	0.059	0.008	0.816	0.140	0.396
58	IN	IPL - Petersburg Generating Station		3	D009943	0.793	0.043	0.020	0.793	0.132	0.374	0.024	0.018	0.495	0.088	0.251	0.020	0.011	0.375	0.064	0.184
59	IA	Ottumwa		1	D062541	0.735	0.039	0.020	0.735	0.124	0.352	0.016	0.009	0.313	0.054	0.153	0.036	0.020	0.681	0.117	0.332
60	IN	Tanners Creek	988	U1,U2,U3	D00988C03	0.729	0.048	0.007	0.677	0.115	0.326	0.048	0.012	0.729	0.125	0.355	0.025	0.006	0.384	0.066	0.188
61	OH	Conesville	2840	5,6	D02840C06	0.729	0.036	0.011	0.474	0.098	0.280	0.024	0.034	0.729	0.121	0.342	0.016	0.018	0.411	0.071	0.201
62	IN	IPL - Harding Street Station (EW Stout)		50	D0099050	0.722	0.057	0.003	0.722	0.124	0.351	0.044	0.002	0.557	0.096	0.272	0.034	0.001	0.429	0.074	0.210
63	MO	Sibley		1, 2, 3	D02094C01	0.707	0.045	0.019	0.707	0.134	0.378	0.026	0.008	0.398	0.072	0.206	0.043	0.009	0.633	0.109	0.309
64	WV	Pleasants Power Station	6004	1	D060041	0.707	0.035	0.010	0.620	0.094	0.268	0.024	0.029	0.665	0.112	0.318	0.023	0.035	0.707	0.121	0.344
65	IN	Gibson	6113	1,2,3	D06113C03	0.684	0.035	0.021	0.684	0.116	0.330	0.022	0.015	0.478	0.078	0.222	0.016	0.009	0.298	0.051	0.146
66	NY	Oswego Harbor Power	2594	6	x15	0.682	0.037	0.017	0.682	0.113	0.321	0.024	0.017	0.506	0.087	0.247	0.027	0.020	0.576	0.099	0.281
67	PA	Cheswick	8226	1	D082261	0.673	0.023	0.011	0.673	0.071	0.202	0.016	0.040	0.562	0.118	0.334	0.012	0.020	0.396	0.068	0.194
68	IN	IPL - Harding Street Station (EW Stout)		60	D0099060	0.654	0.052	0.002	0.654	0.112	0.318	0.040	0.001	0.505	0.087	0.247	0.031	0.001	0.389	0.067	0.191
69	GA	Yates		Y6BR	D00728Y6R	0.650	0.047	0.004	0.619	0.107	0.303	0.049	0.005	0.650	0.112	0.318	0.034	0.002	0.436	0.075	0.213
70	MI	Trenton Channel	1745	16,17,18,19	x10	0.632	0.027	0.005	0.370	0.066	0.187	0.028	0.007	0.424	0.073	0.209	0.040	0.012	0.632	0.108	0.308
71	NY	Cayuga Operating Company, LLC		1 (33%), 2 (33%	D02535C01	0.592	0.040	0.007	0.592	0.097	0.276	0.033	0.006	0.494	0.082	0.233	0.029	0.010	0.465	0.080	0.228
72	GA	Harllee Branch	709	1,2	D00709C01	0.584	0.046	0.003	0.578	0.101	0.288	0.042	0.006	0.584	0.100	0.283	0.023	0.003	0.320	0.055	0.157
73	TX	Big Brown	3497	1		0.582	0.041	0.004	0.530	0.092	0.261	0.045	0.004	0.582	0.101	0.287	0.015	0.000	0.181	0.031	0.089
74	MA	Brayton Point	1619	3	D016193	0.576	0.028	0.017	0.576	0.095	0.269	0.026	0.017	0.542	0.091	0.259	0.017	0.012	0.352	0.061	0.173
75	NC	Roxboro	2712	4A,4B	D02712C04	0.571	0.041	0.008	0.571	0.102	0.290	0.019	0.006	0.298	0.052	0.149	0.029	0.012	0.492	0.085	0.241
76	TX	Big Brown	3497	2		0.558	0.039	0.004	0.509	0.089	0.252	0.043	0.004	0.558	0.097	0.277	0.014	0.000	0.174	0.030	0.086
77	NC	Roxboro	2712	3A,3B	D02712C03	0.544	0.040	0.009	0.544	0.101	0.286	0.018	0.007	0.294	0.052	0.149	0.028	0.013	0.499	0.086	0.244
78	IA	George Neal South		4	D073434	0.539	0.013	0.008	0.252	0.043	0.124	0.014	0.008	0.269	0.046	0.130	0.027	0.017	0.539	0.093	0.264
79	MA	Brayton Point	1619	1	D016191	0.535	0.033	0.010	0.535	0.089	0.253	0.026	0.010	0.437	0.076	0.215	0.032	0.012	0.523	0.090	0.256
80	IN	IPL - Petersburg Generating Station		4	D009944	0.535	0.031	0.012	0.535	0.089	0.253	0.017	0.011	0.325	0.059	0.168	0.014	0.007	0.250	0.043	0.123

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
81	NJ	B L England	2378	2,3	x12	0.525	0.018	0.015	0.401	0.071	0.201	0.020	0.015	0.423	0.074	0.212	0.031	0.013	0.525	0.090	0.257
82	MD	Chalk Point	1571	1,2	D01571CE2	0.521	0.035	0.001	0.454	0.073	0.209	0.033	0.000	0.421	0.070	0.200	0.043	0.000	0.521	0.090	0.255
83	MD	C P Crane	1552	1	D015521	0.501	0.014	0.009	0.311	0.049	0.141	0.020	0.012	0.420	0.065	0.186	0.022	0.019	0.501	0.086	0.245
84	MI	Monroe	1733	1,2	D01733C12	0.481	0.010	0.010	0.294	0.041	0.118	0.008	0.018	0.283	0.054	0.156	0.015	0.024	0.481	0.083	0.235
85	WV	Mitchell (WV)	3948	1,2	D03948C02	0.467	0.027	0.007	0.467	0.072	0.205	0.021	0.017	0.458	0.079	0.226	0.016	0.013	0.355	0.061	0.174
86	MD	Brandon Shores	602	2	D006022	0.464	0.016	0.006	0.236	0.045	0.128	0.023	0.007	0.326	0.063	0.180	0.026	0.012	0.464	0.080	0.227
87	AL	E C Gaston	26	1, 2	D00026CAN	0.457	0.024	0.001	0.302	0.052	0.149	0.027	0.003	0.372	0.064	0.183	0.033	0.004	0.457	0.079	0.224
88	KY	Paradise	1378	2	D013782	0.454	0.034	0.004	0.454	0.078	0.223	0.016	0.003	0.221	0.039	0.112	0.024	0.003	0.323	0.056	0.159
89	MD	Brandon Shores	602	1	D006021	0.452	0.017	0.004	0.232	0.044	0.127	0.025	0.006	0.320	0.063	0.179	0.028	0.009	0.452	0.078	0.221
90	OK	Northeastern		3313, 3314	D02963C10	0.451	0.026	0.007	0.451	0.068	0.195	0.023	0.008	0.449	0.064	0.184	0.018	0.002	0.243	0.042	0.120
91	DE	Indian River	594	4	D005944	0.422	0.019	0.002	0.238	0.042	0.121	0.032	0.004	0.422	0.074	0.211	0.011	0.002	0.158	0.027	0.078
92	TX	Martin Lake	6146	1		0.416	0.026	0.006	0.382	0.067	0.190	0.029	0.006	0.416	0.073	0.207	0.009	0.001	0.122	0.021	0.060
93	TX	Monticello	6147	1		0.399	0.027	0.003	0.364	0.062	0.177	0.030	0.003	0.399	0.068	0.195	0.010	0.000	0.121	0.021	0.060
94	TX	Martin Lake	6146	3		0.395	0.025	0.005	0.362	0.063	0.181	0.027	0.006	0.395	0.069	0.197	0.009	0.001	0.116	0.020	0.057
95	NH	Merrimack	2364	1	D023641	0.382	0.011	0.034	0.358	0.096	0.273	0.011	0.036	0.341	0.097	0.276	0.013	0.018	0.382	0.066	0.187
96	KY	Paradise	1378	1	D01720C09	0.362	0.027	0.003	0.362	0.062	0.178	0.012	0.003	0.177	0.031	0.090	0.019	0.002	0.257	0.044	0.127
97	KY	Paradise	1378	3	D013783	0.361	0.021	0.008	0.361	0.062	0.176	0.011	0.007	0.241	0.038	0.108	0.015	0.006	0.255	0.044	0.125
98	KY	John S. Cooper	1384	1,2	D01384CS1	0.343	0.026	0.002	0.343	0.058	0.165	0.010	0.002	0.144	0.025	0.071	0.007	0.001	0.098	0.017	0.049
99	WV	John E Amos	3935	1,2	D03935C02	0.341	0.018	0.005	0.316	0.048	0.138	0.016	0.015	0.341	0.064	0.181	0.017	0.011	0.340	0.059	0.167
100	OH	J M Stuart	2850	4	D028404	0.320	0.017	0.004	0.270	0.044	0.125	0.016	0.012	0.320	0.059	0.168	0.018	0.008	0.308	0.053	0.151
101	TX	Martin Lake	6146	2		0.319	0.020	0.005	0.292	0.053	0.151	0.022	0.006	0.319	0.058	0.165	0.007	0.001	0.095	0.016	0.047
102	IN	Clifty Creek	983	4,5,6	D00983C02	0.319	0.011	0.007	0.265	0.037	0.107	0.013	0.017	0.319	0.061	0.175	0.008	0.008	0.183	0.032	0.090
103	MN	Sherburne County		1, 2	D06090CS1	0.307	0.003	0.019	0.307	0.047	0.136	0.003	0.015	0.286	0.039	0.111	0.002	0.019	0.263	0.045	0.129
104	MO	Labadie		4	D021034	0.303	0.021	0.004	0.303	0.052	0.149	0.017	0.003	0.241	0.042	0.119	0.013	0.002	0.187	0.032	0.092
105	OH	Cardinal	2828	3	D028283	0.296	0.012	0.004	0.296	0.034	0.096	0.009	0.008	0.228	0.036	0.103	0.006	0.007	0.150	0.026	0.074
106	IN	Clifty Creek	983	1,2,3	D00983C01	0.286	0.012	0.005	0.241	0.036	0.103	0.014	0.012	0.286	0.054	0.155	0.008	0.005	0.165	0.028	0.081
107	MD	Morgantown	1573	1	D015731	0.283	0.021	0.004	0.283	0.051	0.144	0.017	0.002	0.228	0.039	0.113	0.021	0.002	0.281	0.048	0.138
108	MI	Dan E Karn	1702	3,4 (1,2)	D01702C09	0.267	0.017	0.005	0.267	0.047	0.133	0.011	0.004	0.184	0.032	0.091	0.013	0.005	0.222	0.038	0.109
109	KY	Mill Creek	1364	4	D013644	0.265	0.004	0.006	0.233	0.022	0.062	0.005	0.012	0.265	0.035	0.101	0.003	0.011	0.165	0.028	0.081
110	NJ	Hudson Generating Station	2403	2	D024032	0.227	0.009	0.006	0.189	0.033	0.093	0.012	0.006	0.227	0.039	0.111	0.010	0.007	0.204	0.035	0.101
111	OK	Grand River Dam Authority		1	D001651	0.224	0.013	0.000	0.202	0.027	0.077	0.017	0.000	0.224	0.035	0.099	0.010	0.000	0.122	0.021	0.060
112	IN	R M Schahfer Generating Station		14	D0608514	0.219	0.001	0.009	0.115	0.021	0.061	0.003	0.004	0.219	0.015	0.043	0.002	0.015	0.217	0.037	0.107
113	IN	R M Schahfer Generating Station		15	D0608515	0.216	0.001	0.008	0.107	0.019	0.053	0.002	0.005	0.193	0.016	0.045	0.002	0.016	0.216	0.037	0.106
114	WI	Columbia		1	D080231	0.196	0.005	0.009	0.196	0.030	0.085	0.004	0.007	0.164	0.024	0.070	0.003	0.007	0.118	0.020	0.058
115	IL	Kincaid Generating Station		1, 2	D00876C02	0.176	0.009	0.004	0.176	0.027	0.079	0.009	0.004	0.156	0.025	0.073	0.010	0.003	0.167	0.029	0.082
116	VA	Chesterfield Power Station	3797	5	D037975	0.176	0.009	0.002	0.127	0.022	0.064	0.009	0.001	0.117	0.020	0.058	0.013	0.002	0.176	0.030	0.087
117	WI	Columbia		2	D080232	0.172	0.005	0.008	0.172	0.027	0.077	0.004	0.007	0.148	0.023	0.066	0.003	0.006	0.107	0.019	0.053
118	IL	Baldwin Energy Complex		1,2	D008892	0.137	0.006	0.006	0.127	0.025	0.071	0.006	0.004	0.125	0.022	0.062	0.007	0.004	0.137	0.024	0.068
119	SC	Wateree	3297	WAT1	D03297WT1	0.133	0.003	0.003	0.133	0.012	0.036	0.001	0.004	0.060	0.011	0.031	0.001	0.002	0.030	0.005	0.015
120	TN	Kingston	3407	1,2,3,4,5	D03407C15	0.132	0.007	0.002	0.132	0.018	0.052	0.003	0.003	0.065	0.013	0.038	0.003	0.002	0.068	0.012	0.033

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
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121	TN	Kingston	3407	6,7,8,9	D03407C69	0.131	0.007	0.002	0.131	0.018	0.053	0.003	0.003	0.064	0.013	0.037	0.003	0.002	0.067	0.012	0.033
122	SC	Wateree	3297	WAT2	D03297WT2	0.125	0.003	0.002	0.125	0.012	0.033	0.001	0.003	0.051	0.009	0.025	0.001	0.001	0.024	0.004	0.012
123	VA	Chesterfield Power Station	3797	4	D037974	0.116	0.006	0.001	0.088	0.015	0.043	0.006	0.001	0.077	0.013	0.038	0.009	0.001	0.116	0.020	0.057
124	GA	Scherer		1	D062571	0.099	0.001	0.004	0.086	0.010	0.029	0.001	0.008	0.099	0.018	0.052	0.001	0.006	0.087	0.015	0.043
125	GA	Scherer		4	D062574	0.098	0.001	0.004	0.087	0.010	0.030	0.001	0.008	0.098	0.018	0.052	0.001	0.006	0.087	0.015	0.043
126	GA	Scherer		2	D062572	0.075	0.000	0.003	0.065	0.008	0.022	0.000	0.006	0.075	0.014	0.039	0.000	0.005	0.066	0.011	0.032
127	GA	Yates		Y7BR	D00728Y7R	0.046	0.000	0.005	0.044	0.010	0.028	0.000	0.005	0.046	0.011	0.033	0.000	0.002	0.031	0.005	0.015
128	KS	La Cygne	1241	1		0.040	0.003	0.000	0.040	0.006	0.018	0.002	0.000	0.031	0.005	0.015	0.002	0.000	0.022	0.004	0.011
129	VA	Bremo Power Station		4	D037964	0.015	0.000	0.001	0.014	0.003	0.007	0.000	0.001	0.011	0.002	0.006	0.000	0.001	0.015	0.003	0.008
130	KS	La Cygne		2	D012412	0.011	0.001	0.000	0.010	0.002	0.005	0.001	0.000	0.011	0.002	0.005	0.000	0.000	0.007	0.001	0.003

F.13 2011 EGU Ranking Visibility Impairing Sources to Presidential Range/Dry River

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
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1	OH	Kyger Creek	2876	1,2,3,4,5	D02876C01	21.883	**1.323**	0.224	**18.736**	**2.361**	**6.855**	**1.348**	0.456	**21.883**	**2.709**	**7.656**	0.858	0.322	**14.164**	**1.834**	**5.565**
2	NH	Merrimack	2364	2	D023642	7.896	0.354	0.063	**4.934**	0.678	**2.306**	0.506	0.158	**7.896**	**1.064**	**3.471**	0.420	0.169	**7.006**	0.949	**3.135**
3	OH	Avon Lake Power Plant	2836	12	D0283612	7.280	0.308	0.029	**3.971**	0.549	**1.896**	0.485	0.127	**7.280**	0.985	**3.240**	0.382	0.106	**5.787**	0.791	**2.656**
4	OH	Muskingum River	2872	1,2,3,4	D02872C04	7.275	0.579	0.033	**7.275**	0.984	**3.238**	0.510	0.089	**7.108**	0.963	**3.175**	0.387	0.038	**5.021**	0.689	**2.342**
5	MI	Monroe	1733	1,2	D01733C12	5.975	0.267	0.062	**3.881**	0.537	**1.856**	0.331	0.173	**5.975**	0.815	**2.731**	0.298	0.141	**5.211**	0.715	**2.421**
6	PA	Homer City	3122	2	D031222	5.361	0.373	0.016	**4.597**	0.633	**2.164**	0.286	0.044	**3.899**	0.539	**1.864**	0.433	0.020	**5.361**	0.734	**2.482**
7	PA	Homer City	3122	1	D031221	5.309	0.373	0.013	**4.557**	0.628	**2.147**	0.286	0.036	**3.794**	0.525	**1.818**	0.432	0.016	**5.309**	0.728	**2.461**
8	OH	Eastlake		5	D028375	5.258	0.200	0.029	**2.703**	0.377	**1.329**	0.390	0.054	**5.258**	0.721	**2.440**	0.254	0.072	**3.851**	0.533	**1.843**
9	OH	Walter C Beckford Generating Station		6	D028306	4.771	0.393	0.010	**4.771**	0.656	**2.237**	0.328	0.038	**4.323**	0.596	**2.048**	0.294	0.020	**3.710**	0.514	**1.782**
10	IN	Wabash River Gen Station	1010	2,3,4,5,6	D01010C05	4.573	0.288	0.018	**3.609**	0.500	**1.737**	0.277	0.027	**3.581**	0.497	**1.725**	0.364	0.023	**4.573**	0.630	**2.154**
11	IN	Rockport	6166	MB1,MB2	D06166C02	4.222	0.189	0.050	**2.819**	0.393	**1.382**	0.219	0.137	**4.222**	0.583	**2.004**	0.122	0.047	**1.990**	0.279	0.995
12	PA	Cheswick	8226	1	D082261	3.911	0.305	0.026	**3.911**	0.541	**1.870**	0.169	0.061	**2.713**	0.378	**1.333**	0.235	0.028	**3.094**	0.430	**1.507**
13	VA	Chesterfield Power Station	3797	5	D037975	3.896	0.291	0.039	**3.896**	0.539	**1.863**	0.212	0.027	**2.814**	0.392	**1.380**	0.285	0.035	**3.780**	0.523	**1.812**
14	IN	Clifty Creek	983	4,5,6	D00983C02	3.841	0.159	0.016	**2.048**	0.287	**1.023**	0.248	0.077	**3.841**	0.532	**1.839**	0.185	0.025	**2.470**	0.345	**1.221**
15	NH	Merrimack	2364	1	D023641	3.815	0.177	0.028	**2.419**	0.338	**1.197**	0.253	0.070	**3.815**	0.528	**1.827**	0.210	0.076	**3.380**	0.469	**1.635**
16	KY	Big Sandy	1353	BSU1,BSU2	D01353C02	3.624	0.200	0.026	**2.654**	0.370	**1.306**	0.236	0.071	**3.624**	0.502	**1.744**	0.137	0.038	**2.067**	0.290	**1.031**
17	GA	Harllee Branch	709	3&4	D00709C02	3.243	0.261	0.015	**3.243**	0.451	**1.574**	0.068	0.020	**1.031**	0.145	0.528	0.134	0.023	**1.841**	0.258	0.924
18	PA	Keystone	3136	1	D031361	3.187	0.205	0.033	**2.801**	0.390	**1.373**	0.144	0.109	**2.999**	0.418	**1.464**	0.223	0.047	**3.187**	0.443	**1.549**
19	PA	Keystone	3136	2	D031362	3.172	0.204	0.033	**2.788**	0.389	**1.368**	0.144	0.108	**2.983**	0.415	**1.456**	0.222	0.047	**3.172**	0.441	**1.542**
20	OH	W H Zimmer Generating Station	6019	1	D060191	2.917	0.126	0.029	**1.822**	0.256	0.915	0.124	0.122	**2.917**	0.406	**1.427**	0.104	0.053	**1.854**	0.260	0.930
21	MA	Brayton Point	1619	3	D016193	2.821	0.213	0.027	**2.821**	0.393	**1.383**	0.184	0.044	**2.679**	0.374	**1.317**	0.183	0.053	**2.784**	0.388	**1.366**
22	WV	Harrison Power Station		1 (25%), 2 (2(	D03944C01	2.797	0.043	0.047	**1.060**	0.150	0.542	0.046	0.188	**2.797**	0.390	**1.372**	0.042	0.061	**1.222**	0.172	0.623
23	IN	Clifty Creek	983	1,2,3	D00983C01	2.753	0.122	0.009	**1.532**	0.215	0.774	0.190	0.043	**2.753**	0.384	**1.352**	0.142	0.014	**1.832**	0.257	0.919
24	MI	St. Clair	1743	7	D017437	2.553	0.096	0.007	**1.206**	0.170	0.615	0.199	0.018	**2.553**	0.357	**1.259**	0.151	0.022	**2.034**	0.285	**1.016**
25	NY	Oswego Harbor Power	2594	6	x15	2.455	0.047	0.010	0.675	0.096	0.349	0.140	0.068	**2.455**	0.343	**1.214**	0.102	0.067	**1.999**	0.280	0.999
26	NY	Somerset Operating Company (Kintigh)		1	D060821	2.409	0.069	0.028	**1.140**	0.161	0.582	0.095	0.066	**1.910**	0.268	0.957	0.101	0.103	**2.409**	0.337	**1.192**
27	IL	Powerton		51,52,61,62	D00879C06	2.338	0.036	0.014	0.586	0.083	0.303	0.076	0.024	**1.178**	0.166	0.601	0.155	0.044	**2.338**	0.327	**1.159**
28	OH	Cardinal	2828	3	D028283	2.312	0.190	0.006	**2.312**	0.323	**1.147**	0.137	0.017	**1.801**	0.253	0.905	0.123	0.007	**1.525**	0.215	0.771
29	MI	Trenton Channel	1745	9A	D017459A	2.288	0.106	0.014	**1.411**	0.199	0.716	0.162	0.032	**2.288**	0.320	**1.136**	0.113	0.025	**1.629**	0.229	0.821
30	IL	Kincaid Generating Station		1, 2	D00876C02	2.262	0.040	0.058	**1.155**	0.163	0.589	0.071	0.103	**2.071**	0.290	**1.033**	0.062	0.128	**2.262**	0.317	**1.123**
31	OH	Muskingum River	2872	5	D028725	2.232	0.186	0.004	**2.232**	0.312	**1.109**	0.177	0.012	**2.214**	0.310	**1.101**	0.121	0.005	**1.476**	0.208	0.747
32	MI	St. Clair	1743	1,2,3,4,...6	x09	2.209	0.074	0.023	**1.139**	0.161	0.582	0.130	0.057	**2.209**	0.309	**1.098**	0.074	0.064	**1.634**	0.230	0.824
33	MD	Chalk Point	1571	1,2	D01571CE2	2.134	0.121	0.015	**1.597**	0.224	0.806	0.136	0.045	**2.134**	0.299	**1.063**	0.130	0.016	**1.715**	0.241	0.863
34	PA	Shawville	3131	3,4	D03131CS1	2.034	0.164	0.009	**2.034**	0.285	**1.016**	0.123	0.033	**1.828**	0.257	0.917	0.139	0.016	**1.813**	0.254	0.910
35	ME	William F Wyman	1507	4	D015074	1.985	0.081	0.073	**1.825**	0.256	0.916	0.088	0.079	**1.985**	0.278	0.992	0.092	0.041	**1.562**	0.220	0.789
36	PA	Martins Creek	3148	3,4	x21	1.977	0.016	0.037	0.622	0.088	0.322	0.025	0.141	**1.977**	0.277	0.988	0.023	0.087	**1.311**	0.185	0.666
37	OH	Walter C Beckford Generating Station		5 (50%)	D02830M51	1.917	0.159	0.004	**1.917**	0.269	0.960	0.133	0.016	**1.747**	0.245	0.878	0.119	0.008	**1.495**	0.210	0.756
38	IN	Gibson	6113	1,2,3	D06113C03	1.913	0.027	0.051	0.928	0.131	0.476	0.039	0.122	**1.913**	0.268	0.958	0.018	0.037	0.653	0.092	0.338
39	IN	Tanners Creek	988	U4	D00988U4	1.898	0.152	0.010	**1.898**	0.266	0.951	0.107	0.018	**1.466**	0.206	0.742	0.108	0.013	**1.430**	0.201	0.725
40	MI	J H Campbell		A,B,1,2	D01710C09	1.882	0.036	0.012	0.570	0.081	0.295	0.102	0.019	**1.424**	0.200	0.722	0.115	0.045	**1.882**	0.264	0.943

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
41	OH	Gen J M Gavin	8102	2	D081022	1.875	0.118	0.016	**1.575**	0.221	0.796	0.122	0.037	**1.875**	0.263	0.940	0.061	0.018	0.931	0.132	0.478
42	OH	Gen J M Gavin	8102	1	D081021	1.846	0.117	0.016	**1.553**	0.218	0.785	0.121	0.036	**1.846**	0.259	0.926	0.061	0.017	0.916	0.129	0.470
43	NY	Cayuga Operating Company, LLC		1 (33%), 2 (3	D02535C01	1.816	0.139	0.015	**1.816**	0.255	0.912	0.094	0.017	**1.311**	0.185	0.666	0.105	0.033	**1.629**	0.229	0.822
44	NH	Newington	8002	1	D080021	1.791	0.065	0.050	**1.353**	0.191	0.687	0.116	0.036	**1.787**	0.251	0.898	0.089	0.062	**1.791**	0.251	0.900
45	VA	Yorktown Power Station	3809	1,2	D03809CS0	1.715	0.092	0.027	**1.405**	0.198	0.713	0.055	0.015	0.832	0.118	0.428	0.117	0.029	**1.715**	0.241	0.863
46	MI	St. Clair	1743	6	D017436	1.706	0.055	0.005	0.699	0.099	0.361	0.133	0.012	**1.706**	0.240	0.859	0.095	0.015	**1.300**	0.183	0.661
47	WV	Kammer	3947	1,2,3	D03947C03	1.689	0.115	0.014	**1.506**	0.212	0.762	0.099	0.044	**1.689**	0.237	0.851	0.095	0.017	**1.312**	0.185	0.667
48	PA	Montour	3149	1	D031491	1.681	0.081	0.031	**1.322**	0.186	0.672	0.063	0.079	**1.681**	0.236	0.847	0.070	0.045	**1.360**	0.192	0.691
49	NJ	B L England	2378	1		1.647	0.060	0.016	0.887	0.125	0.456	0.116	0.024	**1.647**	0.231	0.830	0.066	0.008	0.875	0.124	0.450
50	MI	J H Campbell		3 (50%)	D01710M3A	1.624	0.046	0.017	0.749	0.106	0.386	0.115	0.023	**1.624**	0.228	0.819	0.081	0.040	**1.424**	0.200	0.722
51	GA	Harllee Branch	709	1,2	D00709C01	1.616	0.129	0.008	**1.616**	0.227	0.815	0.049	0.013	0.739	0.104	0.381	0.067	0.012	0.924	0.130	0.474
52	PA	Montour	3149	2	D031492	1.597	0.082	0.028	**1.297**	0.183	0.659	0.064	0.071	**1.597**	0.225	0.806	0.071	0.040	**1.317**	0.185	0.669
53	MI	Belle River		2	D060342	1.534	0.059	0.018	0.903	0.128	0.464	0.088	0.042	**1.534**	0.216	0.775	0.067	0.052	**1.413**	0.199	0.717
54	PA	Portland		3 (2)	d031132	1.531	0.074	0.008	0.971	0.137	0.498	0.105	0.025	**1.531**	0.215	0.774	0.083	0.022	**1.236**	0.174	0.630
55	MA	Brayton Point	1619	2	D016192	1.530	0.078	0.017	**1.120**	0.158	0.572	0.080	0.032	**1.318**	0.186	0.670	0.082	0.048	**1.530**	0.215	0.774
56	MI	Belle River		1	D060341	1.514	0.058	0.018	0.890	0.126	0.457	0.086	0.042	**1.514**	0.213	0.766	0.066	0.052	**1.397**	0.197	0.708
57	WV	Pleasants Power Station	6004	1	D060041	1.477	0.046	0.019	0.768	0.109	0.396	0.057	0.068	**1.477**	0.208	0.747	0.037	0.023	0.699	0.099	0.361
58	WI	Columbia		1	D080231	1.442	0.028	0.008	0.425	0.060	0.221	0.062	0.010	0.841	0.119	0.433	0.097	0.026	**1.442**	0.203	0.731
59	TN	Johnsonville	3406	1 thru 10	D03406C10	1.412	0.100	0.020	**1.412**	0.199	0.716	0.090	0.024	**1.344**	0.189	0.683	0.067	0.011	0.913	0.129	0.469
60	WV	Kanawha River	3936	1,2	D03936C02	1.385	0.069	0.017	**1.010**	0.142	0.517	0.078	0.040	**1.385**	0.195	0.703	0.065	0.021	**1.014**	0.143	0.519
61	WI	Columbia		2	D080232	1.380	0.033	0.009	0.499	0.071	0.259	0.068	0.011	0.922	0.130	0.473	0.092	0.026	**1.380**	0.194	0.700
62	PA	Brunner Island	3140	3	D031403	1.363	0.066	0.023	**1.050**	0.148	0.537	0.052	0.059	**1.311**	0.185	0.666	0.058	0.057	**1.363**	0.192	0.692
63	OH	Killen Station	6031	2	D060312	1.327	0.042	0.013	0.638	0.090	0.330	0.060	0.053	**1.327**	0.187	0.674	0.035	0.018	0.622	0.088	0.322
64	PA	Brunner Island	3140	1,2	D03140C12	1.297	0.060	0.030	**1.062**	0.150	0.543	0.049	0.061	**1.297**	0.183	0.660	0.052	0.047	**1.176**	0.166	0.600
65	MD	C P Crane	1552	2	D015522	1.249	0.050	0.007	0.675	0.096	0.349	0.070	0.036	**1.249**	0.176	0.636	0.069	0.016	**1.005**	0.142	0.515
66	MD	Morgantown	1573	1	D015731	1.239	0.088	0.003	**1.067**	0.151	0.546	0.096	0.010	**1.239**	0.175	0.631	0.087	0.003	**1.052**	0.149	0.538
67	MA	Brayton Point	1619	1	D016191	1.227	0.068	0.011	0.936	0.132	0.480	0.074	0.020	**1.109**	0.156	0.567	0.072	0.032	**1.227**	0.173	0.625
68	PA	Armstrong Power Station		1	D031781	1.216	0.098	0.005	**1.216**	0.171	0.620	0.064	0.018	0.964	0.136	0.494					
69	PA	Armstrong Power Station		2	D031782	1.198	0.096	0.006	**1.198**	0.169	0.610	0.063	0.019	0.964	0.136	0.494					
70	MI	Trenton Channel	1745	16,17,18,19	x10	1.195	0.042	0.018	0.703	0.099	0.363	0.069	0.033	**1.195**	0.168	0.609	0.044	0.025	0.823	0.116	0.423
71	WV	Pleasants Power Station	6004	2	D060042	1.156	0.041	0.013	0.638	0.090	0.330	0.051	0.047	**1.156**	0.163	0.590	0.033	0.016	0.569	0.080	0.294
72	MN	Sherburne County		1, 2	D06090CS1	1.144	0.033	0.025	0.685	0.097	0.354	0.052	0.034	**1.010**	0.143	0.517	0.058	0.039	**1.144**	0.161	0.584
73	VA	Yorktown Power Station	3809	3	D038093	1.136	0.048	0.014	0.732	0.103	0.377	0.030	0.009	0.456	0.065	0.237	0.076	0.021	**1.136**	0.160	0.580
74	MD	C P Crane	1552	1	D015521	1.123	0.046	0.006	0.610	0.086	0.315	0.063	0.032	**1.123**	0.158	0.573	0.063	0.014	0.906	0.128	0.465
75	MO	Sibley		1, 2, 3	D02094C01	1.116	0.072	0.008	0.946	0.134	0.486	0.063	0.009	0.840	0.119	0.432	0.085	0.010	**1.116**	0.157	0.570
76	NC	L V Sutton		3	D027133	1.114	0.048	0.006	0.631	0.089	0.326	0.080	0.015	**1.114**	0.157	0.569	0.035	0.011	0.550	0.078	0.285
77	AL	E C Gaston	26	1, 2	D00026CAN	1.110	0.068	0.005	0.854	0.121	0.439	0.065	0.013	0.915	0.129	0.470	0.082	0.013	**1.110**	0.157	0.567
78	IL	Baldwin Energy Complex		1,2	D008892	1.108	0.070	0.007	0.904	0.128	0.464	0.075	0.008	0.974	0.138	0.499	0.086	0.009	**1.108**	0.156	0.566
79	GA	Yates		Y6BR	D00728Y6R	1.108	0.082	0.003	0.998	0.141	0.511	0.043	0.005	0.559	0.079	0.290	0.088	0.007	**1.108**	0.156	0.566
80	VA	Chesterfield Power Station	3797	3,7,8A	x28	1.106	0.084	0.010	**1.106**	0.156	0.565	0.065	0.011	0.889	0.126	0.457					

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81	MI	Dan E Karn	1702	3,4 (1,2)	D01702C09	1.103	0.033	0.011	0.514	0.073	0.266	0.075	0.019	**1.103**	0.156	0.564	0.065	0.027	**1.081**	0.153	0.553
82	SC	Wateree	3297	WAT1	D03297WT1	1.098	0.089	0.005	**1.098**	0.155	0.561	0.027	0.004	0.359	0.051	0.187	0.038	0.006	0.509	0.072	0.264
83	IN	IPL - Harding Street Station (EW Stout)		50	D0099050	1.075	0.071	0.002	0.856	0.121	0.440	0.054	0.003	0.665	0.094	0.344	0.089	0.003	**1.075**	0.152	0.550
84	PA	Homer City		3	D031223	1.073	0.045	0.018	0.749	0.106	0.386	0.032	0.059	**1.073**	0.151	0.549	0.047	0.026	0.868	0.123	0.446
85	OH	Conesville	2840	5,6	D02840C06	1.068	0.030	0.024	0.638	0.090	0.330	0.028	0.062	**1.068**	0.151	0.546	0.015	0.034	0.587	0.083	0.304
86	IN	Michigan City Generating Station		12	D0099712	1.068	0.042	0.003	0.530	0.075	0.275	0.083	0.008	**1.068**	0.151	0.546	0.059	0.013	0.839	0.119	0.432
87	IN	IPL - Petersburg Generating Station		4	D009944	1.063	0.067	0.010	0.906	0.128	0.465	0.071	0.019	**1.063**	0.150	0.544	0.043	0.009	0.611	0.086	0.316
88	DE	Indian River	594	4	D005944	1.057	0.021	0.003	0.290	0.041	0.151	0.082	0.008	**1.057**	0.149	0.541	0.017	0.003	0.234	0.033	0.122
89	MD	Brandon Shores	602	2	D006022	1.057	0.015	0.015	0.361	0.051	0.188	0.016	0.072	**1.057**	0.149	0.541	0.016	0.024	0.468	0.066	0.243
90	IA	Ottumwa		1	D062541	1.039	0.034	0.008	0.488	0.069	0.253	0.055	0.011	0.786	0.111	0.405	0.073	0.015	**1.039**	0.147	0.532
91	WV	John E Amos	3935	1,2	D03935C02	1.016	0.038	0.013	0.602	0.085	0.311	0.051	0.035	**1.016**	0.143	0.520	0.026	0.017	0.509	0.072	0.264
92	OK	Northeastern		3313, 3314	D02963C10	1.013	0.054	0.032	**1.013**	0.143	0.519	0.041	0.023	0.759	0.107	0.391	0.041	0.006	0.553	0.078	0.287
93	MD	Brandon Shores	602	1	D006021	1.009	0.016	0.014	0.353	0.050	0.184	0.016	0.068	**1.009**	0.142	0.517	0.016	0.022	0.454	0.064	0.236
94	MI	J C Weadock		7, 8	D01720C09	1.000	0.034	0.010	0.511	0.072	0.265	0.071	0.014	**1.000**	0.141	0.512	0.064	0.021	0.990	0.140	0.507
95	NH	Schiller	2367	6		0.990	0.030	0.011	0.481	0.068	0.250	0.047	0.037	0.990	0.140	0.508	0.036	0.023	0.688	0.097	0.355
96	KY	John S. Cooper	1384	1,2	D01384CS1	0.990	0.049	0.005	0.638	0.090	0.330	0.068	0.016	0.990	0.140	0.507	0.056	0.007	0.744	0.105	0.384
97	AL	E C Gaston	26	3, 4	D00026CBN	0.989	0.065	0.006	0.829	0.117	0.427	0.060	0.013	0.850	0.120	0.437	0.072	0.012	0.989	0.140	0.507
98	KY	Mill Creek	1364	1,2,3	x05	0.987	0.065	0.016	0.953	0.135	0.489	0.059	0.025	0.987	0.139	0.506	0.039	0.016	0.653	0.092	0.338
99	SC	Canadys Steam		CAN3	D03280CN3	0.983	0.080	0.004	0.983	0.139	0.504	0.026	0.003	0.347	0.049	0.181	0.029	0.004	0.391	0.055	0.203
100	IA	George Neal South		4	D073434	0.978	0.030	0.009	0.451	0.064	0.235	0.053	0.013	0.772	0.109	0.398	0.062	0.021	0.978	0.138	0.501
101	NH	Schiller	2367	4		0.976	0.029	0.011	0.475	0.067	0.247	0.047	0.036	0.976	0.138	0.500	0.035	0.022	0.679	0.096	0.351
102	IN	IPL - Harding Street Station (EW Stout)		60	D0099060	0.973	0.064	0.002	0.776	0.110	0.400	0.049	0.003	0.603	0.085	0.312	0.080	0.003	0.973	0.137	0.499
103	PA	Sunbury		4	D031524	0.969	0.081	0.002	0.963	0.136	0.494	0.066	0.009	0.884	0.125	0.454	0.077	0.006	0.969	0.137	0.497
104	NY	Oswego Harbor Power	2594	5	D025945	0.967	0.070	0.012	0.967	0.137	0.496										
105	IN	R M Schahfer Generating Station		14	D0608514	0.936	0.053	0.006	0.696	0.098	0.359	0.069	0.011	0.936	0.132	0.480	0.061	0.017	0.919	0.130	0.472
106	WV	Phil Sporn	3938	11,21,31,41	D03938C04	0.928	0.066	0.013	0.928	0.131	0.476										
107	GA	Jack McDonough		MB1, MB2	D00710C01	0.925	0.076	0.003	0.925	0.131	0.475	0.030	0.006	0.427	0.060	0.222	0.037	0.004	0.480	0.068	0.249
108	SC	Wateree	3297	WAT2	D03297WT2	0.913	0.074	0.004	0.913	0.129	0.469	0.024	0.003	0.314	0.045	0.164	0.032	0.004	0.415	0.059	0.216
109	PA	Portland		2 (1)	d031131	0.911	0.046	0.003	0.573	0.081	0.297	0.068	0.010	0.911	0.129	0.468	0.051	0.008	0.695	0.098	0.359
110	KY	Paradise	1378	3	D013783	0.904	0.036	0.041	0.904	0.128	0.464	0.025	0.050	0.901	0.127	0.463	0.027	0.037	0.754	0.107	0.389
111	TX	Big Brown	3497	2		0.903	0.073	0.004	0.903	0.127	0.464	0.070	0.001	0.830	0.117	0.427	0.044	0.001	0.528	0.075	0.274
112	SC	Jefferies	3319	4		0.895	0.070	0.006	0.895	0.126	0.459	0.037	0.005	0.499	0.071	0.259	0.021	0.005	0.300	0.043	0.157
113	KY	Ghent	1356	3,4 … (2,3)	D01356C02	0.894	0.037	0.009	0.532	0.075	0.276	0.041	0.035	0.894	0.126	0.459	0.041	0.013	0.639	0.090	0.331
114	SC	Jefferies	3319	3		0.893	0.070	0.006	0.893	0.126	0.459	0.038	0.005	0.498	0.071	0.259	0.022	0.005	0.317	0.045	0.165
115	TN	Kingston	3407	6,7,8,9	D03407C69	0.884	0.073	0.003	0.884	0.125	0.454	0.053	0.004	0.665	0.094	0.343	0.059	0.003	0.733	0.104	0.378
116	OH	J M Stuart	2850	4	D028404	0.873	0.031	0.007	0.448	0.063	0.233	0.048	0.026	0.873	0.123	0.449	0.031	0.010	0.478	0.068	0.248
117	TX	Big Brown	3497	1		0.861	0.070	0.004	0.861	0.122	0.443	0.067	0.001	0.791	0.112	0.407	0.042	0.001	0.503	0.071	0.261
118	WV	Albright Power Station	3942	3	D039423	0.855	0.071	0.002	0.855	0.121	0.440	0.050	0.013	0.740	0.105	0.382	0.063	0.004	0.783	0.111	0.403
119	VA	Chesapeake Energy Center		4	D038034	0.850	0.045	0.014	0.690	0.098	0.357	0.042	0.010	0.613	0.087	0.317	0.062	0.010	0.850	0.120	0.437
120	NJ	B L England	2378	2,3	x12	0.845	0.018	0.023	0.491	0.070	0.255	0.036	0.036	0.845	0.119	0.434	0.020	0.012	0.385	0.055	0.200

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121	MD	Herbert A Wagner	1554	3	D015543	0.842	0.047	0.005	0.607	0.086	0.314	0.050	0.022	0.842	0.119	0.433	0.047	0.007	0.625	0.089	0.323
122	GA	Scherer		4	D062574	0.841	0.068	0.003	0.841	0.119	0.433	0.025	0.006	0.365	0.052	0.190	0.050	0.006	0.664	0.094	0.343
123	PA	Sunbury		3	D031523	0.841	0.070	0.002	0.841	0.119	0.433	0.059	0.009	0.804	0.114	0.414	0.063	0.006	0.808	0.114	0.416
124	GA	Yates		Y7BR	D00728Y7R	0.824	0.061	0.003	0.740	0.105	0.382	0.032	0.004	0.417	0.059	0.217	0.065	0.005	0.824	0.116	0.424
125	TN	Kingston	3407	1,2,3,4,5	D03407C15	0.821	0.067	0.003	0.821	0.116	0.423	0.049	0.004	0.621	0.088	0.321	0.055	0.003	0.682	0.096	0.352
126	GA	Scherer		1	D062571	0.820	0.066	0.004	0.820	0.116	0.422	0.024	0.007	0.362	0.051	0.188	0.048	0.007	0.644	0.091	0.333
127	GA	Scherer		2	D062572	0.815	0.066	0.004	0.815	0.115	0.420	0.024	0.006	0.356	0.050	0.185	0.048	0.006	0.637	0.090	0.329
128	IN	Whitewater Valley		1, 2	D01040C12	0.812	0.068	0.002	0.812	0.115	0.418	0.044	0.002	0.542	0.077	0.281	0.057	0.003	0.706	0.100	0.364
129	IN	IPL - Petersburg Generating Station		3	D009943	0.811	0.047	0.010	0.668	0.095	0.345	0.050	0.019	0.811	0.115	0.417	0.030	0.009	0.455	0.065	0.237
130	KY	Paradise	1378	2	D013782	0.810	0.062	0.007	0.810	0.115	0.417	0.047	0.007	0.640	0.091	0.331	0.045	0.007	0.606	0.086	0.314
131	IN	R M Schahfer Generating Station		15	D0608515	0.792	0.039	0.007	0.538	0.076	0.279	0.052	0.016	0.792	0.112	0.408	0.043	0.023	0.773	0.109	0.398
132	MO	New Madrid Power Plant		1	D021671	0.790	0.025	0.042	0.790	0.112	0.407										
133	MO	Labadie		4	D021034	0.788	0.029	0.006	0.414	0.059	0.215	0.063	0.005	0.788	0.111	0.406	0.048	0.006	0.630	0.089	0.326
134	WV	Mitchell (WV)	3948	1,2	D03948C02	0.775	0.036	0.007	0.504	0.071	0.262	0.036	0.030	0.775	0.110	0.399	0.030	0.010	0.466	0.066	0.242
135	AL	Colbert	47	1, 2, 3, 4	D00047C14	0.761	0.049	0.016	0.761	0.108	0.392										
136	NC	Mayo	6250	1A,1B	D06250C05	0.750	0.057	0.007	0.750	0.106	0.387	0.023	0.007	0.348	0.049	0.181	0.044	0.010	0.635	0.090	0.328
137	KS	La Cygne		2	D012412	0.716	0.045	0.016	0.716	0.101	0.370	0.042	0.015	0.671	0.095	0.347	0.037	0.018	0.649	0.092	0.335
138	KY	Paradise	1378	1	D01720C09	0.716	0.054	0.007	0.716	0.101	0.370	0.041	0.007	0.567	0.080	0.293	0.039	0.006	0.537	0.076	0.278
139	AR	White Bluff		1	D060091	0.713	0.040	0.020	0.713	0.101	0.368										
140	AR	White Bluff		2	D060092	0.708	0.039	0.021	0.708	0.100	0.366										
141	TX	Martin Lake	6146	1		0.698	0.052	0.007	0.698	0.099	0.361	0.050	0.002	0.607	0.086	0.314	0.032	0.002	0.389	0.055	0.202
142	KY	Shawnee		1,2,3,4,5	D01379C15	0.698	0.035	0.024	0.698	0.099	0.360										
143	MA	Canal Station	1599	1	D015991	0.695	0.036	0.013	0.576	0.082	0.298	0.042	0.017	0.695	0.098	0.359	0.028	0.008	0.416	0.059	0.216
144	MA	Salem Harbor Station	1626	1		0.690	0.019	0.013	0.374	0.053	0.195	0.032	0.026	0.690	0.098	0.356	0.033	0.019	0.608	0.086	0.314
145	CT	Bridgeport Harbor Station	568	BHB3		0.687	0.015	0.022	0.431	0.061	0.224	0.011	0.020	0.366	0.052	0.191	0.020	0.038	0.687	0.097	0.355
146	IN	Gibson	6113	5	D061135	0.685	0.040	0.018	0.685	0.097	0.354										
147	PA	Sunbury		1A, 1B	D03152CS1	0.683	0.057	0.001	0.683	0.097	0.352	0.047	0.007	0.639	0.090	0.331	0.053	0.004	0.672	0.095	0.347
148	IN	Gibson	6113	4	D061135	0.662	0.014	0.042	0.662	0.094	0.342										
149	MO	New Madrid Power Plant		2	D021672	0.650	0.024	0.031	0.650	0.092	0.336										
150	IN	Tanners Creek	988	U1,U2,U3	D00988C03	0.650	0.049	0.006	0.650	0.092	0.336	0.034	0.012	0.546	0.077	0.283	0.035	0.009	0.515	0.073	0.267
151	NE	Nebraska City Station		1	D060961	0.645	0.042	0.013	0.645	0.091	0.333										
152	TX	Martin Lake	6146	2		0.643	0.049	0.006	0.643	0.091	0.333	0.047	0.002	0.566	0.080	0.293	0.030	0.001	0.362	0.051	0.188
153	IN	IPL - Eagle Valley Generating Station		5, 6	D00991C56	0.640	0.052	0.002	0.640	0.091	0.331										
154	VA	Chesapeake Energy Center		3	D038033	0.622	0.031	0.014	0.532	0.075	0.276	0.029	0.010	0.459	0.065	0.239	0.042	0.010	0.622	0.088	0.322
155	IN	Merom		2SG1	D062132G1	0.619	0.050	0.003	0.619	0.088	0.320										
156	SC	H B Robinson		1	D032511	0.600	0.045	0.006	0.600	0.085	0.311	0.016	0.005	0.253	0.036	0.132	0.024	0.010	0.395	0.056	0.205
157	IN	IPL - Petersburg Generating Station		1 (50%)	D00994M1B	0.600	0.047	0.004	0.600	0.085	0.310										
158	OK	Grand River Dam Authority		1	D001651	0.599	0.038	0.013	0.599	0.085	0.310	0.029	0.010	0.453	0.064	0.235	0.031	0.003	0.397	0.056	0.207
159	NY	Huntley Power	2549	67,68	D02549C01	0.598	0.043	0.008	0.598	0.085	0.310										
160	TX	Martin Lake	6146	3		0.597	0.045	0.006	0.597	0.085	0.309	0.043	0.002	0.520	0.074	0.270	0.027	0.001	0.333	0.047	0.173

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161	OH	Cardinal	2828	1	D028281	0.592	0.046	0.004	0.592	0.084	0.306										
162	OH	Eastlake	2837	1	D028371	0.587	0.044	0.006	0.587	0.083	0.304										
163	MA	Brayton Point	1619	4	x07	0.587	0.030	0.014	0.522	0.074	0.271	0.029	0.020	0.587	0.083	0.304	0.028	0.020	0.568	0.080	0.294
164	NJ	Hudson Generating Station	2403	2	D024032	0.586	0.013	0.007	0.229	0.032	0.119	0.014	0.018	0.388	0.055	0.202	0.019	0.031	0.586	0.083	0.303
165	IN	Alcoa Allowance Management Inc	6705	1,2	D06705C02	0.584	0.013	0.036	0.584	0.083	0.302										
166	NC	L V Sutton		1, 2	D02713C02	0.567	0.028	0.004	0.375	0.053	0.195	0.043	0.005	0.567	0.080	0.293	0.022	0.006	0.327	0.046	0.171
167	KY	Shawnee		6,7,8,9,10	D01379C60	0.565	0.031	0.017	0.565	0.080	0.293										
168	MI	River Rouge		3	D017403	0.563	0.037	0.011	0.563	0.080	0.291										
169	OH	Eastlake	2837	2	D028372	0.562	0.043	0.005	0.562	0.080	0.291										
170	IN	IPL - Harding Street Station (EW Stout)	990	70	D0099070	0.558	0.043	0.005	0.558	0.079	0.289										
171	KY	Mill Creek	1364	4	D013644	0.558	0.043	0.005	0.558	0.079	0.289	0.038	0.008	0.539	0.076	0.279	0.027	0.005	0.373	0.053	0.194
172	NC	H F Lee Steam Electric Plant		3	D027093	0.558	0.038	0.010	0.558	0.079	0.289	0.032	0.005	0.433	0.061	0.225	0.032	0.009	0.479	0.068	0.249
173	VA	Chesterfield Power Station	3797	4	D037974	0.549	0.038	0.009	0.549	0.078	0.285	0.028	0.005	0.392	0.056	0.204	0.035	0.007	0.491	0.070	0.255
174	TN	John Sevier	3405	1,2	D03405C12	0.536	0.043	0.003	0.536	0.076	0.278	0.037	0.009	0.531	0.075	0.275	0.037	0.005	0.495	0.070	0.257
175	MO	Rush Island		1	D061551	0.528	0.041	0.004	0.528	0.075	0.274										
176	MO	Rush Island		2	D061552	0.527	0.041	0.004	0.527	0.075	0.273										
177	TN	John Sevier	3405	3,4	D03405C34	0.524	0.042	0.003	0.524	0.074	0.272	0.036	0.009	0.520	0.074	0.270	0.037	0.005	0.484	0.069	0.251
178	TX	Monticello	6147	1		0.523	0.041	0.004	0.523	0.074	0.271	0.039	0.001	0.469	0.066	0.244	0.025	0.001	0.299	0.042	0.156
179	IL	Newton		2	D060172	0.523	0.041	0.004	0.523	0.074	0.271										
180	MA	Canal Station	1599	2	D015992	0.516	0.024	0.016	0.469	0.066	0.243	0.022	0.022	0.516	0.073	0.267	0.018	0.013	0.377	0.053	0.196
181	NC	Cape Fear	2708	6		0.512	0.035	0.008	0.512	0.072	0.265	0.025	0.005	0.350	0.050	0.182	0.027	0.012	0.451	0.064	0.234
182	AR	Independence		1	D066411	0.510	0.028	0.015	0.510	0.072	0.264										
183	VA	Bremo Power Station		4	D037964	0.501	0.033	0.004	0.430	0.061	0.223	0.024	0.007	0.367	0.052	0.191	0.036	0.007	0.501	0.071	0.260
184	OK	Muskogee	2952	4		0.499	0.031	0.011	0.499	0.071	0.259										
185	AR	Independence		2	D066412	0.492	0.028	0.014	0.492	0.070	0.255										
186	MN	Sherburne County		3	D060903	0.490	0.027	0.014	0.490	0.069	0.254										
187	TX	Monticello	6147	2		0.490	0.039	0.003	0.490	0.069	0.254										
188	OH	Eastlake	2837	3	D028373	0.488	0.037	0.005	0.488	0.069	0.253										
189	NY	Dynegy Danskammer	2480	1,2,3	x13	0.484	0.036	0.005	0.484	0.069	0.251										
190	IN	IPL - Petersburg Generating Station		2(50%)	D00994M2B	0.473	0.032	0.009	0.473	0.067	0.246										
191	TN	Gallatin	3403	3,4	D03403C34	0.473	0.036	0.004	0.473	0.067	0.246										
192	TX	Monticello	6147	3		0.470	0.034	0.006	0.470	0.067	0.244										
193	KY	D B Wilson		W1	D06823W1	0.459	0.036	0.003	0.459	0.065	0.238										
194	OK	Muskogee		5	D029525	0.458	0.029	0.010	0.458	0.065	0.238										
195	TX	Limestone	298	LIM2		0.457	0.029	0.010	0.457	0.065	0.237										
196	WV	Fort Martin Power Station	3943	1	D039431	0.454	0.024	0.015	0.454	0.064	0.236										
197	KY	Green River		5	D013575	0.450	0.036	0.002	0.450	0.064	0.234										
198	MI	Monroe	1733	3,4	D01733C34	0.450	0.020	0.018	0.450	0.064	0.234										
199	TX	H W Pirkey Power Plant	7902	1		0.448	0.032	0.006	0.448	0.064	0.233										
200	KS	Nearman Creek	6064	N1		0.446	0.023	0.015	0.446	0.063	0.232										

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201	OH	Cardinal	2828	2	D028282	0.446	0.033	0.005	0.446	0.063	0.232										
202	NY	Northport	2516	1,2,4,ugt001	x14	0.445	0.017	0.020	0.445	0.063	0.231	0.016	0.014	0.358	0.051	0.186					
203	SC	Urquhart		URQ3	D03295UQ3	0.429	0.036	0.001	0.429	0.061	0.223										
204	OK	Hugo		1	D067721	0.426	0.033	0.003	0.426	0.060	0.221										
205	TX	Limestone	298	LIM1		0.424	0.027	0.009	0.424	0.060	0.221										
206	OK	Sooner	6095	1		0.423	0.025	0.011	0.423	0.060	0.220										
207	OH	Eastlake	2837	4,6, (5)	x17	0.423	0.027	0.009	0.423	0.060	0.220										
208	OK	Sooner		2	D060952	0.417	0.024	0.011	0.417	0.059	0.217										
209	TN	Gallatin	3403	1,2	D03403C12	0.417	0.032	0.004	0.417	0.059	0.217										
210	MO	Labadie		3	D021033	0.409	0.029	0.006	0.409	0.058	0.213										
211	WV	Fort Martin Power Station	3943	2	D039432	0.408	0.022	0.013	0.408	0.058	0.212										
212	WV	Longview Power	56671	1		0.405	0.031	0.004	0.405	0.057	0.211										
213	NC	Riverbend	2732	9		0.397	0.033	0.001	0.397	0.056	0.207										
214	VA	Chesapeake Energy Center		2	D038032	0.390	0.020	0.008	0.333	0.047	0.174	0.020	0.007	0.313	0.044	0.163	0.027	0.006	0.390	0.055	0.203
215	MO	Labadie		1	D021031	0.389	0.027	0.006	0.389	0.055	0.202										
216	MO	Thomas Hill Energy Center		MB3	D02168MB3	0.386	0.026	0.007	0.386	0.055	0.201										
217	KY	Green River		4	D013574	0.383	0.030	0.002	0.383	0.054	0.199										
218	WV	Mount Storm Power Station	3954	1,2	D03954CS0	0.380	0.021	0.011	0.380	0.054	0.198										
219	IA	Louisa		101	D06664101	0.373	0.020	0.012	0.373	0.053	0.194										
220	WV	John E Amos	3935	3	D039353	0.372	0.017	0.015	0.372	0.053	0.194										
221	MN	Black Dog		3, 4	D01904CS1	0.354	0.010	0.020	0.354	0.050	0.184										
222	PA	Hatfield's Ferry Power Station	3179	3	x20	0.353	0.011	0.019	0.353	0.050	0.184										
223	VA	Clinch River	3775	1,2	D03775C02	0.350	0.026	0.004	0.350	0.050	0.182										
224	IN	R Gallagher	1008	1,2	D01008C01	0.350	0.025	0.005	0.350	0.050	0.182										
225	NC	Roxboro	2712	4A,4B	D02712C04	0.347	0.022	0.007	0.347	0.049	0.181	0.009	0.007	0.181	0.026	0.095	0.016	0.012	0.322	0.046	0.168
226	MD	Herbert A Wagner	1554	1,2,4	x08	0.346	0.026	0.004	0.346	0.049	0.180										
227	NC	Roxboro	2712	3A,3B	D02712C03	0.342	0.020	0.009	0.342	0.048	0.178	0.008	0.008	0.191	0.027	0.100	0.014	0.015	0.339	0.048	0.177
228	PA	Shawville	3131	1	D031311	0.338	0.026	0.003	0.338	0.048	0.176										
229	WV	Mountaineer (1301)	6264	1	D062641	0.338	0.019	0.010	0.338	0.048	0.176										
230	PA	Shawville	3131	2	D031312	0.333	0.025	0.003	0.333	0.047	0.173										
231	OH	W H Sammis	2866	7	D028667	0.330	0.014	0.014	0.330	0.047	0.172										
232	OH	Miami Fort Generating Station	2832	7	D028327	0.328	0.021	0.007	0.328	0.047	0.171										
233	IA	Walter Scott Jr. Energy Center		3	D010823	0.327	0.018	0.010	0.327	0.046	0.170										
234	ME	William F Wyman	1507	3		0.325	0.017	0.011	0.325	0.046	0.169										
235	NY	CCI Roseton LLC	8006	2	D080062	0.325	0.020	0.007	0.325	0.046	0.169										
236	CT	Middletown	562	4		0.324	0.008	0.020	0.324	0.046	0.169										
237	AR	Flint Creek Power Plant	6138	1		0.315	0.016	0.010	0.315	0.045	0.164										
238	IN	R Gallagher	1008	3,4	D01008C02	0.314	0.022	0.005	0.314	0.045	0.164										
239	OH	Conesville	2840	4	D028504	0.310	0.022	0.005	0.310	0.044	0.162										
240	OH	W H Sammis	2866	6	D02866M6A	0.308	0.014	0.012	0.308	0.044	0.161										

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241	WI	Nelson Dewey	4054	2		0.308	0.022	0.004	0.308	0.044	0.161										
242	WI	Edgewater (4050)	4050	5		0.308	0.020	0.006	0.308	0.044	0.161										
243	VA	Chesapeake Energy Center		1	D038031	0.308	0.014	0.009	0.277	0.039	0.144	0.014	0.007	0.253	0.036	0.132	0.019	0.007	0.308	0.044	0.161
244	IL	Joppa Steam		1, 2	D00887CS1	0.305	0.022	0.004	0.305	0.043	0.159										
245	SC	Winyah	6249	2,3,4	x23	0.303	0.020	0.006	0.303	0.043	0.158										
246	IL	Joppa Steam		3, 4	D00887CS2	0.302	0.022	0.004	0.302	0.043	0.158										
247	NC	Roxboro	2712	2	D027122	0.302	0.020	0.006	0.302	0.043	0.158										
248	IN	Cayuga	1001	2	D010012	0.300	0.014	0.011	0.300	0.043	0.156										
249	OH	Miami Fort Power Station		8	D028328	0.297	0.018	0.007	0.297	0.042	0.155										
250	KS	La Cygne	1241	1		0.297	0.020	0.005	0.297	0.042	0.155	0.019	0.003	0.251	0.036	0.131	0.018	0.006	0.280	0.040	0.146
251	SC	McMeekin		MCM2	D03287MM2	0.292	0.024	0.001	0.292	0.041	0.152										
252	OH	W H Sammis	2866	1,2	D02866C01	0.291	0.009	0.015	0.291	0.041	0.152										
253	MD	Dickerson	1572	1,2,3	D01572C23	0.291	0.016	0.009	0.291	0.041	0.152										
254	OH	W H Sammis	2866	3,4	D02866C02	0.286	0.009	0.015	0.286	0.041	0.149										
255	SC	McMeekin		MCM1	D03287MM1	0.279	0.023	0.001	0.279	0.040	0.146										
256	CT	New Haven Harbor	6156	NHB1		0.277	0.008	0.016	0.277	0.039	0.144										
257	IA	George Neal North		3	D010913	0.269	0.015	0.008	0.269	0.038	0.140										
258	IN	Cayuga	1001	1	D010011	0.268	0.012	0.011	0.268	0.038	0.140										
259	TX	Welsh Power Plant	6139	3		0.258	0.016	0.006	0.258	0.037	0.135										
260	IL	Joliet 29		81, 82	D00384C82	0.258	0.018	0.004	0.258	0.037	0.135										
261	WI	South Oak Creek		7, 8	D04041CS4	0.255	0.017	0.005	0.255	0.036	0.133										
262	NC	Marshall	2727	1,2	x11	0.252	0.014	0.007	0.252	0.036	0.132										
263	IL	Marion		4	D009764	0.251	0.017	0.005	0.251	0.036	0.131										
264	NY	NRG Dunkirk Power		3	D02554C03	0.244	0.017	0.003	0.244	0.035	0.128										
265	TX	Welsh Power Plant	6139	1		0.243	0.016	0.005	0.243	0.035	0.127										
266	TX	Welsh Power Plant	6139	2		0.240	0.016	0.004	0.240	0.034	0.126										
267	NC	Marshall	2727	4	D027274	0.224	0.011	0.008	0.224	0.032	0.117										
268	KY	E W Brown	1355	2,3	D01355C03	0.220	0.008	0.011	0.220	0.031	0.115										
269	TN	Cumberland	3399	1		0.219	0.013	0.005	0.219	0.031	0.114										
270	AL	Greene County	10	1		0.219	0.018	0.001	0.219	0.031	0.114										
271	GA	Yates		Y5BR	D00728Y5R	0.218	0.017	0.001	0.218	0.031	0.114										
272	NY	Northport	2516	3	D025163	0.214	0.010	0.008	0.214	0.030	0.112										
273	GA	Bowen	703	1BLR	D007031LR	0.210	0.008	0.010	0.210	0.030	0.110										
274	OH	J M Stuart	2850	3	D028503	0.206	0.012	0.006	0.206	0.029	0.108										
275	NC	Roxboro	2712	1	D027121	0.206	0.012	0.005	0.206	0.029	0.108										
276	ME	William F Wyman	1507	1		0.205	0.008	0.009	0.205	0.029	0.107										
277	OH	W H Sammis	2866	5	D028665	0.203	0.006	0.011	0.203	0.029	0.106										
278	ME	William F Wyman	1507	2		0.201	0.008	0.009	0.201	0.029	0.105										
279	KY	Ghent	1356	1,2 … (1,4)	D01356C01	0.199	0.012	0.005	0.199	0.028	0.104										
280	IL	Wood River Power Station		5	D008985	0.198	0.013	0.004	0.198	0.028	0.104										

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281	GA	Bowen	703	4BLR	D007034LR	0.194	0.004	0.012	0.194	0.027	0.101										
282	MO	Sikeston		1	D067681	0.193	0.012	0.005	0.193	0.027	0.101										
283	MO	Meramec		3	D021043	0.190	0.012	0.004	0.190	0.027	0.099										
284	MD	Morgantown	1573	2	D015732	0.189	0.014	0.002	0.189	0.027	0.099										
285	OH	J M Stuart	2850	1	D028501	0.185	0.011	0.004	0.185	0.026	0.097										
286	WI	Genoa	4143	1		0.181	0.012	0.003	0.181	0.026	0.095										
287	VA	Chesterfield Power Station	3797	6	D037976	0.177	0.010	0.005	0.177	0.025	0.093										
288	KY	East Bend	6018	2	D060182	0.175	0.010	0.005	0.175	0.025	0.091										
289	KY	H L Spurlock	6041	2	D060412	0.169	0.011	0.004	0.169	0.024	0.089										
290	KY	H L Spurlock	6041	1	D060411	0.168	0.012	0.002	0.168	0.024	0.088										
291	GA	Bowen	703	2BLR	D007032LR	0.165	0.004	0.010	0.165	0.023	0.086										
292	NC	Belews Creek	8042	2	D080422	0.161	0.010	0.003	0.161	0.023	0.084										
293	NC	Marshall	2727	3	D027273	0.160	0.012	0.002	0.160	0.023	0.084										
294	SC	Williams	3298	WIL1	D03298WL1	0.159	0.007	0.007	0.159	0.023	0.083										
295	AL	E C Gaston	26	5		0.159	0.007	0.006	0.159	0.023	0.083										
296	NC	Belews Creek	8042	1	D080421	0.158	0.010	0.003	0.158	0.022	0.083										
297	IN	Alcoa Allowance Management Inc	6705	4	D067054	0.153	0.008	0.005	0.153	0.022	0.080										
298	OH	J M Stuart	2850	2	D028502	0.146	0.007	0.006	0.146	0.021	0.077										
299	KS	Quindaro	1295	2		0.124	0.007	0.004	0.124	0.018	0.065										
300	IN	Alcoa Allowance Management Inc	6705	3	x02	0.112	0.003	0.006	0.112	0.016	0.059										
301	NC	Cliffside	2721	5	D027215	0.110	0.008	0.002	0.110	0.016	0.057										
302	GA	Bowen	703	3BLR	D007033LR	0.106	0.004	0.005	0.106	0.015	0.055										
303	DE	Edge Moor	593	5	D005935	0.102	0.007	0.001	0.102	0.014	0.053										
304	KS	Tecumseh Energy Center	1252	10		0.100	0.006	0.003	0.100	0.014	0.053										
305	NJ	Mercer Generating Station	2408	1	D024081	0.085	0.004	0.003	0.085	0.012	0.044										
306	NJ	Mercer Generating Station	2408	2	D024082	0.076	0.003	0.003	0.076	0.011	0.040										
307	SC	Winyah	6249	1	D062491	0.046	0.002	0.002	0.046	0.007	0.024										
308	OH	Miami Fort Generating Station	2832	5-1, 5-2, 6	D02832C06	0.015	0.001	0.000	0.015	0.002	0.008										
309	IL	Newton		1	D060171	0.000															
310	MA	Salem Harbor Station	1626	3	D016263	0.000															
311	NY	CCI Roseton LLC	8006	1	D080061	0.000											0.000	0.000	0.000	0.000	0.000

F.14 2015 EGU Ranking Visibility Impairing Sources to Presidential Range/Dry River

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1	OH	Avon Lake Power Plant	2836	12	D0283612	9.197	0.407	0.030	**5.016**	0.709	**2.403**	0.642	0.132	**9.197**	**1.232**	**3.953**	0.505	0.110	**7.310**	0.989	**3.252**
2	PA	Homer City	3122	1	D031221	7.372	0.494	0.038	**6.327**	0.859	**2.864**	0.379	0.103	**5.267**	0.781	**2.626**	0.574	0.047	**7.372**	0.997	**3.275**
3	PA	Homer City	3122	2	D031222	6.500	0.436	0.034	**5.573**	0.761	**2.564**	0.334	0.092	**4.728**	0.694	**2.355**	0.506	0.042	**6.500**	0.884	**2.939**
4	ME	William F Wyman	1507	4	D015074	4.207	0.155	0.188	**3.868**	0.563	**1.941**	0.168	0.205	**4.207**	0.612	**2.096**	0.175	0.105	**3.311**	0.460	**1.605**
5	VA	Yorktown Power Station	3809	3	D038093	3.694	0.156	0.045	**2.380**	0.332	**1.177**	0.097	0.029	**1.482**	0.208	0.748	0.245	0.068	**3.694**	0.512	**1.774**
6	OH	Muskingum River	2872	5	D028725	3.596	0.302	0.005	**3.596**	0.501	**1.740**	0.287	0.014	**3.566**	0.492	**1.710**	0.196	0.006	**2.378**	0.332	**1.178**
7	NH	Merrimack	2364	2	D023642	3.150	0.030	0.073	**1.968**	0.173	0.626	0.043	0.185	**3.150**	0.380	**1.338**	0.036	0.198	**2.795**	0.390	**1.371**
8	KY	Big Sandy	1353	BSU1,BSU2	D01353C02	3.099	0.176	0.020	**2.270**	0.322	**1.143**	0.208	0.054	**3.099**	0.430	**1.506**	0.121	0.029	**1.767**	0.248	0.888
9	IN	Rockport	6166	MB1,MB2	D06166C02	2.977	0.125	0.041	**1.988**	0.274	0.977	0.144	0.113	**2.977**	0.424	**1.487**	0.080	0.039	**1.403**	0.198	0.712
10	WV	Harrison Power Station		1 (25%), 2 (209	D03944C01	2.951	0.045	0.050	**1.118**	0.157	0.570	0.048	0.200	**2.951**	0.413	**1.448**	0.044	0.065	**1.289**	0.182	0.656
11	GA	Harllee Branch	709	3&4	D00709C02	2.828	0.232	0.011	**2.828**	0.399	**1.403**	0.061	0.015	0.899	0.125	0.456	0.119	0.017	**1.605**	0.226	0.810
12	NH	Newington	8002	1	D080021	2.656	0.048	0.126	**2.008**	0.290	**1.034**	0.085	0.091	**2.651**	0.292	**1.040**	0.066	0.157	**2.656**	0.371	**1.307**
13	IN	Wabash River Gen Station	1010	2,3,4,5,6	D01010C05	2.613	0.167	0.009	**2.062**	0.289	**1.030**	0.160	0.013	**2.046**	0.286	**1.018**	0.211	0.011	**2.613**	0.365	**1.287**
14	OH	Gen J M Gavin	8102	1	D081021	2.354	0.123	0.032	**1.980**	0.255	0.912	0.127	0.073	**2.354**	0.331	**1.173**	0.064	0.035	**1.169**	0.165	0.596
15	OH	Killen Station	6031	2	D060312	2.299	0.057	0.030	**1.105**	0.146	0.530	0.082	0.126	**2.299**	0.346	**1.223**	0.048	0.043	**1.078**	0.152	0.551
16	PA	Keystone	3136	1	D031361	2.288	0.137	0.032	**2.011**	0.278	0.991	0.097	0.104	**2.154**	0.332	**1.177**	0.149	0.045	**2.288**	0.320	**1.136**
17	PA	Keystone	3136	2	D031362	2.203	0.131	0.031	**1.936**	0.267	0.955	0.092	0.102	**2.071**	0.322	**1.144**	0.143	0.044	**2.203**	0.308	**1.096**
18	MI	Trenton Channel	1745	9A	D017459A	2.165	0.101	0.013	**1.335**	0.189	0.681	0.155	0.029	**2.165**	0.303	**1.079**	0.108	0.023	**1.541**	0.217	0.779
19	OH	Gen J M Gavin	8102	2	D081022	2.165	0.115	0.028	**1.818**	0.237	0.848	0.119	0.065	**2.165**	0.305	**1.083**	0.060	0.031	**1.075**	0.152	0.549
20	MI	St. Clair	1743	6	D017436	2.085	0.070	0.004	0.854	0.123	0.446	0.170	0.011	**2.085**	0.297	**1.058**	0.121	0.014	**1.589**	0.223	0.802
21	OH	W H Zimmer Generating Station	6019	1	D060191	2.031	0.078	0.024	**1.268**	0.170	0.614	0.077	0.103	**2.031**	0.299	**1.063**	0.064	0.045	**1.291**	0.182	0.656
22	NY	Oswego Harbor Power	2594	6	x15	1.986	0.033	0.010	0.546	0.072	0.264	0.099	0.065	**1.986**	0.272	0.971	0.072	0.064	**1.617**	0.227	0.816
23	PA	Shawville	3131	3,4	D03131CS1	1.947	0.154	0.010	**1.947**	0.271	0.968	0.116	0.035	**1.749**	0.250	0.894	0.131	0.017	**1.735**	0.244	0.873
24	MI	St. Clair	1743	7	D017437	1.830	0.065	0.007	0.864	0.119	0.433	0.134	0.018	**1.830**	0.251	0.900	0.102	0.022	**1.458**	0.205	0.738
25	MA	Brayton Point	1619	4	x07	1.809	0.092	0.044	**1.611**	0.225	0.809	0.089	0.064	**1.809**	0.254	0.908	0.084	0.064	**1.751**	0.246	0.881
26	OH	Muskingum River	2872	1,2,3,4	D02872C04	1.799	0.141	0.011	**1.799**	0.249	0.892	0.124	0.028	**1.758**	0.251	0.897	0.094	0.012	**1.242**	0.175	0.632
27	NY	Somerset Operating Company (Kintigh)		1	D060821	1.728	0.067	0.013	0.817	0.133	0.484	0.093	0.031	**1.370**	0.206	0.740	0.097	0.049	**1.728**	0.243	0.869
28	PA	Homer City		3	D031223	1.724	0.060	0.039	**1.204**	0.164	0.593	0.042	0.124	**1.724**	0.277	0.987	0.062	0.055	**1.395**	0.196	0.708
29	IL	Powerton		51,52,61,62	D00879C06	1.659	0.024	0.011	0.416	0.060	0.219	0.051	0.020	0.836	0.119	0.432	0.105	0.036	**1.659**	0.233	0.836
30	WV	Kammer	3947	1,2,3	D03947C03	1.644	0.115	0.011	**1.466**	0.208	0.748	0.099	0.036	**1.644**	0.225	0.807	0.095	0.014	**1.277**	0.180	0.650
31	MI	Belle River		2	D060342	1.581	0.058	0.020	0.931	0.129	0.469	0.087	0.046	**1.581**	0.220	0.791	0.067	0.056	**1.456**	0.205	0.738
32	VA	Yorktown Power Station	3809	1,2	D03809CS0	1.555	0.086	0.022	**1.274**	0.179	0.646	0.051	0.013	0.755	0.107	0.388	0.108	0.024	**1.555**	0.219	0.786
33	MI	Belle River		1	D060341	1.483	0.052	0.020	0.872	0.118	0.431	0.077	0.046	**1.483**	0.204	0.735	0.059	0.056	**1.368**	0.193	0.694
34	PA	Montour	3149	1	D031491	1.472	0.067	0.030	**1.157**	0.160	0.580	0.052	0.076	**1.472**	0.213	0.764	0.058	0.043	**1.191**	0.168	0.607
35	IN	Tanners Creek	988	U4	D00988U4	1.468	0.116	0.008	**1.468**	0.205	0.738	0.081	0.016	**1.134**	0.161	0.581	0.083	0.012	**1.106**	0.156	0.565
36	MI	St. Clair	1743	1,2,3,4,...6	x09	1.403	0.042	0.016	0.724	0.097	0.356	0.074	0.040	**1.403**	0.191	0.688	0.043	0.045	**1.038**	0.146	0.531
37	OH	Kyger Creek	2876	1,2,3,4,5	D02876C01	1.386	0.052	0.029	**1.187**	0.136	0.493	0.053	0.059	**1.386**	0.188	0.677	0.034	0.042	0.897	0.127	0.461
38	WV	Pleasants Power Station	6004	1	D060041	1.382	0.037	0.022	0.719	0.098	0.359	0.046	0.077	**1.382**	0.205	0.739	0.030	0.026	0.654	0.093	0.338
39	WV	Kanawha River	3936	1,2	D03936C02	1.321	0.064	0.017	0.962	0.135	0.492	0.073	0.040	**1.321**	0.187	0.676	0.061	0.021	0.967	0.137	0.496
40	PA	Brunner Island	3140	1,2	D03140C12	1.311	0.061	0.030	**1.072**	0.152	0.551	0.050	0.060	**1.311**	0.184	0.664	0.054	0.047	**1.188**	0.167	0.606

	Facility Info					2002 Meteorology					2011 Meteorology					2015 Meteorology				
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41	PA	Montour	3149	2	D031492	1.294	0.055	0.029	1.050	0.140	0.510	0.042	0.075	1.294	0.197	0.709	0.047	0.043	1.066	0.150	0.545
42	IN	Michigan City Generating Station		12	D0099712	1.284	0.053	0.003	0.637	0.093	0.340	0.105	0.008	1.284	0.186	0.670	0.074	0.011	1.009	0.142	0.517
43	NH	Merrimack	2364	1	D023641	1.271	0.011	0.030	0.806	0.069	0.252	0.015	0.075	**1.271**	0.152	0.552	0.012	0.082	**1.126**	0.159	0.575
44	PA	Brunner Island	3140	3	D031403	1.231	0.056	0.022	0.948	0.130	0.473	0.044	0.057	**1.184**	0.168	0.607	0.050	0.054	**1.231**	0.173	0.627
45	MI	J H Campbell		A,B,1,2	D01710C09	1.206	0.028	0.004	0.365	0.053	0.194	0.077	0.007	0.912	0.139	0.505	0.087	0.015	**1.206**	0.170	0.615
46	MI	J H Campbell		3 (50%)	D01710M3A	1.120	0.042	0.005	0.517	0.077	0.283	0.103	0.006	**1.120**	0.182	0.656	0.073	0.011	0.982	0.139	0.503
47	PA	Martins Creek	3148	3,4	x21	1.051	0.001	0.024	0.331	0.042	0.155	0.001	0.093	**1.051**	0.159	0.575	0.001	0.057	0.697	0.099	0.360
48	IN	IPL - Harding Street Station (EW Stout)		50	D0099050	1.037	0.069	0.002	0.825	0.117	0.425	0.052	0.002	0.641	0.090	0.330	0.086	0.002	**1.037**	0.146	0.531
49	IN	Gibson	6113	1,2,3	D06113C03	1.030	0.028	0.016	0.499	0.073	0.267	0.040	0.037	**1.030**	0.130	0.471	0.018	0.011	0.352	0.050	0.183
50	MA	Canal Station	1599	1	D015991	1.024	0.050	0.023	0.850	0.121	0.442	0.058	0.031	**1.024**	0.148	0.535	0.038	0.014	0.613	0.087	0.317
51	OH	Conesville	2840	5,6	D02840C06	1.022	0.042	0.018	0.610	0.101	0.367	0.039	0.047	**1.022**	0.144	0.522	0.022	0.026	0.562	0.080	0.291
52	KY	Ghent	1356	3,4 … (2,3)	D01356C02	0.997	0.042	0.009	0.594	0.084	0.309	0.047	0.036	0.997	0.138	0.500	0.047	0.014	0.713	0.101	0.368
53	GA	Yates		Y6BR	D00728Y6R	0.986	0.072	0.004	0.888	0.125	0.453	0.038	0.005	0.498	0.071	0.260	0.077	0.007	0.986	0.139	0.505
54	KY	Mill Creek	1364	1,2,3	x05	0.974	0.069	0.013	0.940	0.136	0.494	0.063	0.020	0.974	0.138	0.500	0.041	0.013	0.645	0.091	0.333
55	MD	Herbert A Wagner	1554	3	D015543	0.973	0.061	0.001	0.701	0.103	0.374	0.064	0.005	0.973	0.115	0.419	0.060	0.002	0.722	0.102	0.373
56	IN	Whitewater Valley		1, 2	D01040C12	0.971	0.081	0.002	0.971	0.137	0.497	0.053	0.003	0.648	0.092	0.335	0.068	0.004	0.844	0.119	0.434
57	IN	IPL - Harding Street Station (EW Stout)		60	D0099060	0.940	0.063	0.001	0.750	0.106	0.387	0.048	0.002	0.582	0.082	0.300	0.078	0.002	0.940	0.133	0.482
58	MA	Canal Station	1599	2	D015992	0.937	0.039	0.033	0.852	0.120	0.437	0.036	0.044	0.937	0.134	0.488	0.031	0.027	0.684	0.097	0.353
59	GA	Harllee Branch	709	1,2	D00709C01	0.892	0.075	0.003	0.892	0.129	0.471	0.029	0.006	0.408	0.057	0.208	0.039	0.005	0.510	0.072	0.265
60	MI	J C Weadock		7, 8	D01720C09	0.848	0.029	0.008	0.433	0.061	0.225	0.062	0.011	0.848	0.121	0.440	0.055	0.016	0.839	0.119	0.432
61	CT	Bridgeport Harbor Station	568	BHB3		0.847	0.022	0.023	0.532	0.077	0.281	0.016	0.022	0.451	0.064	0.234	0.031	0.040	0.847	0.120	0.435
62	NH	Schiller	2367	4		0.837	0.024	0.010	0.408	0.057	0.210	0.039	0.032	0.837	0.119	0.432	0.029	0.020	0.582	0.082	0.302
63	WV	John E Amos	3935	1,2	D03935C02	0.827	0.020	0.016	0.489	0.061	0.224	0.027	0.044	0.827	0.119	0.432	0.014	0.021	0.414	0.059	0.215
64	MD	C P Crane	1552	2	D015522	0.811	0.025	0.009	0.439	0.057	0.210	0.035	0.047	0.811	0.136	0.494	0.034	0.021	0.653	0.092	0.337
65	WV	Mitchell (WV)	3948	1,2	D03948C02	0.808	0.032	0.011	0.525	0.071	0.260	0.032	0.044	0.808	0.128	0.464	0.027	0.015	0.486	0.069	0.252
66	NH	Schiller	2367	6		0.794	0.025	0.009	0.386	0.055	0.203	0.039	0.028	0.794	0.112	0.407	0.030	0.017	0.552	0.078	0.286
67	PA	Cheswick	8226	1	D082261	0.793	0.034	0.025	0.793	0.099	0.362	0.019	0.060	0.550	0.132	0.479	0.026	0.027	0.627	0.089	0.324
68	TN	Johnsonville	3406	1 thru 10	D03406C10	0.778	0.060	0.005	0.778	0.108	0.395	0.054	0.006	0.740	0.100	0.366	0.040	0.003	0.503	0.071	0.261
69	NJ	B L England	2378	2,3	x12	0.766	0.016	0.023	0.446	0.065	0.238	0.030	0.036	0.766	0.110	0.402	0.017	0.012	0.349	0.050	0.182
70	IN	IPL - Petersburg Generating Station		3	D009943	0.756	0.036	0.014	0.623	0.084	0.308	0.038	0.028	0.756	0.110	0.402	0.023	0.013	0.425	0.060	0.221
71	MA	Brayton Point	1619	2	D016192	0.735	0.011	0.018	0.538	0.050	0.182	0.011	0.033	0.633	0.075	0.275	0.012	0.050	0.735	0.104	0.379
72	MO	Sibley		1, 2, 3	D02094C01	0.718	0.039	0.013	0.609	0.086	0.315	0.034	0.014	0.541	0.079	0.288	0.045	0.016	0.718	0.102	0.371
73	TX	Big Brown	3497	1		0.704	0.057	0.004	0.704	0.100	0.365	0.054	0.001	0.646	0.091	0.334	0.034	0.001	0.411	0.058	0.214
74	OK	Northeastern		3313, 3314	D02963C10	0.702	0.041	0.009	0.702	0.083	0.303	0.031	0.007	0.526	0.062	0.229	0.031	0.002	0.383	0.054	0.200
75	TX	Big Brown	3497	2		0.675	0.055	0.004	0.675	0.097	0.352	0.052	0.001	0.621	0.088	0.321	0.033	0.001	0.395	0.056	0.206
76	MI	Trenton Channel	1745	16,17,18,19	x10	0.659	0.026	0.008	0.388	0.056	0.206	0.043	0.014	0.659	0.095	0.346	0.028	0.011	0.454	0.064	0.236
77	IN	Tanners Creek	988	U1,U2,U3	D00988C03	0.659	0.048	0.007	0.659	0.092	0.335	0.034	0.014	0.554	0.079	0.290	0.034	0.010	0.522	0.074	0.271
78	IA	Ottumwa		1	D062541	0.649	0.018	0.009	0.305	0.044	0.162	0.029	0.013	0.491	0.070	0.255	0.038	0.017	0.649	0.092	0.336
79	NY	Cayuga Operating Company, LLC		1 (33%), 2 (339	D02535C01	0.606	0.041	0.007	0.606	0.079	0.290	0.027	0.008	0.438	0.059	0.217	0.031	0.015	0.544	0.077	0.282
80	MD	Brandon Shores	602	2	D006022	0.604	0.016	0.004	0.206	0.033	0.123	0.017	0.019	0.604	0.061	0.222	0.016	0.006	0.267	0.038	0.140

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81	MD	Brandon Shores	602	1	D006021	0.587	0.017	0.003	0.206	0.034	0.125	0.018	0.014	0.587	0.055	0.201	0.018	0.005	0.264	0.037	0.138
82	IA	George Neal South		4	D073434	0.584	0.015	0.007	0.270	0.038	0.138	0.027	0.011	0.461	0.063	0.231	0.031	0.018	0.584	0.083	0.302
83	AL	E C Gaston	26	1, 2	D00026CAN	0.521	0.032	0.002	0.401	0.057	0.210	0.031	0.006	0.429	0.061	0.223	0.039	0.006	0.521	0.074	0.270
84	OH	J M Stuart	2850	4	D028404	0.515	0.015	0.006	0.264	0.036	0.132	0.023	0.023	0.515	0.078	0.287	0.015	0.009	0.282	0.040	0.147
85	IN	Clifty Creek	983	4,5,6	D00983C02	0.511	0.010	0.010	0.272	0.034	0.124	0.015	0.050	0.511	0.111	0.403	0.012	0.016	0.329	0.047	0.171
86	IN	IPL - Petersburg Generating Station		4	D009944	0.499	0.026	0.009	0.426	0.057	0.209	0.027	0.017	0.499	0.073	0.268	0.016	0.008	0.287	0.041	0.150
87	TX	Martin Lake	6146	1		0.495	0.037	0.006	0.495	0.071	0.259	0.035	0.002	0.430	0.061	0.223	0.022	0.001	0.275	0.039	0.144
88	TX	Monticello	6147	1		0.478	0.038	0.003	0.478	0.067	0.247	0.036	0.001	0.429	0.061	0.223	0.023	0.001	0.274	0.039	0.143
89	NC	Roxboro	2712	4A,4B	D02712C04	0.478	0.034	0.009	0.478	0.071	0.260	0.014	0.008	0.249	0.035	0.130	0.024	0.014	0.443	0.063	0.230
90	MI	Monroe	1733	1,2	D01733C12	0.475	0.008	0.011	0.308	0.032	0.119	0.010	0.032	0.475	0.070	0.256	0.009	0.026	0.414	0.059	0.215
91	TX	Martin Lake	6146	3		0.468	0.035	0.005	0.468	0.067	0.246	0.033	0.001	0.408	0.058	0.212	0.021	0.001	0.261	0.037	0.136
92	NC	Roxboro	2712	3A,3B	D02712C03	0.458	0.033	0.010	0.458	0.071	0.260	0.013	0.009	0.256	0.036	0.134	0.023	0.015	0.454	0.064	0.236
93	MD	C P Crane	1552	1	D015521	0.450	0.012	0.006	0.244	0.031	0.114	0.017	0.030	0.450	0.080	0.291	0.017	0.014	0.363	0.051	0.189
94	MO	Labadie		4	D021034	0.446	0.016	0.004	0.234	0.034	0.124	0.034	0.003	0.446	0.063	0.229	0.026	0.004	0.356	0.050	0.185
95	NJ	Hudson Generating Station	2403	2	D024032	0.434	0.009	0.005	0.169	0.024	0.087	0.010	0.014	0.287	0.041	0.149	0.013	0.023	0.434	0.061	0.225
96	IN	Clifty Creek	983	1,2,3	D00983C01	0.432	0.011	0.007	0.240	0.030	0.112	0.017	0.036	0.432	0.089	0.325	0.013	0.012	0.287	0.041	0.150
97	OK	Grand River Dam Authority		1	D001651	0.421	0.030	0.000	0.421	0.049	0.181	0.022	0.000	0.318	0.037	0.136	0.024	0.000	0.279	0.040	0.146
98	MD	Chalk Point	1571	1,2	D01571CE2	0.420	0.026	0.000	0.314	0.044	0.163	0.030	0.001	0.420	0.051	0.188	0.028	0.000	0.337	0.048	0.176
99	MN	Sherburne County		1, 2	D06090CS1	0.407	0.003	0.019	0.244	0.037	0.136	0.005	0.025	0.360	0.050	0.185	0.005	0.029	0.407	0.058	0.212
100	TX	Martin Lake	6146	2		0.378	0.028	0.005	0.378	0.056	0.204	0.027	0.001	0.332	0.047	0.172	0.017	0.001	0.212	0.030	0.111
101	KY	Paradise	1378	2	D013782	0.375	0.026	0.005	0.375	0.052	0.193	0.020	0.005	0.296	0.042	0.155	0.019	0.005	0.280	0.040	0.146
102	MA	Brayton Point	1619	3	D016193	0.352	0.011	0.010	0.352	0.035	0.131	0.010	0.016	0.334	0.043	0.159	0.010	0.019	0.347	0.049	0.181
103	DE	Indian River	594	4	D005944	0.345	0.007	0.001	0.095	0.013	0.050	0.028	0.002	0.345	0.050	0.182	0.006	0.001	0.076	0.011	0.040
104	WI	Columbia		1	D080231	0.335	0.002	0.006	0.099	0.014	0.053	0.005	0.008	0.195	0.022	0.080	0.008	0.020	0.335	0.047	0.174
105	OH	Cardinal	2828	3	D028283	0.317	0.015	0.007	0.317	0.038	0.138	0.011	0.019	0.247	0.051	0.187	0.010	0.008	0.209	0.030	0.109
106	MA	Brayton Point	1619	1	D016191	0.305	0.011	0.005	0.233	0.027	0.098	0.012	0.009	0.276	0.035	0.128	0.011	0.014	0.305	0.043	0.159
107	KY	Paradise	1378	1	D01720C09	0.299	0.021	0.004	0.299	0.042	0.154	0.016	0.004	0.237	0.034	0.124	0.015	0.004	0.224	0.032	0.117
108	KY	Paradise	1378	3	D013783	0.298	0.016	0.010	0.298	0.044	0.160	0.012	0.012	0.297	0.040	0.147	0.012	0.009	0.249	0.035	0.130
109	MI	Dan E Karn	1702	3,4 (1,2)	D01702C09	0.291	0.009	0.002	0.135	0.019	0.072	0.021	0.004	0.291	0.042	0.155	0.018	0.006	0.285	0.040	0.149
110	KY	John S. Cooper	1384	1,2	D01384CS1	0.281	0.014	0.002	0.181	0.026	0.094	0.019	0.006	0.281	0.041	0.150	0.016	0.002	0.211	0.030	0.110
111	WI	Columbia		2	D080232	0.274	0.003	0.006	0.099	0.014	0.053	0.006	0.007	0.183	0.021	0.076	0.008	0.016	0.274	0.039	0.143
112	MD	Morgantown	1573	1	D015731	0.250	0.016	0.002	0.215	0.030	0.112	0.018	0.008	0.250	0.042	0.154	0.016	0.002	0.212	0.030	0.111
113	IL	Kincaid Generating Station		1, 2	D00876C02	0.235	0.007	0.004	0.120	0.019	0.068	0.013	0.007	0.216	0.033	0.122	0.011	0.009	0.235	0.033	0.123
114	IL	Baldwin Energy Complex		1,2	D008892	0.224	0.009	0.006	0.183	0.025	0.093	0.010	0.007	0.197	0.028	0.103	0.011	0.008	0.224	0.032	0.117
115	IN	R M Schahfer Generating Station		14	D0608514	0.222	0.002	0.006	0.165	0.013	0.047	0.002	0.011	0.222	0.022	0.082	0.002	0.016	0.218	0.031	0.114
116	IN	R M Schahfer Generating Station		15	D0608515	0.209	0.001	0.005	0.142	0.011	0.039	0.002	0.011	0.209	0.021	0.078	0.001	0.016	0.204	0.029	0.107
117	KY	Mill Creek	1364	4	D013644	0.190	0.004	0.008	0.190	0.019	0.072	0.003	0.013	0.184	0.027	0.100	0.002	0.008	0.127	0.018	0.067
118	GA	Scherer		4	D062574	0.133	0.002	0.004	0.133	0.010	0.037	0.001	0.007	0.057	0.014	0.050	0.001	0.007	0.105	0.015	0.055
119	GA	Scherer		1	D062571	0.129	0.001	0.004	0.129	0.009	0.035	0.000	0.008	0.057	0.014	0.050	0.001	0.008	0.102	0.014	0.053
120	SC	Wateree	3297	WAT1	D03297WT1	0.108	0.002	0.003	0.108	0.008	0.031	0.001	0.002	0.035	0.005	0.017	0.001	0.003	0.050	0.007	0.026

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
121	TN	Kingston	3407	1,2,3,4,5	D03407C15	0.099	0.005	0.003	0.099	0.013	0.047	0.004	0.004	0.075	0.012	0.045	0.004	0.003	0.082	0.012	0.043
122	TN	Kingston	3407	6,7,8,9	D03407C69	0.099	0.005	0.003	0.099	0.013	0.047	0.004	0.003	0.074	0.012	0.044	0.004	0.003	0.082	0.012	0.043
123	GA	Scherer		2	D062572	0.098	0.001	0.003	0.098	0.007	0.025	0.000	0.006	0.043	0.010	0.038	0.001	0.006	0.076	0.011	0.040
124	VA	Chesterfield Power Station	3797	5	D037975	0.095	0.006	0.002	0.095	0.014	0.050	0.004	0.001	0.068	0.010	0.036	0.006	0.002	0.092	0.013	0.048
125	GA	Yates		Y7BR	D00728Y7R	0.088	0.000	0.004	0.079	0.006	0.024	0.000	0.005	0.045	0.009	0.032	0.000	0.007	0.088	0.013	0.046
126	SC	Wateree	3297	WAT2	D03297WT2	0.087	0.002	0.002	0.087	0.008	0.029	0.001	0.002	0.030	0.004	0.016	0.001	0.002	0.040	0.006	0.021
127	VA	Chesterfield Power Station	3797	4	D037974	0.064	0.004	0.001	0.064	0.009	0.034	0.003	0.001	0.046	0.007	0.024	0.004	0.001	0.058	0.008	0.030
128	KS	La Cygne	1241	1		0.039	0.003	0.000	0.039	0.006	0.022	0.003	0.000	0.033	0.005	0.020	0.003	0.000	0.037	0.005	0.019
129	VA	Bremo Power Station		4	D037964	0.021	0.000	0.001	0.018	0.002	0.006	0.000	0.002	0.016	0.003	0.012	0.000	0.002	0.021	0.003	0.011
130	KS	La Cygne		2	D012412	0.012	0.001	0.000	0.012	0.002	0.007	0.001	0.000	0.011	0.002	0.006	0.001	0.000	0.011	0.002	0.006

F.15 2011 EGU Ranking Visibility Impairing Sources to Dolly Sods

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
1	OH	Kyger Creek	2876	1,2,3,4,5	D02876C01	77.322	5.370	0.528	77.322	4.905	14.208	4.154	0.673	61.287	4.067	12.497	2.993	1.015	49.444	3.400	11.013
2	OH	Muskingum River	2872	1,2,3,4	D02872C04	25.005	1.533	0.500	24.268	1.813	6.859	1.281	0.255	18.207	1.390	5.536	1.680	0.409	25.005	1.863	7.009
3	OH	Walter C Beckford Generating Station		6	D028306	14.413	1.126	0.094	14.413	1.116	4.608	0.867	0.088	11.206	0.878	3.751	0.538	0.101	7.436	0.591	2.639
4	PA	Cheswick	8226	1	D082261	12.112	0.811	0.222	12.112	0.946	4.001	0.733	0.210	11.048	0.866	3.707	0.589	0.208	9.297	0.734	3.203
5	KY	Big Sandy	1353	BSU1,BSU2	D01353C02	11.819	0.884	0.123	11.819	0.924	3.921	0.806	0.136	11.048	0.866	3.707	0.617	0.077	8.091	0.642	2.841
6	PA	Homer City	3122	2	D031222	11.285	0.903	0.058	11.285	0.884	3.773	0.855	0.102	11.233	0.880	3.759	0.719	0.087	9.417	0.743	3.239
7	PA	Homer City	3122	1	D031221	11.153	0.902	0.048	11.153	0.874	3.736	0.855	0.083	11.000	0.863	3.693	0.718	0.071	9.220	0.728	3.181
8	IN	Wabash River Gen Station	1010	2,3,4,5,6	D01010C05	11.055	0.715	0.077	9.248	0.730	3.189	0.860	0.083	11.055	0.867	3.709	0.699	0.069	8.967	0.709	3.105
9	MI	Monroe	1733	1,2	D01733C12	11.037	0.507	0.188	8.109	0.643	2.847	0.626	0.313	10.996	0.862	3.692	0.506	0.436	11.037	0.865	3.704
10	OH	Avon Lake Power Plant	2836	12	D0283612	10.807	0.677	0.223	10.533	0.827	3.561	0.450	0.221	7.818	0.621	2.757	0.725	0.199	10.807	0.848	3.639
11	WV	Harrison Power Station		1 (25%), 2 (2(	D03944C01	10.805	0.340	0.578	10.805	0.848	3.638	0.179	0.548	8.561	0.678	2.984	0.166	0.612	9.195	0.726	3.173
12	VA	Chesterfield Power Station	3797	5	D037975	10.350	0.687	0.198	10.350	0.814	3.509	0.519	0.082	6.991	0.557	2.499	0.491	0.090	6.750	0.538	2.423
13	IN	Rockport	6166	MB1,MB2	D06166C02	8.935	0.491	0.174	7.754	0.616	2.738	0.566	0.200	8.935	0.706	3.096	0.436	0.173	7.091	0.564	2.531
14	OH	Conesville	2840	5,6	D02840C06	8.178	0.105	0.191	3.449	0.279	1.311	0.091	0.257	4.074	0.328	1.531	0.111	0.581	8.178	0.648	2.868
15	WV	Albright Power Station	3942	3	D039423	8.050	0.493	0.198	8.050	0.638	2.829	0.353	0.095	5.199	0.417	1.916	0.398	0.160	6.489	0.518	2.339
16	PA	Keystone	3136	1	D031361	7.910	0.414	0.173	6.833	0.545	2.449	0.366	0.233	6.984	0.556	2.497	0.439	0.240	7.910	0.628	2.786
17	PA	Keystone	3136	2	D031362	7.868	0.413	0.172	6.800	0.542	2.439	0.365	0.231	6.947	0.553	2.485	0.437	0.238	7.868	0.624	2.773
18	WV	Kammer	3947	1,2,3	D03947C03	7.701	0.464	0.092	6.461	0.516	2.330	0.523	0.138	7.701	0.612	2.721	0.507	0.136	7.485	0.595	2.654
19	OH	Eastlake		5	D028375	7.677	0.486	0.118	7.023	0.559	2.509	0.335	0.139	5.504	0.441	2.017	0.551	0.108	7.677	0.610	2.714
20	OH	Muskingum River	2872	5	D028725	7.593	0.497	0.066	6.542	0.522	2.356	0.372	0.032	4.678	0.376	1.739	0.591	0.061	7.593	0.603	2.688
21	IN	Tanners Creek	988	U4	D00988U4	7.318	0.538	0.091	7.318	0.582	2.602	0.290	0.064	4.092	0.330	1.537	0.197	0.057	2.932	0.237	1.125
22	OH	W H Zimmer Generating Station	6019	1	D060191	7.249	0.377	0.245	7.249	0.577	2.581	0.354	0.238	6.898	0.550	2.470	0.200	0.312	5.987	0.479	2.176
23	IN	Clifty Creek	983	4,5,6	D00983C02	7.188	0.405	0.085	5.692	0.456	2.080	0.522	0.096	7.188	0.572	2.561	0.333	0.137	5.460	0.437	2.003
24	OH	Cardinal	2828	3	D028283	6.715	0.537	0.041	6.715	0.535	2.412	0.277	0.060	3.899	0.314	1.470	0.479	0.066	6.324	0.505	2.286
25	WV	Fort Martin Power Station	3943	1	D039431	6.666	0.126	0.440	6.666	0.532	2.396										
26	MD	Chalk Point	1571	1,2	D01571CE2	6.091	0.483	0.041	6.091	0.487	2.210	0.282	0.062	3.977	0.320	1.497	0.342	0.070	4.777	0.384	1.773
27	WV	Kanawha River	3936	1,2	D03936C02	6.079	0.304	0.193	5.781	0.463	2.109	0.281	0.139	4.868	0.391	1.804	0.423	0.101	6.079	0.486	2.207
28	MD	Morgantown	1573	1	D015731	6.054	0.509	0.012	6.054	0.484	2.198	0.235	0.018	2.912	0.236	1.118	0.159	0.010	1.946	0.158	0.761
29	WV	Fort Martin Power Station	3943	2	D039432	5.879	0.115	0.385	5.879	0.470	2.141										
30	OH	Walter C Beckford Generating Station		5 (50%)	D02830M51	5.740	0.455	0.040	5.740	0.459	2.095	0.350	0.038	4.487	0.361	1.674	0.217	0.043	3.005	0.243	1.152
31	GA	Harllee Branch	709	3&4	D00709C02	5.647	0.398	0.089	5.647	0.452	2.065	0.255	0.043	3.446	0.278	1.310	0.165	0.030	2.258	0.183	0.877
32	MI	J H Campbell		3 (50%)	D01710M3A	5.373	0.062	0.032	1.088	0.089	0.433	0.207	0.099	3.551	0.287	1.347	0.319	0.143	5.373	0.431	1.974
33	IN	Clifty Creek	983	1,2,3	D00983C01	5.267	0.311	0.048	4.159	0.335	1.561	0.400	0.054	5.267	0.422	1.939	0.256	0.076	3.837	0.309	1.448
34	IL	Kincaid Generating Station		1, 2	D00876C02	5.091	0.068	0.104	2.005	0.163	0.783	0.227	0.210	5.091	0.408	1.880	0.092	0.154	2.870	0.232	1.103
35	PA	Hatfield's Ferry Power Station	3179	3	x20	5.061	0.038	0.391	5.061	0.406	1.869										
36	OH	Gen J M Gavin	8102	2	D081022	5.055	0.352	0.084	5.055	0.406	1.867	0.246	0.080	3.776	0.305	1.427	0.281	0.139	4.874	0.391	1.806
37	OH	Gen J M Gavin	8102	1	D081021	4.979	0.348	0.082	4.979	0.400	1.842	0.243	0.078	3.716	0.300	1.406	0.277	0.135	4.792	0.385	1.778
38	TN	Johnsonville	3406	1 thru 10	D03406C10	4.937	0.308	0.076	4.449	0.358	1.661	0.377	0.049	4.937	0.396	1.827	0.214	0.039	2.912	0.236	1.118
39	MI	St. Clair	1743	7	D017437	4.888	0.399	0.023	4.888	0.393	1.811	0.337	0.049	4.467	0.359	1.667	0.245	0.034	3.223	0.260	1.230
40	PA	Brunner Island	3140	1,2	D03140C12	4.519	0.146	0.241	4.519	0.363	1.685	0.111	0.131	2.814	0.228	1.082	0.071	0.041	1.297	0.106	0.513

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41	MI	J H Campbell		A,B,1,2	D01710C09	4.514	0.054	0.026	0.928	0.076	0.370	0.192	0.095	**3.324**	0.269	**1.266**	0.284	0.106	**4.514**	0.363	**1.683**
42	MI	Trenton Channel	1745	9A	D017459A	4.452	0.201	0.064	**3.062**	0.248	**1.172**	0.324	0.061	**4.452**	0.358	**1.662**	0.201	0.033	**2.697**	0.218	**1.039**
43	AL	E C Gaston	26	1, 2	D00026CAN	4.451	0.293	0.029	**3.719**	0.300	**1.407**	0.349	0.035	**4.451**	0.358	**1.662**	0.212	0.030	**2.791**	0.226	**1.074**
44	PA	Shawville	3131	3,4	D03131CS1	4.381	0.223	0.048	**3.138**	0.254	**1.199**	0.297	0.082	**4.381**	0.353	**1.638**	0.275	0.039	**3.619**	0.292	**1.371**
45	AL	E C Gaston	26	3, 4	D00026CBN	4.359	0.283	0.031	**3.633**	0.293	**1.376**	0.337	0.039	**4.359**	0.351	**1.630**	0.191	0.035	**2.608**	0.211	**1.007**
46	MI	St. Clair	1743	1,2,3,4,...6	x09	4.351	0.272	0.062	**3.870**	0.312	**1.460**	0.233	0.142	**4.351**	0.350	**1.627**	0.180	0.097	**3.214**	0.260	**1.227**
47	PA	Brunner Island	3140	3	D031403	4.285	0.165	0.203	**4.285**	0.345	**1.604**	0.242	0.103	**4.007**	0.323	**1.508**	0.090	0.144	**2.727**	0.221	**1.050**
48	WV	Pleasants Power Station	6004	1	D060041	4.071	0.152	0.156	**3.581**	0.289	**1.358**	0.145	0.129	**3.191**	0.258	**1.218**	0.128	0.221	**4.071**	0.328	**1.530**
49	WV	Phil Sporn	3938	11,21,31,41	D03938C04	3.632	0.221	0.093	**3.632**	0.293	**1.376**										
50	KY	Mill Creek	1364	1,2,3	x05	3.584	0.151	0.050	**2.321**	0.188	0.901	0.227	0.082	**3.584**	0.289	**1.359**	0.112	0.112	**2.595**	0.210	**1.002**
51	IL	Powerton		51,52,61,62	D00879C06	3.568	0.101	0.053	**1.782**	0.145	0.699	0.235	0.074	**3.568**	0.288	**1.353**	0.201	0.031	**2.679**	0.217	**1.033**
52	KY	John S. Cooper	1384	1,2	D01384CS1	3.535	0.260	0.046	**3.535**	0.285	**1.341**	0.200	0.026	**2.603**	0.211	**1.005**	0.116	0.030	**1.687**	0.137	0.663
53	PA	Montour	3149	1	D031491	3.299	0.095	0.187	**3.299**	0.267	**1.257**	0.099	0.042	**1.633**	0.133	0.642	0.086	0.156	**2.821**	0.228	**1.085**
54	WV	Mitchell (WV)	3948	1,2	D03948C02	3.148	0.161	0.067	**2.641**	0.214	**1.019**	0.150	0.089	**2.765**	0.224	**1.064**	0.170	0.101	**3.148**	0.255	**1.203**
55	WV	Pleasants Power Station	6004	2	D060042	3.135	0.135	0.110	**2.839**	0.230	**1.091**	0.129	0.092	**2.562**	0.208	0.990	0.114	0.156	**3.135**	0.254	**1.199**
56	PA	Montour	3149	2	D031492	3.102	0.096	0.170	**3.102**	0.251	**1.187**	0.100	0.038	**1.597**	0.130	0.628	0.087	0.141	**2.654**	0.215	**1.024**
57	MI	Belle River		2	D060342	3.064	0.221	0.045	**3.064**	0.248	**1.173**	0.169	0.092	**3.017**	0.244	**1.156**	0.146	0.071	**2.516**	0.204	0.973
58	WV	Mount Storm Power Station	3954	1,2	D03954CS0	3.064	0.121	0.143	**3.064**	0.248	**1.173**										
59	IN	Gibson	6113	1,2,3	D06113C03	3.035	0.077	0.144	**2.580**	0.209	0.996	0.054	0.205	**3.035**	0.245	**1.162**	0.080	0.135	**2.502**	0.203	0.968
60	PA	Homer City		3	D031223	3.027	0.106	0.069	**2.019**	0.164	0.788	0.101	0.159	**3.027**	0.245	**1.160**	0.088	0.109	**2.294**	0.186	0.891
61	MI	Belle River		1	D060341	3.017	0.217	0.044	**3.017**	0.244	**1.156**	0.166	0.091	**2.979**	0.241	**1.142**	0.144	0.071	**2.483**	0.201	0.961
62	TN	Kingston	3407	6,7,8,9	D03407C69	3.010	0.254	0.007	**3.010**	0.244	**1.153**	0.145	0.019	**1.887**	0.153	0.739	0.174	0.017	**2.203**	0.179	0.857
63	GA	Yates		Y6BR	D00728Y6R	2.929	0.249	0.005	**2.929**	0.237	**1.124**	0.131	0.015	**1.681**	0.137	0.660	0.185	0.009	**2.231**	0.181	0.867
64	WV	Longview Power	56671	1		2.889	0.163	0.086	**2.889**	0.234	**1.109**										
65	VA	Bremo Power Station		4	D037964	2.855	0.134	0.112	**2.855**	0.231	**1.097**	0.123	0.056	**2.061**	0.167	0.804	0.066	0.047	**1.306**	0.106	0.517
66	IL	Baldwin Energy Complex		1,2	D008892	2.833	0.145	0.015	**1.841**	0.150	0.721	0.222	0.023	**2.833**	0.229	**1.089**	0.143	0.012	**1.785**	0.145	0.700
67	TN	Kingston	3407	1,2,3,4,5	D03407C15	2.788	0.234	0.008	**2.788**	0.226	**1.073**	0.134	0.021	**1.778**	0.145	0.697	0.160	0.019	**2.065**	0.168	0.805
68	KY	Paradise	1378	3	D013783	2.786	0.055	0.141	**2.286**	0.185	0.888	0.105	0.132	**2.760**	0.224	**1.062**	0.075	0.164	**2.786**	0.226	**1.072**
69	MI	St. Clair	1743	6	D017436	2.770	0.226	0.015	**2.770**	0.224	**1.066**	0.205	0.030	**2.713**	0.220	**1.045**	0.149	0.021	**1.959**	0.159	0.766
70	NY	Somerset Operating Company (Kintigh)		1	D060821	2.717	0.052	0.028	0.920	0.075	0.367	0.146	0.089	**2.717**	0.220	**1.047**	0.059	0.043	**1.191**	0.097	0.472
71	TN	John Sevier	3405	1,2	D03405C12	2.703	0.185	0.021	**2.369**	0.192	0.918	0.096	0.037	**1.540**	0.125	0.607	0.202	0.033	**2.703**	0.219	**1.042**
72	TN	John Sevier	3405	3,4	D03405C34	2.646	0.180	0.021	**2.316**	0.188	0.899	0.094	0.038	**1.514**	0.123	0.597	0.196	0.033	**2.646**	0.214	**1.021**
73	VA	Chesterfield Power Station	3797	3,7,8A	x28	2.646	0.191	0.038	**2.646**	0.214	**1.021**	0.170	0.026	**2.259**	0.183	0.878					
74	PA	Armstrong Power Station		1	D031781	2.643	0.201	0.028	**2.643**	0.214	**1.019**	0.188	0.030	**2.521**	0.204	0.975					
75	OH	Killen Station	6031	2	D060312	2.633	0.110	0.067	**2.058**	0.167	0.803	0.127	0.063	**2.190**	0.178	0.852	0.121	0.106	**2.633**	0.213	**1.016**
76	WV	John E Amos	3935	1,2	D03935C02	2.628	0.171	0.054	**2.599**	0.211	**1.003**	0.079	0.085	**1.907**	0.155	0.746	0.154	0.073	**2.628**	0.213	**1.014**
77	PA	Armstrong Power Station		2	D031782	2.618	0.197	0.030	**2.618**	0.212	**1.010**	0.184	0.032	**2.501**	0.203	0.967					
78	IN	Tanners Creek	988	U1,U2,U3	D00988C03	2.579	0.166	0.057	**2.579**	0.209	0.996	0.091	0.042	**1.541**	0.125	0.607	0.063	0.037	**1.160**	0.095	0.460
79	IN	IPL - Petersburg Generating Station		4	D009944	2.544	0.145	0.033	**2.055**	0.167	0.802	0.144	0.046	**2.196**	0.178	0.854	0.183	0.038	**2.544**	0.206	0.983
80	VA	Yorktown Power Station	3809	1,2	D03809CS0	2.501	0.166	0.051	**2.501**	0.203	0.967	0.141	0.035	**2.024**	0.164	0.790	0.140	0.034	**2.007**	0.163	0.784

	Facility Info					2002 Meteorology					2011 Meteorology					2015 Meteorology				
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81	GA	Harllee Branch	709	1,2	D00709C01	2.489	0.189	0.026	**2.489**	0.202	0.963	0.140	0.021	**1.858**	0.151	0.727	0.078	0.012	**1.035**	0.084	0.412
82	KY	Paradise	1378	2	D013782	2.317	0.091	0.028	**1.363**	0.111	0.539	0.177	0.024	**2.317**	0.188	0.900	0.104	0.025	**1.480**	0.120	0.584
83	MI	Trenton Channel	1745	16,17,18,19	x10	2.316	0.084	0.072	**1.804**	0.147	0.707	0.132	0.069	**2.316**	0.188	0.899	0.069	0.036	**1.212**	0.099	0.480
84	TN	Gallatin	3403	3,4	D03403C34	2.310	0.176	0.024	**2.310**	0.187	0.897										
85	MD	Herbert A Wagner	1554	3	D015543	2.302	0.086	0.049	**1.561**	0.127	0.615	0.102	0.028	**1.505**	0.123	0.593	0.172	0.028	**2.302**	0.187	0.894
86	MD	Brandon Shores	602	2	D006022	2.211	0.028	0.161	**2.211**	0.179	0.860	0.032	0.114	**1.709**	0.139	0.671	0.056	0.089	**1.687**	0.137	0.663
87	IN	Whitewater Valley		1, 2	D01040C12	2.194	0.175	0.015	**2.194**	0.178	0.854	0.092	0.018	**1.274**	0.104	0.504	0.126	0.008	**1.542**	0.125	0.607
88	NY	Cayuga Operating Company, LLC		1 (33%), 2 (33	D02535C01	2.187	0.051	0.008	0.683	0.056	0.274	0.150	0.039	**2.187**	0.177	0.851	0.146	0.026	**1.980**	0.161	0.773
89	GA	Yates		Y7BR	D00728Y7R	2.169	0.185	0.004	**2.169**	0.176	0.844	0.097	0.012	**1.253**	0.102	0.496	0.137	0.007	**1.656**	0.135	0.651
90	NC	Mayo	6250	1A,1B	D06250C05	2.145	0.097	0.025	**1.402**	0.114	0.554	0.146	0.040	**2.145**	0.174	0.835	0.098	0.022	**1.388**	0.113	0.548
91	VA	Chesapeake Energy Center		4	D038034	2.144	0.144	0.042	**2.144**	0.174	0.835	0.098	0.023	**1.393**	0.113	0.551	0.104	0.015	**1.368**	0.111	0.541
92	KY	Ghent	1356	3,4 … (2,3)	D01356C02	2.138	0.114	0.071	**2.138**	0.174	0.833	0.117	0.060	**2.049**	0.166	0.800	0.068	0.091	**1.851**	0.150	0.725
93	MD	C P Crane	1552	2	D015522	2.112	0.091	0.036	**1.463**	0.119	0.577	0.098	0.057	**1.798**	0.146	0.705	0.130	0.052	**2.112**	0.171	0.823
94	MD	Brandon Shores	602	1	D006021	2.107	0.029	0.151	**2.107**	0.171	0.821	0.033	0.107	**1.635**	0.133	0.643	0.058	0.083	**1.639**	0.133	0.644
95	GA	Jack McDonough		MB1, MB2	D00710C01	2.104	0.169	0.014	**2.104**	0.171	0.820	0.117	0.016	**1.526**	0.124	0.601	0.124	0.019	**1.653**	0.134	0.650
96	IN	IPL - Harding Street Station (EW Stout)		50	D0099050	2.082	0.165	0.016	**2.082**	0.169	0.812	0.125	0.014	**1.602**	0.130	0.631	0.136	0.008	**1.657**	0.135	0.651
97	KY	Mill Creek	1364	4	D013644	2.069	0.104	0.016	**1.381**	0.112	0.546	0.155	0.025	**2.069**	0.168	0.807	0.080	0.033	**1.303**	0.106	0.515
98	KY	Paradise	1378	1	D01720C09	2.050	0.079	0.027	**1.220**	0.099	0.484	0.154	0.023	**2.050**	0.166	0.800	0.091	0.024	**1.319**	0.107	0.522
99	PA	Portland		3 (2)	d031132	2.048	0.116	0.013	**1.476**	0.120	0.582	0.158	0.020	**2.048**	0.166	0.799	0.152	0.016	**1.928**	0.157	0.754
100	TN	Gallatin	3403	1,2	D03403C12	2.043	0.156	0.021	**2.043**	0.166	0.797										
101	OK	Northeastern		3313, 3314	D02963C10	1.979	0.061	0.042	**1.185**	0.097	0.470	0.099	0.072	**1.979**	0.161	0.773	0.036	0.047	0.960	0.078	0.383
102	IN	IPL - Harding Street Station (EW Stout)	990	70	D0099070	1.904	0.116	0.049	**1.904**	0.155	0.745										
103	MD	C P Crane	1552	1	D015521	1.902	0.082	0.032	**1.317**	0.107	0.521	0.089	0.051	**1.615**	0.131	0.635	0.118	0.047	**1.902**	0.155	0.744
104	IN	IPL - Petersburg Generating Station		3	D009943	1.899	0.100	0.034	**1.548**	0.126	0.610	0.100	0.046	**1.684**	0.137	0.661	0.127	0.038	**1.899**	0.154	0.743
105	OH	Cardinal	2828	1	D028281	1.894	0.138	0.026	**1.894**	0.154	0.741										
106	VA	Clinch River	3775	1,2	D03775C02	1.890	0.138	0.026	**1.890**	0.154	0.740										
107	IN	IPL - Harding Street Station (EW Stout)		60	D0099060	1.884	0.149	0.014	**1.884**	0.153	0.737	0.114	0.012	**1.449**	0.118	0.572	0.124	0.007	**1.502**	0.122	0.592
108	IN	Merom		2SG1	D062132G1	1.851	0.149	0.012	**1.851**	0.150	0.725										
109	OH	J M Stuart	2850	4	D028404	1.820	0.111	0.044	**1.791**	0.146	0.702	0.125	0.033	**1.820**	0.148	0.713	0.089	0.062	**1.742**	0.142	0.684
110	IN	Gibson	6113	5	D061135	1.810	0.116	0.041	**1.810**	0.147	0.709										
111	IN	Michigan City Generating Station		12	D0099712	1.809	0.105	0.015	**1.380**	0.112	0.545	0.124	0.020	**1.667**	0.136	0.655	0.123	0.033	**1.809**	0.147	0.709
112	MI	River Rouge		3	D017403	1.761	0.078	0.074	**1.761**	0.143	0.691										
113	GA	Scherer		4	D062574	1.719	0.138	0.012	**1.719**	0.140	0.675	0.090	0.011	**1.167**	0.095	0.463	0.056	0.011	0.774	0.063	0.309
114	NH	Merrimack	2364	2	D023642	1.693	0.051	0.002	0.606	0.049	0.243	0.087	0.002	**1.027**	0.084	0.409	0.133	0.014	**1.693**	0.138	0.665
115	GA	Scherer		1	D062571	1.691	0.134	0.013	**1.691**	0.137	0.664	0.087	0.013	**1.150**	0.094	0.457	0.055	0.012	0.768	0.063	0.307
116	PA	Martins Creek	3148	3,4	x21	1.689	0.029	0.115	**1.689**	0.137	0.664	0.033	0.075	**1.252**	0.102	0.496	0.038	0.044	0.953	0.078	0.380
117	NJ	B L England	2378	1		1.686	0.056	0.009	0.748	0.061	0.299	0.102	0.044	**1.686**	0.137	0.662	0.070	0.009	0.913	0.075	0.364
118	GA	Scherer		2	D062572	1.677	0.133	0.012	**1.677**	0.136	0.659	0.087	0.012	**1.138**	0.093	0.452	0.055	0.011	0.757	0.062	0.303
119	VA	Chesapeake Energy Center		3	D038033	1.673	0.102	0.043	**1.673**	0.136	0.658	0.069	0.023	**1.056**	0.086	0.420	0.072	0.015	**1.005**	0.082	0.400
120	PA	Sunbury		4	D031524	1.663	0.094	0.015	**1.263**	0.103	0.500	0.130	0.015	**1.663**	0.135	0.653	0.101	0.036	**1.586**	0.129	0.624

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121	IN	Gibson	6113	4	D061135	1.652	0.039	0.102	**1.652**	0.134	0.649										
122	IA	George Neal South		4	D073434	1.636	0.087	0.034	**1.396**	0.114	0.551	0.114	0.028	**1.636**	0.133	0.643	0.047	0.018	0.744	0.061	0.298
123	WV	John E Amos	3935	3	D039353	1.634	0.085	0.056	**1.634**	0.133	0.642										
124	TX	Big Brown	3497	2		1.584	0.128	0.007	**1.546**	0.126	0.609	0.064	0.002	0.758	0.062	0.303	0.133	0.005	**1.584**	0.129	0.624
125	OH	Miami Fort Generating Station	2832	7	D028327	1.581	0.071	0.065	**1.581**	0.129	0.622										
126	IN	R M Schahfer Generating Station		14	D0608514	1.572	0.114	0.023	**1.572**	0.128	0.619	0.100	0.024	**1.436**	0.117	0.567	0.103	0.030	**1.539**	0.125	0.606
127	AL	Colbert	47	1, 2, 3, 4	D00047C14	1.551	0.103	0.032	**1.551**	0.126	0.611										
128	MO	New Madrid Power Plant		1	D021671	1.520	0.029	0.101	**1.520**	0.124	0.599										
129	OH	Eastlake	2837	1	D028371	1.515	0.109	0.022	**1.515**	0.123	0.597										
130	NC	Roxboro	2712	3A,3B	D02712C03	1.514	0.046	0.023	0.795	0.065	0.318	0.060	0.071	**1.514**	0.123	0.597	0.031	0.026	0.663	0.054	0.266
131	TX	Big Brown	3497	1		1.511	0.122	0.007	**1.475**	0.120	0.582	0.061	0.002	0.722	0.059	0.289	0.127	0.005	**1.511**	0.123	0.595
132	IN	R M Schahfer Generating Station		15	D0608515	1.477	0.095	0.033	**1.477**	0.120	0.583	0.073	0.034	**1.238**	0.101	0.491	0.074	0.036	**1.276**	0.104	0.505
133	OH	Cardinal	2828	2	D028282	1.477	0.100	0.028	**1.477**	0.120	0.583										
134	OH	Miami Fort Power Station		8	D028328	1.475	0.062	0.065	**1.475**	0.120	0.582										
135	MO	Labadie		4	D021034	1.471	0.046	0.008	0.627	0.051	0.251	0.115	0.012	**1.471**	0.120	0.580	0.064	0.008	0.834	0.068	0.333
136	IN	Alcoa Allowance Management Inc	6705	1,2	D06705C02	1.456	0.021	0.104	**1.456**	0.119	0.574										
137	VA	Chesterfield Power Station	3797	4	D037974	1.452	0.084	0.041	**1.452**	0.118	0.573	0.072	0.021	**1.073**	0.087	0.427	0.069	0.021	**1.039**	0.085	0.413
138	OH	Eastlake	2837	2	D028372	1.446	0.106	0.020	**1.446**	0.118	0.571										
139	NC	Roxboro	2712	4A,4B	D02712C04	1.427	0.051	0.018	0.802	0.065	0.321	0.067	0.056	**1.427**	0.116	0.564	0.035	0.020	0.644	0.053	0.258
140	MI	Dan E Karn	1702	3,4 (1,2)	D01702C09	1.414	0.095	0.027	**1.414**	0.115	0.558	0.079	0.031	**1.277**	0.104	0.505	0.079	0.027	**1.227**	0.100	0.486
141	KY	Shawnee		1,2,3,4,5	D01379C15	1.405	0.052	0.069	**1.405**	0.114	0.555										
142	MN	Sherburne County		1, 2	D06090CS1	1.392	0.058	0.039	**1.125**	0.092	0.447	0.075	0.046	**1.392**	0.113	0.550	0.027	0.018	0.517	0.042	0.208
143	MO	Sibley		1, 2, 3	D02094C01	1.382	0.095	0.025	**1.382**	0.113	0.546	0.083	0.016	**1.138**	0.093	0.452	0.057	0.008	0.750	0.061	0.300
144	VA	Yorktown Power Station	3809	3	D038093	1.359	0.059	0.058	**1.359**	0.111	0.537	0.090	0.023	**1.297**	0.106	0.513	0.067	0.016	0.959	0.078	0.382
145	IN	IPL - Petersburg Generating Station		1 (50%)	D00994M1B	1.354	0.107	0.011	**1.354**	0.110	0.535										
146	OH	Conesville	2840	4	D028504	1.328	0.077	0.038	**1.328**	0.108	0.526										
147	IA	Ottumwa		1	D062541	1.262	0.046	0.016	0.710	0.058	0.284	0.080	0.029	**1.262**	0.103	0.500	0.052	0.015	0.776	0.063	0.310
148	OH	Eastlake	2837	3	D028373	1.259	0.091	0.018	**1.259**	0.103	0.499										
149	PA	Portland		2 (1)	d031131	1.253	0.073	0.005	0.895	0.073	0.357	0.102	0.007	**1.253**	0.102	0.496	0.095	0.006	**1.166**	0.095	0.463
150	MI	J C Weadock		7, 8	D01720C09	1.248	0.088	0.019	**1.233**	0.100	0.489	0.084	0.025	**1.248**	0.102	0.494	0.082	0.021	**1.188**	0.097	0.471
151	PA	Sunbury		3	D031523	1.246	0.081	0.014	**1.096**	0.089	0.436	0.095	0.014	**1.246**	0.102	0.494	0.082	0.025	**1.229**	0.100	0.487
152	WV	Mountaineer (1301)	6264	1	D062641	1.228	0.067	0.039	**1.228**	0.100	0.487										
153	MO	New Madrid Power Plant		2	D021672	1.201	0.028	0.075	**1.201**	0.098	0.476										
154	TX	Martin Lake	6146	1		1.198	0.091	0.013	**1.198**	0.098	0.475	0.046	0.004	0.567	0.046	0.228	0.095	0.009	**1.193**	0.097	0.473
155	OH	Eastlake	2837	4,6, (5)	x17	1.172	0.067	0.035	**1.172**	0.096	0.465										
156	NY	Oswego Harbor Power	2594	6	x15	1.142	0.028	0.009	0.433	0.035	0.174	0.063	0.035	**1.142**	0.093	0.453	0.043	0.020	0.727	0.059	0.291
157	NC	L V Sutton		3	D027133	1.141	0.056	0.016	0.829	0.068	0.331	0.084	0.015	**1.141**	0.093	0.453	0.058	0.015	0.833	0.068	0.333
158	IL	Joliet 29		81, 82	D00384C82	1.141	0.076	0.023	**1.141**	0.093	0.453										
159	IL	Newton		2	D060172	1.140	0.084	0.015	**1.140**	0.093	0.452										
160	IN	IPL - Petersburg Generating Station		2(50%)	D00994M2B	1.135	0.072	0.026	**1.135**	0.092	0.451										

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161	SC	Wateree	3297	WAT1	D03297WT1	1.125	0.070	0.005	0.861	0.070	0.344	0.083	0.009	**1.060**	0.086	0.421	0.090	0.008	**1.125**	0.092	0.447
162	OK	Grand River Dam Authority		1	D001651	1.124	0.029	0.018	0.536	0.044	0.215	0.068	0.030	**1.124**	0.092	0.447	0.028	0.026	0.628	0.051	0.252
163	MD	Herbert A Wagner	1554	1,2,4	x08	1.122	0.049	0.048	**1.122**	0.091	0.446										
164	WI	Nelson Dewey	4054	2		1.122	0.081	0.017	**1.122**	0.091	0.445										
165	NJ	B L England	2378	2,3	x12	1.116	0.017	0.014	0.356	0.029	0.144	0.031	0.064	**1.116**	0.091	0.443	0.022	0.014	0.408	0.033	0.164
166	AL	Greene County	10	1		1.110	0.089	0.007	**1.110**	0.090	0.441										
167	MO	Rush Island		2	D061552	1.107	0.089	0.007	**1.107**	0.090	0.440										
168	TX	Martin Lake	6146	2		1.105	0.085	0.011	**1.104**	0.090	0.439	0.043	0.003	0.526	0.043	0.211	0.089	0.007	**1.105**	0.090	0.439
169	MI	Monroe	1733	3,4	D01733C34	1.105	0.038	0.057	**1.105**	0.090	0.439										
170	KY	Shawnee		6,7,8,9,10	D01379C60	1.100	0.046	0.049	**1.100**	0.090	0.437										
171	IN	IPL - Eagle Valley Generating Station		5, 6	D00991C56	1.088	0.082	0.013	**1.088**	0.089	0.432										
172	MO	Rush Island		1	D061551	1.075	0.085	0.008	**1.075**	0.088	0.427										
173	NC	Cape Fear	2708	6		1.060	0.072	0.008	0.916	0.075	0.365	0.069	0.023	**1.060**	0.086	0.421	0.043	0.011	0.613	0.050	0.246
174	KY	Ghent	1356	1,2 … (1,4)	D01356C01	1.058	0.046	0.045	**1.058**	0.086	0.421										
175	PA	Sunbury		1A, 1B	D03152CS1	1.057	0.067	0.011	0.895	0.073	0.357	0.081	0.011	**1.057**	0.086	0.420	0.066	0.022	**1.024**	0.083	0.407
176	SC	Jefferies	3319	4		1.055	0.035	0.001	0.418	0.034	0.168	0.075	0.007	0.942	0.077	0.375	0.086	0.006	**1.055**	0.086	0.420
177	SC	Jefferies	3319	3		1.052	0.036	0.001	0.422	0.035	0.170	0.075	0.006	0.935	0.076	0.373	0.086	0.006	**1.052**	0.086	0.419
178	MD	Morgantown	1573	2	D015732	1.040	0.081	0.010	**1.040**	0.085	0.414										
179	VA	Chesapeake Energy Center		2	D038032	1.038	0.064	0.026	**1.038**	0.085	0.413	0.045	0.014	0.677	0.055	0.271	0.047	0.009	0.640	0.052	0.257
180	AR	Independence		1	D066411	1.037	0.051	0.038	**1.037**	0.085	0.413										
181	SC	H B Robinson		1	D032511	1.026	0.052	0.003	0.638	0.052	0.256	0.078	0.011	**1.026**	0.084	0.408	0.038	0.014	0.597	0.049	0.239
182	TX	Martin Lake	6146	3		1.025	0.078	0.011	**1.025**	0.084	0.408	0.039	0.003	0.485	0.040	0.195	0.081	0.007	**1.021**	0.083	0.406
183	OH	W H Sammis	2866	7	D028667	1.006	0.031	0.055	**1.006**	0.082	0.400										
184	WI	Columbia		2	D080232	1.004	0.059	0.020	0.911	0.074	0.363	0.067	0.020	**1.004**	0.082	0.400	0.069	0.014	0.952	0.078	0.379
185	IN	R Gallagher	1008	1,2	D01008C01	0.999	0.068	0.018	0.999	0.081	0.398										
186	MD	Dickerson	1572	1,2,3	D01572C23	0.994	0.030	0.056	0.994	0.081	0.396										
187	WI	Columbia		1	D080231	0.993	0.056	0.018	0.858	0.070	0.343	0.066	0.020	0.993	0.081	0.395	0.066	0.010	0.876	0.071	0.350
188	AR	Independence		2	D066412	0.992	0.052	0.034	0.992	0.081	0.395										
189	NC	H F Lee Steam Electric Plant		3	D027093	0.986	0.053	0.016	0.803	0.066	0.321	0.059	0.017	0.877	0.072	0.350	0.079	0.007	0.986	0.080	0.393
190	IN	Cayuga	1001	2	D010012	0.957	0.034	0.048	0.957	0.078	0.381										
191	DE	Indian River	594	4	D005944	0.953	0.024	0.007	0.360	0.029	0.145	0.076	0.007	0.953	0.078	0.380	0.061	0.002	0.726	0.059	0.291
192	KY	East Bend	6018	2	D060182	0.951	0.033	0.049	0.951	0.078	0.379										
193	MA	Brayton Point	1619	3	D016193	0.943	0.078	0.003	0.934	0.076	0.372	0.049	0.004	0.606	0.049	0.243	0.076	0.006	0.943	0.077	0.376
194	OH	W H Sammis	2866	1,2	D02866C01	0.941	0.021	0.059	0.941	0.077	0.375										
195	KY	E W Brown	1355	2,3	D01355C03	0.940	0.026	0.055	0.940	0.077	0.375										
196	OH	W H Sammis	2866	3,4	D02866C02	0.929	0.020	0.059	0.929	0.076	0.370										
197	OH	W H Sammis	2866	6	D02866M6A	0.912	0.032	0.046	0.912	0.074	0.364										
198	SC	Wateree	3297	WAT2	D03297WT2	0.911	0.059	0.003	0.720	0.059	0.288	0.068	0.006	0.859	0.070	0.343	0.074	0.005	0.911	0.074	0.363
199	OH	J M Stuart	2850	3	D028503	0.907	0.042	0.037	0.907	0.074	0.362										
200	TX	Monticello	6147	1		0.907	0.071	0.007	0.897	0.073	0.358	0.036	0.002	0.432	0.035	0.174	0.074	0.005	0.907	0.074	0.362

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201	IN	R Gallagher	1008	3,4	D01008C02	0.899	0.061	0.017	0.899	0.073	0.359										
202	KS	La Cygne		2	D012412	0.891	0.035	0.025	0.686	0.056	0.275	0.054	0.024	0.891	0.073	0.356	0.042	0.027	0.795	0.065	0.318
203	MN	Sherburne County		3	D060903	0.891	0.055	0.022	0.891	0.073	0.355										
204	AR	White Bluff		1	D060091	0.868	0.046	0.029	0.868	0.071	0.347										
205	IN	Cayuga	1001	1	D010011	0.867	0.029	0.045	0.867	0.071	0.346										
206	AR	White Bluff		2	D060092	0.867	0.044	0.031	0.867	0.071	0.346										
207	VA	Chesapeake Energy Center		1	D038031	0.857	0.046	0.028	0.857	0.070	0.342	0.032	0.015	0.547	0.045	0.220	0.034	0.010	0.500	0.041	0.201
208	IA	George Neal North		3	D010913	0.852	0.047	0.027	0.852	0.070	0.340										
209	TX	Monticello	6147	2		0.840	0.067	0.006	0.840	0.069	0.335										
210	NH	Merrimack	2364	1	D023641	0.835	0.026	0.001	0.302	0.025	0.122	0.044	0.001	0.511	0.042	0.205	0.067	0.006	0.835	0.068	0.333
211	IA	Walter Scott Jr. Energy Center		3	D010823	0.815	0.041	0.029	0.815	0.067	0.326										
212	TX	Monticello	6147	3		0.808	0.060	0.010	0.808	0.066	0.323										
213	IA	Louisa		101	D06664101	0.807	0.042	0.027	0.807	0.066	0.323										
214	OH	J M Stuart	2850	1	D028501	0.791	0.040	0.029	0.791	0.065	0.316										
215	WI	South Oak Creek		7, 8	D04041CS4	0.791	0.057	0.011	0.791	0.065	0.316										
216	TX	H W Pirkey Power Plant	7902	1		0.773	0.058	0.010	0.773	0.063	0.309										
217	TX	Limestone	298	LIM2		0.769	0.052	0.015	0.769	0.063	0.308										
218	MN	Black Dog		3, 4	D01904CS1	0.764	0.020	0.045	0.764	0.062	0.306										
219	SC	Canadys Steam		CAN3	D03280CN3	0.753	0.053	0.002	0.625	0.051	0.251	0.047	0.008	0.632	0.052	0.253	0.056	0.010	0.753	0.061	0.301
220	AL	E C Gaston	26	5		0.752	0.030	0.034	0.752	0.061	0.301										
221	WI	Edgewater (4050)	4050	5		0.727	0.054	0.010	0.727	0.059	0.291										
222	TX	Limestone	298	LIM1		0.715	0.048	0.014	0.715	0.058	0.286										
223	OH	J M Stuart	2850	2	D028502	0.700	0.023	0.037	0.700	0.057	0.281										
224	NC	Roxboro	2712	2	D027122	0.700	0.047	0.014	0.700	0.057	0.280										
225	KY	H L Spurlock	6041	2	D060412	0.699	0.039	0.022	0.699	0.057	0.280										
226	KY	Green River		5	D013575	0.693	0.051	0.009	0.693	0.057	0.278										
227	NC	L V Sutton		1, 2	D02713C02	0.692	0.032	0.007	0.439	0.036	0.177	0.053	0.007	0.692	0.056	0.277	0.040	0.007	0.539	0.044	0.216
228	OH	W H Sammis	2866	5	D028665	0.674	0.013	0.045	0.674	0.055	0.270										
229	PA	Shawville	3131	1	D031311	0.664	0.038	0.019	0.664	0.054	0.266										
230	KY	H L Spurlock	6041	1	D060411	0.648	0.044	0.012	0.648	0.053	0.260										
231	PA	Shawville	3131	2	D031312	0.645	0.038	0.018	0.645	0.053	0.259										
232	KY	Green River		4	D013574	0.637	0.046	0.009	0.637	0.052	0.256										
233	MO	Labadie		3	D021033	0.636	0.047	0.008	0.636	0.052	0.255										
234	GA	Yates		Y5BR	D00728Y5R	0.630	0.053	0.002	0.630	0.051	0.253										
235	NY	Oswego Harbor Power	2594	5	D025945	0.610	0.043	0.010	0.610	0.050	0.245										
236	MO	Labadie		1	D021031	0.603	0.045	0.007	0.603	0.049	0.242										
237	KY	D B Wilson		W1	D06823W1	0.595	0.042	0.010	0.595	0.049	0.239										
238	NE	Nebraska City Station		1	D060961	0.594	0.040	0.012	0.594	0.049	0.238										
239	IL	Marion		4	D009764	0.589	0.033	0.018	0.589	0.048	0.236										
240	TN	Cumberland	3399	1		0.584	0.027	0.023	0.584	0.048	0.234										

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281	IN	Alcoa Allowance Management Inc	6705	3	x02	0.276	0.005	0.019	0.276	0.023	0.112										
282	GA	Bowen	703	3BLR	D007033LR	0.263	0.011	0.012	0.263	0.022	0.106										
283	SC	McMeekin		MCM2	D03287MM2	0.242	0.019	0.002	0.242	0.020	0.098										
284	SC	McMeekin		MCM1	D03287MM1	0.234	0.019	0.002	0.234	0.019	0.094										
285	CT	Bridgeport Harbor Station	568	BHB3		0.221	0.015	0.004	0.221	0.018	0.089	0.009	0.006	0.175	0.014	0.071	0.011	0.005	0.182	0.015	0.074
286	NC	Cliffside	2721	5	D027215	0.205	0.009	0.009	0.205	0.017	0.083										
287	NY	CCI Roseton LLC	8006	2	D080062	0.204	0.013	0.004	0.204	0.017	0.083										
288	MA	Canal Station	1599	1	D015991	0.173	0.011	0.001	0.134	0.011	0.054	0.013	0.001	0.158	0.013	0.064	0.013	0.002	0.173	0.014	0.070
289	MA	Brayton Point	1619	4	x07	0.171	0.012	0.002	0.154	0.013	0.062	0.007	0.001	0.098	0.008	0.040	0.012	0.003	0.171	0.014	0.069
290	NY	Northport	2516	3	D025163	0.170	0.013	0.002	0.170	0.014	0.069										
291	CT	Middletown	562	4		0.158	0.011	0.003	0.158	0.013	0.064										
292	SC	Winyah	6249	2,3,4	x23	0.156	0.012	0.002	0.156	0.013	0.063										
293	CT	New Haven Harbor	6156	NHB1		0.154	0.011	0.003	0.154	0.013	0.062										
294	NJ	Mercer Generating Station	2408	1	D024081	0.145	0.009	0.004	0.145	0.012	0.059										
295	MA	Canal Station	1599	2	D015992	0.130	0.008	0.001	0.111	0.009	0.045	0.006	0.001	0.087	0.007	0.035	0.009	0.002	0.130	0.011	0.053
296	NJ	Mercer Generating Station	2408	2	D024082	0.129	0.008	0.003	0.129	0.011	0.052										
297	KS	Tecumseh Energy Center	1252	10		0.120	0.007	0.004	0.120	0.010	0.049										
298	MA	Salem Harbor Station	1626	1		0.115	0.004	0.000	0.053	0.004	0.021	0.007	0.000	0.082	0.007	0.033	0.008	0.002	0.115	0.009	0.047
299	KS	Quindaro	1295	2		0.109	0.005	0.004	0.109	0.009	0.044										
300	NH	Schiller	2367	6		0.108	0.002	0.000	0.031	0.003	0.012	0.004	0.000	0.048	0.004	0.020	0.007	0.002	0.108	0.009	0.044
301	NH	Schiller	2367	4		0.107	0.002	0.000	0.030	0.002	0.012	0.004	0.000	0.048	0.004	0.019	0.007	0.002	0.107	0.009	0.043
302	DE	Edge Moor	593	5	D005935	0.101	0.006	0.003	0.101	0.008	0.041										
303	SC	Williams	3298	WIL1	D03298WL1	0.071	0.004	0.002	0.071	0.006	0.029										
304	OH	Miami Fort Generating Station	2832	5-1, 5-2, 6	D02832C06	0.057	0.005	0.000	0.057	0.005	0.023										
305	SC	Winyah	6249	1	D062491	0.021	0.001	0.001	0.021	0.002	0.009										
306	ME	William F Wyman	1507	3		0.006	0.000	0.000	0.006	0.000	0.002										
307	ME	William F Wyman	1507	1		0.003	0.000	0.000	0.003	0.000	0.001										
308	ME	William F Wyman	1507	2		0.003	0.000	0.000	0.003	0.000	0.001										
309	IL	Newton		1	D060171	0.000															
310	MA	Salem Harbor Station	1626	3	D016263	0.000															
311	NY	CCI Roseton LLC	8006	1	D080061	0.000											0.000	0.000	0.000	0.000	0.000

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241	MO	Thomas Hill Energy Center		MB3	D02168MB3	0.569	0.040	0.009	0.569	0.047	0.229										
242	NC	Belews Creek	8042	2	D080422	0.555	0.022	0.026	0.555	0.045	0.223										
243	NC	Belews Creek	8042	1	D080421	0.552	0.021	0.027	0.552	0.045	0.222										
244	WI	Genoa	4143	1		0.543	0.034	0.013	0.543	0.044	0.218										
245	NY	Huntley Power	2549	67,68	D02549C01	0.537	0.038	0.008	0.537	0.044	0.216										
246	GA	Bowen	703	2BLR	D007032LR	0.528	0.009	0.036	0.528	0.043	0.212										
247	NC	Riverbend	2732	9		0.515	0.042	0.003	0.515	0.042	0.207										
248	GA	Bowen	703	1BLR	D007031LR	0.514	0.020	0.025	0.514	0.042	0.207										
249	NC	Marshall	2727	1,2	x11	0.512	0.022	0.022	0.512	0.042	0.206										
250	NC	Roxboro	2712	1	D027121	0.511	0.030	0.014	0.511	0.042	0.205										
251	IL	Joppa Steam		1, 2	D00887CS1	0.499	0.032	0.011	0.499	0.041	0.201										
252	VA	Chesterfield Power Station	3797	6	D037976	0.495	0.023	0.020	0.495	0.040	0.199										
253	IL	Joppa Steam		3, 4	D00887CS2	0.489	0.032	0.010	0.489	0.040	0.197										
254	NY	NRG Dunkirk Power		3	D02554C03	0.483	0.033	0.009	0.483	0.039	0.194										
255	GA	Bowen	703	4BLR	D007034LR	0.478	0.011	0.030	0.478	0.039	0.192										
256	NC	Marshall	2727	4	D027274	0.476	0.018	0.023	0.476	0.039	0.191										
257	KS	Nearman Creek	6064	N1		0.447	0.019	0.020	0.447	0.037	0.180										
258	AR	Flint Creek Power Plant	6138	1		0.445	0.019	0.019	0.445	0.036	0.179										
259	NH	Newington	8002	1	D080021	0.445	0.009	0.001	0.119	0.010	0.048	0.012	0.001	0.144	0.012	0.058	0.033	0.006	0.445	0.036	0.179
260	ME	William F Wyman	1507	4	D015074	0.432	0.004	0.001	0.057	0.005	0.023	0.012	0.001	0.147	0.012	0.060	0.030	0.007	0.432	0.035	0.174
261	TX	Welsh Power Plant	6139	3		0.431	0.029	0.008	0.431	0.035	0.173										
262	KS	La Cygne	1241	1		0.417	0.022	0.014	0.417	0.034	0.168	0.023	0.008	0.360	0.029	0.145	0.018	0.008	0.297	0.024	0.120
263	TX	Welsh Power Plant	6139	1		0.412	0.028	0.008	0.412	0.034	0.166										
264	TX	Welsh Power Plant	6139	2		0.409	0.029	0.007	0.409	0.033	0.165										
265	OK	Muskogee	2952	4		0.377	0.016	0.016	0.377	0.031	0.152										
266	IL	Wood River Power Station		5	D008985	0.371	0.024	0.008	0.371	0.030	0.149										
267	OK	Hugo		1	D067721	0.361	0.024	0.007	0.361	0.030	0.145										
268	MO	Meramec		3	D021043	0.352	0.024	0.007	0.352	0.029	0.142										
269	OK	Sooner	6095	1		0.351	0.019	0.011	0.351	0.029	0.141										
270	OK	Sooner		2	D060952	0.347	0.018	0.012	0.347	0.028	0.140										
271	OK	Muskogee		5	D029525	0.338	0.015	0.014	0.338	0.028	0.136										
272	SC	Urquhart		URQ3	D03295UQ3	0.335	0.028	0.002	0.335	0.027	0.135										
273	MA	Brayton Point	1619	2	D016192	0.335	0.027	0.002	0.335	0.027	0.135	0.019	0.002	0.248	0.020	0.100	0.024	0.004	0.319	0.026	0.129
274	IN	Alcoa Allowance Management Inc	6705	4	D067054	0.326	0.013	0.015	0.326	0.027	0.131										
275	NY	Northport	2516	1,2,4,ugt001	x14	0.317	0.022	0.005	0.317	0.026	0.128	0.016	0.007	0.268	0.022	0.108					
276	MO	Sikeston		1	D067681	0.309	0.016	0.011	0.309	0.025	0.125										
277	NY	Dynegy Danskammer	2480	1,2,3	x13	0.304	0.024	0.003	0.304	0.025	0.123										
278	MA	Brayton Point	1619	1	D016191	0.302	0.025	0.001	0.302	0.025	0.122	0.018	0.002	0.219	0.018	0.088	0.021	0.003	0.273	0.022	0.110
279	NJ	Hudson Generating Station	2403	2	D024032	0.302	0.019	0.007	0.302	0.025	0.122	0.011	0.005	0.190	0.016	0.077	0.011	0.006	0.194	0.016	0.079
280	NC	Marshall	2727	3	D027273	0.282	0.018	0.006	0.282	0.023	0.114										

F.16 2015 EGU Ranking Visibility Impairing Sources to Dolly Sods

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
1	PA	Homer City	3122	1	D031221	16.288	1.196	0.131	16.288	1.209	4.932	1.134	0.226	16.066	1.236	5.023	0.953	0.192	13.465	1.046	4.362
2	PA	Homer City	3122	2	D031222	14.256	1.055	0.117	14.256	1.072	4.455	1.000	0.205	14.191	1.099	4.550	0.840	0.174	11.897	0.930	3.942
3	OH	Avon Lake Power Plant	2836	12	D0283612	13.698	0.896	0.231	13.351	1.030	4.304	0.595	0.229	9.909	0.759	3.299	0.958	0.206	13.698	1.063	4.423
4	OH	Muskingum River	2872	5	D028725	12.152	0.806	0.081	10.469	0.816	3.520	0.603	0.039	7.486	0.595	2.654	0.959	0.074	12.152	0.949	4.012
5	WV	Harrison Power Station		1 (25%), 2 (20%	D03944C01	11.424	0.354	0.613	11.424	0.892	3.802	0.186	0.581	9.051	0.715	3.129	0.173	0.649	9.722	0.766	3.328
6	KY	Big Sandy	1353	BSU1,BSU2	D01353C02	10.265	0.781	0.094	10.265	0.805	3.478	0.712	0.105	9.595	0.753	3.277	0.545	0.059	7.027	0.559	2.511
7	WV	Kammer	3947	1,2,3	D03947C03	7.414	0.464	0.076	6.220	0.501	2.270	0.523	0.114	7.414	0.590	2.634	0.507	0.113	7.206	0.573	2.567
8	OH	Conesville	2840	5,6	D02840C06	7.005	0.148	0.144	2.954	0.275	1.294	0.129	0.194	3.490	0.304	1.424	0.156	0.439	7.005	0.558	2.504
9	OH	Gen J M Gavin	8102	1	D081021	6.786	0.366	0.162	6.786	0.490	2.225	0.255	0.155	5.065	0.383	1.770	0.292	0.268	6.531	0.521	2.353
10	OH	Muskingum River	2872	1,2,3,4	D02872C04	6.334	0.372	0.168	6.147	0.501	2.271	0.311	0.085	4.612	0.369	1.710	0.408	0.137	6.334	0.506	2.289
11	IN	Rockport	6166	MB1,MB2	D06166C02	6.300	0.324	0.144	5.467	0.436	1.995	0.373	0.165	6.300	0.500	2.264	0.287	0.143	5.000	0.401	1.849
12	IN	Wabash River Gen Station	1010	2,3,4,5,6	D01010C05	6.266	0.414	0.038	5.242	0.420	1.928	0.498	0.041	6.266	0.500	2.264	0.404	0.034	5.082	0.408	1.876
13	OH	Gen J M Gavin	8102	2	D081022	6.200	0.343	0.145	6.200	0.453	2.069	0.239	0.139	4.631	0.353	1.639	0.273	0.240	5.978	0.478	2.174
14	PA	Keystone	3136	1	D031361	6.101	0.277	0.166	5.271	0.413	1.900	0.245	0.224	5.387	0.438	2.004	0.293	0.231	6.101	0.488	2.214
15	PA	Keystone	3136	2	D031362	5.906	0.265	0.163	5.104	0.400	1.842	0.234	0.220	5.214	0.424	1.948	0.281	0.226	5.906	0.472	2.150
16	WV	Kanawha River	3936	1,2	D03936C02	5.766	0.284	0.195	5.483	0.446	2.040	0.262	0.140	4.617	0.375	1.737	0.395	0.102	5.766	0.461	2.104
17	IN	Tanners Creek	988	U4	D00988U4	5.732	0.410	0.078	5.732	0.453	2.071	0.221	0.055	3.205	0.258	1.217	0.150	0.048	2.297	0.186	0.892
18	OH	W H Zimmer Generating Station	6019	1	D060191	5.504	0.233	0.208	5.504	0.412	1.896	0.220	0.202	5.238	0.394	1.816	0.124	0.265	4.546	0.366	1.694
19	PA	Homer City		3	D031223	5.367	0.139	0.146	3.580	0.268	1.264	0.133	0.338	5.367	0.442	2.022	0.116	0.232	4.067	0.328	1.529
20	OH	Kyger Creek	2876	1,2,3,4,5	D02876C01	5.064	0.213	0.083	5.064	0.277	1.304	0.165	0.106	4.013	0.254	1.199	0.119	0.159	3.238	0.262	1.236
21	GA	Harllee Branch	709	3&4	D00709C02	4.923	0.355	0.068	4.923	0.394	1.816	0.228	0.033	3.004	0.243	1.153	0.147	0.023	1.969	0.160	0.769
22	OH	Killen Station	6031	2	D060312	4.810	0.152	0.156	3.761	0.289	1.359	0.175	0.145	4.002	0.299	1.404	0.166	0.246	4.810	0.386	1.785
23	PA	Brunner Island	3140	1,2	D03140C12	4.584	0.150	0.238	4.584	0.365	1.692	0.114	0.130	2.854	0.230	1.090	0.073	0.040	1.315	0.107	0.520
24	VA	Yorktown Power Station	3809	3	D038093	4.415	0.190	0.188	4.415	0.354	1.644	0.291	0.073	4.213	0.340	1.581	0.218	0.051	3.116	0.252	1.192
25	MI	Trenton Channel	1745	9A	D017459A	4.221	0.192	0.058	2.903	0.234	1.109	0.309	0.055	4.221	0.339	1.581	0.192	0.030	2.557	0.207	0.988
26	PA	Shawville	3131	3,4	D03131CS1	4.204	0.210	0.052	3.011	0.246	1.163	0.280	0.088	4.204	0.343	1.596	0.259	0.042	3.473	0.280	1.319
27	WV	Pleasants Power Station	6004	1	D060041	4.128	0.123	0.176	3.631	0.281	1.324	0.118	0.146	3.236	0.248	1.175	0.103	0.249	4.128	0.332	1.550
28	PA	Cheswick	8226	1	D082261	4.117	0.090	0.219	4.117	0.291	1.369	0.082	0.207	3.755	0.273	1.285	0.065	0.205	3.160	0.255	1.208
29	PA	Brunner Island	3140	3	D031403	3.930	0.140	0.195	3.930	0.314	1.470	0.206	0.099	3.675	0.285	1.340	0.076	0.138	2.501	0.203	0.967
30	MI	J H Campbell		3 (50%)	D01710M3A	3.771	0.056	0.009	0.764	0.060	0.296	0.187	0.027	2.492	0.199	0.952	0.288	0.038	3.771	0.304	1.425
31	WV	Mitchell (WV)	3948	1,2	D03948C02	3.523	0.144	0.100	2.956	0.229	1.087	0.134	0.133	3.094	0.250	1.183	0.152	0.151	3.523	0.284	1.337
32	MI	St. Clair	1743	7	D017437	3.488	0.270	0.023	3.488	0.273	1.286	0.228	0.049	3.187	0.258	1.219	0.166	0.034	2.299	0.187	0.893
33	MI	St. Clair	1743	6	D017436	3.400	0.288	0.013	3.400	0.280	1.319	0.262	0.026	3.331	0.269	1.269	0.190	0.019	2.405	0.195	0.932
34	KY	Mill Creek	1364	1,2,3	x05	3.364	0.160	0.041	2.179	0.188	0.901	0.241	0.067	3.364	0.288	1.354	0.119	0.091	2.436	0.198	0.943
35	MI	Belle River		2	D060342	3.124	0.219	0.048	3.124	0.249	1.179	0.167	0.099	3.076	0.249	1.180	0.145	0.077	2.565	0.208	0.991
36	PA	Montour	3149	1	D031491	3.006	0.078	0.180	3.006	0.244	1.155	0.082	0.040	1.488	0.115	0.556	0.071	0.150	2.571	0.208	0.993
37	MI	J H Campbell		A,B,1,2	D01710C09	2.902	0.041	0.009	0.597	0.047	0.231	0.146	0.033	2.137	0.167	0.801	0.215	0.036	2.902	0.235	1.114
38	MI	Belle River		1	D060341	2.887	0.194	0.048	2.887	0.226	1.075	0.148	0.099	2.851	0.232	1.101	0.129	0.077	2.376	0.193	0.921
39	PA	Montour	3149	2	D031492	2.822	0.064	0.179	2.822	0.230	1.094	0.067	0.040	1.453	0.101	0.490	0.058	0.149	2.415	0.196	0.936
40	MI	St. Clair	1743	1,2,3,4,...6	x09	2.711	0.156	0.045	2.411	0.188	0.899	0.134	0.102	2.711	0.221	1.051	0.103	0.070	2.003	0.163	0.782

	Facility Info						2002 Meteorology						2011 Meteorology						2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
41	IN	Tanners Creek	988	U1,U2,U3	D00988C03	2.703	0.162	0.067	2.703	0.214	1.021	0.089	0.049	1.616	0.130	0.630	0.062	0.043	1.216	0.099	0.482
42	TN	Johnsonville	3406	1 thru 10	D03406C10	2.694	0.185	0.019	2.428	0.191	0.915	0.226	0.013	2.694	0.223	1.060	0.128	0.010	1.590	0.129	0.626
43	MD	Herbert A Wagner	1554	3	D015543	2.633	0.111	0.012	**1.786**	0.116	0.561	0.132	0.007	**1.722**	0.130	0.629	0.221	0.007	**2.633**	0.213	**1.016**
44	IN	Whitewater Valley		1, 2	D01040C12	2.625	0.209	0.019	**2.625**	0.213	**1.014**	0.110	0.023	**1.524**	0.124	0.602	0.150	0.010	**1.844**	0.150	0.722
45	GA	Yates		Y6BR	D00728Y6R	2.593	0.218	0.005	**2.593**	0.209	0.994	0.115	0.016	**1.488**	0.123	0.595	0.161	0.010	**1.975**	0.160	0.771
46	IL	Powerton		51,52,61,62	D00879C06	2.491	0.069	0.043	**1.244**	0.106	0.514	0.160	0.061	**2.491**	0.206	0.983	0.137	0.026	**1.871**	0.152	0.732
47	KY	Ghent	1356	3,4 … (2,3)	D01356C02	2.303	0.130	0.073	**2.303**	0.191	0.912	0.134	0.062	**2.208**	0.184	0.879	0.078	0.094	**1.994**	0.162	0.779
48	VA	Yorktown Power Station	3809	1,2	D03809CS0	2.270	0.154	0.042	**2.270**	0.183	0.878	0.131	0.029	**1.837**	0.149	0.719	0.130	0.028	**1.822**	0.148	0.714
49	IN	Michigan City Generating Station		12	D0099712	2.149	0.133	0.014	**1.640**	0.137	0.662	0.157	0.018	**1.981**	0.164	0.790	0.156	0.030	**2.149**	0.174	0.837
50	NC	Roxboro	2712	3A,3B	D02712C03	2.091	0.076	0.024	**1.098**	0.094	0.458	0.099	0.074	**2.091**	0.163	0.783	0.052	0.027	0.915	0.075	0.365
51	AL	E C Gaston	26	1, 2	D00026CAN	2.090	0.139	0.013	**1.746**	0.142	0.686	0.166	0.015	**2.090**	0.170	0.815	0.101	0.013	**1.310**	0.107	0.518
52	NY	Somerset Operating Company (Kintigh)		1	D060821	2.049	0.051	0.013	0.694	0.060	0.292	0.142	0.041	**2.049**	0.171	0.822	0.058	0.020	0.898	0.073	0.358
53	NC	Roxboro	2712	4A,4B	D02712C04	2.001	0.079	0.021	**1.124**	0.094	0.459	0.103	0.065	**2.001**	0.159	0.763	0.054	0.024	0.903	0.074	0.360
54	IN	IPL - Harding Street Station (EW Stout)		50	D0099050	1.999	0.160	0.013	**1.999**	0.161	0.775	0.122	0.011	**1.539**	0.124	0.600	0.132	0.006	**1.591**	0.129	0.626
55	WV	John E Amos	3935	1,2	D03935C02	1.997	0.091	0.066	**1.974**	0.148	0.713	0.042	0.106	**1.449**	0.140	0.675	0.082	0.090	**1.997**	0.162	0.780
56	IN	IPL - Harding Street Station (EW Stout)		60	D0099060	1.813	0.145	0.011	**1.813**	0.146	0.705	0.111	0.009	**1.395**	0.112	0.546	0.121	0.005	**1.445**	0.118	0.570
57	IN	IPL - Petersburg Generating Station		3	D009943	1.769	0.077	0.050	**1.442**	0.119	0.578	0.077	0.068	**1.568**	0.136	0.656	0.097	0.056	**1.769**	0.144	0.694
58	IN	Gibson	6113	1,2,3	D06113C03	1.722	0.080	0.043	**1.464**	0.115	0.558	0.056	0.061	**1.722**	0.110	0.535	0.083	0.040	**1.419**	0.116	0.560
59	IN	Clifty Creek	983	4,5,6	D00983C02	1.703	0.025	0.056	**1.349**	0.077	0.377	0.033	0.063	**1.703**	0.091	0.442	0.021	0.090	**1.294**	0.105	0.512
60	MD	C P Crane	1552	2	D015522	1.526	0.045	0.046	**1.057**	0.086	0.419	0.049	0.073	**1.299**	0.115	0.560	0.065	0.067	**1.526**	0.124	0.601
61	OH	Cardinal	2828	3	D028283	1.426	0.043	0.048	**1.426**	0.086	0.419	0.022	0.070	0.828	0.088	0.429	0.038	0.077	**1.343**	0.109	0.531
62	GA	Harllee Branch	709	1,2	D00709C01	1.379	0.110	0.011	**1.379**	0.113	0.547	0.081	0.008	**1.029**	0.084	0.410	0.045	0.005	0.573	0.047	0.230
63	IN	Clifty Creek	983	1,2,3	D00983C01	1.378	0.028	0.040	**1.088**	0.065	0.317	0.036	0.045	**1.378**	0.077	0.375	0.023	0.063	**1.004**	0.082	0.400
64	MD	Morgantown	1573	1	D015731	1.332	0.094	0.009	**1.332**	0.096	0.469	0.043	0.014	0.641	0.054	0.263	0.029	0.008	0.428	0.035	0.172
65	MI	Trenton Channel	1745	16,17,18,19	x10	1.290	0.052	0.031	**1.005**	0.079	0.384	0.082	0.030	**1.290**	0.105	0.510	0.043	0.015	0.675	0.055	0.270
66	MD	Brandon Shores	602	2	D006022	1.277	0.030	0.044	**1.277**	0.070	0.344	0.034	0.032	0.987	0.062	0.304	0.060	0.025	0.975	0.080	0.388
67	TX	Big Brown	3497	1		1.238	0.099	0.007	**1.209**	0.099	0.481	0.050	0.002	0.592	0.048	0.237	0.103	0.004	**1.238**	0.101	0.491
68	MD	Brandon Shores	602	1	D006021	1.235	0.032	0.033	**1.235**	0.062	0.305	0.037	0.024	0.958	0.057	0.280	0.065	0.018	0.961	0.078	0.383
69	OH	J M Stuart	2850	4	D028404	1.197	0.054	0.040	**1.179**	0.089	0.432	0.061	0.030	**1.197**	0.085	0.416	0.044	0.055	**1.146**	0.093	0.455
70	TX	Big Brown	3497	2		1.191	0.095	0.007	**1.162**	0.095	0.464	0.048	0.002	0.570	0.046	0.228	0.099	0.005	**1.191**	0.097	0.472
71	IN	IPL - Petersburg Generating Station		4	D009944	1.182	0.055	0.029	0.955	0.079	0.387	0.055	0.040	**1.020**	0.090	0.437	0.069	0.033	**1.182**	0.096	0.469
72	KY	Mill Creek	1364	4	D013644	1.126	0.009	0.026	0.752	0.034	0.167	0.014	0.040	**1.126**	0.051	0.253	0.007	0.053	0.709	0.058	0.284
73	MD	Chalk Point	1571	1,2	D01571CE2	1.126	0.105	0.001	**1.126**	0.100	0.485	0.061	0.002	0.735	0.059	0.291	0.075	0.002	0.883	0.072	0.352
74	KY	Paradise	1378	2	D013782	1.117	0.039	0.020	0.657	0.055	0.270	0.075	0.018	**1.117**	0.087	0.424	0.044	0.018	0.713	0.058	0.285
75	MI	Monroe	1733	1,2	D01733C12	1.064	0.015	0.033	0.782	0.046	0.224	0.019	0.055	**1.060**	0.070	0.340	0.015	0.076	**1.064**	0.087	0.423
76	MI	J C Weadock		7, 8	D01720C09	1.061	0.076	0.015	**1.048**	0.086	0.418	0.073	0.019	**1.061**	0.086	0.421	0.071	0.016	**1.010**	0.082	0.402
77	KY	John S. Cooper	1384	1,2	D01384CS1	1.029	0.071	0.016	**1.029**	0.082	0.402	0.055	0.009	0.758	0.060	0.295	0.032	0.011	0.491	0.040	0.197
78	NJ	B L England	2378	2,3	x12	1.015	0.015	0.014	0.324	0.027	0.132	0.027	0.064	**1.015**	0.086	0.421	0.018	0.014	0.371	0.030	0.150
79	IA	George Neal South		4	D073434	0.992	0.044	0.029	0.847	0.069	0.339	0.058	0.024	0.992	0.077	0.376	0.024	0.015	0.451	0.037	0.182
80	OK	Northeastern		3313, 3314	D02963C10	0.988	0.046	0.013	0.592	0.055	0.271	0.075	0.022	0.988	0.091	0.444	0.027	0.015	0.479	0.039	0.193

	Facility Info					2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
81	MO	Sibley		1, 2, 3	D02094C01	0.919	0.051	0.039	0.919	0.085	0.413	0.044	0.026	0.756	0.066	0.322	0.031	0.013	0.499	0.041	0.201
82	NY	Oswego Harbor Power	2594	6	x15	0.899	0.020	0.009	0.340	0.027	0.134	0.045	0.034	0.899	0.074	0.363	0.030	0.019	0.572	0.047	0.230
83	KY	Paradise	1378	1	D01720C09	0.892	0.031	0.017	0.531	0.044	0.219	0.060	0.015	0.892	0.070	0.341	0.035	0.015	0.574	0.047	0.230
84	MD	C P Crane	1552	1	D015521	0.887	0.023	0.030	0.614	0.050	0.245	0.024	0.048	0.753	0.069	0.336	0.032	0.044	0.887	0.072	0.354
85	ME	William F Wyman	1507	4	D015074	0.884	0.008	0.002	0.116	0.009	0.046	0.022	0.003	0.302	0.024	0.117	0.058	0.019	0.884	0.072	0.353
86	TX	Martin Lake	6146	1		0.853	0.064	0.010	0.853	0.070	0.343	0.032	0.003	0.404	0.033	0.163	0.067	0.007	0.851	0.069	0.340
87	KY	Paradise	1378	3	D013783	0.844	0.025	0.033	0.693	0.055	0.271	0.048	0.031	0.837	0.075	0.365	0.034	0.039	0.844	0.069	0.337
88	MO	Labadie		4	D021034	0.835	0.026	0.006	0.356	0.029	0.145	0.064	0.009	0.835	0.068	0.332	0.035	0.006	0.473	0.039	0.190
89	TX	Monticello	6147	1		0.828	0.066	0.006	0.818	0.067	0.326	0.033	0.002	0.394	0.032	0.159	0.068	0.004	0.828	0.068	0.331
90	IA	Ottumwa		1	D062541	0.826	0.024	0.018	0.465	0.039	0.193	0.042	0.032	0.826	0.070	0.343	0.027	0.017	0.508	0.041	0.204
91	TX	Martin Lake	6146	3		0.809	0.061	0.010	0.809	0.066	0.325	0.031	0.003	0.383	0.031	0.154	0.063	0.007	0.806	0.066	0.322
92	NY	Cayuga Operating Company, LLC		1 (33%), 2 (33%	D02535C01	0.696	0.015	0.004	0.217	0.018	0.087	0.044	0.018	0.696	0.059	0.288	0.043	0.012	0.630	0.051	0.253
93	TX	Martin Lake	6146	2		0.663	0.049	0.010	0.662	0.055	0.271	0.025	0.003	0.315	0.026	0.127	0.051	0.007	0.663	0.054	0.266
94	PA	Martins Creek	3148	3,4	x21	0.637	0.001	0.076	0.637	0.074	0.362	0.001	0.049	0.472	0.048	0.238	0.002	0.029	0.360	0.029	0.145
95	IL	Kincaid Generating Station		1, 2	D00876C02	0.579	0.013	0.008	0.228	0.019	0.094	0.042	0.015	0.579	0.054	0.264	0.017	0.011	0.327	0.027	0.132
96	IL	Baldwin Energy Complex		1,2	D008892	0.533	0.019	0.014	0.346	0.031	0.151	0.029	0.021	0.533	0.047	0.231	0.019	0.011	0.336	0.027	0.135
97	MA	Brayton Point	1619	4	x07	0.527	0.035	0.006	0.474	0.039	0.190	0.021	0.005	0.301	0.025	0.121	0.037	0.009	0.527	0.043	0.212
98	MN	Sherburne County		1, 2	D06090CS1	0.500	0.005	0.029	0.404	0.033	0.162	0.007	0.034	0.500	0.039	0.192	0.002	0.014	0.186	0.015	0.075
99	NH	Newington	8002	1	D080021	0.459	0.007	0.002	0.123	0.009	0.044	0.009	0.002	0.149	0.010	0.051	0.024	0.016	0.459	0.038	0.185
100	TN	Kingston	3407	1,2,3,4,5	D03407C15	0.447	0.017	0.007	0.447	0.023	0.112	0.010	0.018	0.285	0.027	0.131	0.012	0.017	0.331	0.027	0.133
101	OK	Grand River Dam Authority		1	D001651	0.442	0.022	0.000	0.211	0.021	0.102	0.052	0.000	0.442	0.049	0.242	0.021	0.000	0.247	0.020	0.100
102	TN	Kingston	3407	6,7,8,9	D03407C69	0.437	0.018	0.006	0.437	0.023	0.111	0.010	0.017	0.274	0.026	0.126	0.012	0.016	0.320	0.026	0.129
103	IN	R M Schahfer Generating Station		14	D0608514	0.389	0.004	0.022	0.389	0.025	0.121	0.003	0.024	0.355	0.026	0.126	0.003	0.029	0.381	0.031	0.153
104	MI	Dan E Karn	1702	3,4 (1,2)	D01702C09	0.373	0.027	0.006	0.373	0.031	0.152	0.023	0.006	0.337	0.027	0.135	0.023	0.006	0.324	0.026	0.131
105	IN	R M Schahfer Generating Station		15	D0608515	0.371	0.003	0.023	0.371	0.025	0.121	0.002	0.024	0.311	0.025	0.122	0.002	0.025	0.321	0.026	0.129
106	GA	Scherer		4	D062574	0.366	0.004	0.014	0.366	0.017	0.082	0.002	0.013	0.248	0.015	0.074	0.002	0.013	0.165	0.013	0.067
107	GA	Scherer		1	D062571	0.364	0.003	0.015	0.364	0.016	0.081	0.002	0.014	0.248	0.015	0.073	0.001	0.013	0.165	0.014	0.067
108	VA	Bremo Power Station		4	D037964	0.337	0.000	0.031	0.337	0.030	0.147	0.000	0.016	0.244	0.015	0.074	0.000	0.013	0.154	0.013	0.062
109	DE	Indian River	594	4	D005944	0.319	0.008	0.002	0.121	0.009	0.046	0.026	0.002	0.319	0.026	0.127	0.021	0.001	0.243	0.020	0.098
110	NH	Merrimack	2364	2	D023642	0.317	0.004	0.002	0.113	0.006	0.030	0.007	0.003	0.192	0.010	0.047	0.011	0.016	0.317	0.026	0.128
111	CT	Bridgeport Harbor Station	568	BHB3		0.305	0.023	0.005	0.305	0.026	0.127	0.014	0.006	0.242	0.019	0.096	0.016	0.006	0.251	0.021	0.102
112	GA	Scherer		2	D062572	0.281	0.002	0.011	0.281	0.012	0.061	0.001	0.011	0.191	0.011	0.055	0.001	0.010	0.127	0.010	0.051
113	VA	Chesterfield Power Station	3797	5	D037975	0.270	0.014	0.011	0.270	0.024	0.119	0.011	0.005	0.183	0.015	0.072	0.010	0.005	0.176	0.014	0.071
114	MA	Canal Station	1599	1	D015991	0.247	0.015	0.002	0.192	0.016	0.077	0.018	0.002	0.226	0.018	0.090	0.019	0.003	0.247	0.020	0.100
115	MA	Canal Station	1599	2	D015992	0.228	0.014	0.003	0.194	0.016	0.078	0.010	0.003	0.152	0.012	0.061	0.015	0.005	0.228	0.019	0.092
116	NJ	Hudson Generating Station	2403	2	D024032	0.220	0.014	0.005	0.220	0.018	0.088	0.008	0.004	0.139	0.011	0.056	0.008	0.005	0.142	0.012	0.057
117	WI	Columbia		1	D080231	0.179	0.005	0.014	0.155	0.018	0.088	0.006	0.015	0.179	0.020	0.098	0.006	0.008	0.158	0.013	0.064
118	VA	Chesterfield Power Station	3797	4	D037974	0.175	0.010	0.006	0.175	0.015	0.072	0.008	0.003	0.129	0.011	0.052	0.008	0.003	0.125	0.010	0.051
119	WI	Columbia		2	D080232	0.173	0.005	0.012	0.157	0.016	0.080	0.006	0.013	0.173	0.017	0.085	0.006	0.008	0.164	0.013	0.066
120	GA	Yates		Y7BR	D00728Y7R	0.159	0.000	0.005	0.159	0.005	0.026	0.000	0.017	0.092	0.016	0.079	0.000	0.010	0.122	0.010	0.049

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
121	NH	Merrimack	2364	1	D023641	0.120	0.002	0.001	0.043	0.002	0.011	0.003	0.001	0.073	0.003	0.017	0.004	0.006	0.120	0.010	0.049
122	MA	Brayton Point	1619	2	D016192	0.093	0.004	0.003	0.093	0.006	0.030	0.003	0.003	0.069	0.005	0.025	0.003	0.004	0.089	0.007	0.036
123	NH	Schiller	2367	4		0.091	0.002	0.000	0.026	0.002	0.010	0.003	0.000	0.040	0.003	0.016	0.006	0.002	0.091	0.007	0.037
124	NH	Schiller	2367	6		0.088	0.002	0.000	0.025	0.002	0.010	0.003	0.000	0.039	0.003	0.016	0.006	0.002	0.088	0.007	0.036
125	SC	Wateree	3297	WAT1	D03297WT1	0.078	0.002	0.003	0.060	0.004	0.021	0.002	0.005	0.074	0.007	0.034	0.002	0.004	0.078	0.006	0.032
126	MA	Brayton Point	1619	3	D016193	0.073	0.004	0.001	0.072	0.005	0.025	0.003	0.001	0.047	0.004	0.019	0.004	0.002	0.073	0.006	0.030
127	SC	Wateree	3297	WAT2	D03297WT2	0.067	0.002	0.002	0.053	0.004	0.019	0.002	0.004	0.063	0.006	0.030	0.002	0.003	0.067	0.005	0.027
128	MA	Brayton Point	1619	1	D016191	0.058	0.004	0.001	0.058	0.004	0.021	0.003	0.001	0.042	0.003	0.016	0.003	0.001	0.052	0.004	0.021
129	KS	La Cygne	1241	1		0.051	0.004	0.000	0.051	0.004	0.019	0.004	0.000	0.044	0.004	0.019	0.003	0.000	0.036	0.003	0.015
130	KS	La Cygne		2	D012412	0.014	0.001	0.000	0.011	0.001	0.004	0.001	0.000	0.014	0.001	0.006	0.001	0.000	0.013	0.001	0.005

F.17 2011 EGU Ranking Visibility Impairing Sources to James River Face

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
1	OH	Kyger Creek	2876	1,2,3,4,5	D02876C01	80.720	2.322	0.525	32.940	2.500	6.950	5.597	0.834	80.720	5.267	12.412	4.025	0.697	57.032	3.991	10.072
2	OH	Muskingum River	2872	1,2,3,4	D02872C04	32.355	1.617	0.158	20.211	1.598	4.799	1.624	0.206	20.826	1.645	4.914	2.596	0.171	32.355	2.445	6.861
3	VA	Chesterfield Power Station	3797	5	D037975	18.466	1.292	0.135	16.102	1.294	3.992	1.301	0.335	18.466	1.480	4.464	0.788	0.295	12.082	0.997	3.135
4	OH	Walter C Beckford Generating Station		6	D028306	17.150	1.266	0.132	15.772	1.269	3.925	1.018	0.092	12.431	1.013	3.212	1.407	0.108	17.150	1.371	4.204
5	PA	Homer City	3122	2	D031222	9.719	0.292	0.054	3.808	0.323	1.098	0.830	0.042	9.719	0.799	2.594	0.590	0.051	7.096	0.591	1.958
6	PA	Homer City	3122	1	D031221	9.622	0.292	0.044	3.695	0.313	1.067	0.829	0.034	9.622	0.791	2.571	0.589	0.042	6.982	0.581	1.929
7	OH	Muskingum River	2872	5	D028725	9.121	0.476	0.023	5.500	0.460	1.550	0.476	0.027	5.550	0.464	1.563	0.792	0.027	9.121	0.751	2.453
8	GA	Harllee Branch	709	3&4	D00709C02	9.034	0.737	0.076	9.034	0.747	2.432	0.265	0.087	3.871	0.330	1.115	0.361	0.057	4.604	0.388	1.313
9	KY	Big Sandy	1353	BSU1,BSU2	D01353C02	8.994	0.572	0.097	7.412	0.619	2.036	0.711	0.099	8.994	0.745	2.422	0.286	0.104	4.295	0.366	1.230
10	OH	Avon Lake Power Plant	2836	12	D0283612	8.934	0.687	0.117	8.934	0.741	2.408	0.376	0.125	5.535	0.469	1.559	0.486	0.102	6.500	0.545	1.807
11	MI	Monroe	1733	1,2	D01733C12	8.644	0.557	0.165	7.994	0.669	2.180	0.558	0.213	8.550	0.716	2.316	0.467	0.312	8.644	0.729	2.338
12	IN	Tanners Creek	988	U4	D00988U4	8.258	0.640	0.105	8.258	0.687	2.245	0.294	0.077	4.082	0.347	1.172	0.445	0.067	5.658	0.475	1.591
13	OH	W H Zimmer Generating Station	6019	1	D060191	8.055	0.416	0.291	7.840	0.664	2.142	0.453	0.213	7.366	0.622	2.025	0.466	0.261	8.055	0.679	2.195
14	OH	Eastlake		5	D028375	7.562	0.593	0.090	7.562	0.630	2.074	0.301	0.071	4.092	0.347	1.175	0.378	0.123	5.526	0.468	1.556
15	IN	Clifty Creek	983	4,5,6	D00983C02	7.518	0.566	0.088	7.231	0.603	1.991	0.430	0.078	5.598	0.471	1.575	0.598	0.081	7.518	0.626	2.063
16	PA	Cheswick	8226	1	D082261	7.255	0.254	0.109	4.005	0.342	1.151	0.584	0.072	7.255	0.604	1.997	0.238	0.095	3.665	0.313	1.059
17	IN	Rockport	6166	MB1,MB2	D06166C02	6.977	0.314	0.120	4.788	0.407	1.362	0.396	0.147	5.994	0.507	1.678	0.506	0.124	6.977	0.585	1.928
18	OH	Walter C Beckford Generating Station		5 (50%)	D02830M51	6.799	0.511	0.057	6.284	0.525	1.752	0.411	0.039	4.956	0.416	1.407	0.568	0.047	6.799	0.566	1.883
19	WV	Harrison Power Station		1 (25%), 2 (2(	D03944C01	6.680	0.255	0.329	6.494	0.558	1.806	0.081	0.274	3.963	0.349	1.140	0.165	0.434	6.680	0.579	1.853
20	IN	Wabash River Gen Station	1010	2,3,4,5,6	D01010C05	6.651	0.540	0.038	6.394	0.533	1.780	0.529	0.073	6.651	0.556	1.845	0.447	0.050	5.481	0.460	1.545
21	OH	Gen J M Gavin	8102	2	D081022	5.766	0.210	0.040	2.740	0.233	0.802	0.445	0.077	5.766	0.485	1.619	0.424	0.053	5.253	0.441	1.485
22	OH	Gen J M Gavin	8102	1	D081021	5.681	0.207	0.039	2.699	0.230	0.790	0.439	0.076	5.681	0.478	1.597	0.418	0.052	5.178	0.435	1.465
23	IN	Clifty Creek	983	1,2,3	D00983C01	5.556	0.434	0.048	5.314	0.446	1.501	0.330	0.044	4.108	0.347	1.180	0.459	0.045	5.556	0.466	1.564
24	PA	Keystone	3136	1	D031361	5.437	0.165	0.115	3.088	0.267	0.899	0.404	0.089	5.437	0.458	1.533	0.257	0.145	4.432	0.380	1.267
25	PA	Keystone	3136	2	D031362	5.412	0.164	0.114	3.072	0.265	0.895	0.402	0.088	5.412	0.456	1.526	0.256	0.144	4.409	0.378	1.261
26	WV	Kammer	3947	1,2,3	D03947C03	5.367	0.220	0.037	2.818	0.240	0.824	0.189	0.061	2.749	0.235	0.805	0.352	0.135	5.367	0.455	1.515
27	MD	Chalk Point	1571	1,2	D01571CE2	4.990	0.400	0.053	4.990	0.420	1.416	0.369	0.049	4.596	0.387	1.311	0.325	0.074	4.390	0.372	1.255
28	VA	Chesterfield Power Station	3797	3,7,8A	x28	4.615	0.346	0.073	4.615	0.390	1.316	0.320	0.090	4.517	0.383	1.290					
29	VA	Bremo Power Station		4	D037964	4.591	0.172	0.096	2.950	0.254	0.861	0.290	0.126	4.591	0.392	1.309	0.168	0.060	2.495	0.214	0.733
30	TN	Johnsonville	3406	1 thru 10	D03406C10	4.469	0.287	0.038	3.572	0.302	1.033	0.347	0.059	4.469	0.378	1.277	0.204	0.062	2.915	0.249	0.851
31	GA	Harllee Branch	709	1,2	D00709C01	4.443	0.360	0.044	4.443	0.374	1.270	0.117	0.047	1.800	0.155	0.534	0.179	0.038	2.378	0.203	0.700
32	NC	Mayo	6250	1A,1B	D06250C05	4.288	0.179	0.035	2.345	0.200	0.690	0.244	0.065	3.399	0.290	0.985	0.285	0.105	4.288	0.365	1.228
33	IL	Kincaid Generating Station		1, 2	D00876C02	4.243	0.057	0.112	1.862	0.164	0.552	0.138	0.244	4.243	0.370	1.216	0.093	0.133	2.495	0.219	0.733
34	OH	Cardinal	2828	3	D028283	4.189	0.279	0.020	3.279	0.277	0.952	0.249	0.027	3.036	0.257	0.885	0.348	0.033	4.189	0.353	1.201
35	IL	Baldwin Energy Complex		1,2	D008892	4.093	0.053	0.009	0.683	0.059	0.206	0.355	0.017	4.093	0.344	1.175	0.138	0.012	1.647	0.140	0.490
36	WV	Pleasants Power Station	6004	1	D060041	4.022	0.133	0.111	2.686	0.233	0.787	0.122	0.113	2.586	0.225	0.758	0.196	0.168	4.022	0.347	1.156
37	VA	Yorktown Power Station	3809	1,2	D03809CS0	3.914	0.235	0.059	3.228	0.275	0.938	0.234	0.121	3.914	0.336	1.127	0.156	0.051	2.269	0.195	0.669
38	MD	Morgantown	1573	1	D015731	3.704	0.324	0.013	3.704	0.312	1.069	0.306	0.012	3.488	0.294	1.010	0.313	0.014	3.596	0.303	1.040
39	KY	Mill Creek	1364	1,2,3	x05	3.652	0.117	0.083	2.204	0.191	0.650	0.183	0.079	2.885	0.248	0.843	0.201	0.130	3.652	0.314	1.055
40	NC	L V Sutton		3	D027133	3.581	0.244	0.082	3.581	0.306	1.036	0.093	0.036	1.416	0.122	0.422	0.069	0.018	0.955	0.082	0.287

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
41	TN	Kingston	3407	6,7,8,9	D03407C69	3.554	0.318	0.006	**3.554**	0.299	**1.028**	0.310	0.006	**3.471**	0.292	**1.006**	0.220	0.005	**2.461**	0.208	0.723
42	WV	Albright Power Station	3942	3	D039423	3.360	0.274	0.032	**3.360**	0.284	0.975	0.107	0.032	**1.521**	0.131	0.453	0.152	0.030	**1.994**	0.170	0.590
43	TN	Kingston	3407	1,2,3,4,5	D03407C15	3.285	0.293	0.006	**3.285**	0.277	0.954	0.286	0.007	**3.210**	0.270	0.933	0.203	0.006	**2.278**	0.193	0.671
44	WV	Pleasants Power Station	6004	2	D060042	3.227	0.118	0.078	**2.162**	0.187	0.638	0.109	0.079	**2.062**	0.179	0.609	0.174	0.118	**3.227**	0.279	0.938
45	AL	E C Gaston	26	1, 2	D00026CAN	3.166	0.237	0.025	**2.872**	0.243	0.839	0.231	0.026	**2.819**	0.239	0.824	0.261	0.027	**3.166**	0.268	0.921
46	WV	Kanawha River	3936	1,2	D03936C02	3.107	0.187	0.095	**3.107**	0.267	0.905	0.184	0.097	**3.095**	0.266	0.901	0.190	0.068	**2.838**	0.243	0.829
47	IN	Gibson	6113	1,2,3	D06113C03	3.089	0.050	0.163	**2.362**	0.209	0.695	0.092	0.187	**3.089**	0.271	0.900	0.055	0.198	**2.812**	0.249	0.822
48	PA	Brunner Island	3140	1,2	D03140C12	3.069	0.197	0.076	**3.008**	0.258	0.877	0.116	0.040	**1.707**	0.147	0.507	0.084	0.193	**3.069**	0.270	0.894
49	MD	C P Crane	1552	2	D015522	3.028	0.085	0.021	**1.157**	0.100	0.347	0.179	0.096	**3.028**	0.261	0.883	0.053	0.023	0.827	0.072	0.249
50	PA	Portland		3 (2)	d031132	3.023	0.068	0.008	0.821	0.070	0.247	0.071	0.010	0.892	0.076	0.268	0.230	0.046	**3.023**	0.257	0.881
51	MI	St. Clair	1743	7	D017437	3.019	0.246	0.029	**3.019**	0.256	0.880	0.218	0.031	**2.731**	0.232	0.799	0.162	0.029	**2.091**	0.179	0.618
52	GA	Yates		Y6BR	D00728Y6R	3.007	0.263	0.011	**3.007**	0.254	0.877	0.179	0.008	**2.049**	0.174	0.606	0.249	0.010	**2.839**	0.240	0.830
53	MI	St. Clair	1743	1,2,3,4,...6	x09	2.977	0.190	0.081	**2.977**	0.256	0.868	0.151	0.080	**2.547**	0.220	0.748	0.136	0.096	**2.561**	0.222	0.751
54	KY	Paradise	1378	3	D013783	2.964	0.045	0.080	**1.380**	0.122	0.412	0.145	0.123	**2.964**	0.257	0.865	0.072	0.119	**2.113**	0.186	0.624
55	IN	IPL - Petersburg Generating Station		4	D009944	2.959	0.107	0.032	**1.520**	0.131	0.453	0.227	0.043	**2.959**	0.252	0.863	0.135	0.036	**1.877**	0.161	0.556
56	MI	Trenton Channel	1745	9A	D017459A	2.913	0.226	0.040	**2.913**	0.248	0.851	0.181	0.033	**2.340**	0.200	0.689	0.193	0.053	**2.701**	0.231	0.791
57	IN	Tanners Creek	988	U1,U2,U3	D00988C03	2.909	0.198	0.066	**2.909**	0.249	0.849	0.091	0.051	**1.554**	0.135	0.463	0.144	0.046	**2.083**	0.179	0.615
58	KY	Paradise	1378	2	D013782	2.886	0.074	0.016	0.987	0.085	0.296	0.242	0.022	**2.886**	0.244	0.843	0.122	0.017	**1.520**	0.130	0.453
59	AL	E C Gaston	26	3, 4	D00026CBN	2.819	0.228	0.027	**2.795**	0.237	0.817	0.204	0.025	**2.505**	0.213	0.736	0.228	0.029	**2.819**	0.239	0.824
60	PA	Brunner Island	3140	3	D031403	2.792	0.199	0.055	**2.792**	0.239	0.817	0.119	0.038	**1.727**	0.149	0.513	0.075	0.117	**2.124**	0.187	0.627
61	MD	C P Crane	1552	1	D015521	2.723	0.077	0.019	**1.044**	0.090	0.313	0.162	0.085	**2.723**	0.235	0.797	0.048	0.020	0.745	0.065	0.224
62	IL	Powerton		51,52,61,62	D00879C06	2.663	0.099	0.053	**1.677**	0.145	0.498	0.172	0.070	**2.663**	0.229	0.780	0.131	0.037	**1.834**	0.157	0.544
63	PA	Shawville	3131	3,4	D03131CS1	2.610	0.135	0.032	**1.832**	0.157	0.543	0.218	0.020	**2.610**	0.221	0.765	0.139	0.035	**1.907**	0.163	0.565
64	VA	Chesterfield Power Station	3797	4	D037974	2.604	0.162	0.035	**2.151**	0.184	0.635	0.167	0.070	**2.604**	0.224	0.764	0.108	0.073	**1.991**	0.173	0.589
65	NC	Roxboro	2712	3A,3B	D02712C03	2.600	0.073	0.073	**1.613**	0.141	0.480	0.101	0.126	**2.517**	0.220	0.739	0.094	0.141	**2.600**	0.228	0.762
66	NY	Cayuga Operating Company, LLC		1 (33%), 2 (33	D02535C01	2.591	0.109	0.013	**1.337**	0.114	0.399	0.204	0.032	**2.591**	0.220	0.760	0.139	0.014	**1.675**	0.143	0.498
67	KY	Paradise	1378	1	D01720C09	2.542	0.065	0.016	0.879	0.076	0.264	0.211	0.021	**2.542**	0.216	0.746	0.106	0.017	**1.345**	0.115	0.402
68	GA	Scherer		4	D062574	2.504	0.208	0.020	**2.504**	0.212	0.735	0.081	0.021	**1.122**	0.096	0.336	0.117	0.023	**1.535**	0.131	0.457
69	OH	Killen Station	6031	2	D060312	2.494	0.150	0.072	**2.441**	0.210	0.717	0.133	0.054	**2.051**	0.177	0.606	0.127	0.099	**2.494**	0.216	0.733
70	GA	Jack McDonough		MB1, MB2	D00710C01	2.489	0.214	0.013	**2.489**	0.211	0.731	0.116	0.014	**1.415**	0.121	0.422	0.195	0.015	**2.296**	0.195	0.676
71	GA	Scherer		1	D062571	2.455	0.202	0.022	**2.455**	0.209	0.721	0.079	0.023	**1.122**	0.097	0.336	0.114	0.026	**1.526**	0.131	0.454
72	MD	Herbert A Wagner	1554	3	D015543	2.454	0.079	0.019	**1.071**	0.092	0.321	0.172	0.051	**2.454**	0.210	0.721	0.066	0.015	0.888	0.076	0.267
73	VA	Chesapeake Energy Center		4	D038034	2.438	0.145	0.035	**1.980**	0.170	0.586	0.147	0.074	**2.438**	0.210	0.717	0.129	0.036	**1.811**	0.155	0.537
74	GA	Scherer		2	D062572	2.434	0.202	0.021	**2.434**	0.207	0.715	0.079	0.022	**1.102**	0.095	0.330	0.114	0.024	**1.503**	0.129	0.448
75	KY	John S. Cooper	1384	1,2	D01384CS1	2.425	0.140	0.027	**1.828**	0.156	0.542	0.181	0.041	**2.425**	0.207	0.713	0.112	0.045	**1.723**	0.149	0.512
76	NC	Roxboro	2712	4A,4B	D02712C04	2.407	0.082	0.059	**1.546**	0.135	0.460	0.114	0.100	**2.361**	0.205	0.695	0.106	0.112	**2.407**	0.210	0.708
77	MD	Brandon Shores	602	2	D006022	2.393	0.026	0.061	0.955	0.085	0.287	0.057	0.158	**2.393**	0.212	0.704	0.020	0.056	0.834	0.074	0.251
78	PA	Armstrong Power Station		1	D031781	2.377	0.093	0.015	**1.185**	0.102	0.355	0.202	0.015	**2.377**	0.202	0.699					
79	PA	Armstrong Power Station		2	D031782	2.346	0.091	0.016	**1.176**	0.101	0.352	0.198	0.017	**2.346**	0.199	0.690					
80	MD	Brandon Shores	602	1	D006021	2.301	0.026	0.057	0.922	0.082	0.277	0.059	0.149	**2.301**	0.203	0.678	0.020	0.052	0.802	0.071	0.242

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81	WV	Mitchell (WV)	3948	1,2	D03948C02	2.247	0.092	0.024	**1.266**	0.109	0.378	0.062	0.052	**1.258**	0.110	0.376	0.119	0.085	**2.247**	0.195	0.662
82	GA	Yates		Y7BR	D00728Y7R	2.229	0.195	0.009	**2.229**	0.189	0.657	0.133	0.007	**1.521**	0.129	0.453	0.184	0.008	**2.105**	0.178	0.622
83	KY	Ghent	1356	3,4 … (2,3)	D01356C02	2.214	0.134	0.067	**2.207**	0.191	0.651	0.090	0.056	**1.611**	0.140	0.479	0.146	0.056	**2.214**	0.190	0.653
84	MI	Belle River		2	D060342	2.209	0.148	0.053	**2.209**	0.190	0.651	0.117	0.054	**1.877**	0.162	0.556	0.109	0.059	**1.845**	0.160	0.547
85	IN	IPL - Petersburg Generating Station		3	D009943	2.186	0.074	0.032	**1.163**	0.101	0.348	0.156	0.043	**2.186**	0.187	0.645	0.094	0.034	**1.403**	0.121	0.419
86	MI	Belle River		1	D060341	2.178	0.145	0.053	**2.178**	0.187	0.643	0.115	0.054	**1.852**	0.160	0.549	0.107	0.059	**1.822**	0.158	0.540
87	VA	Yorktown Power Station	3809	3	D038093	2.144	0.109	0.028	**1.505**	0.129	0.448	0.142	0.053	**2.144**	0.184	0.633	0.071	0.039	**1.211**	0.105	0.362
88	IA	Ottumwa		1	D062541	2.134	0.053	0.018	0.773	0.067	0.233	0.151	0.044	**2.134**	0.183	0.630	0.074	0.015	0.975	0.084	0.293
89	NC	Cape Fear	2708	6		2.128	0.153	0.041	**2.128**	0.182	0.628	0.100	0.085	**2.044**	0.178	0.604	0.117	0.032	**1.639**	0.141	0.487
90	OH	Conesville	2840	5,6	D02840C06	2.120	0.054	0.108	**1.796**	0.159	0.533	0.042	0.149	**2.120**	0.188	0.626	0.039	0.111	**1.659**	0.147	0.493
91	TN	John Sevier	3405	1,2	D03405C12	2.112	0.140	0.013	**1.674**	0.143	0.498	0.169	0.024	**2.112**	0.180	0.624	0.141	0.022	**1.776**	0.152	0.527
92	WV	Fort Martin Power Station	3943	1	D039431	2.086	0.070	0.118	**2.086**	0.183	0.616										
93	PA	Hatfield's Ferry Power Station	3179	3	x20	2.070	0.018	0.168	**2.070**	0.185	0.612										
94	TN	John Sevier	3405	3,4	D03405C34	2.067	0.136	0.013	**1.636**	0.139	0.487	0.165	0.024	**2.067**	0.176	0.611	0.137	0.022	**1.739**	0.148	0.516
95	MI	J H Campbell		3 (50%)	D01710M3A	2.066	0.080	0.031	**1.218**	0.105	0.365	0.154	0.035	**2.066**	0.177	0.611	0.094	0.034	**1.400**	0.121	0.418
96	PA	Montour	3149	1	D031491	2.039	0.056	0.047	**1.129**	0.099	0.338	0.086	0.065	**1.670**	0.145	0.496	0.093	0.092	**2.039**	0.178	0.603
97	VA	Chesapeake Energy Center		3	D038033	1.986	0.101	0.035	**1.491**	0.129	0.444	0.103	0.077	**1.986**	0.173	0.588	0.089	0.037	**1.387**	0.120	0.414
98	OH	J M Stuart	2850	4	D028404	1.980	0.126	0.042	**1.841**	0.158	0.546	0.143	0.038	**1.980**	0.170	0.586	0.115	0.050	**1.811**	0.156	0.537
99	PA	Montour	3149	2	D031492	1.950	0.056	0.043	**1.087**	0.095	0.326	0.087	0.059	**1.607**	0.140	0.478	0.094	0.083	**1.950**	0.170	0.577
100	KY	Mill Creek	1364	4	D013644	1.931	0.081	0.025	**1.159**	0.100	0.347	0.125	0.024	**1.633**	0.140	0.486	0.138	0.038	**1.931**	0.166	0.572
101	PA	Homer City		3	D031223	1.904	0.037	0.070	**1.184**	0.105	0.354	0.110	0.063	**1.904**	0.165	0.564	0.057	0.056	**1.243**	0.109	0.372
102	MI	J H Campbell		A,B,1,2	D01710C09	1.900	0.070	0.022	**1.009**	0.087	0.303	0.145	0.029	**1.900**	0.162	0.563	0.084	0.027	**1.215**	0.105	0.363
103	WV	Phil Sporn	3938	11,21,31,41	D03938C04	1.887	0.138	0.034	**1.887**	0.162	0.559										
104	NC	Marshall	2727	1,2	x11	1.864	0.041	0.127	**1.864**	0.165	0.552										
105	IN	Whitewater Valley		1, 2	D01040C12	1.853	0.158	0.011	**1.853**	0.157	0.549	0.112	0.011	**1.347**	0.115	0.402	0.083	0.006	0.977	0.083	0.293
106	PA	Portland		2 (1)	d031131	1.849	0.043	0.003	0.504	0.043	0.152	0.045	0.004	0.538	0.046	0.163	0.151	0.018	**1.849**	0.158	0.548
107	WV	Fort Martin Power Station	3943	2	D039432	1.849	0.064	0.103	**1.849**	0.163	0.548										
108	NC	Marshall	2727	4	D027274	1.844	0.033	0.133	**1.844**	0.164	0.547										
109	VA	Clinch River	3775	1,2	D03775C02	1.816	0.136	0.030	**1.816**	0.155	0.539										
110	OK	Northeastern		3313, 3314	D02963C10	1.813	0.054	0.034	0.971	0.085	0.291	0.098	0.067	**1.813**	0.157	0.538	0.081	0.048	**1.413**	0.123	0.422
111	NC	H F Lee Steam Electric Plant		3	D027093	1.775	0.125	0.037	**1.775**	0.152	0.527	0.102	0.038	**1.527**	0.132	0.455	0.119	0.034	**1.680**	0.144	0.499
112	IN	Alcoa Allowance Management Inc	6705	1,2	D06705C02	1.717	0.021	0.133	**1.717**	0.153	0.510										
113	AL	Colbert	47	1, 2, 3, 4	D00047C14	1.709	0.133	0.023	**1.709**	0.146	0.508										
114	IA	George Neal South		4	D073434	1.708	0.049	0.022	0.778	0.068	0.234	0.118	0.038	**1.708**	0.147	0.507	0.044	0.016	0.660	0.057	0.199
115	NC	L V Sutton		1, 2	D02713C02	1.707	0.126	0.030	**1.707**	0.146	0.507	0.059	0.018	0.841	0.073	0.253	0.041	0.008	0.533	0.046	0.161
116	WV	John E Amos	3935	1,2	D03935C02	1.695	0.075	0.046	**1.321**	0.115	0.395	0.104	0.050	**1.695**	0.147	0.504	0.088	0.044	**1.448**	0.125	0.432
117	MI	St. Clair	1743	6	D017436	1.666	0.135	0.017	**1.666**	0.142	0.495	0.130	0.020	**1.637**	0.140	0.487	0.092	0.021	**1.237**	0.106	0.370
118	OH	Eastlake	2837	1	D028371	1.632	0.132	0.017	**1.632**	0.139	0.485										
119	NH	Merrimack	2364	2	D023642	1.622	0.043	0.003	0.503	0.043	0.152	0.051	0.003	0.583	0.050	0.176	0.136	0.012	**1.622**	0.138	0.483
120	SC	Wateree	3297	WAT1	D03297WT1	1.590	0.138	0.008	**1.590**	0.135	0.473	0.116	0.025	**1.548**	0.133	0.461	0.092	0.035	**1.395**	0.120	0.416

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121	OH	Miami Fort Generating Station	2832	7	D028327	1.577	0.073	0.071	**1.577**	0.138	0.469										
122	OH	Eastlake	2837	2	D028372	1.563	0.128	0.015	**1.563**	0.133	0.465										
123	MI	Trenton Channel	1745	16,17,18,19	x10	1.554	0.090	0.045	**1.481**	0.128	0.441	0.073	0.036	**1.192**	0.103	0.357	0.081	0.060	**1.554**	0.135	0.463
124	PA	Sunbury		4	D031524	1.547	0.052	0.006	0.626	0.054	0.189	0.078	0.007	0.934	0.080	0.281	0.128	0.014	**1.547**	0.132	0.461
125	IN	R M Schahfer Generating Station		14	D0608514	1.526	0.122	0.018	**1.526**	0.130	0.455	0.108	0.026	**1.471**	0.126	0.439	0.083	0.022	**1.148**	0.099	0.344
126	TX	Big Brown	3497	2		1.522	0.133	0.006	**1.522**	0.129	0.453	0.076	0.007	0.909	0.078	0.273	0.115	0.002	**1.282**	0.109	0.383
127	NC	Roxboro	2712	1	D027121	1.480	0.067	0.068	**1.480**	0.130	0.441										
128	OH	Miami Fort Power Station		8	D028328	1.474	0.064	0.070	**1.474**	0.129	0.439										
129	TX	Big Brown	3497	1		1.453	0.127	0.006	**1.453**	0.124	0.433	0.072	0.007	0.869	0.074	0.261	0.110	0.002	**1.222**	0.104	0.366
130	SC	H B Robinson		1	D032511	1.435	0.072	0.026	**1.074**	0.093	0.322	0.089	0.042	**1.435**	0.124	0.428	0.066	0.034	**1.096**	0.095	0.329
131	WV	Mount Storm Power Station	3954	1,2	D03954CS0	1.424	0.087	0.043	**1.424**	0.123	0.425										
132	MI	River Rouge		3	D017403	1.421	0.089	0.040	**1.421**	0.123	0.424										
133	PA	Sunbury		3	D031523	1.417	0.045	0.005	0.546	0.047	0.165	0.064	0.007	0.780	0.067	0.235	0.116	0.013	**1.417**	0.121	0.423
134	TN	Gallatin	3403	3,4	D03403C34	1.394	0.114	0.013	**1.394**	0.119	0.416										
135	IN	Gibson	6113	4	D061135	1.362	0.025	0.098	**1.362**	0.121	0.407										
136	OH	Eastlake	2837	3	D028373	1.356	0.110	0.014	**1.356**	0.116	0.405										
137	NC	Roxboro	2712	2	D027122	1.340	0.077	0.045	**1.340**	0.116	0.400										
138	IN	R M Schahfer Generating Station		15	D0608515	1.331	0.086	0.023	**1.194**	0.103	0.357	0.089	0.032	**1.331**	0.115	0.398	0.073	0.031	**1.135**	0.098	0.340
139	SC	Wateree	3297	WAT2	D03297WT2	1.330	0.116	0.005	**1.330**	0.113	0.397	0.089	0.019	**1.189**	0.102	0.356	0.065	0.026	0.999	0.086	0.300
140	IN	Michigan City Generating Station		12	D0099712	1.318	0.078	0.008	0.938	0.080	0.282	0.105	0.016	**1.318**	0.113	0.394	0.082	0.013	**1.041**	0.089	0.312
141	MO	Labadie		4	D021034	1.272	0.042	0.007	0.537	0.046	0.162	0.107	0.010	**1.272**	0.108	0.380	0.084	0.010	**1.032**	0.088	0.310
142	IN	Merom		2SG1	D062132G1	1.270	0.107	0.009	**1.270**	0.108	0.380										
143	WV	Longview Power	56671	1		1.252	0.088	0.027	**1.252**	0.108	0.374										
144	IN	Gibson	6113	5	D061135	1.248	0.073	0.041	**1.248**	0.108	0.373										
145	IN	IPL - Harding Street Station (EW Stout)		50	D0099050	1.245	0.106	0.008	**1.245**	0.106	0.372	0.087	0.008	**1.038**	0.089	0.311	0.072	0.008	0.874	0.075	0.263
146	VA	Chesapeake Energy Center		2	D038032	1.239	0.065	0.021	0.944	0.081	0.283	0.066	0.047	**1.239**	0.108	0.371	0.058	0.023	0.883	0.076	0.266
147	KY	Ghent	1356	1,2 … (1,4)	D01356C01	1.237	0.057	0.056	**1.237**	0.108	0.370										
148	TN	Gallatin	3403	1,2	D03403C12	1.234	0.102	0.011	**1.234**	0.105	0.369										
149	SC	Jefferies	3319	3		1.189	0.105	0.004	**1.189**	0.101	0.356	0.064	0.009	0.804	0.069	0.242	0.056	0.036	**1.018**	0.089	0.305
150	SC	Jefferies	3319	4		1.188	0.105	0.004	**1.188**	0.101	0.356	0.064	0.010	0.802	0.069	0.241	0.056	0.037	**1.023**	0.089	0.307
151	NY	Oswego Harbor Power	2594	5	D025945	1.186	0.085	0.023	**1.186**	0.102	0.355										
152	OH	Eastlake	2837	4,6, (5)	x17	1.179	0.081	0.026	**1.179**	0.102	0.353										
153	TX	Martin Lake	6146	1		1.175	0.095	0.013	**1.175**	0.100	0.352	0.054	0.014	0.748	0.064	0.225	0.082	0.005	0.947	0.081	0.285
154	PA	Sunbury		1A, 1B	D03152CS1	1.128	0.036	0.004	0.435	0.037	0.132	0.053	0.006	0.636	0.054	0.192	0.093	0.010	**1.128**	0.096	0.338
155	IN	IPL - Harding Street Station (EW Stout)		60	D0099060	1.128	0.096	0.007	**1.128**	0.096	0.338	0.079	0.007	0.939	0.080	0.282	0.066	0.007	0.792	0.068	0.238
156	MO	Sibley		1, 2, 3	D02094C01	1.122	0.068	0.013	0.885	0.076	0.266	0.086	0.016	**1.122**	0.096	0.336	0.065	0.009	0.808	0.069	0.243
157	DE	Indian River	594	4	D005944	1.109	0.031	0.008	0.421	0.036	0.127	0.040	0.010	0.549	0.047	0.166	0.094	0.008	**1.109**	0.095	0.332
158	NC	Riverbend	2732	9		1.092	0.087	0.013	**1.092**	0.094	0.327										
159	OK	Grand River Dam Authority		1	D001651	1.087	0.033	0.013	0.507	0.044	0.153	0.071	0.028	**1.087**	0.094	0.326	0.050	0.023	0.805	0.070	0.242
160	TX	Martin Lake	6146	2		1.083	0.089	0.010	**1.083**	0.093	0.325	0.051	0.012	0.682	0.059	0.206	0.077	0.004	0.881	0.075	0.265

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161	VA	Chesapeake Energy Center		1	D038031	1.083	0.047	0.023	0.766	0.067	0.231	0.048	0.051	**1.083**	0.095	0.325	0.042	0.025	0.730	0.064	0.220
162	AR	Independence		1	D066411	1.061	0.078	0.018	**1.061**	0.091	0.318										
163	AR	Independence		2	D066412	1.048	0.079	0.016	**1.048**	0.090	0.314										
164	SC	Canadys Steam		CAN3	D03280CN3	1.043	0.072	0.005	0.843	0.072	0.254	0.086	0.009	**1.043**	0.089	0.313	0.066	0.014	0.876	0.075	0.263
165	NJ	B L England	2378	1		1.036	0.051	0.010	0.660	0.057	0.199	0.074	0.021	**1.036**	0.089	0.311	0.062	0.012	0.803	0.069	0.242
166	MO	New Madrid Power Plant		1	D021671	1.028	0.023	0.070	**1.028**	0.092	0.308										
167	IN	IPL - Petersburg Generating Station		1 (50%)	D00994M1B	1.014	0.081	0.012	**1.014**	0.087	0.304										
168	KS	La Cygne		2	D012412	1.007	0.041	0.015	0.611	0.053	0.184	0.054	0.038	**1.007**	0.088	0.302	0.037	0.018	0.605	0.053	0.183
169	TX	Martin Lake	6146	3		1.005	0.081	0.011	**1.005**	0.086	0.302	0.046	0.012	0.640	0.055	0.193	0.070	0.004	0.811	0.069	0.244
170	AR	White Bluff		1	D060091	0.973	0.061	0.028	0.973	0.084	0.292										
171	WI	Columbia		2	D080232	0.971	0.072	0.017	0.971	0.083	0.292	0.064	0.016	0.877	0.076	0.264	0.037	0.009	0.502	0.043	0.152
172	MI	Monroe	1733	3,4	D01733C34	0.965	0.041	0.046	0.965	0.085	0.290										
173	AR	White Bluff		2	D060092	0.965	0.059	0.029	0.965	0.084	0.290										
174	NC	Belews Creek	8042	2	D080422	0.961	0.032	0.055	0.961	0.085	0.289										
175	NC	Belews Creek	8042	1	D080421	0.959	0.032	0.055	0.959	0.085	0.288										
176	MN	Sherburne County		1, 2	D06090CS1	0.957	0.054	0.034	0.957	0.083	0.288	0.045	0.026	0.784	0.068	0.236	0.028	0.016	0.479	0.042	0.145
177	KY	East Bend	6018	2	D060182	0.957	0.033	0.054	0.957	0.085	0.287										
178	WI	Columbia		1	D080231	0.957	0.072	0.015	0.957	0.082	0.287	0.057	0.017	0.815	0.070	0.245	0.034	0.006	0.439	0.038	0.133
179	MI	Dan E Karn	1702	3,4 (1,2)	D01702C09	0.945	0.052	0.024	0.832	0.072	0.251	0.047	0.016	0.686	0.059	0.207	0.055	0.032	0.945	0.082	0.284
180	PA	Martins Creek	3148	3,4	x21	0.943	0.022	0.016	0.417	0.036	0.126	0.016	0.036	0.578	0.051	0.175	0.025	0.061	0.943	0.084	0.283
181	KY	E W Brown	1355	2,3	D01355C03	0.937	0.024	0.061	0.937	0.083	0.282										
182	NY	Somerset Operating Company (Kintigh)		1	D060821	0.914	0.057	0.026	0.914	0.079	0.275	0.046	0.013	0.647	0.056	0.195	0.050	0.020	0.765	0.066	0.230
183	KY	Shawnee		1,2,3,4,5	D01379C15	0.913	0.050	0.034	0.913	0.080	0.274										
184	IN	IPL - Harding Street Station (EW Stout)	990	70	D0099070	0.897	0.062	0.020	0.897	0.077	0.270										
185	OH	J M Stuart	2850	3	D028503	0.895	0.047	0.034	0.895	0.078	0.269										
186	NE	Nebraska City Station		1	D060961	0.895	0.069	0.013	0.895	0.077	0.269										
187	MD	Dickerson	1572	1,2,3	D01572C23	0.894	0.045	0.036	0.894	0.078	0.269										
188	MI	J C Weadock		7, 8	D01720C09	0.893	0.058	0.018	0.833	0.072	0.251	0.047	0.013	0.655	0.057	0.198	0.056	0.025	0.893	0.077	0.268
189	IN	IPL - Petersburg Generating Station		2(50%)	D00994M2B	0.885	0.053	0.027	0.885	0.077	0.266										
190	IL	Joliet 29		81, 82	D00384C82	0.884	0.067	0.014	0.884	0.076	0.266										
191	OH	Cardinal	2828	1	D028281	0.883	0.068	0.013	0.883	0.076	0.266										
192	TX	Monticello	6147	1		0.880	0.074	0.006	0.880	0.075	0.265	0.042	0.007	0.543	0.047	0.164	0.064	0.002	0.727	0.062	0.219
193	WV	John E Amos	3935	3	D039353	0.864	0.031	0.048	0.864	0.076	0.260										
194	IN	IPL - Eagle Valley Generating Station		5, 6	D00991C56	0.850	0.068	0.010	0.850	0.073	0.256										
195	NY	Oswego Harbor Power	2594	6	x15	0.845	0.057	0.020	0.845	0.073	0.254	0.049	0.014	0.697	0.060	0.210	0.037	0.018	0.605	0.053	0.183
196	IN	R Gallagher	1008	1,2	D01008C01	0.842	0.053	0.023	0.842	0.073	0.253										
197	TX	Monticello	6147	2		0.825	0.070	0.005	0.825	0.070	0.248										
198	MD	Herbert A Wagner	1554	1,2,4	x08	0.803	0.043	0.030	0.803	0.070	0.242										
199	NH	Merrimack	2364	1	D023641	0.801	0.021	0.001	0.249	0.021	0.076	0.025	0.001	0.290	0.025	0.088	0.068	0.005	0.801	0.068	0.241
200	TX	Monticello	6147	3		0.790	0.062	0.010	0.790	0.068	0.238										

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201	OH	J M Stuart	2850	1	D028501	0.786	0.045	0.026	0.786	0.068	0.237										
202	MA	Brayton Point	1619	3	D016193	0.766	0.037	0.005	0.458	0.039	0.139	0.067	0.002	0.751	0.064	0.226	0.063	0.007	0.766	0.066	0.231
203	NC	Marshall	2727	3	D027273	0.764	0.034	0.035	0.764	0.067	0.230										
204	IN	R Gallagher	1008	3,4	D01008C02	0.763	0.047	0.022	0.763	0.066	0.230										
205	NY	Huntley Power	2549	67,68	D02549C01	0.757	0.055	0.014	0.757	0.065	0.228										
206	TX	H W Pirkey Power Plant	7902	1		0.755	0.060	0.010	0.755	0.065	0.227										
207	TX	Limestone	298	LIM2		0.749	0.054	0.015	0.749	0.065	0.226										
208	KY	Shawnee		6,7,8,9,10	D01379C60	0.741	0.044	0.024	0.741	0.064	0.223										
209	VA	Chesterfield Power Station	3797	6	D037976	0.735	0.046	0.022	0.735	0.064	0.222										
210	MO	New Madrid Power Plant		2	D021672	0.727	0.022	0.044	0.727	0.065	0.219										
211	IA	Louisa		101	D06664101	0.726	0.036	0.030	0.726	0.064	0.219										
212	AL	Greene County	10	1		0.708	0.060	0.005	0.708	0.061	0.214										
213	IN	Cayuga	1001	2	D010012	0.705	0.029	0.035	0.705	0.062	0.212										
214	WV	Mountaineer (1301)	6264	1	D062641	0.704	0.037	0.027	0.704	0.061	0.212										
215	TX	Limestone	298	LIM1		0.696	0.050	0.014	0.696	0.060	0.210										
216	OH	Cardinal	2828	2	D028282	0.690	0.049	0.014	0.690	0.060	0.208										
217	OH	Conesville	2840	4	D028504	0.678	0.041	0.021	0.678	0.059	0.204										
218	MD	Morgantown	1573	2	D015732	0.677	0.052	0.010	0.677	0.058	0.204										
219	OH	J M Stuart	2850	2	D028502	0.671	0.027	0.034	0.671	0.059	0.202										
220	WI	South Oak Creek		7, 8	D04041CS4	0.665	0.053	0.008	0.665	0.057	0.201										
221	MN	Black Dog		3, 4	D01904CS1	0.664	0.026	0.034	0.664	0.059	0.200										
222	KY	H L Spurlock	6041	2	D060412	0.655	0.042	0.018	0.655	0.057	0.198										
223	GA	Yates		Y5BR	D00728Y5R	0.654	0.056	0.004	0.654	0.056	0.197										
224	IN	Cayuga	1001	1	D010011	0.636	0.025	0.033	0.636	0.056	0.192										
225	MN	Sherburne County		3	D060903	0.630	0.041	0.017	0.630	0.055	0.190										
226	KY	H L Spurlock	6041	1	D060411	0.627	0.047	0.010	0.627	0.054	0.189										
227	OH	W H Sammis	2866	7	D028667	0.602	0.019	0.036	0.602	0.053	0.182										
228	IA	Walter Scott Jr. Energy Center		3	D010823	0.595	0.034	0.020	0.595	0.052	0.180										
229	WI	Nelson Dewey	4054	2		0.592	0.048	0.007	0.592	0.051	0.179										
230	NJ	B L England	2378	2,3	x12	0.585	0.016	0.014	0.328	0.029	0.100	0.023	0.030	0.585	0.052	0.177	0.019	0.017	0.394	0.035	0.119
231	IL	Newton		2	D060172	0.582	0.043	0.010	0.582	0.050	0.176										
232	AL	E C Gaston	26	5		0.580	0.024	0.028	0.580	0.051	0.175										
233	OH	W H Sammis	2866	1,2	D02866C01	0.567	0.013	0.038	0.567	0.051	0.171										
234	TN	Cumberland	3399	1		0.562	0.039	0.012	0.562	0.049	0.170										
235	OH	W H Sammis	2866	3,4	D02866C02	0.560	0.012	0.038	0.560	0.050	0.169										
236	MO	Labadie		3	D021033	0.547	0.043	0.007	0.547	0.047	0.165										
237	OH	W H Sammis	2866	6	D02866M6A	0.544	0.020	0.030	0.544	0.048	0.165										
238	MO	Thomas Hill Energy Center		MB3	D02168MB3	0.540	0.042	0.007	0.540	0.046	0.163										
239	MO	Labadie		1	D021031	0.518	0.040	0.007	0.518	0.045	0.157										
240	GA	Bowen	703	1BLR	D007031LR	0.494	0.024	0.021	0.494	0.043	0.149										

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
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241	KS	Nearman Creek	6064	N1		0.489	0.021	0.024	0.489	0.043	0.148										
242	MA	Brayton Point	1619	2	D016192	0.463	0.020	0.004	0.267	0.023	0.081	0.025	0.001	0.289	0.025	0.088	0.038	0.004	0.463	0.040	0.140
243	KY	Green River		5	D013575	0.459	0.037	0.005	0.459	0.039	0.139										
244	KY	D B Wilson		W1	D06823W1	0.447	0.035	0.006	0.447	0.038	0.135										
245	IA	George Neal North		3	D010913	0.445	0.025	0.016	0.445	0.039	0.135										
246	SC	Urquhart		URQ3	D03295UQ3	0.430	0.037	0.002	0.430	0.037	0.130										
247	WI	Edgewater (4050)	4050	5		0.430	0.034	0.006	0.430	0.037	0.130										
248	ME	William F Wyman	1507	4	D015074	0.426	0.010	0.001	0.112	0.010	0.034	0.012	0.001	0.135	0.012	0.041	0.032	0.007	0.426	0.037	0.129
249	NH	Newington	8002	1	D080021	0.426	0.013	0.002	0.159	0.014	0.048	0.015	0.001	0.169	0.014	0.051	0.034	0.005	0.426	0.037	0.129
250	TX	Welsh Power Plant	6139	3		0.423	0.030	0.009	0.423	0.037	0.128										
251	GA	Bowen	703	4BLR	D007034LR	0.410	0.013	0.024	0.410	0.036	0.124										
252	NC	Cliffside	2721	5	D027215	0.407	0.017	0.020	0.407	0.036	0.123										
253	OH	W H Sammis	2866	5	D028665	0.407	0.008	0.029	0.407	0.036	0.123										
254	MA	Brayton Point	1619	1	D016191	0.407	0.019	0.003	0.233	0.020	0.071	0.023	0.001	0.259	0.022	0.079	0.034	0.003	0.407	0.035	0.123
255	DE	Edge Moor	593	5	D005935	0.406	0.026	0.011	0.406	0.035	0.123										
256	KS	La Cygne	1241	1		0.400	0.018	0.010	0.307	0.027	0.093	0.026	0.011	0.400	0.035	0.121	0.018	0.006	0.257	0.022	0.078
257	TX	Welsh Power Plant	6139	1		0.398	0.029	0.008	0.398	0.034	0.121										
258	MO	Rush Island		2	D061552	0.398	0.031	0.006	0.398	0.034	0.121										
259	TX	Welsh Power Plant	6139	2		0.395	0.029	0.007	0.395	0.034	0.120										
260	KY	Green River		4	D013574	0.394	0.032	0.004	0.394	0.034	0.119										
261	SC	McMeekin		MCM2	D03287MM2	0.389	0.032	0.004	0.389	0.033	0.118										
262	SC	McMeekin		MCM1	D03287MM1	0.377	0.031	0.004	0.377	0.032	0.114										
263	IL	Joppa Steam		1, 2	D00887CS1	0.369	0.029	0.005	0.369	0.032	0.112										
264	IL	Joppa Steam		3, 4	D00887CS2	0.366	0.029	0.004	0.366	0.031	0.111										
265	PA	Shawville	3131	1	D031311	0.364	0.022	0.011	0.364	0.032	0.110										
266	IL	Wood River Power Station		5	D008985	0.364	0.024	0.009	0.364	0.032	0.110										
267	IN	Alcoa Allowance Management Inc	6705	4	D067054	0.357	0.013	0.020	0.357	0.032	0.108										
268	PA	Shawville	3131	2	D031312	0.354	0.022	0.010	0.354	0.031	0.107										
269	MO	Sikeston		1	D067681	0.354	0.022	0.010	0.354	0.031	0.107										
270	MO	Rush Island		1	D061551	0.352	0.027	0.005	0.352	0.030	0.107										
271	IL	Marion		4	D009764	0.345	0.022	0.010	0.345	0.030	0.105										
272	GA	Bowen	703	2BLR	D007032LR	0.327	0.011	0.018	0.327	0.029	0.099										
273	OK	Muskogee	2952	4		0.325	0.019	0.011	0.325	0.028	0.099										
274	IN	Alcoa Allowance Management Inc	6705	3	x02	0.319	0.005	0.024	0.319	0.029	0.097										
275	OK	Sooner	6095	1		0.317	0.023	0.006	0.317	0.027	0.096										
276	SC	Winyah	6249	2,3,4	x23	0.315	0.025	0.004	0.315	0.027	0.096										
277	OK	Sooner		2	D060952	0.311	0.022	0.007	0.311	0.027	0.094										
278	NY	NRG Dunkirk Power		3	D02554C03	0.300	0.022	0.006	0.300	0.026	0.091										
279	OK	Muskogee		5	D029525	0.295	0.018	0.009	0.295	0.026	0.090										
280	OK	Hugo		1	D067721	0.272	0.019	0.006	0.272	0.024	0.083										

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281	WI	Genoa	4143	1		0.272	0.019	0.006	0.272	0.024	0.082										
282	GA	Bowen	703	3BLR	D007033LR	0.255	0.014	0.010	0.255	0.022	0.077										
283	AR	Flint Creek Power Plant	6138	1		0.237	0.013	0.008	0.237	0.021	0.072										
284	MO	Meramec		3	D021043	0.203	0.014	0.005	0.203	0.018	0.062										
285	MA	Canal Station	1599	1	D015991	0.195	0.011	0.001	0.129	0.011	0.039	0.017	0.001	0.195	0.017	0.059	0.014	0.002	0.166	0.014	0.051
286	NJ	Hudson Generating Station	2403	2	D024032	0.180	0.008	0.004	0.137	0.012	0.042	0.007	0.008	0.169	0.015	0.051	0.011	0.006	0.180	0.016	0.055
287	CT	Bridgeport Harbor Station	568	BHB3		0.176	0.008	0.008	0.176	0.015	0.053	0.008	0.006	0.153	0.013	0.047	0.009	0.007	0.176	0.015	0.053
288	SC	Williams	3298	WIL1	D03298WL1	0.172	0.009	0.007	0.172	0.015	0.052										
289	NY	Dynegy Danskammer	2480	1,2,3	x13	0.165	0.012	0.003	0.165	0.014	0.050										
290	NY	Northport	2516	1,2,4,ugt001	x14	0.160	0.008	0.007	0.160	0.014	0.049	0.006	0.004	0.115	0.010	0.035					
291	KS	Tecumseh Energy Center	1252	10		0.148	0.010	0.004	0.148	0.013	0.045										
292	MA	Canal Station	1599	2	D015992	0.134	0.007	0.002	0.099	0.009	0.030	0.009	0.001	0.105	0.009	0.032	0.009	0.003	0.134	0.012	0.041
293	MA	Brayton Point	1619	4	x07	0.129	0.005	0.001	0.071	0.006	0.022	0.009	0.001	0.115	0.010	0.035	0.009	0.003	0.129	0.011	0.039
294	MA	Salem Harbor Station	1626	1		0.120	0.005	0.001	0.058	0.005	0.018	0.009	0.000	0.105	0.009	0.032	0.009	0.002	0.120	0.010	0.036
295	KS	Quindaro	1295	2		0.117	0.006	0.005	0.117	0.010	0.036										
296	NY	CCI Roseton LLC	8006	2	D080062	0.115	0.007	0.004	0.115	0.010	0.035										
297	CT	Middletown	562	4		0.106	0.005	0.005	0.106	0.009	0.032										
298	NH	Schiller	2367	6		0.106	0.003	0.001	0.045	0.004	0.014	0.005	0.000	0.056	0.005	0.017	0.008	0.002	0.106	0.009	0.032
299	NH	Schiller	2367	4		0.104	0.003	0.001	0.044	0.004	0.013	0.005	0.000	0.055	0.005	0.017	0.008	0.002	0.104	0.009	0.032
300	NJ	Mercer Generating Station	2408	1	D024081	0.096	0.005	0.003	0.096	0.008	0.029										
301	CT	New Haven Harbor	6156	NHB1		0.089	0.005	0.003	0.089	0.008	0.027										
302	NJ	Mercer Generating Station	2408	2	D024082	0.086	0.005	0.003	0.086	0.008	0.026										
303	NY	Northport	2516	3	D025163	0.079	0.004	0.003	0.079	0.007	0.024										
304	OH	Miami Fort Generating Station	2832	5-1, 5-2, 6	D02832C06	0.070	0.006	0.000	0.070	0.006	0.021										
305	SC	Winyah	6249	1	D062491	0.042	0.003	0.001	0.042	0.004	0.013										
306	ME	William F Wyman	1507	3		0.013	0.001	0.000	0.013	0.001	0.004										
307	ME	William F Wyman	1507	1		0.007	0.001	0.000	0.007	0.001	0.002										
308	ME	William F Wyman	1507	2		0.007	0.001	0.000	0.007	0.001	0.002										
309	IL	Newton		1	D060171	0.000															
310	MA	Salem Harbor Station	1626	3	D016263	0.000															
311	NY	CCI Roseton LLC	8006	1	D080061	0.000											0.000	0.000	0.000	0.000	0.000

F.18 2015 EGU Ranking Visibility Impairing Sources to James River Face

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
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1	OH	Muskingum River	2872	5	D028725	14.891	0.772	0.028	8.979	0.732	2.400	0.772	0.034	9.061	0.736	2.414	1.286	0.033	14.891	1.197	3.742
2	PA	Homer City	3122	1	D031221	13.790	0.387	0.125	5.296	0.471	1.590	1.100	0.097	13.790	1.084	3.431	0.781	0.117	10.006	0.825	2.661
3	PA	Homer City	3122	2	D031222	12.089	0.342	0.112	4.736	0.417	1.417	0.970	0.087	12.089	0.961	3.077	0.689	0.105	8.826	0.732	2.382
4	OH	Avon Lake Power Plant	2836	12	D0283612	11.414	0.909	0.122	11.414	0.936	3.006	0.498	0.130	7.071	0.575	1.919	0.643	0.106	8.305	0.690	2.256
5	GA	Harllee Branch	709	3&4	D00709C02	7.903	0.657	0.059	7.903	0.655	2.167	0.236	0.067	3.386	0.281	0.968	0.322	0.044	4.027	0.340	1.158
6	KY	Big Sandy	1353	BSU1,BSU2	D01353C02	7.648	0.505	0.074	6.302	0.532	1.783	0.628	0.076	7.648	0.643	2.131	0.252	0.080	3.652	0.311	1.055
7	OH	Muskingum River	2872	1,2,3,4	D02872C04	7.590	0.393	0.051	4.741	0.408	1.387	0.394	0.066	4.885	0.423	1.437	0.630	0.055	7.590	0.630	2.081
8	WV	Harrison Power Station		1 (25%), 2 (209	D03944C01	7.065	0.266	0.350	6.868	0.567	1.894	0.085	0.292	4.192	0.351	1.203	0.171	0.461	7.065	0.611	1.950
9	VA	Yorktown Power Station	3809	3	D038093	6.775	0.354	0.084	4.756	0.403	1.372	0.461	0.158	6.775	0.568	1.895	0.232	0.116	3.827	0.328	1.103
10	OH	Gen J M Gavin	8102	1	D081021	6.579	0.218	0.077	3.125	0.273	0.943	0.462	0.151	6.579	0.562	1.878	0.440	0.103	5.996	0.505	1.678
11	IN	Tanners Creek	988	U4	D00988U4	6.388	0.488	0.090	6.388	0.530	1.779	0.224	0.066	3.158	0.269	0.928	0.340	0.058	4.377	0.370	1.252
12	OH	Gen J M Gavin	8102	2	D081022	6.103	0.204	0.069	2.900	0.253	0.875	0.433	0.135	6.103	0.521	1.748	0.412	0.092	5.560	0.469	1.565
13	OH	W H Zimmer Generating Station	6019	1	D060191	5.635	0.258	0.246	5.485	0.465	1.571	0.280	0.180	5.153	0.425	1.441	0.289	0.221	5.635	0.482	1.585
14	WV	Kammer	3947	1,2,3	D03947C03	5.110	0.220	0.031	2.683	0.232	0.804	0.189	0.051	2.618	0.222	0.772	0.352	0.112	5.110	0.433	1.447
15	IN	Rockport	6166	MB1,MB2	D06166C02	4.805	0.207	0.099	3.297	0.283	0.977	0.260	0.121	4.128	0.352	1.206	0.333	0.103	4.805	0.408	1.366
16	OH	Killen Station	6031	2	D060312	4.522	0.207	0.168	4.425	0.347	1.190	0.183	0.126	3.719	0.287	0.989	0.175	0.233	4.522	0.392	1.291
17	PA	Keystone	3136	1	D031361	4.207	0.110	0.111	2.389	0.206	0.716	0.270	0.085	4.207	0.328	1.126	0.172	0.139	3.429	0.297	0.994
18	OH	Kyger Creek	2876	1,2,3,4,5	D02876C01	4.084	0.092	0.077	1.667	0.157	0.552	0.222	0.122	4.084	0.319	1.095	0.160	0.102	2.885	0.249	0.843
19	PA	Keystone	3136	2	D031362	4.075	0.106	0.109	2.313	0.199	0.695	0.259	0.084	4.075	0.316	1.087	0.164	0.137	3.320	0.287	0.964
20	WV	Pleasants Power Station	6004	1	D060041	3.857	0.108	0.125	2.575	0.217	0.754	0.099	0.127	2.479	0.210	0.733	0.159	0.190	3.857	0.335	1.111
21	IN	Wabash River Gen Station	1010	2,3,4,5,6	D01010C05	3.775	0.313	0.019	3.629	0.306	1.053	0.306	0.036	3.775	0.316	1.085	0.259	0.025	3.112	0.263	0.906
22	VA	Yorktown Power Station	3809	1,2	D03809CS0	3.531	0.217	0.049	2.912	0.246	0.854	0.217	0.100	3.531	0.294	1.012	0.145	0.042	2.047	0.176	0.605
23	KY	Mill Creek	1364	1,2,3	x05	3.521	0.125	0.068	2.125	0.179	0.624	0.194	0.065	2.781	0.240	0.832	0.214	0.106	3.521	0.302	1.019
24	NC	Roxboro	2712	3A,3B	D02712C03	3.347	0.121	0.076	2.077	0.184	0.642	0.169	0.131	3.241	0.278	0.961	0.157	0.146	3.347	0.290	0.971
25	PA	Homer City		3	D031223	3.284	0.049	0.148	2.042	0.185	0.645	0.145	0.133	3.284	0.259	0.896	0.075	0.119	2.145	0.189	0.633
26	NC	Roxboro	2712	4A,4B	D02712C04	3.232	0.126	0.068	2.076	0.180	0.630	0.176	0.116	3.171	0.270	0.934	0.163	0.130	3.232	0.280	0.939
27	PA	Brunner Island	3140	1,2	D03140C12	3.075	0.203	0.076	3.015	0.258	0.892	0.119	0.039	1.710	0.147	0.516	0.086	0.191	3.075	0.270	0.896
28	IN	Tanners Creek	988	U1,U2,U3	D00988C03	2.975	0.194	0.077	2.975	0.251	0.869	0.089	0.059	1.589	0.137	0.483	0.141	0.053	2.130	0.183	0.629
29	WV	Kanawha River	3936	1,2	D03936C02	2.966	0.175	0.096	2.966	0.251	0.870	0.172	0.098	2.954	0.250	0.868	0.178	0.069	2.708	0.233	0.793
30	MI	Trenton Channel	1745	9A	D017459A	2.751	0.215	0.036	2.751	0.233	0.808	0.173	0.029	2.210	0.187	0.654	0.185	0.048	2.551	0.218	0.749
31	MD	Herbert A Wagner	1554	3	D015543	2.691	0.102	0.005	1.175	0.099	0.348	0.222	0.013	2.691	0.218	0.757	0.085	0.004	0.973	0.083	0.292
32	GA	Yates		Y6BR	D00728Y6R	2.656	0.230	0.012	2.656	0.224	0.778	0.157	0.009	1.810	0.153	0.537	0.218	0.011	2.508	0.212	0.736
33	PA	Cheswick	8226	1	D082261	2.638	0.028	0.108	1.456	0.128	0.449	0.065	0.070	2.638	0.126	0.445	0.026	0.094	1.333	0.119	0.398
34	WV	Mitchell (WV)	3948	1,2	D03948C02	2.585	0.082	0.035	1.456	0.109	0.385	0.055	0.078	1.447	0.125	0.440	0.106	0.128	2.585	0.226	0.758
35	PA	Brunner Island	3140	3	D031403	2.559	0.169	0.053	2.559	0.206	0.717	0.102	0.037	1.583	0.128	0.451	0.064	0.112	1.946	0.171	0.576
36	PA	Shawville	3131	3,4	D03131CS1	2.533	0.128	0.034	1.778	0.150	0.527	0.205	0.022	2.533	0.210	0.731	0.131	0.038	1.851	0.159	0.549
37	KY	Ghent	1356	3,4 ... (2,3)	D01356C02	2.461	0.153	0.069	2.454	0.206	0.717	0.103	0.058	1.791	0.150	0.526	0.167	0.057	2.461	0.211	0.723
38	GA	Harllee Branch	709	1,2	D00709C01	2.427	0.208	0.017	2.427	0.209	0.727	0.068	0.019	0.983	0.080	0.285	0.104	0.015	1.299	0.111	0.388
39	TN	Johnsonville	3406	1 thru 10	D03406C10	2.308	0.172	0.010	1.845	0.168	0.589	0.208	0.015	2.308	0.206	0.718	0.122	0.015	1.505	0.129	0.449
40	MI	Belle River		2	D060342	2.257	0.146	0.058	2.257	0.189	0.660	0.116	0.058	1.917	0.162	0.566	0.108	0.064	1.885	0.163	0.559

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41	MD	C P Crane	1552	2	D015522	2.224	0.042	0.027	0.850	0.064	0.228	0.089	0.123	2.224	0.197	0.688	0.026	0.029	0.607	0.053	0.183
42	IN	Whitewater Valley		1, 2	D01040C12	2.218	0.189	0.014	2.218	0.187	0.654	0.134	0.014	1.612	0.137	0.480	0.099	0.008	1.169	0.100	0.350
43	MI	St. Clair	1743	7	D017437	2.185	0.166	0.029	2.185	0.181	0.631	0.148	0.030	1.976	0.165	0.577	0.109	0.029	1.513	0.130	0.451
44	MI	Belle River		1	D060341	2.094	0.130	0.058	2.094	0.174	0.608	0.103	0.058	1.781	0.150	0.525	0.096	0.064	1.752	0.152	0.520
45	IN	IPL - Petersburg Generating Station		3	D009943	2.078	0.057	0.046	1.106	0.096	0.339	0.120	0.062	2.078	0.169	0.592	0.072	0.049	1.334	0.116	0.398
46	MI	St. Clair	1743	6	D017436	2.007	0.173	0.015	2.007	0.174	0.607	0.165	0.018	1.972	0.169	0.593	0.118	0.018	1.491	0.127	0.444
47	OH	Conesville	2840	5,6	D02840C06	1.948	0.077	0.081	1.651	0.148	0.518	0.060	0.112	1.948	0.160	0.562	0.054	0.084	1.525	0.134	0.454
48	IL	Powerton		51,52,61,62	D00879C06	1.893	0.067	0.044	1.192	0.104	0.366	0.117	0.058	1.893	0.162	0.568	0.089	0.030	1.304	0.112	0.390
49	MI	St. Clair	1743	1,2,3,4,...6	x09	1.886	0.109	0.058	1.886	0.155	0.544	0.087	0.058	1.614	0.135	0.473	0.078	0.069	1.623	0.142	0.483
50	PA	Montour	3149	1	D031491	1.816	0.046	0.045	1.006	0.085	0.300	0.071	0.063	1.487	0.125	0.439	0.076	0.088	1.816	0.159	0.539
51	PA	Montour	3149	2	D031492	1.661	0.037	0.045	0.926	0.077	0.273	0.058	0.062	1.369	0.113	0.397	0.063	0.088	1.661	0.146	0.494
52	IN	Michigan City Generating Station		12	D0099712	1.603	0.098	0.007	1.140	0.098	0.346	0.132	0.014	1.603	0.136	0.477	0.104	0.012	1.267	0.108	0.379
53	MI	J H Campbell		3 (50%)	D01710M3A	1.510	0.072	0.008	0.890	0.075	0.264	0.138	0.009	1.510	0.137	0.480	0.085	0.009	1.023	0.087	0.307
54	AL	E C Gaston	26	1, 2	D00026CAN	1.485	0.113	0.011	1.347	0.114	0.402	0.110	0.011	1.322	0.112	0.395	0.124	0.011	1.485	0.127	0.443
55	IN	IPL - Petersburg Generating Station		4	D009944	1.435	0.041	0.028	0.737	0.064	0.227	0.086	0.038	1.435	0.115	0.406	0.051	0.032	0.910	0.079	0.274
56	IN	Gibson	6113	1,2,3	D06113C03	1.418	0.052	0.050	1.084	0.095	0.335	0.095	0.057	1.418	0.141	0.496	0.057	0.060	1.291	0.113	0.386
57	KY	Paradise	1378	2	D013782	1.333	0.031	0.012	0.456	0.040	0.143	0.103	0.016	1.333	0.110	0.387	0.052	0.013	0.702	0.060	0.212
58	IA	Ottumwa		1	D062541	1.332	0.028	0.019	0.482	0.044	0.157	0.079	0.048	1.332	0.119	0.418	0.039	0.017	0.608	0.053	0.184
59	WV	John E Amos	3935	1,2	D03935C02	1.310	0.039	0.057	1.022	0.090	0.319	0.055	0.062	1.310	0.110	0.387	0.046	0.055	1.120	0.098	0.336
60	MD	C P Crane	1552	1	D015521	1.294	0.021	0.018	0.496	0.036	0.128	0.045	0.080	1.294	0.117	0.411	0.013	0.019	0.354	0.031	0.107
61	MI	J H Campbell		A,B,1,2	D01710C09	1.243	0.053	0.007	0.660	0.057	0.201	0.110	0.010	1.243	0.111	0.390	0.063	0.009	0.795	0.068	0.239
62	OH	J M Stuart	2850	4	D028404	1.216	0.062	0.037	1.131	0.092	0.326	0.070	0.034	1.216	0.097	0.341	0.056	0.045	1.112	0.097	0.333
63	TX	Big Brown	3497	1		1.187	0.103	0.006	1.187	0.101	0.357	0.059	0.007	0.710	0.061	0.217	0.089	0.002	0.999	0.085	0.300
64	IN	IPL - Harding Street Station (EW Stout)		50	D0099050	1.184	0.103	0.007	1.184	0.101	0.356	0.084	0.006	0.987	0.084	0.297	0.070	0.006	0.832	0.071	0.250
65	MD	Brandon Shores	602	2	D006022	1.156	0.027	0.017	0.461	0.042	0.148	0.061	0.045	1.156	0.099	0.348	0.021	0.016	0.403	0.035	0.122
66	TX	Big Brown	3497	2		1.139	0.099	0.006	1.139	0.098	0.344	0.056	0.007	0.680	0.059	0.210	0.086	0.002	0.960	0.082	0.288
67	MD	Brandon Shores	602	1	D006021	1.084	0.030	0.013	0.434	0.040	0.141	0.066	0.034	1.084	0.093	0.328	0.023	0.012	0.378	0.033	0.115
68	IN	IPL - Harding Street Station (EW Stout)		60	D0099060	1.075	0.093	0.006	1.075	0.092	0.324	0.077	0.005	0.895	0.076	0.270	0.064	0.005	0.755	0.064	0.227
69	KY	Paradise	1378	1	D01720C09	1.064	0.025	0.010	0.368	0.032	0.116	0.081	0.013	1.064	0.088	0.310	0.041	0.010	0.563	0.049	0.170
70	OK	Northeastern		3313, 3314	D02963C10	1.052	0.041	0.010	0.563	0.047	0.169	0.074	0.020	1.052	0.087	0.308	0.061	0.014	0.820	0.071	0.247
71	IA	George Neal South		4	D073434	1.033	0.025	0.019	0.471	0.041	0.146	0.059	0.033	1.033	0.086	0.304	0.022	0.014	0.399	0.035	0.121
72	IN	Clifty Creek	983	4,5,6	D00983C02	1.000	0.035	0.058	0.962	0.087	0.308	0.027	0.051	0.745	0.073	0.259	0.037	0.053	1.000	0.088	0.300
73	KY	Paradise	1378	3	D013783	0.966	0.020	0.020	0.450	0.038	0.135	0.066	0.031	0.966	0.090	0.319	0.033	0.030	0.689	0.060	0.208
74	MD	Chalk Point	1571	1,2	D01571CE2	0.906	0.087	0.002	0.906	0.082	0.291	0.080	0.002	0.835	0.076	0.268	0.071	0.002	0.797	0.068	0.240
75	IN	Clifty Creek	983	1,2,3	D00983C01	0.869	0.039	0.040	0.831	0.074	0.262	0.030	0.037	0.642	0.062	0.220	0.041	0.038	0.869	0.076	0.261
76	ME	William F Wyman	1507	4	D015074	0.865	0.018	0.002	0.228	0.019	0.067	0.022	0.002	0.275	0.023	0.080	0.062	0.017	0.865	0.075	0.260
77	MI	Trenton Channel	1745	16,17,18,19	x10	0.840	0.056	0.019	0.800	0.070	0.249	0.046	0.015	0.644	0.057	0.201	0.051	0.026	0.840	0.073	0.253
78	TX	Martin Lake	6146	1		0.833	0.067	0.010	0.833	0.071	0.253	0.038	0.012	0.530	0.046	0.164	0.058	0.004	0.672	0.057	0.203
79	KY	Mill Creek	1364	4	D013644	0.822	0.007	0.040	0.493	0.045	0.159	0.011	0.039	0.695	0.047	0.168	0.013	0.061	0.822	0.074	0.247
80	TX	Monticello	6147	1		0.805	0.068	0.005	0.805	0.068	0.241	0.039	0.006	0.496	0.042	0.148	0.059	0.002	0.665	0.057	0.201

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81	NY	Cayuga Operating Company, LLC		1 (33%), 2 (33%	D02535C01	0.798	0.032	0.006	0.412	0.035	0.126	0.060	0.015	0.798	0.070	0.246	0.041	0.007	0.516	0.044	0.156
82	IL	Baldwin Energy Complex		1,2	D008892	0.791	0.007	0.008	0.132	0.014	0.051	0.046	0.015	0.791	0.057	0.202	0.018	0.011	0.318	0.028	0.097
83	TX	Martin Lake	6146	3		0.789	0.063	0.010	0.789	0.068	0.240	0.036	0.011	0.502	0.044	0.156	0.055	0.004	0.637	0.054	0.192
84	MD	Morgantown	1573	1	D015731	0.772	0.060	0.010	0.772	0.065	0.229	0.056	0.009	0.727	0.061	0.215	0.058	0.011	0.750	0.064	0.226
85	MI	Monroe	1733	1,2	D01733C12	0.762	0.016	0.029	0.705	0.043	0.152	0.016	0.037	0.754	0.051	0.180	0.014	0.055	0.762	0.068	0.230
86	NY	Somerset Operating Company (Kintigh)		1	D060821	0.752	0.055	0.012	0.752	0.063	0.222	0.045	0.006	0.532	0.047	0.167	0.048	0.009	0.629	0.054	0.190
87	MI	J C Weadock		7, 8	D01720C09	0.752	0.050	0.014	0.701	0.060	0.213	0.041	0.010	0.552	0.047	0.169	0.049	0.019	0.752	0.065	0.226
88	MO	Sibley		1, 2, 3	D02094C01	0.737	0.036	0.020	0.582	0.053	0.187	0.046	0.026	0.737	0.067	0.237	0.035	0.014	0.531	0.046	0.161
89	OH	Cardinal	2828	3	D028283	0.734	0.022	0.024	0.575	0.043	0.154	0.020	0.032	0.532	0.049	0.174	0.028	0.039	0.734	0.065	0.221
90	KY	John S. Cooper	1384	1,2	D01384CS1	0.727	0.039	0.010	0.548	0.045	0.160	0.050	0.015	0.727	0.060	0.212	0.031	0.016	0.517	0.045	0.156
91	MO	Labadie		4	D021034	0.720	0.023	0.005	0.304	0.026	0.093	0.059	0.007	0.720	0.061	0.216	0.046	0.007	0.584	0.050	0.176
92	NY	Oswego Harbor Power	2594	6	x15	0.670	0.040	0.020	0.670	0.056	0.198	0.035	0.014	0.552	0.045	0.161	0.026	0.018	0.480	0.042	0.145
93	TX	Martin Lake	6146	2		0.639	0.051	0.009	0.639	0.056	0.199	0.029	0.011	0.402	0.037	0.132	0.044	0.004	0.520	0.044	0.157
94	VA	Chesterfield Power Station	3797	5	D037975	0.601	0.027	0.009	0.524	0.033	0.119	0.027	0.022	0.601	0.046	0.163	0.017	0.019	0.393	0.035	0.119
95	OK	Grand River Dam Authority		1	D001651	0.572	0.026	0.000	0.267	0.024	0.086	0.055	0.000	0.572	0.051	0.181	0.039	0.000	0.424	0.036	0.128
96	GA	Scherer		4	D062574	0.550	0.006	0.024	0.550	0.028	0.098	0.002	0.025	0.246	0.026	0.091	0.003	0.027	0.337	0.030	0.102
97	GA	Scherer		1	D062571	0.544	0.004	0.024	0.544	0.027	0.095	0.002	0.026	0.249	0.026	0.092	0.002	0.028	0.338	0.031	0.103
98	NJ	B L England	2378	2,3	x12	0.538	0.013	0.014	0.302	0.026	0.092	0.019	0.030	0.538	0.047	0.165	0.016	0.017	0.362	0.032	0.110
99	IL	Kincaid Generating Station		1, 2	D00876C02	0.489	0.010	0.008	0.214	0.017	0.060	0.025	0.017	0.489	0.039	0.140	0.017	0.009	0.287	0.025	0.087
100	PA	Martins Creek	3148	3,4	x21	0.465	0.001	0.011	0.206	0.011	0.039	0.001	0.024	0.285	0.023	0.084	0.001	0.041	0.465	0.042	0.141
101	NH	Newington	8002	1	D080021	0.425	0.010	0.004	0.159	0.013	0.046	0.011	0.002	0.169	0.012	0.043	0.025	0.014	0.425	0.037	0.129
102	GA	Scherer		2	D062572	0.415	0.002	0.019	0.415	0.020	0.072	0.001	0.020	0.188	0.020	0.070	0.001	0.022	0.256	0.023	0.078
103	MA	Brayton Point	1619	4	x07	0.396	0.015	0.005	0.218	0.019	0.066	0.027	0.005	0.352	0.030	0.106	0.027	0.009	0.396	0.034	0.120
104	DE	Indian River	594	4	D005944	0.368	0.010	0.002	0.140	0.012	0.041	0.014	0.003	0.182	0.015	0.054	0.032	0.002	0.368	0.031	0.112
105	IN	R M Schahfer Generating Station		14	D0608514	0.349	0.004	0.017	0.349	0.020	0.071	0.003	0.025	0.336	0.027	0.097	0.003	0.021	0.262	0.024	0.080
106	VA	Bremo Power Station		4	D037964	0.341	0.000	0.027	0.219	0.025	0.091	0.000	0.035	0.341	0.033	0.119	0.000	0.017	0.186	0.017	0.056
107	VA	Chesterfield Power Station	3797	4	D037974	0.333	0.018	0.005	0.275	0.022	0.078	0.019	0.010	0.333	0.027	0.098	0.012	0.011	0.255	0.022	0.077
108	MN	Sherburne County		1, 2	D06090CS1	0.316	0.005	0.025	0.316	0.028	0.101	0.004	0.020	0.259	0.022	0.079	0.002	0.012	0.158	0.014	0.048
109	TN	Kingston	3407	6,7,8,9	D03407C69	0.313	0.022	0.005	0.313	0.025	0.090	0.021	0.006	0.306	0.025	0.090	0.015	0.005	0.217	0.019	0.066
110	TN	Kingston	3407	1,2,3,4,5	D03407C15	0.312	0.021	0.005	0.312	0.025	0.089	0.021	0.006	0.305	0.025	0.089	0.015	0.005	0.216	0.019	0.066
111	IN	R M Schahfer Generating Station		15	D0608515	0.304	0.003	0.016	0.273	0.017	0.062	0.003	0.022	0.304	0.024	0.084	0.002	0.021	0.259	0.023	0.079
112	SC	Wateree	3297	WAT1	D03297WT1	0.285	0.004	0.005	0.285	0.008	0.027	0.003	0.014	0.278	0.017	0.059	0.002	0.020	0.250	0.023	0.076
113	SC	Wateree	3297	WAT2	D03297WT2	0.283	0.004	0.004	0.283	0.007	0.024	0.003	0.013	0.253	0.015	0.052	0.002	0.017	0.213	0.019	0.065
114	NH	Merrimack	2364	2	D023642	0.282	0.004	0.004	0.087	0.007	0.025	0.004	0.003	0.101	0.007	0.025	0.012	0.014	0.282	0.025	0.086
115	MA	Canal Station	1599	1	D015991	0.279	0.015	0.002	0.186	0.016	0.056	0.024	0.001	0.279	0.023	0.083	0.019	0.003	0.238	0.021	0.072
116	MI	Dan E Karn	1702	3,4 (1,2)	D01702C09	0.244	0.015	0.005	0.215	0.019	0.066	0.013	0.003	0.177	0.016	0.056	0.016	0.007	0.244	0.021	0.074
117	MA	Canal Station	1599	2	D015992	0.238	0.012	0.003	0.175	0.015	0.052	0.015	0.002	0.185	0.015	0.054	0.015	0.006	0.238	0.021	0.072
118	CT	Bridgeport Harbor Station	568	BHB3		0.234	0.012	0.009	0.233	0.019	0.069	0.013	0.006	0.204	0.018	0.063	0.014	0.008	0.234	0.020	0.071
119	WI	Columbia		1	D080231	0.189	0.006	0.012	0.189	0.017	0.061	0.005	0.013	0.161	0.017	0.061	0.003	0.005	0.086	0.008	0.026
120	WI	Columbia		2	D080232	0.179	0.006	0.010	0.179	0.015	0.054	0.005	0.010	0.162	0.014	0.051	0.003	0.005	0.093	0.008	0.028

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121	GA	Yates		Y7BR	D00728Y7R	0.139	0.000	0.012	0.139	0.012	0.042	0.000	0.009	0.095	0.009	0.031	0.000	0.012	0.131	0.012	0.040
122	NJ	Hudson Generating Station	2403	2	D024032	0.131	0.006	0.003	0.100	0.008	0.030	0.005	0.006	0.123	0.011	0.038	0.008	0.004	0.131	0.011	0.040
123	MA	Brayton Point	1619	2	D016192	0.111	0.003	0.005	0.064	0.007	0.025	0.004	0.001	0.069	0.005	0.016	0.005	0.005	0.111	0.010	0.034
124	NH	Merrimack	2364	1	D023641	0.106	0.001	0.002	0.033	0.003	0.009	0.002	0.001	0.038	0.003	0.009	0.004	0.006	0.106	0.009	0.032
125	NH	Schiller	2367	4		0.088	0.003	0.001	0.037	0.003	0.011	0.004	0.000	0.047	0.004	0.014	0.006	0.002	0.088	0.008	0.027
126	NH	Schiller	2367	6		0.086	0.003	0.001	0.036	0.003	0.011	0.004	0.000	0.045	0.004	0.014	0.006	0.002	0.086	0.007	0.026
127	MA	Brayton Point	1619	1	D016191	0.074	0.003	0.001	0.042	0.004	0.014	0.004	0.000	0.047	0.004	0.013	0.005	0.001	0.074	0.006	0.023
128	MA	Brayton Point	1619	3	D016193	0.066	0.002	0.002	0.040	0.004	0.013	0.004	0.001	0.065	0.004	0.014	0.003	0.003	0.066	0.006	0.020
129	KS	La Cygne	1241	1		0.052	0.003	0.000	0.040	0.003	0.011	0.004	0.000	0.052	0.004	0.015	0.003	0.000	0.033	0.003	0.010
130	KS	La Cygne		2	D012412	0.017	0.001	0.000	0.010	0.001	0.003	0.001	0.000	0.017	0.001	0.005	0.001	0.000	0.010	0.001	0.003

F.19 2011 EGU Ranking Visibility Impairing Sources to Otter Creek

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
1	OH	Kyger Creek	2876	1,2,3,4,5	D02876C01	76.552	5.180	0.546	76.552	4.867	14.132	4.533	0.821	70.260	4.545	13.490	3.154	0.916	51.682	3.529	11.311
2	OH	Muskingum River	2872	1,2,3,4	D02872C04	34.235	2.218	0.535	34.235	2.471	8.715	1.330	0.287	19.689	1.495	5.876	1.557	0.404	24.018	1.796	6.808
3	OH	Walter C Beckford Generating Station		6	D028306	14.957	1.089	0.094	14.318	1.109	4.584	1.131	0.103	14.957	1.155	4.747	0.601	0.108	8.482	0.672	2.960
4	PA	Homer City	3122	2	D031222	13.998	1.056	0.101	13.998	1.085	4.501	0.949	0.137	13.106	1.020	4.268	0.624	0.074	8.352	0.662	2.921
5	PA	Homer City	3122	1	D031221	13.762	1.055	0.083	13.762	1.068	4.440	0.948	0.112	12.789	0.996	4.183	0.623	0.061	8.188	0.649	2.871
6	PA	Cheswick	8226	1	D082261	13.489	0.903	0.216	13.489	1.048	4.369	0.770	0.235	12.081	0.943	3.992	0.531	0.236	9.192	0.726	3.172
7	KY	Big Sandy	1353	BSU1,BSU2	D01353C02	12.741	0.870	0.151	12.304	0.960	4.053	0.926	0.131	12.741	0.992	4.170	0.713	0.085	9.563	0.754	3.281
8	MI	Monroe	1733	1,2	D01733C12	11.990	0.555	0.219	9.269	0.732	3.195	0.632	0.365	11.990	0.937	3.967	0.561	0.386	11.382	0.891	3.800
9	IN	Wabash River Gen Station	1010	2,3,4,5,6	D01010C05	11.515	0.716	0.092	9.694	0.764	3.320	0.862	0.095	11.515	0.901	3.837	0.698	0.074	9.247	0.730	3.189
10	OH	Avon Lake Power Plant	2836	12	D0283612	11.338	0.609	0.335	11.338	0.888	3.788	0.525	0.189	8.541	0.676	2.978	0.690	0.250	11.295	0.885	3.776
11	WV	Harrison Power Station		1 (25%), 2 (2(	D03944C01	10.608	0.322	0.557	10.608	0.833	3.583	0.233	0.544	9.398	0.741	3.233	0.333	0.531	10.422	0.819	3.530
12	OH	Muskingum River	2872	5	D028725	9.458	0.716	0.072	9.458	0.746	3.251	0.419	0.038	5.438	0.436	1.996	0.545	0.060	7.223	0.575	2.572
13	VA	Chesterfield Power Station	3797	5	D037975	9.427	0.614	0.173	9.427	0.744	3.242	0.650	0.074	8.664	0.685	3.015	0.420	0.074	5.888	0.471	2.144
14	IN	Rockport	6166	MB1,MB2	D06166C02	9.414	0.523	0.181	8.418	0.667	2.941	0.587	0.199	9.414	0.743	3.238	0.463	0.196	7.883	0.626	2.778
15	OH	W H Zimmer Generating Station	6019	1	D060191	8.987	0.360	0.258	7.394	0.588	2.626	0.466	0.284	8.987	0.710	3.111	0.206	0.327	6.398	0.511	2.310
16	OH	Eastlake		5	D028375	8.981	0.624	0.127	8.981	0.710	3.110	0.388	0.178	6.753	0.538	2.424	0.482	0.144	7.481	0.595	2.653
17	WV	Kammer	3947	1,2,3	D03947C03	8.765	0.393	0.134	6.283	0.502	2.273	0.443	0.120	6.723	0.536	2.414	0.589	0.143	8.765	0.693	3.045
18	OH	Conesville	2840	5,6	D02840C06	8.370	0.105	0.168	3.267	0.264	1.246	0.096	0.293	4.688	0.377	1.743	0.111	0.578	8.370	0.663	2.926
19	WV	Albright Power Station	3942	3	D039423	8.050	0.447	0.144	7.059	0.562	2.521	0.517	0.156	8.050	0.638	2.829	0.476	0.166	7.679	0.610	2.715
20	PA	Keystone	3136	1	D031361	7.934	0.480	0.183	7.934	0.629	2.793	0.376	0.276	7.807	0.620	2.754	0.428	0.206	7.583	0.602	2.685
21	IN	Tanners Creek	988	U4	D00988U4	7.910	0.564	0.098	7.910	0.628	2.786	0.370	0.065	5.178	0.415	1.909	0.251	0.060	3.696	0.298	1.399
22	PA	Keystone	3136	2	D031362	7.895	0.478	0.182	7.895	0.626	2.781	0.375	0.274	7.764	0.616	2.741	0.427	0.205	7.546	0.600	2.673
23	WV	Fort Martin Power Station	3943	1	D039431	7.787	0.102	0.540	7.787	0.618	2.748										
24	OH	Cardinal	2828	3	D028283	7.355	0.462	0.058	6.202	0.495	2.246	0.318	0.064	4.535	0.365	1.690	0.527	0.089	7.355	0.585	2.614
25	IN	Clifty Creek	983	4,5,6	D00983C02	7.263	0.446	0.101	6.525	0.521	2.351	0.507	0.101	7.263	0.578	2.585	0.341	0.142	5.761	0.461	2.103
26	WV	Kanawha River	3936	1,2	D03936C02	7.256	0.330	0.251	6.948	0.553	2.486	0.294	0.152	5.314	0.426	1.954	0.522	0.086	7.256	0.577	2.583
27	WV	Fort Martin Power Station	3943	2	D039432	6.857	0.093	0.473	6.857	0.546	2.457										
28	MD	Morgantown	1573	1	D015731	6.348	0.519	0.014	6.348	0.507	2.294	0.169	0.015	2.176	0.177	0.847	0.184	0.018	2.386	0.194	0.925
29	MD	Chalk Point	1571	1,2	D01571CE2	6.243	0.494	0.030	6.243	0.499	2.260	0.251	0.074	3.869	0.312	1.460	0.276	0.068	4.084	0.329	1.535
30	OH	Walter C Beckford Generating Station		5 (50%)	D02830M51	5.966	0.440	0.040	5.705	0.457	2.084	0.457	0.044	5.966	0.477	2.170	0.243	0.046	3.427	0.277	1.303
31	WV	Pleasants Power Station	6004	1	D060041	5.724	0.181	0.296	5.724	0.458	2.090	0.163	0.175	4.030	0.325	1.516	0.138	0.243	4.571	0.367	1.703
32	IL	Kincaid Generating Station		1, 2	D00876C02	5.676	0.070	0.100	2.018	0.164	0.788	0.238	0.237	5.676	0.454	2.074	0.086	0.160	2.949	0.239	1.131
33	GA	Harllee Branch	709	3&4	D00709C02	5.654	0.384	0.091	5.654	0.453	2.067	0.222	0.043	3.140	0.254	1.200	0.140	0.027	1.975	0.160	0.771
34	OH	Gen J M Gavin	8102	2	D081022	5.519	0.365	0.099	5.519	0.442	2.023	0.282	0.093	4.459	0.359	1.665	0.279	0.157	5.200	0.417	1.916
35	OH	Gen J M Gavin	8102	1	D081021	5.434	0.360	0.096	5.434	0.435	1.994	0.278	0.091	4.388	0.353	1.640	0.275	0.153	5.111	0.410	1.886
36	IN	Clifty Creek	983	1,2,3	D00983C01	5.311	0.342	0.057	4.743	0.381	1.762	0.389	0.057	5.311	0.426	1.953	0.262	0.079	4.049	0.326	1.522
37	PA	Shawville	3131	3,4	D03131CS1	5.253	0.190	0.028	2.580	0.209	0.997	0.342	0.099	5.253	0.421	1.934	0.289	0.039	3.885	0.313	1.465
38	TN	Johnsonville	3406	1 thru 10	D03406C10	5.198	0.319	0.077	4.709	0.378	1.750	0.385	0.052	5.198	0.417	1.915	0.237	0.048	3.383	0.273	1.287
39	PA	Hatfield's Ferry Power Station	3179	3	x20	5.111	0.033	0.389	5.111	0.410	1.886										
40	MI	J H Campbell		A,B,1,2	D01710C09	4.959	0.059	0.030	1.058	0.086	0.421	0.203	0.103	3.639	0.294	1.379	0.304	0.113	4.959	0.398	1.835

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
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41	MI	J H Campbell		3 (50%)	D01710M3A	4.824	0.067	0.037	**1.240**	0.101	0.491	0.215	0.100	**3.740**	0.302	**1.414**	0.281	0.124	**4.824**	0.387	**1.789**
42	AL	E C Gaston	26	1, 2	D00026CAN	4.799	0.310	0.034	**4.080**	0.329	**1.533**	0.366	0.038	**4.799**	0.386	**1.781**	0.210	0.035	**2.902**	0.235	**1.114**
43	MI	St. Clair	1743	7	D017437	4.767	0.372	0.029	**4.767**	0.383	**1.770**	0.319	0.050	**4.392**	0.353	**1.641**	0.254	0.033	**3.406**	0.275	**1.295**
44	AL	E C Gaston	26	3, 4	D00026CBN	4.697	0.300	0.036	**3.987**	0.321	**1.501**	0.354	0.041	**4.697**	0.377	**1.746**	0.190	0.033	**2.633**	0.213	**1.016**
45	WV	Pleasants Power Station	6004	2	D060042	4.422	0.161	0.208	**4.422**	0.356	**1.652**	0.145	0.123	**3.195**	0.258	**1.220**	0.123	0.172	**3.521**	0.284	**1.337**
46	PA	Brunner Island	3140	3	D031403	4.399	0.149	0.218	**4.399**	0.354	**1.644**	0.213	0.096	**3.675**	0.296	**1.391**	0.079	0.060	**1.650**	0.134	0.649
47	MI	St. Clair	1743	1,2,3,4,...6	x09	4.375	0.274	0.094	**4.375**	0.352	**1.636**	0.223	0.141	**4.338**	0.349	**1.623**	0.189	0.094	**3.364**	0.272	**1.281**
48	MI	Trenton Channel	1745	9A	D017459A	4.315	0.233	0.085	**3.779**	0.305	**1.428**	0.308	0.056	**4.315**	0.347	**1.615**	0.182	0.034	**2.550**	0.207	0.986
49	WV	Phil Sporn	3938	11,21,31,41	D03938C04	3.899	0.225	0.103	**3.899**	0.314	**1.470**										
50	IL	Powerton		51,52,61,62	D00879C06	3.821	0.112	0.054	**1.978**	0.161	0.773	0.237	0.085	**3.821**	0.308	**1.443**	0.197	0.035	**2.741**	0.222	**1.055**
51	PA	Brunner Island	3140	1,2	D03140C12	3.783	0.132	0.185	**3.783**	0.305	**1.429**	0.102	0.112	**2.557**	0.207	0.988	0.062	0.046	**1.277**	0.104	0.506
52	KY	Mill Creek	1364	1,2,3	x05	3.774	0.154	0.058	**2.515**	0.204	0.972	0.224	0.093	**3.774**	0.304	**1.426**	0.125	0.112	**2.814**	0.228	**1.082**
53	PA	Homer City		3	D031223	3.632	0.110	0.113	**2.652**	0.215	**1.023**	0.106	0.197	**3.632**	0.293	**1.376**	0.069	0.091	**1.898**	0.154	0.743
54	KY	John S. Cooper	1384	1,2	D01384CS1	3.525	0.246	0.051	**3.525**	0.285	**1.338**	0.215	0.027	**2.867**	0.232	**1.101**	0.106	0.030	**1.613**	0.131	0.635
55	MI	Belle River		2	D060342	3.503	0.227	0.068	**3.503**	0.283	**1.330**	0.165	0.088	**3.013**	0.244	**1.154**	0.154	0.065	**2.592**	0.210	**1.001**
56	PA	Montour	3149	1	D031491	3.468	0.090	0.200	**3.468**	0.280	**1.318**	0.091	0.029	**1.421**	0.116	0.561	0.117	0.115	**2.769**	0.224	**1.066**
57	MI	Belle River		1	D060341	3.452	0.223	0.068	**3.452**	0.279	**1.312**	0.162	0.088	**2.974**	0.241	**1.140**	0.151	0.065	**2.557**	0.207	0.988
58	IN	Gibson	6113	1,2,3	D06113C03	3.407	0.085	0.177	**3.140**	0.254	**1.200**	0.053	0.231	**3.407**	0.275	**1.296**	0.086	0.140	**2.705**	0.219	**1.043**
59	GA	Yates		Y6BR	D00728Y6R	3.261	0.271	0.005	**3.261**	0.264	**1.244**	0.140	0.018	**1.861**	0.151	0.729	0.194	0.011	**2.422**	0.196	0.938
60	WV	Mitchell (WV)	3948	1,2	D03948C02	3.258	0.126	0.069	**2.319**	0.188	0.900	0.118	0.070	**2.225**	0.181	0.865	0.194	0.081	**3.258**	0.263	**1.243**
61	PA	Montour	3149	2	D031492	3.251	0.090	0.181	**3.251**	0.263	**1.240**	0.092	0.026	**1.397**	0.114	0.552	0.118	0.104	**2.652**	0.215	**1.023**
62	WV	Longview Power	56671	1		3.195	0.133	0.135	**3.195**	0.258	**1.220**										
63	WV	John E Amos	3935	1,2	D03935C02	3.157	0.204	0.062	**3.157**	0.255	**1.207**	0.090	0.109	**2.370**	0.192	0.919	0.170	0.060	**2.736**	0.222	**1.054**
64	IL	Baldwin Energy Complex		1,2	D008892	3.129	0.154	0.016	**2.001**	0.163	0.781	0.238	0.026	**3.129**	0.253	**1.196**	0.129	0.012	**1.668**	0.136	0.655
65	VA	Bremo Power Station		4	D037964	3.024	0.141	0.113	**3.024**	0.245	**1.158**	0.105	0.045	**1.786**	0.145	0.700	0.063	0.043	**1.260**	0.103	0.499
66	PA	Armstrong Power Station		1	D031781	2.924	0.223	0.023	**2.924**	0.237	**1.122**	0.128	0.031	**1.877**	0.153	0.734					
67	OH	Killen Station	6031	2	D060312	2.922	0.103	0.087	**2.262**	0.184	0.879	0.169	0.077	**2.922**	0.236	**1.121**	0.130	0.115	**2.921**	0.236	**1.121**
68	PA	Armstrong Power Station		2	D031782	2.890	0.219	0.025	**2.890**	0.234	**1.110**	0.125	0.033	**1.870**	0.152	0.732					
69	TN	John Sevier	3405	1,2	D03405C12	2.887	0.203	0.022	**2.661**	0.216	**1.026**	0.102	0.041	**1.689**	0.137	0.664	0.210	0.034	**2.887**	0.234	**1.109**
70	KY	Paradise	1378	3	D013783	2.886	0.056	0.150	**2.478**	0.201	0.959	0.099	0.142	**2.886**	0.234	**1.108**	0.067	0.151	**2.603**	0.211	**1.005**
71	IN	IPL - Petersburg Generating Station		4	D009944	2.879	0.163	0.036	**2.359**	0.191	0.915	0.148	0.052	**2.375**	0.193	0.921	0.202	0.041	**2.879**	0.233	**1.106**
72	TN	Kingston	3407	6,7,8,9	D03407C69	2.851	0.233	0.008	**2.851**	0.231	**1.096**	0.161	0.019	**2.119**	0.172	0.825	0.188	0.018	**2.440**	0.198	0.945
73	NY	Somerset Operating Company (Kintigh)		1	D060821	2.851	0.047	0.029	0.904	0.074	0.360	0.148	0.091	**2.851**	0.231	**1.096**	0.070	0.037	**1.262**	0.103	0.500
74	TN	John Sevier	3405	3,4	D03405C34	2.826	0.198	0.022	**2.601**	0.211	**1.004**	0.099	0.041	**1.662**	0.135	0.653	0.204	0.034	**2.826**	0.229	**1.087**
75	IN	Tanners Creek	988	U1,U2,U3	D00988C03	2.790	0.174	0.061	**2.790**	0.226	**1.074**	0.119	0.043	**1.925**	0.156	0.753	0.081	0.040	**1.426**	0.116	0.563
76	VA	Yorktown Power Station	3809	1,2	D03809CS0	2.752	0.165	0.067	**2.752**	0.223	**1.059**	0.152	0.041	**2.285**	0.185	0.887	0.117	0.027	**1.702**	0.138	0.669
77	MI	St. Clair	1743	6	D017436	2.644	0.203	0.018	**2.610**	0.211	**1.008**	0.193	0.030	**2.644**	0.214	**1.020**	0.151	0.025	**2.076**	0.169	0.810
78	TN	Kingston	3407	1,2,3,4,5	D03407C15	2.644	0.215	0.009	**2.644**	0.214	**1.020**	0.148	0.020	**1.992**	0.162	0.778	0.174	0.020	**2.286**	0.185	0.888
79	VA	Chesterfield Power Station	3797	3,7,8A	x28	2.634	0.167	0.037	**2.412**	0.196	0.934	0.196	0.027	**2.634**	0.213	**1.016**					
80	IN	IPL - Harding Street Station (EW Stout)		50	D0099050	2.560	0.197	0.020	**2.560**	0.207	0.989	0.120	0.014	**1.584**	0.129	0.623	0.139	0.009	**1.749**	0.142	0.686

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81	GA	Harllee Branch	709	1,2	D00709C01	2.489	0.182	0.028	**2.489**	0.202	0.963	0.115	0.023	**1.626**	0.132	0.640	0.065	0.016	0.956	0.078	0.381
82	TN	Gallatin	3403	3,4	D03403C34	2.440	0.179	0.027	**2.440**	0.198	0.945										
83	OH	J M Stuart	2850	4	D028404	2.436	0.102	0.057	**1.884**	0.153	0.737	0.165	0.040	**2.436**	0.198	0.943	0.099	0.064	**1.937**	0.157	0.757
84	KY	Ghent	1356	3,4 … (2,3)	D01356C02	2.436	0.115	0.071	**2.210**	0.179	0.859	0.129	0.076	**2.436**	0.198	0.943	0.070	0.097	**1.995**	0.162	0.779
85	GA	Yates		Y7BR	D00728Y7R	2.413	0.200	0.004	**2.413**	0.196	0.935	0.104	0.014	**1.388**	0.113	0.548	0.144	0.008	**1.798**	0.146	0.705
86	WV	Mount Storm Power Station	3954	1,2	D03954CS0	2.409	0.120	0.082	**2.409**	0.195	0.933										
87	IN	IPL - Harding Street Station (EW Stout)		60	D0099060	2.316	0.179	0.017	**2.316**	0.188	0.899	0.109	0.013	**1.432**	0.117	0.565	0.126	0.008	**1.584**	0.129	0.624
88	NY	Cayuga Operating Company, LLC		1 (33%), 2 (33	D02535C01	2.305	0.053	0.009	0.741	0.061	0.297	0.094	0.024	**1.394**	0.114	0.551	0.167	0.027	**2.305**	0.187	0.895
89	NC	Mayo	6250	1A,1B	D06250C05	2.274	0.121	0.039	**1.900**	0.154	0.743	0.161	0.031	**2.274**	0.185	0.883	0.113	0.026	**1.654**	0.135	0.650
90	KY	Paradise	1378	2	D013782	2.269	0.093	0.029	**1.453**	0.118	0.573	0.166	0.026	**2.269**	0.184	0.881	0.106	0.028	**1.583**	0.129	0.623
91	GA	Jack McDonough		MB1, MB2	D00710C01	2.261	0.176	0.015	**2.261**	0.183	0.878	0.127	0.015	**1.680**	0.137	0.660	0.133	0.019	**1.798**	0.146	0.705
92	MI	Trenton Channel	1745	16,17,18,19	x10	2.245	0.093	0.093	**2.216**	0.180	0.862	0.126	0.063	**2.245**	0.182	0.873	0.060	0.037	**1.157**	0.094	0.459
93	IN	IPL - Harding Street Station (EW Stout)	990	70	D0099070	2.234	0.132	0.056	**2.234**	0.181	0.869										
94	OK	Northeastern		3313, 3314	D02963C10	2.226	0.063	0.045	**1.273**	0.104	0.504	0.107	0.080	**2.226**	0.181	0.865	0.038	0.047	**1.012**	0.083	0.403
95	TN	Gallatin	3403	1,2	D03403C12	2.160	0.159	0.024	**2.160**	0.175	0.841										
96	VA	Clinch River	3775	1,2	D03775C02	2.146	0.151	0.030	**2.146**	0.174	0.836										
97	IN	IPL - Petersburg Generating Station		3	D009943	2.146	0.113	0.036	**1.767**	0.144	0.693	0.102	0.052	**1.833**	0.149	0.718	0.140	0.041	**2.146**	0.174	0.836
98	KY	Mill Creek	1364	4	D013644	2.140	0.106	0.018	**1.464**	0.119	0.578	0.153	0.028	**2.140**	0.174	0.834	0.086	0.033	**1.410**	0.115	0.557
99	IN	Whitewater Valley		1, 2	D01040C12	2.136	0.166	0.015	**2.136**	0.173	0.832	0.095	0.018	**1.337**	0.109	0.529	0.132	0.010	**1.677**	0.136	0.659
100	MI	River Rouge		3	D017403	2.099	0.106	0.071	**2.099**	0.170	0.818										
101	IN	Gibson	6113	5	D061135	2.071	0.129	0.046	**2.071**	0.168	0.808										
102	MD	Brandon Shores	602	2	D006022	2.023	0.028	0.136	**1.967**	0.160	0.768	0.024	0.144	**2.023**	0.164	0.790	0.042	0.075	**1.390**	0.113	0.549
103	KY	Paradise	1378	1	D01720C09	2.009	0.082	0.028	**1.301**	0.106	0.515	0.145	0.025	**2.009**	0.163	0.785	0.093	0.027	**1.413**	0.115	0.558
104	IN	Merom		2SG1	D062132G1	1.985	0.155	0.013	**1.985**	0.161	0.775										
105	WV	John E Amos	3935	3	D039353	1.955	0.098	0.066	**1.955**	0.159	0.764										
106	MD	Brandon Shores	602	1	D006021	1.923	0.029	0.128	**1.877**	0.153	0.735	0.025	0.135	**1.923**	0.156	0.752	0.043	0.070	**1.349**	0.110	0.533
107	GA	Scherer		4	D062574	1.911	0.147	0.015	**1.911**	0.155	0.747	0.094	0.012	**1.252**	0.102	0.496	0.047	0.009	0.660	0.054	0.264
108	PA	Portland		3 (2)	d031132	1.909	0.122	0.013	**1.604**	0.131	0.631	0.144	0.018	**1.909**	0.155	0.747	0.139	0.011	**1.765**	0.144	0.692
109	IN	Gibson	6113	4	D061135	1.907	0.044	0.116	**1.907**	0.155	0.746										
110	OH	Eastlake	2837	1	D028371	1.904	0.137	0.024	**1.904**	0.155	0.745										
111	IN	R M Schahfer Generating Station		14	D0608514	1.899	0.134	0.026	**1.899**	0.154	0.743	0.105	0.025	**1.537**	0.125	0.605	0.108	0.032	**1.658**	0.135	0.652
112	GA	Scherer		1	D062571	1.876	0.142	0.017	**1.876**	0.152	0.734	0.091	0.014	**1.236**	0.101	0.490	0.045	0.010	0.656	0.054	0.263
113	GA	Scherer		2	D062572	1.859	0.142	0.015	**1.859**	0.151	0.728	0.091	0.013	**1.222**	0.100	0.484	0.045	0.009	0.646	0.053	0.259
114	OH	Eastlake	2837	2	D028372	1.820	0.132	0.022	**1.820**	0.148	0.713										
115	OH	Cardinal	2828	1	D028281	1.819	0.120	0.034	**1.819**	0.148	0.713										
116	TX	Big Brown	3497	2		1.816	0.146	0.007	**1.816**	0.148	0.712	0.070	0.002	0.852	0.069	0.340	0.131	0.005	**1.607**	0.131	0.632
117	AL	Colbert	47	1, 2, 3, 4	D00047C14	1.804	0.118	0.035	**1.804**	0.147	0.707										
118	IN	Michigan City Generating Station		12	D0099712	1.800	0.105	0.017	**1.440**	0.117	0.569	0.129	0.023	**1.800**	0.146	0.706	0.118	0.033	**1.791**	0.146	0.702
119	IA	George Neal South		4	D073434	1.798	0.088	0.035	**1.461**	0.119	0.576	0.122	0.030	**1.798**	0.146	0.705	0.047	0.019	0.780	0.064	0.312
120	MD	C P Crane	1552	2	D015522	1.792	0.093	0.036	**1.521**	0.124	0.600	0.075	0.056	**1.549**	0.126	0.610	0.106	0.045	**1.792**	0.146	0.703

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121	OH	W H Sammis	2866	7	D028667	1.765	0.036	0.112	**1.765**	0.143	0.692										
122	IN	R M Schahfer Generating Station		15	D0608515	1.747	0.110	0.037	**1.747**	0.142	0.686	0.085	0.034	**1.402**	0.114	0.554	0.084	0.042	**1.493**	0.122	0.589
123	MO	New Madrid Power Plant		1	D021671	1.742	0.032	0.114	**1.742**	0.142	0.684										
124	OH	W H Sammis	2866	1,2	D02866C01	1.735	0.024	0.120	**1.735**	0.141	0.681										
125	TX	Big Brown	3497	1		1.733	0.139	0.007	**1.733**	0.141	0.680	0.067	0.002	0.812	0.066	0.324	0.125	0.005	**1.533**	0.125	0.604
126	OH	W H Sammis	2866	3,4	D02866C02	1.719	0.023	0.120	**1.719**	0.140	0.675										
127	MD	Herbert A Wagner	1554	3	D015543	1.715	0.086	0.041	**1.502**	0.122	0.592	0.078	0.033	**1.320**	0.107	0.522	0.126	0.019	**1.715**	0.139	0.673
128	MO	Labadie		4	D021034	1.691	0.049	0.009	0.687	0.056	0.275	0.129	0.014	**1.691**	0.138	0.664	0.064	0.009	0.853	0.070	0.341
129	MD	C P Crane	1552	1	D015521	1.614	0.084	0.032	**1.371**	0.112	0.542	0.068	0.049	**1.389**	0.113	0.549	0.096	0.040	**1.614**	0.131	0.635
130	IN	Alcoa Allowance Management Inc	6705	1,2	D06705C02	1.593	0.024	0.108	**1.593**	0.130	0.627										
131	VA	Chesapeake Energy Center		4	D038034	1.582	0.106	0.027	**1.582**	0.129	0.623	0.077	0.017	**1.109**	0.090	0.441	0.081	0.011	**1.084**	0.088	0.431
132	OH	Eastlake	2837	3	D028373	1.582	0.114	0.020	**1.582**	0.129	0.623										
133	NH	Merrimack	2364	2	D023642	1.578	0.049	0.002	0.598	0.049	0.240	0.061	0.002	0.752	0.061	0.301	0.122	0.012	**1.578**	0.128	0.621
134	IN	IPL - Petersburg Generating Station		1 (50%)	D00994M1B	1.566	0.120	0.013	**1.566**	0.127	0.617										
135	OH	W H Sammis	2866	6	D02866M6A	1.555	0.037	0.093	**1.555**	0.127	0.613										
136	NJ	B L England	2378	1		1.529	0.055	0.007	0.727	0.059	0.291	0.090	0.039	**1.529**	0.124	0.602	0.060	0.009	0.810	0.066	0.324
137	OH	Miami Fort Generating Station	2832	7	D028327	1.518	0.066	0.061	**1.518**	0.124	0.598										
138	KY	Shawnee		1,2,3,4,5	D01379C15	1.513	0.055	0.072	**1.513**	0.123	0.596										
139	OH	Eastlake	2837	4,6, (5)	x17	1.461	0.086	0.038	**1.461**	0.119	0.577										
140	OH	Cardinal	2828	2	D028282	1.458	0.087	0.036	**1.458**	0.119	0.575										
141	IA	Ottumwa		1	D062541	1.434	0.046	0.016	0.736	0.060	0.295	0.092	0.029	**1.434**	0.117	0.566	0.055	0.016	0.841	0.069	0.336
142	NY	Oswego Harbor Power	2594	6	x15	1.434	0.032	0.010	0.502	0.041	0.202	0.080	0.041	**1.434**	0.117	0.566	0.044	0.019	0.741	0.060	0.297
143	PA	Martins Creek	3148	3,4	x21	1.424	0.029	0.090	**1.424**	0.116	0.562	0.024	0.071	**1.146**	0.093	0.455	0.032	0.038	0.841	0.069	0.336
144	VA	Yorktown Power Station	3809	3	D038093	1.422	0.058	0.052	**1.310**	0.107	0.519	0.097	0.023	**1.422**	0.116	0.562	0.054	0.012	0.775	0.063	0.310
145	OH	Miami Fort Power Station		8	D028328	1.416	0.058	0.061	**1.416**	0.115	0.559										
146	WV	Mountaineer (1301)	6264	1	D062641	1.415	0.066	0.053	**1.415**	0.115	0.559										
147	MN	Sherburne County		1, 2	D06090CS1	1.412	0.059	0.043	**1.212**	0.099	0.481	0.073	0.046	**1.412**	0.115	0.558	0.026	0.019	0.531	0.043	0.213
148	PA	Sunbury		4	D031524	1.411	0.092	0.009	**1.194**	0.097	0.474	0.108	0.012	**1.411**	0.115	0.557	0.081	0.022	**1.217**	0.099	0.483
149	IN	IPL - Eagle Valley Generating Station		5, 6	D00991C56	1.410	0.103	0.016	**1.410**	0.115	0.557										
150	MI	Dan E Karn	1702	3,4 (1,2)	D01702C09	1.404	0.083	0.026	**1.280**	0.104	0.507	0.084	0.034	**1.404**	0.114	0.554	0.074	0.031	**1.250**	0.102	0.495
151	TX	Martin Lake	6146	1		1.402	0.105	0.014	**1.402**	0.114	0.554	0.050	0.004	0.637	0.052	0.255	0.094	0.009	**1.217**	0.099	0.482
152	VA	Chesterfield Power Station	3797	4	D037974	1.395	0.078	0.039	**1.395**	0.114	0.551	0.089	0.015	**1.226**	0.100	0.486	0.056	0.017	0.861	0.070	0.344
153	MO	Sibley		1, 2, 3	D02094C01	1.377	0.092	0.024	**1.377**	0.112	0.544	0.079	0.016	**1.122**	0.092	0.446	0.057	0.008	0.774	0.063	0.309
154	MI	J C Weadock		7, 8	D01720C09	1.370	0.084	0.019	**1.220**	0.099	0.484	0.089	0.027	**1.370**	0.112	0.541	0.076	0.024	**1.184**	0.096	0.470
155	MO	New Madrid Power Plant		2	D021672	1.368	0.030	0.084	**1.368**	0.111	0.541										
156	SC	Wateree	3297	WAT1	D03297WT1	1.327	0.070	0.005	0.880	0.072	0.351	0.065	0.008	0.869	0.071	0.347	0.105	0.007	**1.327**	0.108	0.525
157	IN	IPL - Petersburg Generating Station		2(50%)	D00994M2B	1.326	0.081	0.031	**1.326**	0.108	0.524										
158	OH	Conesville	2840	4	D028504	1.310	0.077	0.033	**1.310**	0.107	0.519										
159	TX	Martin Lake	6146	2		1.293	0.098	0.012	**1.293**	0.105	0.512	0.047	0.003	0.590	0.048	0.237	0.088	0.008	**1.126**	0.092	0.447
160	MI	Monroe	1733	3,4	D01733C34	1.288	0.041	0.067	**1.288**	0.105	0.510										

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161	IL	Joliet 29		81, 82	D00384C82	1.265	0.083	0.024	**1.265**	0.103	0.501										
162	OH	W H Sammis	2866	5	D028665	1.261	0.015	0.090	**1.261**	0.103	0.500										
163	IL	Newton		2	D060172	1.260	0.092	0.015	**1.260**	0.103	0.499										
164	OK	Grand River Dam Authority		1	D001651	1.245	0.032	0.019	0.607	0.050	0.243	0.072	0.033	**1.245**	0.101	0.493	0.027	0.026	0.626	0.051	0.251
165	VA	Chesapeake Energy Center		3	D038033	1.233	0.076	0.028	**1.233**	0.100	0.488	0.055	0.018	0.857	0.070	0.342	0.057	0.011	0.801	0.065	0.320
166	AL	Greene County	10	1		1.223	0.095	0.009	**1.223**	0.100	0.485										
167	MO	Rush Island		2	D061552	1.205	0.095	0.008	**1.205**	0.098	0.478										
168	TX	Martin Lake	6146	3		1.200	0.090	0.012	**1.200**	0.098	0.476	0.043	0.003	0.545	0.045	0.219	0.080	0.008	**1.042**	0.085	0.414
169	KY	Shawnee		6,7,8,9,10	D01379C60	1.184	0.048	0.051	**1.184**	0.096	0.470										
170	KY	Ghent	1356	1,2 … (1,4)	D01356C01	1.182	0.050	0.049	**1.182**	0.096	0.469										
171	NC	Roxboro	2712	3A,3B	D02712C03	1.174	0.031	0.033	0.758	0.062	0.303	0.049	0.050	**1.174**	0.096	0.466	0.037	0.037	0.885	0.072	0.353
172	MO	Rush Island		1	D061551	1.170	0.090	0.009	**1.170**	0.095	0.464										
173	WI	Nelson Dewey	4054	2		1.168	0.081	0.018	**1.168**	0.095	0.464										
174	PA	Portland		2 (1)	d031131	1.161	0.077	0.005	0.967	0.079	0.385	0.091	0.007	**1.161**	0.095	0.461	0.087	0.005	**1.086**	0.089	0.432
175	NC	Roxboro	2712	4A,4B	D02712C04	1.121	0.034	0.026	0.720	0.059	0.288	0.055	0.039	**1.121**	0.091	0.445	0.042	0.029	0.843	0.069	0.337
176	MD	Morgantown	1573	2	D015732	1.100	0.082	0.011	**1.100**	0.090	0.437										
177	MD	Dickerson	1572	1,2,3	D01572C23	1.093	0.027	0.065	**1.093**	0.089	0.434										
178	SC	Wateree	3297	WAT2	D03297WT2	1.080	0.060	0.004	0.748	0.061	0.299	0.053	0.006	0.699	0.057	0.280	0.086	0.006	**1.080**	0.088	0.429
179	IN	Cayuga	1001	2	D010012	1.073	0.033	0.057	**1.073**	0.087	0.427										
180	PA	Sunbury		3	D031523	1.065	0.079	0.009	**1.044**	0.085	0.415	0.079	0.011	**1.065**	0.087	0.424	0.073	0.014	**1.026**	0.084	0.408
181	AR	Independence		1	D066411	1.059	0.050	0.039	**1.059**	0.086	0.421										
182	SC	Jefferies	3319	4		1.057	0.034	0.001	0.421	0.034	0.170	0.059	0.005	0.758	0.062	0.303	0.087	0.003	**1.057**	0.086	0.420
183	SC	Jefferies	3319	3		1.057	0.035	0.001	0.426	0.035	0.171	0.059	0.005	0.753	0.061	0.301	0.087	0.003	**1.057**	0.086	0.420
184	TX	Monticello	6147	1		1.052	0.082	0.007	**1.052**	0.086	0.418	0.039	0.002	0.485	0.040	0.195	0.073	0.005	0.922	0.075	0.368
185	IN	R Gallagher	1008	1,2	D01008C01	1.041	0.068	0.020	**1.041**	0.085	0.414										
186	NC	L V Sutton		3	D027133	1.035	0.068	0.019	**1.035**	0.084	0.412	0.060	0.012	0.844	0.069	0.337	0.057	0.015	0.848	0.069	0.339
187	KY	E W Brown	1355	2,3	D01355C03	1.030	0.028	0.058	**1.030**	0.084	0.410										
188	NJ	B L England	2378	2,3	x12	1.016	0.017	0.010	0.320	0.026	0.129	0.028	0.057	**1.016**	0.083	0.405	0.018	0.012	0.368	0.030	0.148
189	OH	J M Stuart	2850	3	D028503	1.016	0.038	0.047	**1.016**	0.083	0.404										
190	MD	Herbert A Wagner	1554	1,2,4	x08	1.015	0.047	0.038	**1.015**	0.083	0.404										
191	WI	Columbia		2	D080232	1.015	0.062	0.020	0.973	0.079	0.388	0.059	0.019	0.932	0.076	0.371	0.070	0.016	**1.015**	0.083	0.404
192	AR	Independence		2	D066412	1.012	0.051	0.034	**1.012**	0.083	0.403										
193	AR	White Bluff		1	D060091	1.009	0.052	0.033	**1.009**	0.082	0.402										
194	AR	White Bluff		2	D060092	1.007	0.050	0.034	**1.007**	0.082	0.401										
195	NC	Cape Fear	2708	6		1.002	0.055	0.007	0.722	0.059	0.289	0.052	0.033	**1.002**	0.082	0.399	0.048	0.009	0.671	0.055	0.269
196	NC	H F Lee Steam Electric Plant		3	D027093	0.992	0.050	0.017	0.798	0.065	0.319	0.046	0.011	0.678	0.055	0.271	0.077	0.007	0.992	0.081	0.395
197	TX	Monticello	6147	2		0.985	0.077	0.006	0.985	0.080	0.392										
198	IN	Cayuga	1001	1	D010011	0.977	0.029	0.053	0.977	0.080	0.389										
199	MN	Sherburne County		3	D060903	0.948	0.056	0.024	0.948	0.077	0.378										
200	KS	La Cygne		2	D012412	0.945	0.034	0.022	0.671	0.055	0.269	0.057	0.023	0.945	0.077	0.377	0.043	0.029	0.850	0.069	0.339

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201	TX	Monticello	6147	3		0.945	0.069	0.011	0.945	0.077	0.377										
202	IN	R Gallagher	1008	3,4	D01008C02	0.938	0.060	0.019	0.938	0.077	0.374										
203	KY	East Bend	6018	2	D060182	0.937	0.032	0.047	0.937	0.076	0.374										
204	WI	Columbia		1	D080231	0.935	0.061	0.018	0.935	0.076	0.373	0.058	0.017	0.891	0.073	0.355	0.067	0.011	0.928	0.076	0.370
205	TX	H W Pirkey Power Plant	7902	1		0.910	0.066	0.011	0.910	0.074	0.363										
206	PA	Sunbury		1A, 1B	D03152CS1	0.900	0.065	0.007	0.851	0.069	0.340	0.068	0.009	0.900	0.073	0.359	0.057	0.013	0.823	0.067	0.329
207	TX	Limestone	298	LIM2		0.900	0.059	0.017	0.900	0.073	0.359										
208	SC	H B Robinson		1	D032511	0.898	0.052	0.004	0.662	0.054	0.265	0.063	0.013	0.898	0.073	0.358	0.039	0.017	0.664	0.054	0.266
209	IA	Louisa		101	D06664101	0.896	0.046	0.029	0.896	0.073	0.358										
210	IA	George Neal North		3	D010913	0.891	0.048	0.027	0.891	0.073	0.355										
211	IA	Walter Scott Jr. Energy Center		3	D010823	0.878	0.043	0.031	0.878	0.072	0.350										
212	OH	J M Stuart	2850	1	D028501	0.871	0.037	0.037	0.871	0.071	0.348										
213	WI	South Oak Creek		7, 8	D04041CS4	0.869	0.061	0.013	0.869	0.071	0.347										
214	MA	Brayton Point	1619	3	D016193	0.868	0.071	0.003	0.868	0.071	0.347	0.036	0.004	0.473	0.039	0.190	0.066	0.005	0.838	0.068	0.335
215	AL	E C Gaston	26	5		0.857	0.032	0.040	0.857	0.070	0.342										
216	TX	Limestone	298	LIM1		0.837	0.055	0.016	0.837	0.068	0.334										
217	OH	J M Stuart	2850	2	D028502	0.822	0.021	0.047	0.822	0.067	0.328										
218	MN	Black Dog		3, 4	D01904CS1	0.812	0.021	0.047	0.812	0.066	0.324										
219	SC	Canadys Steam		CAN3	D03280CN3	0.800	0.050	0.001	0.611	0.050	0.245	0.035	0.006	0.484	0.040	0.195	0.061	0.007	0.800	0.065	0.320
220	NH	Merrimack	2364	1	D023641	0.779	0.025	0.001	0.298	0.024	0.120	0.031	0.001	0.373	0.031	0.150	0.061	0.005	0.779	0.064	0.311
221	VA	Chesapeake Energy Center		2	D038032	0.773	0.048	0.017	0.773	0.063	0.309	0.036	0.011	0.555	0.045	0.223	0.037	0.007	0.510	0.042	0.205
222	DE	Indian River	594	4	D005944	0.765	0.021	0.006	0.323	0.026	0.130	0.060	0.005	0.765	0.062	0.306	0.058	0.002	0.714	0.058	0.286
223	WI	Edgewater (4050)	4050	5		0.752	0.053	0.010	0.752	0.061	0.301										
224	KY	H L Spurlock	6041	2	D060412	0.746	0.036	0.027	0.746	0.061	0.298										
225	KY	Green River		5	D013575	0.718	0.051	0.010	0.718	0.059	0.288										
226	NY	Oswego Harbor Power	2594	5	D025945	0.709	0.049	0.012	0.709	0.058	0.284										
227	GA	Yates		Y5BR	D00728Y5R	0.699	0.058	0.002	0.699	0.057	0.280										
228	MO	Labadie		3	D021033	0.694	0.050	0.009	0.694	0.057	0.278										
229	NE	Nebraska City Station		1	D060961	0.674	0.044	0.013	0.674	0.055	0.270										
230	MO	Labadie		1	D021031	0.665	0.048	0.008	0.665	0.054	0.266										
231	KY	Green River		4	D013574	0.662	0.046	0.010	0.662	0.054	0.265										
232	KY	H L Spurlock	6041	1	D060411	0.661	0.041	0.015	0.661	0.054	0.265										
233	TN	Cumberland	3399	1		0.660	0.030	0.026	0.660	0.054	0.264										
234	IL	Marion		4	D009764	0.649	0.035	0.020	0.649	0.053	0.260										
235	VA	Chesapeake Energy Center		1	D038031	0.630	0.035	0.018	0.630	0.051	0.253	0.026	0.012	0.448	0.037	0.180	0.026	0.007	0.397	0.032	0.160
236	KY	D B Wilson		W1	D06823W1	0.630	0.043	0.010	0.630	0.051	0.253										
237	NC	Roxboro	2712	2	D027122	0.604	0.031	0.020	0.604	0.049	0.243										
238	NY	Huntley Power	2549	67,68	D02549C01	0.604	0.040	0.011	0.604	0.049	0.242										
239	GA	Bowen	703	2BLR	D007032LR	0.587	0.009	0.040	0.587	0.048	0.236										
240	MO	Thomas Hill Energy Center		MB3	D02168MB3	0.579	0.040	0.009	0.579	0.047	0.232										

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241	WI	Genoa	4143	1		0.572	0.035	0.013	0.572	0.047	0.230										
242	NC	Marshall	2727	1,2	x11	0.564	0.022	0.026	0.564	0.046	0.227										
243	NY	NRG Dunkirk Power		3	D02554C03	0.564	0.037	0.011	0.564	0.046	0.227										
244	NC	L V Sutton		1, 2	D02713C02	0.557	0.039	0.008	0.557	0.046	0.224	0.037	0.006	0.504	0.041	0.203	0.040	0.007	0.555	0.045	0.223
245	NC	Marshall	2727	4	D027274	0.530	0.017	0.027	0.530	0.043	0.213										
246	NC	Riverbend	2732	9		0.529	0.042	0.003	0.529	0.043	0.213										
247	IL	Joppa Steam		1, 2	D00887CS1	0.529	0.033	0.012	0.529	0.043	0.213										
248	NC	Belews Creek	8042	2	D080422	0.521	0.018	0.026	0.521	0.043	0.209										
249	GA	Bowen	703	4BLR	D007034LR	0.520	0.012	0.032	0.520	0.042	0.209										
250	PA	Shawville	3131	1	D031311	0.519	0.028	0.016	0.519	0.042	0.209										
251	NC	Belews Creek	8042	1	D080421	0.519	0.018	0.026	0.519	0.042	0.208										
252	IL	Joppa Steam		3, 4	D00887CS2	0.518	0.033	0.011	0.518	0.042	0.208										
253	KS	Nearman Creek	6064	N1		0.511	0.020	0.023	0.511	0.042	0.205										
254	TX	Welsh Power Plant	6139	3		0.505	0.034	0.009	0.505	0.041	0.203										
255	PA	Shawville	3131	2	D031312	0.503	0.027	0.015	0.503	0.041	0.202										
256	GA	Bowen	703	1BLR	D007031LR	0.498	0.021	0.021	0.498	0.041	0.200										
257	VA	Chesterfield Power Station	3797	6	D037976	0.491	0.021	0.020	0.491	0.040	0.197										
258	AR	Flint Creek Power Plant	6138	1		0.486	0.021	0.020	0.486	0.040	0.195										
259	TX	Welsh Power Plant	6139	1		0.483	0.032	0.009	0.483	0.039	0.194										
260	TX	Welsh Power Plant	6139	2		0.479	0.033	0.008	0.479	0.039	0.193										
261	KS	La Cygne	1241	1		0.414	0.021	0.013	0.414	0.034	0.167	0.025	0.008	0.383	0.031	0.154	0.018	0.008	0.316	0.026	0.127
262	OK	Muskogee	2952	4		0.410	0.017	0.018	0.410	0.034	0.165										
263	NH	Newington	8002	1	D080021	0.402	0.009	0.001	0.118	0.010	0.048	0.010	0.001	0.129	0.011	0.052	0.029	0.005	0.402	0.033	0.162
264	OK	Hugo		1	D067721	0.402	0.026	0.008	0.402	0.033	0.162										
265	ME	William F Wyman	1507	4	D015074	0.397	0.004	0.001	0.055	0.004	0.022	0.010	0.002	0.138	0.011	0.056	0.027	0.006	0.397	0.032	0.160
266	IL	Wood River Power Station		5	D008985	0.394	0.025	0.008	0.394	0.032	0.159										
267	MO	Meramec		3	D021043	0.379	0.026	0.007	0.379	0.031	0.153										
268	OK	Sooner	6095	1		0.379	0.020	0.012	0.379	0.031	0.153										
269	OK	Sooner		2	D060952	0.375	0.020	0.012	0.375	0.031	0.151										
270	IN	Alcoa Allowance Management Inc	6705	4	D067054	0.370	0.015	0.016	0.370	0.030	0.149										
271	OK	Muskogee		5	D029525	0.368	0.016	0.015	0.368	0.030	0.148										
272	SC	Urquhart		URQ3	D03295UQ3	0.367	0.030	0.002	0.367	0.030	0.148										
273	NC	Roxboro	2712	1	D027121	0.362	0.019	0.011	0.362	0.030	0.146										
274	MO	Sikeston		1	D067681	0.361	0.018	0.012	0.361	0.030	0.146										
275	MA	Brayton Point	1619	2	D016192	0.311	0.024	0.002	0.311	0.025	0.125	0.014	0.002	0.185	0.015	0.075	0.023	0.003	0.302	0.025	0.122
276	NY	Dynegy Danskammer	2480	1,2,3	x13	0.309	0.024	0.002	0.309	0.025	0.125										
277	IN	Alcoa Allowance Management Inc	6705	3	x02	0.305	0.006	0.020	0.305	0.025	0.123										
278	NY	Northport	2516	1,2,4,ugt001	x14	0.303	0.022	0.004	0.303	0.025	0.122	0.016	0.007	0.274	0.022	0.111					
279	NJ	Hudson Generating Station	2403	2	D024032	0.297	0.019	0.006	0.297	0.024	0.120	0.009	0.006	0.171	0.014	0.069	0.008	0.005	0.160	0.013	0.065
280	NC	Marshall	2727	3	D027273	0.296	0.018	0.007	0.296	0.024	0.120										

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281	MA	Brayton Point	1619	1	D016191	0.282	0.023	0.001	0.282	0.023	0.114	0.013	0.001	0.163	0.013	0.066	0.020	0.002	0.259	0.021	0.105
282	GA	Bowen	703	3BLR	D007033LR	0.257	0.012	0.010	0.257	0.021	0.104										
283	SC	McMeekin		MCM2	D03287MM2	0.242	0.019	0.002	0.242	0.020	0.098										
284	SC	McMeekin		MCM1	D03287MM1	0.233	0.018	0.002	0.233	0.019	0.094										
285	NC	Cliffside	2721	5	D027215	0.225	0.009	0.010	0.225	0.018	0.091										
286	CT	Bridgeport Harbor Station	568	BHB3		0.206	0.014	0.004	0.206	0.017	0.083	0.009	0.005	0.166	0.014	0.067	0.008	0.004	0.142	0.012	0.057
287	NY	CCI Roseton LLC	8006	2	D080062	0.192	0.013	0.003	0.192	0.016	0.078										
288	SC	Winyah	6249	2,3,4	x23	0.180	0.013	0.002	0.180	0.015	0.073										
289	MA	Canal Station	1599	1	D015991	0.170	0.010	0.001	0.122	0.010	0.050	0.011	0.001	0.150	0.012	0.061	0.013	0.002	0.170	0.014	0.069
290	NY	Northport	2516	3	D025163	0.164	0.012	0.002	0.164	0.013	0.066										
291	MA	Brayton Point	1619	4	x07	0.157	0.010	0.001	0.138	0.011	0.056	0.005	0.002	0.079	0.006	0.032	0.011	0.002	0.157	0.013	0.064
292	NJ	Mercer Generating Station	2408	1	D024081	0.153	0.010	0.003	0.153	0.012	0.062										
293	CT	Middletown	562	4		0.151	0.011	0.002	0.151	0.012	0.061										
294	CT	New Haven Harbor	6156	NHB1		0.147	0.010	0.002	0.147	0.012	0.060										
295	NJ	Mercer Generating Station	2408	2	D024082	0.136	0.008	0.003	0.136	0.011	0.055										
296	KS	Tecumseh Energy Center	1252	10		0.134	0.008	0.004	0.134	0.011	0.054										
297	MA	Canal Station	1599	2	D015992	0.129	0.007	0.001	0.100	0.008	0.040	0.005	0.002	0.084	0.007	0.034	0.009	0.002	0.129	0.011	0.052
298	DE	Edge Moor	593	5	D005935	0.124	0.007	0.003	0.124	0.010	0.050										
299	KS	Quindaro	1295	2		0.123	0.006	0.005	0.123	0.010	0.050										
300	MA	Salem Harbor Station	1626	1		0.110	0.004	0.000	0.051	0.004	0.021	0.006	0.000	0.076	0.006	0.031	0.008	0.002	0.110	0.009	0.045
301	NH	Schiller	2367	6		0.100	0.002	0.000	0.030	0.002	0.012	0.003	0.000	0.042	0.003	0.017	0.007	0.002	0.100	0.008	0.041
302	NH	Schiller	2367	4		0.099	0.002	0.000	0.030	0.002	0.012	0.003	0.000	0.041	0.003	0.017	0.007	0.002	0.099	0.008	0.040
303	SC	Williams	3298	WIL1	D03298WL1	0.069	0.003	0.002	0.069	0.006	0.028										
304	OH	Miami Fort Generating Station	2832	5-1, 5-2, 6	D02832C06	0.058	0.005	0.000	0.058	0.005	0.023										
305	SC	Winyah	6249	1	D062491	0.026	0.001	0.001	0.026	0.002	0.010										
306	ME	William F Wyman	1507	3		0.006	0.000	0.000	0.006	0.000	0.002										
307	ME	William F Wyman	1507	1		0.003	0.000	0.000	0.003	0.000	0.001										
308	ME	William F Wyman	1507	2		0.003	0.000	0.000	0.003	0.000	0.001										
309	IL	Newton		1	D060171	0.000															
310	MA	Salem Harbor Station	1626	3	D016263	0.000															
311	NY	CCI Roseton LLC	8006	1	D080061	0.000											0.000	0.000	0.000	0.000	0.000

F.20 2015 EGU Ranking Visibility Impairing Sources to Otter Creek

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1	PA	Homer City	3122	1	D031221	19.981	1.399	0.217	19.981	1.497	5.884	1.258	0.294	18.569	1.437	5.690	0.826	0.162	11.889	0.929	3.940
2	PA	Homer City	3122	2	D031222	17.613	1.235	0.199	17.613	1.333	5.350	1.110	0.270	16.490	1.283	5.182	0.729	0.146	10.508	0.826	3.554
3	OH	Muskingum River	2872	5	D028725	15.101	1.162	0.088	15.101	1.171	4.800	0.680	0.046	8.683	0.688	3.026	0.885	0.073	11.532	0.902	3.842
4	OH	Avon Lake Power Plant	2836	12	D0283612	14.196	0.805	0.347	14.196	1.077	4.473	0.694	0.196	10.694	0.839	3.604	0.913	0.259	14.143	1.096	4.539
5	WV	Harrison Power Station		1 (25%), 2 (209	D03944C01	11.177	0.335	0.590	11.177	0.876	3.744	0.243	0.577	9.902	0.781	3.385	0.347	0.563	10.980	0.861	3.688
6	KY	Big Sandy	1353	BSU1,BSU2	D01353C02	11.069	0.768	0.116	10.690	0.834	3.588	0.817	0.101	11.069	0.865	3.704	0.629	0.065	8.308	0.658	2.907
7	OH	Muskingum River	2872	1,2,3,4	D02872C04	8.692	0.539	0.176	8.692	0.677	2.982	0.323	0.095	4.999	0.399	1.838	0.378	0.133	6.098	0.487	2.213
8	WV	Kammer	3947	1,2,3	D03947C03	8.478	0.393	0.112	6.077	0.481	2.185	0.443	0.100	6.503	0.517	2.337	0.589	0.119	8.478	0.671	2.959
9	OH	Gen J M Gavin	8102	1	D081021	7.552	0.379	0.190	7.552	0.541	2.437	0.293	0.179	6.098	0.451	2.060	0.290	0.303	7.102	0.565	2.534
10	OH	Conesville	2840	5,6	D02840C06	7.179	0.149	0.127	2.802	0.266	1.253	0.136	0.222	4.021	0.345	1.606	0.157	0.438	7.179	0.571	2.559
11	OH	Gen J M Gavin	8102	2	D081022	6.890	0.355	0.170	6.890	0.500	2.266	0.274	0.161	5.567	0.416	1.910	0.271	0.271	6.492	0.518	2.340
12	WV	Kanawha River	3936	1,2	D03936C02	6.852	0.308	0.253	6.561	0.536	2.413	0.275	0.153	5.018	0.409	1.883	0.488	0.087	6.852	0.546	2.455
13	OH	W H Zimmer Generating Station	6019	1	D060191	6.836	0.223	0.219	5.624	0.424	1.945	0.289	0.241	6.836	0.506	2.290	0.128	0.278	4.867	0.391	1.804
14	IN	Rockport	6166	MB1,MB2	D06166C02	6.659	0.344	0.150	5.955	0.471	2.146	0.386	0.165	6.659	0.525	2.369	0.305	0.163	5.577	0.447	2.042
15	IN	Wabash River Gen Station	1010	2,3,4,5,6	D01010C05	6.521	0.414	0.046	5.490	0.438	2.007	0.499	0.047	6.521	0.519	2.345	0.404	0.036	5.237	0.420	1.928
16	IN	Tanners Creek	988	U4	D00988U4	6.173	0.430	0.084	6.173	0.490	2.222	0.282	0.056	4.041	0.324	1.511	0.192	0.052	2.884	0.233	1.108
17	PA	Homer City		3	D031223	6.149	0.145	0.221	4.490	0.353	1.639	0.141	0.386	6.149	0.507	2.294	0.090	0.178	3.213	0.260	1.227
18	PA	Keystone	3136	1	D031361	6.055	0.321	0.176	6.055	0.475	2.160	0.252	0.265	5.958	0.494	2.242	0.286	0.198	5.787	0.463	2.111
19	PA	Keystone	3136	2	D031362	5.859	0.307	0.173	5.859	0.459	2.094	0.241	0.261	5.762	0.480	2.182	0.274	0.195	5.600	0.448	2.049
20	WV	Pleasants Power Station	6004	1	D060041	5.810	0.147	0.334	5.810	0.462	2.108	0.132	0.197	4.090	0.317	1.483	0.112	0.274	4.639	0.373	1.726
21	OH	Killen Station	6031	2	D060312	5.328	0.142	0.201	4.124	0.330	1.540	0.233	0.178	5.328	0.393	1.814	0.179	0.265	5.327	0.427	1.959
22	PA	Cheswick	8226	1	D082261	5.145	0.100	0.213	5.145	0.303	1.419	0.086	0.231	4.608	0.306	1.435	0.059	0.232	3.506	0.283	1.331
23	PA	Shawville	3131	3,4	D03131CS1	5.036	0.179	0.030	2.474	0.201	0.959	0.322	0.108	5.036	0.410	1.888	0.272	0.042	3.725	0.300	1.409
24	GA	Harllee Branch	709	3&4	D00709C02	4.925	0.342	0.070	4.925	0.394	1.815	0.198	0.033	2.735	0.221	1.053	0.125	0.021	1.720	0.140	0.675
25	OH	Kyger Creek	2876	1,2,3,4,5	D02876C01	4.872	0.206	0.089	4.872	0.283	1.332	0.180	0.134	4.472	0.302	1.417	0.125	0.150	3.289	0.266	1.254
26	VA	Yorktown Power Station	3809	3	D038093	4.612	0.187	0.168	4.249	0.341	1.586	0.316	0.073	4.612	0.372	1.721	0.174	0.038	2.515	0.204	0.973
27	MI	Trenton Channel	1745	9A	D017459A	4.088	0.223	0.077	3.580	0.287	1.350	0.294	0.050	4.088	0.329	1.536	0.173	0.031	2.416	0.196	0.936
28	PA	Brunner Island	3140	3	D031403	3.945	0.127	0.209	3.945	0.324	1.514	0.181	0.092	3.295	0.262	1.238	0.067	0.058	1.480	0.120	0.584
29	PA	Brunner Island	3140	1,2	D03140C12	3.829	0.135	0.183	3.829	0.307	1.438	0.105	0.111	2.588	0.209	0.996	0.063	0.046	1.293	0.105	0.512
30	KY	Mill Creek	1364	1,2,3	x05	3.566	0.163	0.047	2.376	0.203	0.967	0.238	0.076	3.566	0.301	1.412	0.132	0.091	2.659	0.215	1.026
31	MI	Belle River		2	D060342	3.562	0.225	0.074	3.562	0.286	1.344	0.163	0.095	3.064	0.249	1.178	0.152	0.070	2.636	0.214	1.017
32	WV	Mitchell (WV)	3948	1,2	D03948C02	3.474	0.112	0.102	2.473	0.207	0.988	0.105	0.103	2.373	0.201	0.958	0.173	0.119	3.474	0.281	1.320
33	MI	J H Campbell		3 (50%)	D01710M3A	3.393	0.061	0.010	0.872	0.068	0.333	0.194	0.027	2.632	0.211	1.007	0.253	0.033	3.393	0.274	1.291
34	MI	St. Clair	1743	7	D017437	3.393	0.252	0.028	3.393	0.268	1.265	0.216	0.050	3.126	0.255	1.205	0.172	0.033	2.424	0.197	0.939
35	MI	Belle River		1	D060341	3.284	0.199	0.074	3.284	0.262	1.236	0.145	0.095	2.829	0.231	1.099	0.135	0.070	2.433	0.197	0.942
36	MI	St. Clair	1743	6	D017436	3.230	0.259	0.016	3.189	0.263	1.240	0.247	0.027	3.230	0.262	1.236	0.193	0.022	2.537	0.206	0.981
37	MI	J H Campbell		A,B,1,2	D01710C09	3.189	0.045	0.010	0.681	0.053	0.262	0.154	0.035	2.340	0.182	0.871	0.230	0.039	3.189	0.258	1.218
38	PA	Montour	3149	1	D031491	3.090	0.073	0.192	3.090	0.257	1.216	0.075	0.027	1.266	0.099	0.481	0.096	0.111	2.467	0.200	0.955
39	IN	Tanners Creek	988	U1,U2,U3	D00988C03	2.903	0.170	0.071	2.903	0.232	1.101	0.116	0.051	2.002	0.161	0.773	0.079	0.046	1.484	0.121	0.585
40	GA	Yates		Y6BR	D00728Y6R	2.889	0.237	0.005	2.889	0.232	1.100	0.122	0.019	1.649	0.136	0.658	0.170	0.012	2.146	0.174	0.836

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41	TN	Johnsonville	3406	1 thru 10	D03406C10	2.808	0.192	0.020	2.544	0.203	0.968	0.231	0.013	2.808	0.234	1.111	0.143	0.012	1.828	0.149	0.716
42	PA	Montour	3149	2	D031492	2.766	0.060	0.191	2.766	0.244	1.157	0.062	0.027	1.189	0.086	0.418	0.079	0.110	2.256	0.183	0.877
43	MI	St. Clair	1743	1,2,3,4,...6	x09	2.715	0.157	0.067	2.715	0.216	1.027	0.128	0.101	2.692	0.221	1.050	0.108	0.067	2.087	0.169	0.814
44	IL	Powerton		51,52,61,62	D00879C06	2.676	0.076	0.045	1.385	0.117	0.567	0.161	0.070	2.676	0.222	1.055	0.134	0.028	1.920	0.156	0.751
45	KY	Ghent	1356	3,4 ... (2,3)	D01356C02	2.622	0.131	0.073	2.379	0.197	0.941	0.147	0.078	2.622	0.217	1.034	0.080	0.100	2.148	0.174	0.836
46	IN	Whitewater Valley		1, 2	D01040C12	2.555	0.198	0.018	2.555	0.207	0.988	0.113	0.023	1.600	0.131	0.631	0.158	0.012	2.006	0.163	0.783
47	VA	Yorktown Power Station	3809	1,2	D03809CS0	2.500	0.153	0.055	2.500	0.200	0.956	0.141	0.034	2.076	0.168	0.807	0.109	0.022	1.547	0.126	0.609
48	IN	IPL - Harding Street Station (EW Stout)		50	D0099050	2.454	0.191	0.015	2.454	0.198	0.944	0.116	0.011	1.518	0.122	0.593	0.135	0.007	1.677	0.136	0.659
49	NY	Somerset Operating Company (Kintigh)		1	D060821	2.273	0.046	0.014	0.721	0.058	0.282	0.144	0.044	2.273	0.181	0.865	0.068	0.018	1.007	0.082	0.401
50	WV	John E Amos	3935	1,2	D03935C02	2.262	0.108	0.076	2.262	0.178	0.854	0.048	0.134	1.698	0.177	0.849	0.090	0.075	1.959	0.159	0.766
51	AL	E C Gaston	26	1, 2	D00026CAN	2.244	0.148	0.014	1.908	0.156	0.749	0.174	0.016	2.244	0.183	0.875	0.100	0.015	1.357	0.111	0.537
52	IN	IPL - Harding Street Station (EW Stout)		60	D0099060	2.225	0.174	0.013	2.225	0.179	0.860	0.106	0.010	1.376	0.111	0.539	0.123	0.006	1.522	0.124	0.600
53	IN	Michigan City Generating Station		12	D0099712	2.136	0.133	0.015	1.709	0.142	0.687	0.164	0.021	2.136	0.177	0.849	0.149	0.030	2.125	0.172	0.828
54	IN	IPL - Petersburg Generating Station		3	D009943	1.996	0.087	0.053	1.643	0.135	0.652	0.078	0.077	1.704	0.150	0.724	0.107	0.061	1.996	0.162	0.779
55	MD	Herbert A Wagner	1554	3	D015543	1.982	0.111	0.011	1.736	0.116	0.564	0.101	0.008	1.525	0.105	0.512	0.163	0.005	1.982	0.161	0.774
56	IN	Gibson	6113	1,2,3	D06113C03	1.949	0.088	0.052	1.797	0.136	0.655	0.054	0.068	1.949	0.119	0.577	0.089	0.041	1.548	0.126	0.610
57	OH	Cardinal	2828	3	D028283	1.760	0.037	0.068	1.484	0.102	0.498	0.025	0.075	1.085	0.098	0.476	0.042	0.105	1.760	0.143	0.690
58	IN	Clifty Creek	983	4,5,6	D00983C02	1.736	0.028	0.066	1.560	0.092	0.447	0.032	0.066	1.736	0.096	0.465	0.021	0.094	1.377	0.112	0.544
59	OH	J M Stuart	2850	4	D028404	1.589	0.050	0.051	1.229	0.098	0.476	0.081	0.036	1.589	0.113	0.548	0.048	0.058	1.264	0.103	0.501
60	NC	Roxboro	2712	3A,3B	D02712C03	1.585	0.051	0.035	1.024	0.083	0.404	0.082	0.052	1.585	0.129	0.623	0.062	0.039	1.195	0.097	0.474
61	NC	Roxboro	2712	4A,4B	D02712C04	1.553	0.053	0.031	0.998	0.081	0.395	0.085	0.046	1.553	0.126	0.611	0.064	0.034	1.169	0.095	0.464
62	MD	Morgantown	1573	1	D015731	1.496	0.095	0.011	1.496	0.102	0.495	0.031	0.011	0.513	0.041	0.202	0.034	0.014	0.562	0.046	0.226
63	TX	Big Brown	3497	1		1.421	0.113	0.007	1.421	0.116	0.562	0.055	0.002	0.666	0.054	0.266	0.102	0.005	1.257	0.102	0.498
64	IN	Clifty Creek	983	1,2,3	D00983C01	1.402	0.031	0.047	1.252	0.076	0.371	0.035	0.048	1.402	0.080	0.392	0.024	0.066	1.069	0.087	0.425
65	TX	Big Brown	3497	2		1.366	0.109	0.007	1.366	0.112	0.542	0.052	0.002	0.641	0.052	0.256	0.098	0.005	1.209	0.099	0.479
66	GA	Harllee Branch	709	1,2	D00709C01	1.354	0.105	0.012	1.354	0.112	0.545	0.066	0.009	0.885	0.073	0.356	0.038	0.006	0.520	0.043	0.209
67	IN	IPL - Petersburg Generating Station		4	D009944	1.334	0.062	0.031	1.093	0.090	0.439	0.056	0.046	1.100	0.099	0.480	0.077	0.036	1.334	0.109	0.527
68	MD	C P Crane	1552	2	D015522	1.312	0.046	0.045	1.114	0.089	0.432	0.037	0.071	1.134	0.105	0.511	0.052	0.058	1.312	0.107	0.519
69	MI	Trenton Channel	1745	16,17,18,19	x10	1.233	0.058	0.040	1.217	0.095	0.463	0.078	0.027	1.233	0.102	0.497	0.037	0.016	0.636	0.052	0.255
70	MI	J C Weadock		7, 8	D01720C09	1.160	0.074	0.014	1.033	0.085	0.414	0.077	0.021	1.160	0.095	0.461	0.066	0.019	1.002	0.082	0.399
71	MD	Brandon Shores	602	2	D006022	1.133	0.030	0.039	1.102	0.067	0.326	0.026	0.041	1.133	0.065	0.319	0.045	0.021	0.779	0.064	0.311
72	OK	Northeastern		3313, 3314	D02963C10	1.130	0.047	0.014	0.646	0.059	0.289	0.081	0.025	1.130	0.102	0.496	0.029	0.014	0.514	0.042	0.207
73	MD	Chalk Point	1571	1,2	D01571CE2	1.122	0.108	0.001	1.122	0.104	0.507	0.055	0.002	0.696	0.055	0.270	0.060	0.002	0.734	0.060	0.294
74	NY	Oswego Harbor Power	2594	6	x15	1.121	0.023	0.010	0.393	0.031	0.155	0.056	0.039	1.121	0.093	0.451	0.031	0.018	0.579	0.047	0.233
75	KY	Mill Creek	1364	4	D013644	1.120	0.010	0.029	0.766	0.038	0.187	0.014	0.046	1.120	0.058	0.285	0.008	0.054	0.738	0.060	0.295
76	KY	Paradise	1378	2	D013782	1.103	0.040	0.021	0.706	0.059	0.288	0.071	0.018	1.103	0.086	0.419	0.045	0.020	0.769	0.063	0.308
77	IA	George Neal South		4	D073434	1.093	0.045	0.030	0.888	0.073	0.355	0.062	0.026	1.093	0.085	0.412	0.024	0.016	0.474	0.039	0.191
78	MD	Brandon Shores	602	1	D006021	1.083	0.032	0.029	1.057	0.060	0.292	0.028	0.031	1.083	0.057	0.281	0.048	0.016	0.759	0.062	0.304
79	MI	Monroe	1733	1,2	D01733C12	1.062	0.016	0.038	0.821	0.053	0.262	0.019	0.064	1.062	0.081	0.394	0.017	0.068	1.008	0.082	0.401
80	KY	John S. Cooper	1384	1,2	D01384CS1	1.029	0.068	0.018	1.029	0.083	0.403	0.059	0.010	0.837	0.066	0.324	0.029	0.011	0.471	0.039	0.190

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81	TX	Martin Lake	6146	1		1.000	0.074	0.012	1.000	0.082	0.400	0.035	0.003	0.454	0.037	0.182	0.066	0.008	0.868	0.071	0.347
82	MO	Labadie		4	D021034	0.961	0.027	0.006	0.390	0.032	0.159	0.071	0.010	0.961	0.078	0.380	0.035	0.006	0.485	0.040	0.195
83	TX	Monticello	6147	1		0.959	0.075	0.006	0.959	0.078	0.381	0.036	0.002	0.443	0.036	0.178	0.067	0.004	0.841	0.069	0.336
84	TX	Martin Lake	6146	3		0.948	0.070	0.011	0.948	0.078	0.380	0.033	0.003	0.431	0.035	0.173	0.062	0.007	0.823	0.067	0.329
85	IA	Ottumwa		1	D062541	0.940	0.024	0.018	0.483	0.041	0.200	0.048	0.032	0.940	0.078	0.380	0.029	0.018	0.552	0.045	0.222
86	NJ	B L England	2378	2,3	x12	0.926	0.014	0.010	0.291	0.024	0.117	0.024	0.057	0.926	0.079	0.384	0.016	0.012	0.335	0.027	0.135
87	MO	Sibley		1, 2, 3	D02094C01	0.919	0.049	0.038	0.919	0.085	0.413	0.042	0.025	0.749	0.065	0.319	0.031	0.013	0.516	0.042	0.208
88	KY	Paradise	1378	3	D013783	0.882	0.026	0.036	0.757	0.060	0.296	0.045	0.034	0.882	0.077	0.377	0.030	0.036	0.795	0.065	0.318
89	KY	Paradise	1378	1	D01720C09	0.881	0.031	0.018	0.571	0.048	0.233	0.056	0.015	0.881	0.069	0.337	0.036	0.017	0.620	0.051	0.249
90	ME	William F Wyman	1507	4	D015074	0.812	0.008	0.002	0.112	0.009	0.044	0.019	0.005	0.283	0.023	0.112	0.052	0.017	0.812	0.066	0.325
91	TX	Martin Lake	6146	2		0.779	0.056	0.011	0.779	0.064	0.316	0.027	0.003	0.355	0.029	0.142	0.050	0.007	0.678	0.055	0.272
92	MD	C P Crane	1552	1	D015521	0.765	0.023	0.030	0.650	0.051	0.253	0.019	0.046	0.659	0.063	0.310	0.026	0.038	0.765	0.062	0.306
93	NY	Cayuga Operating Company, LLC		1 (33%), 2 (33%	D02535C01	0.729	0.016	0.004	0.235	0.019	0.095	0.027	0.011	0.441	0.037	0.184	0.049	0.013	0.729	0.060	0.292
94	IL	Kincaid Generating Station		1, 2	D00876C02	0.629	0.013	0.007	0.224	0.019	0.096	0.044	0.017	0.629	0.059	0.289	0.016	0.012	0.327	0.027	0.132
95	IL	Baldwin Energy Complex		1,2	D008892	0.616	0.020	0.014	0.394	0.033	0.162	0.031	0.024	0.616	0.053	0.259	0.017	0.011	0.328	0.027	0.132
96	PA	Martins Creek	3148	3,4	x21	0.540	0.001	0.059	0.540	0.059	0.291	0.001	0.047	0.435	0.047	0.232	0.001	0.025	0.319	0.026	0.129
97	MN	Sherburne County		1, 2	D06090CS1	0.526	0.005	0.032	0.451	0.037	0.181	0.007	0.034	0.526	0.040	0.195	0.002	0.014	0.198	0.016	0.080
98	OK	Grand River Dam Authority		1	D001651	0.487	0.025	0.000	0.238	0.024	0.118	0.056	0.000	0.487	0.054	0.263	0.021	0.000	0.245	0.020	0.099
99	MA	Brayton Point	1619	4	x07	0.482	0.031	0.005	0.423	0.034	0.169	0.015	0.005	0.244	0.020	0.099	0.033	0.008	0.482	0.039	0.194
100	IN	R M Schahfer Generating Station		14	D0608514	0.472	0.004	0.025	0.472	0.029	0.144	0.003	0.024	0.382	0.027	0.134	0.003	0.031	0.412	0.034	0.166
101	IN	R M Schahfer Generating Station		15	D0608515	0.440	0.003	0.026	0.440	0.029	0.141	0.003	0.023	0.353	0.025	0.125	0.003	0.029	0.376	0.031	0.152
102	NH	Newington	8002	1	D080021	0.413	0.007	0.002	0.121	0.009	0.042	0.007	0.002	0.133	0.009	0.047	0.021	0.014	0.413	0.034	0.166
103	TN	Kingston	3407	1,2,3,4,5	D03407C15	0.413	0.016	0.008	0.413	0.023	0.111	0.011	0.018	0.311	0.028	0.139	0.013	0.017	0.357	0.029	0.144
104	GA	Scherer		4	D062574	0.412	0.004	0.017	0.412	0.021	0.102	0.003	0.014	0.270	0.017	0.082	0.001	0.011	0.142	0.012	0.058
105	GA	Scherer		1	D062571	0.410	0.003	0.018	0.410	0.021	0.102	0.002	0.015	0.270	0.017	0.082	0.001	0.011	0.143	0.012	0.058
106	TN	Kingston	3407	6,7,8,9	D03407C69	0.404	0.016	0.007	0.404	0.022	0.111	0.011	0.017	0.300	0.027	0.133	0.013	0.016	0.346	0.028	0.139
107	MI	Dan E Karn	1702	3,4 (1,2)	D01702C09	0.366	0.024	0.005	0.334	0.028	0.137	0.024	0.007	0.366	0.030	0.148	0.021	0.006	0.326	0.027	0.131
108	VA	Bremo Power Station		4	D037964	0.349	0.000	0.031	0.349	0.031	0.153	0.000	0.013	0.206	0.012	0.062	0.000	0.012	0.146	0.012	0.059
109	GA	Scherer		2	D062572	0.316	0.002	0.014	0.316	0.016	0.077	0.001	0.012	0.208	0.013	0.062	0.001	0.009	0.110	0.009	0.044
110	NH	Merrimack	2364	2	D023642	0.290	0.004	0.002	0.110	0.006	0.029	0.005	0.003	0.138	0.008	0.038	0.010	0.014	0.290	0.024	0.117
111	CT	Bridgeport Harbor Station	568	BHB3		0.282	0.021	0.004	0.282	0.024	0.120	0.014	0.005	0.228	0.019	0.092	0.012	0.005	0.194	0.016	0.079
112	DE	Indian River	594	4	D005944	0.256	0.007	0.001	0.108	0.008	0.042	0.020	0.001	0.256	0.021	0.102	0.020	0.001	0.239	0.020	0.097
113	VA	Chesterfield Power Station	3797	5	D037975	0.246	0.013	0.010	0.246	0.022	0.108	0.014	0.004	0.226	0.017	0.085	0.009	0.004	0.154	0.013	0.062
114	MA	Canal Station	1599	1	D015991	0.244	0.013	0.001	0.175	0.014	0.070	0.016	0.003	0.215	0.018	0.087	0.018	0.003	0.244	0.020	0.099
115	MA	Canal Station	1599	2	D015992	0.225	0.012	0.002	0.175	0.014	0.069	0.009	0.004	0.147	0.012	0.060	0.014	0.005	0.225	0.018	0.091
116	NJ	Hudson Generating Station	2403	2	D024032	0.217	0.014	0.004	0.217	0.018	0.087	0.006	0.004	0.125	0.010	0.051	0.006	0.004	0.117	0.010	0.047
117	GA	Yates		Y7BR	D00728Y7R	0.193	0.000	0.005	0.193	0.005	0.027	0.000	0.020	0.111	0.019	0.096	0.000	0.012	0.144	0.012	0.058
118	WI	Columbia		2	D080232	0.184	0.005	0.012	0.176	0.017	0.085	0.005	0.012	0.169	0.016	0.081	0.006	0.010	0.184	0.015	0.074
119	WI	Columbia		1	D080231	0.176	0.005	0.014	0.176	0.019	0.094	0.005	0.013	0.168	0.018	0.089	0.006	0.009	0.175	0.014	0.071
120	VA	Chesterfield Power Station	3797	4	D037974	0.168	0.009	0.006	0.168	0.014	0.070	0.010	0.002	0.147	0.012	0.058	0.006	0.002	0.104	0.008	0.042

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
121	NH	Merrimack	2364	1	D023641	0.109	0.001	0.001	0.042	0.002	0.011	0.002	0.001	0.052	0.003	0.014	0.004	0.006	0.109	0.009	0.044
122	NH	Schiller	2367	4		0.084	0.002	0.000	0.025	0.002	0.010	0.003	0.000	0.035	0.003	0.014	0.006	0.002	0.084	0.007	0.034
123	SC	Wateree	3297	WAT1	D03297WT1	0.083	0.002	0.003	0.055	0.005	0.022	0.002	0.005	0.054	0.006	0.031	0.003	0.004	0.083	0.007	0.034
124	NH	Schiller	2367	6		0.082	0.002	0.000	0.025	0.002	0.010	0.003	0.000	0.034	0.003	0.014	0.006	0.001	0.082	0.007	0.033
125	MA	Brayton Point	1619	2	D016192	0.078	0.003	0.002	0.078	0.005	0.027	0.002	0.002	0.046	0.004	0.019	0.003	0.003	0.076	0.006	0.031
126	SC	Wateree	3297	WAT2	D03297WT2	0.077	0.002	0.002	0.053	0.004	0.021	0.002	0.004	0.050	0.005	0.026	0.003	0.004	0.077	0.006	0.031
127	MA	Brayton Point	1619	3	D016193	0.066	0.004	0.001	0.066	0.005	0.023	0.002	0.001	0.036	0.003	0.016	0.004	0.002	0.064	0.005	0.026
128	MA	Brayton Point	1619	1	D016191	0.052	0.004	0.001	0.052	0.004	0.020	0.002	0.001	0.030	0.002	0.012	0.003	0.001	0.048	0.004	0.019
129	KS	La Cygne	1241	1		0.050	0.004	0.000	0.050	0.004	0.019	0.004	0.000	0.047	0.004	0.020	0.003	0.000	0.038	0.003	0.016
130	KS	La Cygne		2	D012412	0.015	0.001	0.000	0.011	0.001	0.004	0.001	0.000	0.015	0.001	0.007	0.001	0.000	0.014	0.001	0.006

F.21 2011 EGU Ranking Visibility Impairing Sources to Shenandoah

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
1	OH	Kyger Creek	2876	1,2,3,4,5	D02876C01	62.649	4.298	0.780	61.715	4.535	13.111	3.319	0.592	46.419	3.588	11.113	4.322	0.832	62.649	4.590	13.221
2	OH	Muskingum River	2872	1,2,3,4	D02872C04	32.903	1.944	0.221	24.860	2.079	7.380	2.085	0.354	28.080	2.320	8.034	2.587	0.230	32.903	2.669	8.940
3	VA	Chesterfield Power Station	3797	5	D037975	23.637	1.338	0.410	19.743	1.685	6.243	1.745	0.326	23.637	1.987	7.120	1.449	0.333	20.182	1.720	6.346
4	OH	Walter C Beckford Generating Station		6	D028306	17.333	1.424	0.106	17.333	1.494	5.660	0.916	0.080	11.123	0.984	3.977	0.806	0.094	10.020	0.891	3.647
5	MI	Monroe	1733	1,2	D01733C12	14.783	0.398	0.116	5.676	0.514	2.226	0.883	0.438	14.783	1.288	5.003	0.424	0.302	8.057	0.722	3.029
6	MD	Chalk Point	1571	1,2	D01571CE2	11.669	0.626	0.076	7.774	0.698	2.937	0.769	0.199	10.785	0.956	3.877	0.832	0.214	11.669	1.030	4.137
7	IN	Wabash River Gen Station	1010	2,3,4,5,6	D01010C05	11.625	0.644	0.045	7.636	0.686	2.892	0.956	0.084	11.625	1.026	4.124	0.529	0.058	6.492	0.586	2.508
8	PA	Homer City	3122	2	D031222	9.422	0.605	0.079	7.579	0.681	2.873	0.623	0.094	7.949	0.713	2.994	0.744	0.104	9.422	0.840	3.462
9	OH	W H Zimmer Generating Station	6019	1	D060191	9.347	0.535	0.306	9.347	0.833	3.439	0.399	0.219	6.847	0.617	2.629	0.236	0.260	5.495	0.498	2.162
10	OH	Muskingum River	2872	5	D028725	9.313	0.622	0.030	7.228	0.650	2.757	0.699	0.051	8.326	0.746	3.116	0.803	0.033	9.313	0.830	3.428
11	PA	Homer City	3122	1	D031221	9.197	0.605	0.064	7.412	0.666	2.818	0.623	0.076	7.745	0.695	2.928	0.743	0.084	9.197	0.820	3.392
12	OH	Avon Lake Power Plant	2836	12	D0283612	9.161	0.619	0.114	8.129	0.729	3.053	0.431	0.145	6.358	0.574	2.462	0.731	0.093	9.161	0.817	3.381
13	KY	Big Sandy	1353	BSU1,BSU2	D01353C02	8.781	0.694	0.096	8.781	0.785	3.261	0.538	0.106	7.130	0.642	2.724	0.371	0.149	5.747	0.521	2.250
14	MD	Morgantown	1573	1	D015731	8.743	0.431	0.020	4.962	0.451	1.971	0.750	0.037	8.743	0.782	3.249	0.511	0.056	6.260	0.566	2.429
15	IN	Rockport	6166	MB1,MB2	D06166C02	8.632	0.349	0.098	4.933	0.448	1.961	0.569	0.210	8.632	0.772	3.214	0.462	0.174	7.029	0.633	2.690
16	PA	Cheswick	8226	1	D082261	7.830	0.534	0.173	7.830	0.703	2.955	0.477	0.223	7.754	0.696	2.931	0.431	0.194	6.919	0.624	2.653
17	OH	Eastlake		5	D028375	7.346	0.511	0.122	7.007	0.631	2.683	0.374	0.105	5.279	0.479	2.085	0.560	0.103	7.346	0.661	2.796
18	GA	Harllee Branch	709	3&4	D00709C02	7.320	0.589	0.072	7.320	0.658	2.787	0.271	0.060	3.629	0.332	1.479	0.312	0.068	4.183	0.382	1.686
19	IN	Tanners Creek	988	U4	D00988U4	6.879	0.541	0.081	6.879	0.620	2.640	0.340	0.068	4.493	0.409	1.801	0.321	0.050	4.077	0.372	1.647
20	PA	Keystone	3136	1	D031361	6.868	0.289	0.195	5.351	0.486	2.111	0.341	0.240	6.438	0.581	2.490	0.358	0.262	6.868	0.619	2.636
21	PA	Brunner Island	3140	1,2	D03140C12	6.867	0.165	0.097	2.879	0.264	1.191	0.302	0.317	6.867	0.619	2.636	0.138	0.374	5.713	0.518	2.238
22	OH	Walter C Beckford Generating Station		5 (50%)	D02830M51	6.862	0.575	0.045	6.862	0.619	2.634	0.370	0.035	4.449	0.405	1.784	0.325	0.040	4.019	0.367	1.625
23	PA	Keystone	3136	2	D031362	6.830	0.288	0.194	5.323	0.483	2.100	0.340	0.238	6.402	0.578	2.478	0.357	0.260	6.830	0.616	2.623
24	IN	Clifty Creek	983	4,5,6	D00983C02	6.744	0.459	0.073	5.880	0.532	2.297	0.516	0.094	6.744	0.608	2.594	0.403	0.116	5.732	0.519	2.245
25	WV	Harrison Power Station		1 (25%), 2 (2(	D03944C01	6.581	0.172	0.366	5.993	0.542	2.336	0.135	0.313	4.981	0.453	1.978	0.162	0.428	6.581	0.594	2.539
26	VA	Chesterfield Power Station	3797	3,7,8A	x28	6.458	0.391	0.136	5.828	0.528	2.279	0.502	0.083	6.458	0.583	2.497					
27	WV	Kammer	3947	1,2,3	D03947C03	6.143	0.442	0.114	6.143	0.555	2.388	0.438	0.108	6.032	0.546	2.350	0.472	0.079	6.086	0.550	2.369
28	VA	Bremo Power Station		4	D037964	6.059	0.248	0.172	4.639	0.422	1.854	0.287	0.142	4.730	0.430	1.887	0.280	0.267	6.059	0.548	2.359
29	PA	Brunner Island	3140	3	D031403	5.952	0.135	0.109	2.689	0.247	1.116	0.328	0.210	5.952	0.539	2.322	0.107	0.212	3.546	0.324	1.447
30	OH	Cardinal	2828	3	D028283	5.761	0.441	0.033	5.223	0.474	2.065	0.435	0.036	5.200	0.472	2.057	0.477	0.045	5.761	0.522	2.255
31	VA	Yorktown Power Station	3809	1,2	D03809CS0	5.534	0.268	0.157	4.696	0.427	1.875	0.378	0.124	5.534	0.502	2.175	0.264	0.093	3.932	0.359	1.593
32	PA	Shawville	3131	3,4	D03131CS1	5.306	0.263	0.023	3.136	0.287	1.290	0.422	0.060	5.306	0.482	2.095	0.246	0.050	3.246	0.297	1.333
33	MD	Brandon Shores	602	2	D006022	4.965	0.060	0.137	2.185	0.201	0.916	0.078	0.216	3.270	0.299	1.342	0.098	0.347	4.965	0.451	1.972
34	IN	Clifty Creek	983	1,2,3	D00983C01	4.948	0.353	0.040	4.321	0.394	1.737	0.396	0.053	4.948	0.450	1.966	0.309	0.065	4.118	0.376	1.662
35	OH	Gen J M Gavin	8102	2	D081022	4.790	0.302	0.063	4.011	0.366	1.623	0.294	0.059	3.879	0.354	1.573	0.345	0.090	4.790	0.436	1.909
36	WV	Pleasants Power Station	6004	1	D060041	4.775	0.189	0.130	3.524	0.322	1.439	0.173	0.257	4.775	0.434	1.904	0.181	0.164	3.816	0.349	1.549
37	TN	Johnsonville	3406	1 thru 10	D03406C10	4.775	0.267	0.048	3.452	0.316	1.411	0.386	0.048	4.775	0.434	1.903	0.203	0.047	2.742	0.252	1.137
38	MD	Brandon Shores	602	1	D006021	4.760	0.061	0.129	2.103	0.194	0.883	0.080	0.203	3.145	0.288	1.294	0.100	0.327	4.760	0.433	1.898
39	NC	Mayo	6250	1A,1B	D06250C05	4.722	0.205	0.050	2.794	0.256	1.157	0.321	0.108	4.722	0.430	1.884	0.175	0.049	2.458	0.226	1.025
40	OH	Gen J M Gavin	8102	1	D081021	4.716	0.298	0.061	3.951	0.361	1.600	0.290	0.058	3.821	0.349	1.551	0.341	0.087	4.716	0.429	1.882

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
41	WV	Kanawha River	3936	1,2	D03936C02	4.615	0.309	0.110	**4.615**	0.420	**1.845**	0.192	0.077	**2.961**	0.272	**1.222**	0.170	0.083	**2.789**	0.256	**1.155**
42	OH	Conesville	2840	5,6	D02840C06	4.522	0.069	0.156	**2.498**	0.230	**1.041**	0.081	0.202	**3.135**	0.287	**1.290**	0.124	0.282	**4.522**	0.412	**1.811**
43	MI	J H Campbell		3 (50%)	D01710M3A	4.492	0.078	0.030	**1.175**	0.109	0.503	0.194	0.057	**2.758**	0.253	**1.143**	0.287	0.120	**4.492**	0.409	**1.800**
44	IL	Kincaid Generating Station		1, 2	D00876C02	4.435	0.066	0.125	**2.118**	0.195	0.889	0.173	0.228	**4.435**	0.404	**1.779**	0.128	0.147	**3.042**	0.279	**1.254**
45	MI	St. Clair	1743	7	D017437	4.426	0.306	0.024	**3.626**	0.332	**1.477**	0.359	0.044	**4.426**	0.403	**1.776**	0.210	0.032	**2.660**	0.244	**1.105**
46	MD	Herbert A Wagner	1554	3	D015543	4.422	0.185	0.043	**2.502**	0.230	**1.043**	0.243	0.067	**3.400**	0.311	**1.391**	0.305	0.096	**4.422**	0.403	**1.775**
47	MD	C P Crane	1552	2	D015522	4.330	0.215	0.057	**2.984**	0.274	**1.231**	0.239	0.080	**3.511**	0.321	**1.434**	0.266	0.127	**4.330**	0.395	**1.741**
48	PA	Montour	3149	1	D031491	4.170	0.183	0.111	**3.245**	0.297	**1.332**	0.143	0.233	**4.170**	0.380	**1.682**	0.077	0.142	**2.423**	0.223	**1.011**
49	MI	Trenton Channel	1745	9A	D017459A	4.019	0.166	0.035	**2.198**	0.202	0.921	0.313	0.053	**4.019**	0.367	**1.625**	0.228	0.050	**3.054**	0.280	**1.259**
50	MI	St. Clair	1743	1,2,3,4,...6	x09	3.962	0.201	0.069	**2.967**	0.272	**1.225**	0.244	0.115	**3.962**	0.362	**1.604**	0.125	0.097	**2.443**	0.225	**1.019**
51	KY	Mill Creek	1364	1,2,3	x05	3.960	0.139	0.058	**2.162**	0.199	0.907	0.293	0.067	**3.960**	0.362	**1.603**	0.136	0.099	**2.583**	0.237	**1.074**
52	PA	Montour	3149	2	D031492	3.932	0.185	0.101	**3.148**	0.288	**1.295**	0.145	0.210	**3.932**	0.359	**1.593**	0.078	0.128	**2.279**	0.210	0.954
53	AL	E C Gaston	26	3, 4	D00026CBN	3.919	0.229	0.035	**2.895**	0.266	**1.197**	0.317	0.040	**3.919**	0.358	**1.588**	0.209	0.047	**2.804**	0.257	**1.161**
54	AL	E C Gaston	26	1, 2	D00026CAN	3.910	0.238	0.028	**2.919**	0.268	**1.206**	0.316	0.040	**3.910**	0.357	**1.584**	0.223	0.045	**2.940**	0.270	**1.214**
55	MD	C P Crane	1552	1	D015521	3.896	0.194	0.051	**2.691**	0.247	**1.117**	0.217	0.071	**3.162**	0.290	**1.300**	0.241	0.113	**3.896**	0.356	**1.579**
56	TN	Kingston	3407	6,7,8,9	D03407C69	3.851	0.345	0.005	**3.851**	0.352	**1.563**	0.260	0.009	**2.950**	0.271	**1.218**	0.200	0.010	**2.302**	0.212	0.963
57	WV	Pleasants Power Station	6004	2	D060042	3.701	0.168	0.092	**2.865**	0.263	**1.185**	0.154	0.181	**3.701**	0.338	**1.506**	0.161	0.116	**3.056**	0.280	**1.259**
58	GA	Harllee Branch	709	1,2	D00709C01	3.629	0.291	0.039	**3.629**	0.332	**1.479**	0.121	0.034	**1.691**	0.156	0.716	0.157	0.052	**2.286**	0.210	0.957
59	VA	Chesapeake Energy Center		4	D038034	3.581	0.231	0.095	**3.581**	0.328	**1.460**	0.192	0.042	**2.570**	0.236	**1.069**	0.228	0.062	**3.192**	0.292	**1.312**
60	TN	Kingston	3407	1,2,3,4,5	D03407C15	3.558	0.318	0.006	**3.558**	0.325	**1.452**	0.240	0.010	**2.736**	0.251	**1.135**	0.185	0.011	**2.141**	0.197	0.898
61	VA	Chesterfield Power Station	3797	4	D037974	3.525	0.176	0.111	**3.160**	0.290	**1.299**	0.241	0.080	**3.525**	0.322	**1.439**	0.196	0.086	**3.109**	0.285	**1.280**
62	VA	Yorktown Power Station	3809	3	D038093	3.270	0.149	0.088	**2.614**	0.240	**1.087**	0.227	0.071	**3.270**	0.299	**1.342**	0.106	0.042	**1.624**	0.150	0.689
63	IN	Gibson	6113	1,2,3	D06113C03	3.092	0.054	0.141	**2.163**	0.199	0.907	0.070	0.171	**2.679**	0.246	**1.112**	0.066	0.212	**3.092**	0.283	**1.273**
64	WV	Fort Martin Power Station	3943	1	D039431	3.088	0.057	0.221	**3.088**	0.283	**1.272**										
65	NC	Roxboro	2712	3A,3B	D02712C03	3.067	0.070	0.099	**1.869**	0.172	0.789	0.116	0.161	**3.067**	0.281	**1.264**	0.066	0.083	**1.652**	0.152	0.701
66	PA	Sunbury		4	D031524	3.030	0.207	0.017	**2.450**	0.225	**1.022**	0.245	0.031	**3.030**	0.278	**1.249**	0.080	0.023	**1.129**	0.104	0.484
67	KY	Paradise	1378	3	D013783	2.998	0.041	0.111	**1.691**	0.156	0.716	0.110	0.138	**2.745**	0.252	**1.138**	0.092	0.178	**2.998**	0.275	**1.237**
68	IL	Baldwin Energy Complex		1,2	D008892	2.964	0.098	0.013	**1.203**	0.111	0.515	0.255	0.015	**2.964**	0.272	**1.224**	0.198	0.016	**2.339**	0.215	0.978
69	IL	Powerton		51,52,61,62	D00879C06	2.961	0.080	0.043	**1.352**	0.125	0.577	0.190	0.079	**2.961**	0.272	**1.222**	0.198	0.030	**2.495**	0.229	**1.040**
70	NC	Cape Fear	2708	6		2.943	0.090	0.041	**1.440**	0.133	0.613	0.188	0.080	**2.943**	0.270	**1.215**	0.107	0.026	**1.450**	0.134	0.617
71	PA	Portland		3 (2)	d031132	2.924	0.229	0.038	**2.924**	0.268	**1.208**	0.200	0.021	**2.425**	0.223	**1.012**	0.132	0.028	**1.749**	0.161	0.740
72	KY	John S. Cooper	1384	1,2	D01384CS1	2.911	0.243	0.023	**2.911**	0.267	**1.203**	0.168	0.030	**2.166**	0.199	0.909	0.155	0.052	**2.275**	0.209	0.952
73	VA	Chesapeake Energy Center		3	D038033	2.881	0.164	0.098	**2.881**	0.264	**1.191**	0.133	0.042	**1.922**	0.177	0.810	0.160	0.064	**2.453**	0.226	**1.023**
74	WV	Albright Power Station	3942	3	D039423	2.853	0.217	0.043	**2.853**	0.262	**1.180**	0.199	0.061	**2.846**	0.261	**1.178**	0.181	0.046	**2.487**	0.229	**1.037**
75	NC	Roxboro	2712	4A,4B	D02712C04	2.851	0.079	0.079	**1.740**	0.160	0.736	0.131	0.128	**2.851**	0.262	**1.180**	0.075	0.066	**1.551**	0.143	0.659
76	PA	Sunbury		3	D031523	2.850	0.180	0.018	**2.167**	0.200	0.909	0.231	0.029	**2.850**	0.261	**1.179**	0.075	0.025	**1.094**	0.101	0.469
77	WV	Phil Sporn	3938	11,21,31,41	D03938C04	2.823	0.200	0.057	**2.823**	0.259	**1.168**										
78	OH	Killen Station	6031	2	D060312	2.812	0.176	0.080	**2.812**	0.258	**1.164**	0.170	0.077	**2.718**	0.250	**1.128**	0.101	0.083	**2.033**	0.187	0.855
79	MI	Belle River		2	D060342	2.798	0.163	0.064	**2.493**	0.229	**1.039**	0.176	0.078	**2.798**	0.257	**1.159**	0.102	0.068	**1.873**	0.173	0.790
80	MI	Belle River		1	D060341	2.761	0.160	0.064	**2.458**	0.226	**1.025**	0.173	0.078	**2.761**	0.253	**1.144**	0.100	0.068	**1.850**	0.171	0.781

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
81	MI	St. Clair	1743	6	D017436	2.756	0.184	0.015	**2.178**	0.200	0.913	0.222	0.029	**2.756**	0.253	**1.142**	0.130	0.021	**1.650**	0.152	0.699
82	WV	Fort Martin Power Station	3943	2	D039432	2.722	0.052	0.193	**2.722**	0.250	**1.129**										
83	GA	Yates		Y6BR	D00728Y6R	2.700	0.237	0.010	**2.700**	0.248	**1.121**	0.151	0.016	**1.833**	0.169	0.774	0.186	0.016	**2.214**	0.204	0.928
84	IN	IPL - Petersburg Generating Station		4	D009944	2.647	0.123	0.038	**1.759**	0.162	0.744	0.207	0.034	**2.647**	0.243	**1.099**	0.152	0.038	**2.085**	0.192	0.876
85	OH	J M Stuart	2850	4	D028404	2.559	0.175	0.058	**2.559**	0.235	**1.065**	0.156	0.042	**2.175**	0.200	0.912	0.075	0.050	**1.368**	0.126	0.583
86	MI	J H Campbell		A,B,1,2	D01710C09	2.493	0.068	0.025	**1.020**	0.094	0.438	0.180	0.048	**2.493**	0.229	**1.039**	0.166	0.058	**2.458**	0.226	**1.025**
87	NY	Cayuga Operating Company, LLC		1 (33%), 2 (33	D02535C01	2.472	0.103	0.007	**1.210**	0.112	0.518	0.186	0.040	**2.472**	0.227	**1.031**	0.130	0.023	**1.671**	0.154	0.708
88	NC	L V Sutton		3	D027133	2.460	0.092	0.043	**1.478**	0.137	0.629	0.166	0.059	**2.460**	0.226	**1.026**	0.097	0.024	**1.319**	0.122	0.563
89	NJ	B L England	2378	1		2.452	0.089	0.023	**1.225**	0.113	0.524	0.163	0.060	**2.452**	0.225	**1.023**	0.181	0.024	**2.247**	0.207	0.941
90	KY	Ghent	1356	3,4 … (2,3)	D01356C02	2.417	0.141	0.078	**2.417**	0.222	**1.009**	0.133	0.057	**2.079**	0.191	0.874	0.089	0.073	**1.786**	0.165	0.755
91	KY	Mill Creek	1364	4	D013644	2.413	0.096	0.017	**1.234**	0.114	0.528	0.200	0.020	**2.413**	0.222	**1.007**	0.093	0.030	**1.345**	0.124	0.574
92	IN	Tanners Creek	988	U1,U2,U3	D00988C03	2.386	0.167	0.051	**2.386**	0.219	0.996	0.108	0.045	**1.682**	0.155	0.712	0.104	0.032	**1.486**	0.137	0.632
93	NC	H F Lee Steam Electric Plant		3	D027093	2.386	0.170	0.048	**2.386**	0.219	0.996	0.170	0.034	**2.242**	0.206	0.939	0.107	0.025	**1.444**	0.133	0.615
94	WV	Mitchell (WV)	3948	1,2	D03948C02	2.331	0.145	0.067	**2.331**	0.214	0.975	0.130	0.072	**2.219**	0.204	0.930	0.145	0.058	**2.234**	0.206	0.936
95	GA	Jack McDonough		MB1, MB2	D00710C01	2.323	0.196	0.016	**2.323**	0.214	0.971	0.089	0.021	**1.202**	0.111	0.514	0.149	0.023	**1.879**	0.173	0.793
96	PA	Homer City		3	D031223	2.301	0.084	0.094	**1.969**	0.181	0.829	0.081	0.127	**2.301**	0.212	0.963	0.086	0.116	**2.235**	0.206	0.936
97	KY	Paradise	1378	2	D013782	2.299	0.070	0.021	**1.003**	0.093	0.431	0.187	0.023	**2.299**	0.211	0.962	0.121	0.023	**1.580**	0.146	0.671
98	PA	Armstrong Power Station		1	D031781	2.245	0.123	0.030	**1.680**	0.155	0.712	0.160	0.045	**2.245**	0.207	0.940					
99	PA	Armstrong Power Station		2	D031782	2.244	0.121	0.032	**1.676**	0.155	0.710	0.157	0.048	**2.244**	0.206	0.940					
100	PA	Sunbury		1A, 1B	D03152CS1	2.243	0.145	0.013	**1.729**	0.160	0.732	0.182	0.023	**2.243**	0.206	0.939	0.057	0.018	0.819	0.076	0.353
101	TN	John Sevier	3405	1,2	D03405C12	2.037	0.152	0.019	**1.873**	0.173	0.790	0.163	0.023	**2.037**	0.188	0.857	0.151	0.024	**1.917**	0.177	0.808
102	WV	Mount Storm Power Station	3954	1,2	D03954CS0	2.031	0.125	0.060	**2.031**	0.187	0.854										
103	KY	Paradise	1378	1	D01720C09	2.031	0.061	0.021	0.898	0.083	0.387	0.163	0.022	**2.031**	0.187	0.854	0.106	0.022	**1.403**	0.130	0.598
104	GA	Yates		Y7BR	D00728Y7R	2.002	0.175	0.008	**2.002**	0.184	0.843	0.112	0.013	**1.366**	0.126	0.583	0.138	0.013	**1.646**	0.152	0.698
105	TN	John Sevier	3405	3,4	D03405C34	1.994	0.148	0.019	**1.832**	0.169	0.774	0.159	0.023	**1.994**	0.184	0.839	0.147	0.024	**1.877**	0.173	0.792
106	MI	Trenton Channel	1745	16,17,18,19	x10	1.985	0.068	0.039	**1.173**	0.108	0.502	0.124	0.057	**1.985**	0.183	0.836	0.089	0.058	**1.620**	0.150	0.687
107	IN	IPL - Petersburg Generating Station		3	D009943	1.946	0.085	0.038	**1.350**	0.125	0.576	0.143	0.035	**1.946**	0.179	0.820	0.105	0.038	**1.578**	0.146	0.670
108	PA	Hatfield's Ferry Power Station	3179	3	x20	1.942	0.023	0.152	**1.942**	0.179	0.818										
109	GA	Scherer		4	D062574	1.878	0.155	0.016	**1.878**	0.173	0.792	0.091	0.021	**1.226**	0.113	0.524	0.090	0.027	**1.279**	0.118	0.547
110	MD	Dickerson	1572	1,2,3	D01572C23	1.870	0.056	0.113	**1.870**	0.172	0.789										
111	IA	Ottumwa		1	D062541	1.867	0.051	0.018	0.747	0.069	0.323	0.132	0.038	**1.867**	0.172	0.788	0.059	0.015	0.805	0.075	0.348
112	VA	Chesapeake Energy Center		2	D038032	1.843	0.107	0.060	**1.843**	0.170	0.778	0.083	0.026	**1.189**	0.110	0.509	0.103	0.038	**1.546**	0.143	0.657
113	GA	Scherer		1	D062571	1.843	0.150	0.018	**1.843**	0.170	0.778	0.089	0.023	**1.227**	0.113	0.525	0.087	0.029	**1.278**	0.118	0.546
114	WV	John E Amos	3935	1,2	D03935C02	1.830	0.121	0.046	**1.830**	0.169	0.773	0.090	0.052	**1.561**	0.144	0.663	0.073	0.076	**1.653**	0.153	0.701
115	IN	Whitewater Valley		1, 2	D01040C12	1.828	0.155	0.012	**1.828**	0.169	0.772	0.104	0.017	**1.322**	0.122	0.564	0.111	0.006	**1.274**	0.118	0.544
116	MI	Dan E Karn	1702	3,4 (1,2)	D01702C09	1.826	0.129	0.038	**1.826**	0.168	0.771	0.079	0.023	**1.120**	0.104	0.480	0.062	0.042	**1.142**	0.106	0.489
117	GA	Scherer		2	D062572	1.825	0.150	0.017	**1.825**	0.168	0.771	0.089	0.021	**1.207**	0.112	0.516	0.087	0.027	**1.253**	0.116	0.536
118	MA	Brayton Point	1619	3	D016193	1.811	0.084	0.007	0.992	0.092	0.426	0.156	0.009	**1.811**	0.167	0.765	0.131	0.014	**1.586**	0.146	0.673
119	IA	George Neal South		4	D073434	1.773	0.073	0.028	**1.098**	0.102	0.471	0.123	0.039	**1.773**	0.163	0.750	0.050	0.018	0.742	0.069	0.321
120	OK	Northeastern		3313, 3314	D02963C10	1.761	0.054	0.033	0.954	0.088	0.410	0.085	0.075	**1.761**	0.162	0.745	0.064	0.044	**1.184**	0.109	0.507

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121	PA	Portland		2 (1)	d031131	1.759	0.144	0.017	**1.759**	0.162	0.744	0.124	0.009	**1.451**	0.134	0.618	0.086	0.011	**1.050**	0.097	0.451
122	SC	Wateree	3297	WAT1	D03297WT1	1.743	0.117	0.006	**1.346**	0.124	0.574	0.141	0.018	**1.743**	0.161	0.738	0.086	0.021	**1.168**	0.108	0.500
123	DE	Indian River	594	4	D005944	1.731	0.058	0.014	0.782	0.072	0.337	0.140	0.019	**1.731**	0.160	0.732	0.074	0.006	0.873	0.081	0.376
124	OH	Miami Fort Generating Station	2832	7	D028327	1.716	0.086	0.070	**1.716**	0.158	0.727										
125	MI	J C Weadock		7, 8	D01720C09	1.707	0.128	0.028	**1.707**	0.157	0.723	0.078	0.019	**1.060**	0.098	0.455	0.064	0.033	**1.058**	0.098	0.454
126	NY	Somerset Operating Company (Kintigh)		1	D060821	1.674	0.069	0.032	**1.104**	0.102	0.474	0.099	0.048	**1.616**	0.149	0.686	0.081	0.071	**1.674**	0.154	0.709
127	IN	IPL - Harding Street Station (EW Stout)		50	D0099050	1.674	0.114	0.010	**1.347**	0.124	0.574	0.136	0.017	**1.674**	0.154	0.709	0.112	0.007	**1.297**	0.120	0.554
128	TN	Gallatin	3403	3,4	D03403C34	1.656	0.134	0.018	**1.656**	0.153	0.702										
129	VA	Clinch River	3775	1,2	D03775C02	1.632	0.117	0.032	**1.632**	0.151	0.692										
130	SC	Jefferies	3319	4		1.622	0.076	0.004	0.868	0.080	0.374	0.137	0.011	**1.622**	0.150	0.688	0.076	0.022	**1.080**	0.100	0.463
131	SC	Jefferies	3319	3		1.615	0.076	0.003	0.868	0.080	0.374	0.137	0.011	**1.615**	0.149	0.685	0.076	0.021	**1.061**	0.098	0.455
132	NH	Merrimack	2364	2	D023642	1.604	0.053	0.005	0.628	0.058	0.272	0.143	0.004	**1.604**	0.148	0.681	0.133	0.014	**1.603**	0.148	0.680
133	OH	Miami Fort Power Station		8	D028328	1.595	0.075	0.070	**1.595**	0.147	0.677										
134	VA	Chesapeake Energy Center		1	D038031	1.576	0.077	0.066	**1.576**	0.145	0.669	0.060	0.028	0.961	0.089	0.413	0.074	0.041	**1.268**	0.117	0.542
135	AL	Colbert	47	1, 2, 3, 4	D00047C14	1.570	0.109	0.034	**1.570**	0.145	0.667										
136	IN	Gibson	6113	4	D061135	1.569	0.027	0.114	**1.569**	0.145	0.666										
137	MD	Herbert A Wagner	1554	1,2,4	x08	1.568	0.101	0.042	**1.568**	0.145	0.666										
138	PA	Martins Creek	3148	3,4	x21	1.547	0.056	0.084	**1.540**	0.142	0.654	0.047	0.046	**1.021**	0.094	0.439	0.033	0.107	**1.547**	0.143	0.657
139	NJ	B L England	2378	2,3	x12	1.535	0.027	0.033	0.669	0.062	0.290	0.050	0.089	**1.535**	0.142	0.652	0.056	0.035	1.000	0.093	0.430
140	IN	IPL - Harding Street Station (EW Stout)		60	D0099060	1.513	0.103	0.009	**1.219**	0.113	0.522	0.123	0.015	**1.513**	0.140	0.643	0.101	0.006	**1.176**	0.109	0.504
141	IN	Michigan City Generating Station		12	D0099712	1.510	0.106	0.012	**1.286**	0.119	0.549	0.118	0.020	**1.510**	0.139	0.642	0.094	0.022	**1.265**	0.117	0.541
142	SC	H B Robinson		1	D032511	1.507	0.064	0.013	0.841	0.078	0.362	0.104	0.033	**1.507**	0.139	0.641	0.058	0.063	**1.330**	0.123	0.568
143	TX	Big Brown	3497	2		1.503	0.111	0.005	**1.262**	0.117	0.539	0.057	0.006	0.677	0.063	0.293	0.134	0.004	**1.503**	0.139	0.639
144	SC	Canadys Steam		CAN3	D03280CN3	1.491	0.065	0.004	0.751	0.070	0.324	0.129	0.008	**1.491**	0.138	0.634	0.073	0.018	0.995	0.092	0.428
145	OH	Eastlake	2837	1	D028371	1.489	0.113	0.023	**1.489**	0.137	0.633										
146	TN	Gallatin	3403	1,2	D03403C12	1.465	0.118	0.016	**1.465**	0.135	0.624										
147	IN	Merom		2SG1	D062132G1	1.458	0.122	0.012	**1.458**	0.135	0.621										
148	NC	Roxboro	2712	2	D027122	1.441	0.072	0.059	**1.441**	0.133	0.614										
149	TX	Big Brown	3497	1		1.433	0.105	0.005	**1.204**	0.111	0.515	0.054	0.006	0.647	0.060	0.280	0.127	0.004	**1.433**	0.132	0.610
150	SC	Wateree	3297	WAT2	D03297WT2	1.424	0.097	0.004	**1.095**	0.101	0.470	0.116	0.014	**1.424**	0.132	0.607	0.072	0.015	0.946	0.088	0.407
151	OH	Eastlake	2837	2	D028372	1.421	0.109	0.021	**1.421**	0.131	0.605										
152	IN	Gibson	6113	5	D061135	1.405	0.080	0.048	**1.405**	0.130	0.599										
153	OH	Cardinal	2828	1	D028281	1.404	0.106	0.022	**1.404**	0.130	0.598										
154	WV	Longview Power	56671	1		1.399	0.081	0.047	**1.399**	0.129	0.596										
155	NC	L V Sutton		1, 2	D02713C02	1.397	0.062	0.019	0.893	0.083	0.384	0.099	0.029	**1.397**	0.129	0.595	0.057	0.010	0.733	0.068	0.317
156	IN	R M Schahfer Generating Station		14	D0608514	1.393	0.099	0.018	**1.280**	0.118	0.547	0.102	0.025	**1.393**	0.129	0.594	0.099	0.026	**1.371**	0.127	0.584
157	MO	Sibley		1, 2, 3	D02094C01	1.341	0.098	0.023	**1.324**	0.122	0.565	0.104	0.018	**1.341**	0.124	0.572	0.058	0.009	0.728	0.067	0.315
158	NC	Marshall	2727	1,2	x11	1.325	0.035	0.085	**1.325**	0.122	0.566										
159	NC	Belews Creek	8042	1	D080421	1.304	0.031	0.087	**1.304**	0.121	0.557										
160	NC	Belews Creek	8042	2	D080422	1.302	0.031	0.086	**1.302**	0.120	0.556										

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161	NC	Marshall	2727	4	D027274	1.297	0.028	0.089	**1.297**	0.120	0.554										
162	WI	Columbia		2	D080232	1.256	0.058	0.019	0.850	0.079	0.367	0.089	0.026	**1.256**	0.116	0.537	0.052	0.012	0.702	0.065	0.303
163	OH	J M Stuart	2850	3	D028503	1.244	0.066	0.047	**1.244**	0.115	0.532										
164	MN	Sherburne County		1, 2	D06090CS1	1.242	0.059	0.033	**1.008**	0.093	0.433	0.071	0.042	**1.242**	0.115	0.531	0.030	0.015	0.501	0.047	0.218
165	OH	Eastlake	2837	3	D028373	1.237	0.094	0.019	**1.237**	0.114	0.529										
166	MO	New Madrid Power Plant		1	D021671	1.233	0.024	0.087	**1.233**	0.114	0.527										
167	IN	R M Schahfer Generating Station		15	D0608515	1.228	0.076	0.028	**1.142**	0.106	0.489	0.079	0.033	**1.228**	0.114	0.525	0.077	0.033	**1.206**	0.112	0.516
168	MI	River Rouge		3	D017403	1.214	0.066	0.045	**1.214**	0.112	0.519										
169	WV	Mountaineer (1301)	6264	1	D062641	1.180	0.061	0.046	**1.180**	0.109	0.505										
170	KY	Shawnee		1,2,3,4,5	D01379C15	1.177	0.055	0.052	**1.177**	0.109	0.504										
171	WI	Columbia		1	D080231	1.177	0.058	0.017	0.821	0.076	0.354	0.084	0.024	**1.177**	0.109	0.504	0.049	0.011	0.662	0.061	0.287
172	OH	Eastlake	2837	4,6, (5)	x17	1.167	0.070	0.036	**1.167**	0.108	0.500										
173	VA	Chesterfield Power Station	3797	6	D037976	1.154	0.056	0.049	**1.154**	0.107	0.494										
174	IN	IPL - Petersburg Generating Station		1 (50%)	D00994M1B	1.134	0.087	0.016	**1.134**	0.105	0.486										
175	TX	Martin Lake	6146	1		1.124	0.079	0.009	0.967	0.089	0.416	0.040	0.010	0.556	0.052	0.241	0.096	0.007	**1.124**	0.104	0.482
176	AR	Independence		1	D066411	1.113	0.072	0.030	**1.113**	0.103	0.477										
177	OH	Cardinal	2828	2	D028282	1.101	0.077	0.024	**1.101**	0.102	0.472										
178	NY	Oswego Harbor Power	2594	6	x15	1.098	0.046	0.016	0.680	0.063	0.294	0.071	0.029	**1.098**	0.102	0.471	0.058	0.028	0.941	0.087	0.405
179	NC	Roxboro	2712	1	D027121	1.095	0.042	0.057	**1.095**	0.101	0.470										
180	OH	J M Stuart	2850	1	D028501	1.094	0.063	0.037	**1.094**	0.101	0.469										
181	MO	Labadie		4	D021034	1.093	0.040	0.008	0.532	0.049	0.231	0.088	0.012	**1.093**	0.101	0.469	0.081	0.011	**1.014**	0.094	0.435
182	KY	East Bend	6018	2	D060182	1.086	0.043	0.056	**1.086**	0.101	0.466										
183	AR	Independence		2	D066412	1.085	0.073	0.026	**1.085**	0.100	0.465										
184	IN	Alcoa Allowance Management Inc	6705	1,2	D06705C02	1.072	0.020	0.077	**1.072**	0.099	0.460										
185	IN	IPL - Harding Street Station (EW Stout	990	70	D0099070	1.071	0.072	0.026	**1.071**	0.099	0.460										
186	WV	John E Amos	3935	3	D039353	1.059	0.055	0.041	**1.059**	0.098	0.455										
187	OK	Grand River Dam Authority		1	D001651	1.055	0.027	0.013	0.431	0.040	0.188	0.065	0.031	**1.055**	0.098	0.453	0.033	0.026	0.652	0.060	0.282
188	TX	Martin Lake	6146	2		1.042	0.074	0.008	0.893	0.083	0.384	0.038	0.009	0.507	0.047	0.220	0.089	0.006	**1.042**	0.096	0.448
189	KY	Ghent	1356	1,2 ... (1,4)	D01356C01	1.037	0.050	0.044	**1.037**	0.096	0.445										
190	IN	IPL - Petersburg Generating Station		2(50%)	D00994M2B	1.028	0.059	0.035	**1.028**	0.095	0.442										
191	TX	Martin Lake	6146	3		0.962	0.068	0.008	0.827	0.077	0.357	0.035	0.009	0.475	0.044	0.207	0.082	0.006	0.962	0.089	0.414
192	NY	Oswego Harbor Power	2594	5	D025945	0.954	0.069	0.019	0.954	0.088	0.411										
193	KS	La Cygne		2	D012412	0.939	0.040	0.032	0.786	0.073	0.339	0.051	0.035	0.939	0.087	0.404	0.041	0.024	0.711	0.066	0.307
194	KY	Shawnee		6,7,8,9,10	D01379C60	0.937	0.048	0.037	0.937	0.087	0.403										
195	OH	J M Stuart	2850	2	D028502	0.932	0.037	0.048	0.932	0.086	0.401										
196	KY	H L Spurlock	6041	2	D060412	0.928	0.059	0.026	0.928	0.086	0.400										
197	IN	IPL - Eagle Valley Generating Station		5, 6	D00991C56	0.923	0.073	0.012	0.923	0.085	0.397										
198	MD	Morgantown	1573	2	D015732	0.922	0.068	0.016	0.922	0.085	0.397										
199	IN	R Gallagher	1008	1,2	D01008C01	0.919	0.063	0.021	0.919	0.085	0.396										
200	MO	New Madrid Power Plant		2	D021672	0.912	0.022	0.060	0.912	0.084	0.393										

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201	WI	Nelson Dewey	4054	2		0.896	0.069	0.013	0.896	0.083	0.386										
202	OH	Conesville	2840	4	D028504	0.895	0.051	0.031	0.895	0.083	0.385										
203	KY	H L Spurlock	6041	1	D060411	0.890	0.067	0.014	0.890	0.082	0.383										
204	AR	White Bluff		1	D060091	0.871	0.058	0.022	0.871	0.081	0.375										
205	AR	White Bluff		2	D060092	0.860	0.055	0.023	0.860	0.080	0.371										
206	IL	Joliet 29		81, 82	D00384C82	0.858	0.062	0.016	0.858	0.079	0.370										
207	TX	Monticello	6147	1		0.857	0.062	0.005	0.728	0.067	0.315	0.032	0.005	0.404	0.037	0.176	0.075	0.004	0.857	0.079	0.370
208	IN	R Gallagher	1008	3,4	D01008C02	0.830	0.056	0.020	0.830	0.077	0.358										
209	NY	Huntley Power	2549	67,68	D02549C01	0.819	0.060	0.015	0.819	0.076	0.353										
210	NC	Riverbend	2732	9		0.815	0.065	0.009	0.815	0.075	0.352										
211	NH	Merrimack	2364	1	D023641	0.798	0.027	0.002	0.311	0.029	0.136	0.072	0.002	0.798	0.074	0.344	0.066	0.006	0.791	0.073	0.341
212	IL	Newton		2	D060172	0.784	0.058	0.014	0.784	0.073	0.339										
213	MN	Sherburne County		3	D060903	0.765	0.051	0.019	0.765	0.071	0.331										
214	WI	South Oak Creek		7, 8	D04041CS4	0.726	0.052	0.014	0.726	0.067	0.314										
215	AL	Greene County	10	1		0.716	0.061	0.004	0.716	0.066	0.309										
216	MO	Rush Island		2	D061552	0.715	0.060	0.006	0.715	0.066	0.309										
217	IN	Cayuga	1001	2	D010012	0.711	0.034	0.031	0.711	0.066	0.307										
218	OH	W H Sammis	2866	7	D028667	0.699	0.026	0.037	0.699	0.065	0.302										
219	MO	Rush Island		1	D061551	0.697	0.057	0.007	0.697	0.065	0.302										
220	MA	Brayton Point	1619	2	D016192	0.696	0.027	0.006	0.357	0.033	0.155	0.058	0.006	0.696	0.064	0.301	0.049	0.008	0.618	0.057	0.268
221	MI	Monroe	1733	3,4	D01733C34	0.695	0.030	0.034	0.695	0.064	0.300										
222	KY	E W Brown	1355	2,3	D01355C03	0.688	0.019	0.044	0.688	0.064	0.298										
223	TX	Monticello	6147	2		0.682	0.058	0.004	0.682	0.063	0.295										
224	NE	Nebraska City Station		1	D060961	0.672	0.052	0.009	0.672	0.062	0.291										
225	AL	E C Gaston	26	5		0.671	0.025	0.036	0.671	0.062	0.291										
226	IA	George Neal North		3	D010913	0.666	0.039	0.022	0.666	0.062	0.288										
227	IA	Louisa		101	D06664101	0.650	0.032	0.027	0.650	0.060	0.282										
228	TX	Monticello	6147	3		0.649	0.052	0.008	0.649	0.060	0.281										
229	OH	W H Sammis	2866	1,2	D02866C01	0.640	0.018	0.040	0.640	0.059	0.277										
230	OH	W H Sammis	2866	6	D02866M6A	0.640	0.027	0.031	0.640	0.059	0.277										
231	IN	Cayuga	1001	1	D010011	0.637	0.029	0.029	0.637	0.059	0.276										
232	MN	Black Dog		3, 4	D01904CS1	0.637	0.020	0.037	0.637	0.059	0.276										
233	OH	W H Sammis	2866	3,4	D02866C02	0.630	0.017	0.040	0.630	0.058	0.273										
234	IA	Walter Scott Jr. Energy Center		3	D010823	0.623	0.033	0.023	0.623	0.058	0.270										
235	TX	Limestone	298	LIM2		0.622	0.045	0.012	0.622	0.058	0.270										
236	TX	H W Pirkey Power Plant	7902	1		0.620	0.049	0.007	0.620	0.057	0.268										
237	KY	Green River		5	D013575	0.618	0.049	0.008	0.618	0.057	0.268										
238	WI	Edgewater (4050)	4050	5		0.608	0.047	0.008	0.608	0.056	0.263										
239	MA	Brayton Point	1619	1	D016191	0.600	0.025	0.004	0.309	0.029	0.135	0.051	0.004	0.600	0.056	0.260	0.043	0.005	0.524	0.049	0.228
240	MO	Thomas Hill Energy Center		MB3	D02168MB3	0.598	0.044	0.010	0.598	0.055	0.259										

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241	GA	Yates		Y5BR	D00728Y5R	0.589	0.051	0.003	0.589	0.055	0.255										
242	TX	Limestone	298	LIM1		0.579	0.041	0.012	0.579	0.054	0.251										
243	NC	Marshall	2727	3	D027273	0.576	0.029	0.023	0.576	0.053	0.250										
244	PA	Shawville	3131	1	D031311	0.568	0.044	0.008	0.568	0.053	0.246										
245	GA	Bowen	703	1BLR	D007031LR	0.559	0.022	0.029	0.559	0.052	0.243										
246	PA	Shawville	3131	2	D031312	0.557	0.044	0.007	0.557	0.052	0.242										
247	IL	Marion		4	D009764	0.557	0.034	0.017	0.557	0.052	0.242										
248	SC	Urquhart		URQ3	D03295UQ3	0.553	0.048	0.002	0.553	0.051	0.240										
249	KY	Green River		4	D013574	0.547	0.042	0.008	0.547	0.051	0.237										
250	MO	Labadie		3	D021033	0.534	0.040	0.008	0.534	0.049	0.232										
251	TN	Cumberland	3399	1		0.533	0.032	0.016	0.533	0.049	0.231										
252	MO	Labadie		1	D021031	0.507	0.039	0.008	0.507	0.047	0.220										
253	GA	Bowen	703	4BLR	D007034LR	0.496	0.012	0.033	0.496	0.046	0.216										
254	GA	Bowen	703	2BLR	D007032LR	0.483	0.010	0.033	0.483	0.045	0.210										
255	IL	Joppa Steam		1, 2	D00887CS1	0.469	0.035	0.008	0.469	0.044	0.204										
256	IL	Joppa Steam		3, 4	D00887CS2	0.464	0.036	0.007	0.464	0.043	0.202										
257	KY	D B Wilson		W1	D06823W1	0.454	0.034	0.008	0.454	0.042	0.198										
258	OH	W H Sammis	2866	5	D028665	0.453	0.011	0.030	0.453	0.042	0.197										
259	NH	Newington	8002	1	D080021	0.446	0.016	0.002	0.202	0.019	0.089	0.040	0.001	0.446	0.041	0.194	0.034	0.007	0.446	0.041	0.194
260	ME	William F Wyman	1507	4	D015074	0.431	0.010	0.001	0.125	0.012	0.055	0.034	0.002	0.393	0.037	0.171	0.032	0.008	0.431	0.040	0.187
261	KS	Nearman Creek	6064	N1		0.429	0.020	0.019	0.429	0.040	0.187										
262	KS	La Cygne	1241	1		0.426	0.025	0.014	0.426	0.040	0.185	0.025	0.011	0.392	0.036	0.171	0.018	0.006	0.266	0.025	0.116
263	WI	Genoa	4143	1		0.418	0.029	0.010	0.418	0.039	0.182										
264	MO	Sikeston		1	D067681	0.404	0.024	0.013	0.404	0.038	0.176										
265	SC	McMeekin		MCM2	D03287MM2	0.377	0.032	0.002	0.377	0.035	0.164										
266	IL	Wood River Power Station		5	D008985	0.366	0.024	0.010	0.366	0.034	0.159										
267	SC	McMeekin		MCM1	D03287MM1	0.363	0.031	0.003	0.363	0.034	0.158										
268	OK	Muskogee	2952	4		0.343	0.020	0.011	0.343	0.032	0.150										
269	TX	Welsh Power Plant	6139	3		0.342	0.025	0.006	0.342	0.032	0.149										
270	OK	Sooner	6095	1		0.330	0.022	0.009	0.330	0.031	0.144										
271	OK	Sooner		2	D060952	0.325	0.021	0.009	0.325	0.030	0.142										
272	TX	Welsh Power Plant	6139	1		0.320	0.024	0.006	0.320	0.030	0.140										
273	TX	Welsh Power Plant	6139	2		0.319	0.024	0.005	0.319	0.030	0.139										
274	SC	Winyah	6249	2,3,4	x23	0.315	0.024	0.005	0.315	0.029	0.138										
275	NY	Northport	2516	1,2,4,ugt001	x14	0.314	0.021	0.008	0.314	0.029	0.137	0.017	0.006	0.255	0.024	0.112					
276	NJ	Hudson Generating Station	2403	2	D024032	0.313	0.016	0.008	0.266	0.025	0.116	0.021	0.007	0.313	0.029	0.137	0.017	0.009	0.294	0.027	0.128
277	OK	Muskogee		5	D029525	0.312	0.019	0.010	0.312	0.029	0.136										
278	CT	Bridgeport Harbor Station	568	BHB3		0.309	0.016	0.008	0.263	0.024	0.115	0.016	0.011	0.299	0.028	0.130	0.017	0.011	0.309	0.029	0.135
279	NY	NRG Dunkirk Power		3	D02554C03	0.308	0.019	0.009	0.308	0.029	0.134										
280	OK	Hugo		1	D067721	0.299	0.022	0.006	0.299	0.028	0.130										

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281	AR	Flint Creek Power Plant	6138	1		0.297	0.015	0.012	0.297	0.028	0.129										
282	MA	Brayton Point	1619	4	x07	0.288	0.015	0.003	0.199	0.018	0.087	0.022	0.004	0.283	0.026	0.124	0.021	0.006	0.288	0.027	0.125
283	GA	Bowen	703	3BLR	D007033LR	0.284	0.012	0.014	0.284	0.026	0.124										
284	NY	Dynegy Danskammer	2480	1,2,3	x13	0.273	0.020	0.005	0.273	0.025	0.119										
285	MA	Canal Station	1599	1	D015991	0.266	0.018	0.002	0.225	0.021	0.098	0.022	0.003	0.266	0.025	0.116	0.019	0.004	0.256	0.024	0.112
286	IN	Alcoa Allowance Management Inc	6705	4	D067054	0.259	0.012	0.012	0.259	0.024	0.113										
287	NC	Cliffside	2721	5	D027215	0.253	0.014	0.009	0.253	0.023	0.110										
288	MO	Meramec		3	D021043	0.246	0.016	0.006	0.246	0.023	0.107										
289	NY	CCI Roseton LLC	8006	2	D080062	0.232	0.012	0.009	0.232	0.022	0.101										
290	MA	Canal Station	1599	2	D015992	0.210	0.014	0.004	0.200	0.019	0.087	0.013	0.004	0.186	0.017	0.081	0.013	0.006	0.210	0.020	0.092
291	IN	Alcoa Allowance Management Inc	6705	3	x02	0.208	0.005	0.014	0.208	0.019	0.091										
292	MA	Salem Harbor Station	1626	1		0.186	0.006	0.001	0.075	0.007	0.033	0.016	0.001	0.186	0.017	0.081	0.010	0.003	0.141	0.013	0.062
293	NJ	Mercer Generating Station	2408	1	D024081	0.180	0.008	0.008	0.180	0.017	0.079										
294	DE	Edge Moor	593	5	D005935	0.175	0.012	0.004	0.175	0.016	0.076										
295	NY	Northport	2516	3	D025163	0.165	0.012	0.003	0.165	0.015	0.072										
296	CT	Middletown	562	4		0.163	0.009	0.006	0.163	0.015	0.071										
297	NJ	Mercer Generating Station	2408	2	D024082	0.162	0.007	0.008	0.162	0.015	0.071										
298	CT	New Haven Harbor	6156	NHB1		0.148	0.011	0.003	0.148	0.014	0.065										
299	NH	Schiller	2367	6		0.139	0.004	0.001	0.057	0.005	0.025	0.012	0.001	0.139	0.013	0.061	0.009	0.003	0.124	0.011	0.054
300	NH	Schiller	2367	4		0.137	0.004	0.001	0.057	0.005	0.025	0.012	0.001	0.137	0.013	0.060	0.008	0.003	0.122	0.011	0.054
301	SC	Williams	3298	WIL1	D03298WL1	0.129	0.007	0.005	0.129	0.012	0.056										
302	KS	Tecumseh Energy Center	1252	10		0.121	0.008	0.003	0.121	0.011	0.053										
303	KS	Quindaro	1295	2		0.108	0.006	0.004	0.108	0.010	0.047										
304	OH	Miami Fort Generating Station	2832	5-1, 5-2, 6	D02832C06	0.059	0.005	0.000	0.059	0.005	0.026										
305	SC	Winyah	6249	1	D062491	0.045	0.003	0.001	0.045	0.004	0.020										
306	ME	William F Wyman	1507	3		0.013	0.001	0.000	0.013	0.001	0.006										
307	ME	William F Wyman	1507	1		0.007	0.001	0.000	0.007	0.001	0.003										
308	ME	William F Wyman	1507	2		0.007	0.001	0.000	0.007	0.001	0.003										
309	IL	Newton		1	D060171	0.000															
310	MA	Salem Harbor Station	1626	3	D016263	0.000															
311	NY	CCI Roseton LLC	8006	1	D080061	0.000											0.000	0.000	0.000	0.000	0.000

F.22 2015 EGU Ranking Visibility Impairing Sources to Shenandoah

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Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
1	OH	Muskingum River	2872	5	D028725	15.180	1.010	0.037	11.781	1.035	4.153	1.134	0.062	13.572	1.178	4.641	1.303	0.041	15.180	1.320	5.108
2	PA	Homer City	3122	1	D031221	13.635	0.802	0.177	10.989	0.967	3.916	0.826	0.210	11.483	1.020	4.103	0.985	0.233	13.635	1.194	4.692
3	PA	Homer City	3122	2	D031222	12.044	0.708	0.159	9.689	0.858	3.529	0.729	0.189	10.161	0.907	3.705	0.869	0.210	12.044	1.061	4.245
4	OH	Avon Lake Power Plant	2836	12	D0283612	11.893	0.819	0.118	10.554	0.926	3.774	0.570	0.150	8.255	0.715	3.002	0.967	0.097	11.893	1.049	4.202
5	VA	Yorktown Power Station	3809	3	D038093	10.549	0.484	0.275	8.433	0.754	3.148	0.735	0.221	10.549	0.943	3.834	0.343	0.131	5.238	0.476	2.070
6	OH	Muskingum River	2872	1,2,3,4	D02872C04	7.774	0.472	0.071	5.873	0.542	2.336	0.506	0.113	6.634	0.617	2.629	0.628	0.073	7.774	0.698	2.937
7	KY	Big Sandy	1353	BSU1,BSU2	D01353C02	7.448	0.613	0.074	7.448	0.684	2.883	0.475	0.082	6.048	0.556	2.389	0.328	0.114	4.875	0.443	1.940
8	WV	Harrison Power Station		1 (25%), 2 (209	D03944C01	6.978	0.179	0.390	6.354	0.573	2.458	0.140	0.334	5.281	0.479	2.084	0.169	0.456	6.978	0.629	2.673
9	OH	W H Zimmer Generating Station	6019	1	D060191	6.904	0.332	0.259	6.904	0.591	2.527	0.247	0.186	5.058	0.436	1.908	0.147	0.220	4.059	0.370	1.640
10	PA	Brunner Island	3140	1,2	D03140C12	6.873	0.169	0.096	2.882	0.268	1.207	0.310	0.314	6.873	0.624	2.656	0.142	0.371	5.718	0.518	2.240
11	IN	Wabash River Gen Station	1010	2,3,4,5,6	D01010C05	6.597	0.373	0.023	4.333	0.396	1.747	0.553	0.042	6.597	0.594	2.539	0.306	0.029	3.684	0.337	1.500
12	GA	Harllee Branch	709	3&4	D00709C02	6.352	0.526	0.055	6.352	0.579	2.482	0.241	0.045	3.149	0.289	1.295	0.278	0.052	3.630	0.332	1.479
13	IN	Rockport	6166	MB1,MB2	D06166C02	6.061	0.230	0.081	3.464	0.313	1.400	0.374	0.173	6.061	0.547	2.356	0.304	0.144	4.936	0.449	1.962
14	WV	Kammer	3947	1,2,3	D03947C03	5.989	0.442	0.095	5.989	0.536	2.312	0.438	0.090	5.881	0.527	2.277	0.472	0.066	5.933	0.537	2.316
15	OH	Gen J M Gavin	8102	1	D081021	5.893	0.314	0.122	4.938	0.437	1.915	0.305	0.115	4.775	0.422	1.853	0.359	0.175	5.893	0.533	2.301
16	PA	Brunner Island	3140	3	D031403	5.492	0.115	0.104	2.481	0.222	1.009	0.279	0.201	5.492	0.482	2.095	0.091	0.204	3.272	0.300	1.343
17	PA	Keystone	3136	1	D031361	5.432	0.193	0.187	4.232	0.383	1.694	0.228	0.230	5.092	0.461	2.012	0.239	0.251	5.432	0.493	2.139
18	OH	Gen J M Gavin	8102	2	D081022	5.428	0.294	0.109	4.547	0.404	1.781	0.286	0.103	4.397	0.390	1.723	0.336	0.156	5.428	0.492	2.138
19	IN	Tanners Creek	988	U4	D00988U4	5.321	0.412	0.070	5.321	0.482	2.097	0.259	0.058	3.476	0.319	1.426	0.245	0.043	3.154	0.289	1.297
20	PA	Keystone	3136	2	D031362	5.267	0.185	0.183	4.104	0.372	1.646	0.219	0.226	4.937	0.447	1.956	0.229	0.246	5.267	0.478	2.081
21	OH	Killen Station	6031	2	D060312	5.147	0.242	0.188	5.147	0.433	1.898	0.235	0.182	4.977	0.419	1.840	0.140	0.197	3.723	0.340	1.514
22	PA	Shawville	3131	3,4	D03131CS1	5.127	0.248	0.025	3.030	0.274	1.234	0.397	0.065	5.127	0.463	2.018	0.232	0.054	3.137	0.287	1.291
23	VA	Yorktown Power Station	3809	1,2	D03809CS0	4.986	0.249	0.131	4.232	0.381	1.686	0.350	0.103	4.986	0.454	1.982	0.245	0.077	3.543	0.324	1.446
24	MD	Herbert A Wagner	1554	3	D015543	4.605	0.238	0.011	2.606	0.251	1.134	0.313	0.017	3.540	0.332	1.478	0.394	0.025	4.605	0.419	1.842
25	WV	Pleasants Power Station	6004	1	D060041	4.598	0.153	0.147	3.393	0.304	1.359	0.140	0.290	4.598	0.435	1.907	0.147	0.186	3.674	0.336	1.496
26	WV	Kanawha River	3936	1,2	D03936C02	4.428	0.289	0.111	4.428	0.401	1.768	0.179	0.078	2.841	0.260	1.172	0.159	0.084	2.677	0.246	1.111
27	OH	Conesville	2840	5,6	D02840C06	4.292	0.098	0.117	2.372	0.218	0.992	0.114	0.151	2.976	0.269	1.212	0.176	0.212	4.292	0.391	1.727
28	PA	Homer City		3	D031223	4.046	0.111	0.195	3.463	0.311	1.389	0.107	0.262	4.046	0.375	1.659	0.114	0.240	3.930	0.359	1.592
29	NC	Roxboro	2712	3A,3B	D02712C03	4.031	0.117	0.103	2.457	0.223	1.012	0.193	0.167	4.031	0.364	1.613	0.111	0.087	2.172	0.200	0.911
30	NC	Roxboro	2712	4A,4B	D02712C04	3.880	0.122	0.091	2.367	0.216	0.982	0.201	0.148	3.880	0.352	1.564	0.115	0.077	2.111	0.194	0.886
31	PA	Montour	3149	1	D031491	3.804	0.150	0.107	2.960	0.260	1.174	0.118	0.224	3.804	0.346	1.538	0.063	0.136	2.210	0.203	0.926
32	MI	Trenton Channel	1745	9A	D017459A	3.802	0.159	0.031	2.079	0.192	0.874	0.299	0.048	3.802	0.348	1.547	0.218	0.045	2.889	0.265	1.195
33	KY	Mill Creek	1364	1,2,3	x05	3.795	0.147	0.048	2.072	0.197	0.898	0.311	0.055	3.795	0.367	1.627	0.144	0.081	2.475	0.228	1.032
34	PA	Montour	3149	2	D031492	3.585	0.124	0.106	2.870	0.233	1.056	0.097	0.222	3.585	0.324	1.444	0.052	0.136	2.078	0.191	0.873
35	MI	St. Clair	1743	6	D017436	3.369	0.235	0.013	2.663	0.250	1.127	0.283	0.026	3.369	0.311	1.390	0.166	0.018	2.017	0.186	0.849
36	MD	C P Crane	1552	2	D015522	3.249	0.106	0.073	2.239	0.182	0.831	0.119	0.102	2.634	0.224	1.015	0.132	0.162	3.249	0.298	1.334
37	OH	Kyger Creek	2876	1,2,3,4,5	D02876C01	3.222	0.171	0.113	3.174	0.287	1.287	0.132	0.086	2.388	0.220	1.000	0.172	0.121	3.222	0.295	1.323
38	MI	J H Campbell		3 (50%)	D01710M3A	3.196	0.070	0.008	0.836	0.079	0.367	0.175	0.015	1.963	0.192	0.875	0.259	0.032	3.196	0.293	1.313
39	MI	St. Clair	1743	7	D017437	3.175	0.207	0.024	2.601	0.232	1.053	0.242	0.043	3.175	0.287	1.290	0.142	0.032	1.908	0.176	0.805
40	PA	Cheswick	8226	1	D082261	3.005	0.059	0.170	3.005	0.234	1.060	0.053	0.219	2.976	0.278	1.248	0.048	0.191	2.656	0.244	1.103

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41	MI	Belle River		2	D060342	2.871	0.161	0.069	2.557	0.233	1.054	0.174	0.085	2.871	0.261	1.178	0.101	0.073	1.922	0.177	0.810
42	MI	Belle River		1	D060341	2.681	0.143	0.069	2.387	0.214	0.975	0.155	0.085	2.681	0.242	1.094	0.090	0.074	1.797	0.166	0.760
43	KY	Ghent	1356	3,4 … (2,3)	D01356C02	2.638	0.162	0.081	**2.638**	0.245	**1.107**	0.151	0.058	**2.269**	0.212	0.964	0.102	0.075	**1.949**	0.180	0.821
44	TN	Johnsonville	3406	1 thru 10	D03406C10	2.548	0.160	0.012	**1.842**	0.174	0.795	0.232	0.012	**2.548**	0.245	**1.110**	0.122	0.012	**1.463**	0.135	0.623
45	MI	St. Clair	1743	1,2,3,4,…6	x09	2.519	0.115	0.050	**1.886**	0.167	0.764	0.140	0.083	**2.519**	0.225	**1.022**	0.072	0.069	**1.553**	0.143	0.660
46	WV	Mitchell (WV)	3948	1,2	D03948C02	2.482	0.129	0.101	**2.482**	0.232	**1.053**	0.116	0.107	**2.363**	0.226	**1.025**	0.130	0.086	**2.379**	0.219	0.994
47	IN	Tanners Creek	988	U1,U2,U3	D00988C03	2.442	0.163	0.059	**2.442**	0.224	**1.018**	0.106	0.053	**1.722**	0.161	0.737	0.101	0.038	**1.521**	0.140	0.647
48	GA	Yates		Y6BR	D00728Y6R	2.410	0.207	0.011	**2.410**	0.219	0.996	0.132	0.018	**1.635**	0.152	0.697	0.163	0.018	**1.975**	0.182	0.832
49	MD	Brandon Shores	602	2	D006022	2.245	0.064	0.039	0.988	0.105	0.484	0.083	0.062	**1.478**	0.147	0.678	0.104	0.099	**2.245**	0.207	0.940
50	IN	Whitewater Valley		1, 2	D01040C12	2.185	0.185	0.015	**2.185**	0.201	0.917	0.124	0.021	**1.581**	0.146	0.673	0.132	0.007	**1.522**	0.141	0.647
51	MD	Morgantown	1573	1	D015731	2.100	0.079	0.015	**1.192**	0.096	0.444	0.138	0.029	**2.100**	0.168	0.769	0.094	0.043	**1.503**	0.139	0.639
52	IL	Powerton		51,52,61,62	D00879C06	2.066	0.055	0.035	0.943	0.091	0.424	0.129	0.065	**2.066**	0.197	0.897	0.135	0.024	**1.741**	0.161	0.737
53	MD	Brandon Shores	602	1	D006021	2.065	0.069	0.029	0.913	0.100	0.462	0.090	0.046	**1.364**	0.139	0.638	0.113	0.074	**2.065**	0.190	0.868
54	MD	Chalk Point	1571	1,2	D01571CE2	2.048	0.136	0.002	**1.364**	0.140	0.642	0.167	0.006	**1.893**	0.174	0.798	0.181	0.006	**2.048**	0.189	0.861
55	GA	Harllee Branch	709	1,2	D00709C01	1.939	0.169	0.016	**1.939**	0.186	0.849	0.070	0.014	0.903	0.084	0.393	0.091	0.021	**1.221**	0.113	0.522
56	MD	C P Crane	1552	1	D015521	1.905	0.053	0.048	**1.315**	0.103	0.477	0.060	0.067	**1.546**	0.129	0.593	0.066	0.106	**1.905**	0.176	0.803
57	IN	IPL - Petersburg Generating Station		3	D009943	1.852	0.065	0.055	**1.285**	0.122	0.565	0.110	0.050	**1.852**	0.162	0.742	0.081	0.056	**1.503**	0.139	0.639
58	AL	E C Gaston	26	1, 2	D00026CAN	1.834	0.113	0.012	**1.369**	0.127	0.586	0.150	0.018	**1.834**	0.169	0.776	0.106	0.020	**1.379**	0.127	0.588
59	IN	Michigan City Generating Station		12	D0099712	1.808	0.133	0.011	**1.539**	0.146	0.670	0.149	0.018	**1.808**	0.169	0.773	0.119	0.020	**1.515**	0.140	0.644
60	OH	J M Stuart	2850	4	D028404	1.676	0.086	0.052	**1.676**	0.140	0.643	0.076	0.038	**1.424**	0.116	0.536	0.037	0.045	0.896	0.083	0.386
61	WV	John E Amos	3935	1,2	D03935C02	1.637	0.064	0.057	**1.637**	0.123	0.567	0.048	0.064	**1.397**	0.114	0.528	0.039	0.095	**1.479**	0.137	0.629
62	MI	J H Campbell		A,B,1,2	D01710C09	1.617	0.052	0.009	0.662	0.061	0.285	0.136	0.016	**1.617**	0.154	0.707	0.126	0.020	**1.594**	0.147	0.677
63	IN	IPL - Harding Street Station (EW Stout)		50	D0099050	1.605	0.110	0.008	**1.291**	0.119	0.549	0.132	0.013	**1.605**	0.147	0.674	0.108	0.006	**1.244**	0.115	0.532
64	IN	Gibson	6113	1,2,3	D06113C03	1.471	0.056	0.043	**1.029**	0.101	0.469	0.073	0.053	**1.275**	0.127	0.587	0.069	0.065	**1.471**	0.136	0.626
65	IN	IPL - Harding Street Station (EW Stout)		60	D0099060	1.454	0.100	0.007	**1.172**	0.108	0.500	0.120	0.012	**1.454**	0.133	0.613	0.099	0.005	**1.130**	0.105	0.484
66	MI	J C Weadock		7, 8	D01720C09	1.432	0.111	0.022	**1.432**	0.135	0.620	0.068	0.015	0.889	0.084	0.389	0.056	0.025	0.888	0.082	0.383
67	NJ	B L England	2378	2,3	x12	1.396	0.023	0.033	0.608	0.058	0.270	0.043	0.088	**1.396**	0.134	0.617	0.048	0.035	0.909	0.084	0.391
68	MI	Monroe	1733	1,2	D01733C12	1.348	0.012	0.021	0.518	0.033	0.156	0.026	0.078	**1.348**	0.107	0.493	0.013	0.054	0.735	0.068	0.317
69	IN	Clifty Creek	983	4,5,6	D00983C02	1.328	0.029	0.048	**1.158**	0.079	0.367	0.032	0.062	**1.328**	0.096	0.447	0.025	0.077	**1.129**	0.104	0.484
70	IN	IPL - Petersburg Generating Station		4	D009944	1.269	0.047	0.033	0.843	0.081	0.377	0.078	0.030	**1.269**	0.110	0.510	0.058	0.033	1.000	0.093	0.430
71	NY	Somerset Operating Company (Kintigh)		1	D060821	1.222	0.067	0.015	0.806	0.083	0.385	0.096	0.022	**1.180**	0.120	0.554	0.078	0.033	**1.222**	0.113	0.523
72	IA	Ottumwa		1	D062541	1.197	0.027	0.020	0.479	0.047	0.220	0.069	0.042	**1.197**	0.113	0.524	0.031	0.016	0.516	0.048	0.224
73	TX	Big Brown	3497	1		1.173	0.086	0.005	0.985	0.091	0.425	0.044	0.005	0.530	0.050	0.233	0.104	0.004	**1.173**	0.108	0.502
74	TX	Big Brown	3497	2		1.128	0.082	0.005	0.947	0.088	0.409	0.042	0.006	0.508	0.048	0.225	0.099	0.004	**1.128**	0.104	0.483
75	KY	Mill Creek	1364	4	D013644	1.112	0.009	0.028	0.569	0.037	0.175	0.018	0.032	**1.112**	0.051	0.240	0.008	0.047	0.620	0.057	0.269
76	IN	Clifty Creek	983	1,2,3	D00983C01	1.090	0.032	0.034	0.952	0.067	0.311	0.036	0.044	**1.090**	0.082	0.380	0.028	0.054	0.907	0.084	0.391
77	KY	Paradise	1378	2	D013782	1.088	0.030	0.016	0.475	0.046	0.216	0.079	0.017	**1.088**	0.097	0.451	0.051	0.017	0.748	0.069	0.323
78	MI	Trenton Channel	1745	16,17,18,19	x10	1.083	0.043	0.017	0.640	0.060	0.280	0.077	0.024	**1.083**	0.103	0.478	0.056	0.025	0.884	0.082	0.381
79	IA	George Neal South		4	D073434	1.068	0.037	0.024	0.662	0.062	0.288	0.062	0.034	**1.068**	0.097	0.451	0.025	0.016	0.447	0.042	0.195
80	OH	Cardinal	2828	3	D028283	1.007	0.035	0.039	0.913	0.076	0.354	0.035	0.043	0.909	0.079	0.369	0.038	0.053	**1.007**	0.093	0.433

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
81	OK	Northeastern		3313, 3314	D02963C10	0.995	0.041	0.010	0.539	0.051	0.240	0.064	0.022	0.995	0.088	0.407	0.048	0.013	0.669	0.062	0.289
82	KY	Paradise	1378	3	D013783	0.931	0.019	0.026	0.525	0.046	0.217	0.050	0.033	0.852	0.085	0.394	0.042	0.042	0.931	0.086	0.401
83	MO	Sibley		1, 2, 3	D02094C01	0.908	0.052	0.036	0.897	0.090	0.417	0.055	0.029	0.908	0.086	0.400	0.031	0.014	0.493	0.046	0.214
84	ME	William F Wyman	1507	4	D015074	0.884	0.019	0.004	0.256	0.023	0.109	0.065	0.005	0.807	0.071	0.330	0.060	0.020	0.884	0.082	0.381
85	MA	Brayton Point	1619	4	x07	0.881	0.046	0.009	0.608	0.056	0.263	0.067	0.012	0.867	0.080	0.372	0.063	0.018	0.881	0.082	0.379
86	KY	Paradise	1378	1	D01720C09	0.870	0.024	0.013	0.385	0.037	0.175	0.063	0.014	0.870	0.078	0.363	0.041	0.014	0.601	0.056	0.261
87	NY	Oswego Harbor Power	2594	6	x15	0.869	0.032	0.016	0.538	0.049	0.229	0.050	0.028	0.869	0.080	0.371	0.041	0.027	0.744	0.069	0.322
88	KY	John S. Cooper	1384	1,2	D01384CS1	0.865	0.067	0.008	0.865	0.076	0.353	0.046	0.011	0.643	0.058	0.270	0.043	0.019	0.676	0.063	0.292
89	VA	Bremo Power Station		4	D037964	0.851	0.000	0.049	0.652	0.051	0.238	0.000	0.041	0.665	0.042	0.197	0.000	0.076	0.851	0.079	0.367
90	PA	Martins Creek	3148	3,4	x21	0.809	0.002	0.056	0.806	0.060	0.280	0.002	0.031	0.534	0.034	0.158	0.001	0.071	0.809	0.075	0.349
91	TX	Martin Lake	6146	1		0.799	0.056	0.008	0.687	0.064	0.299	0.028	0.008	0.395	0.037	0.176	0.067	0.006	0.799	0.074	0.345
92	NY	Cayuga Operating Company, LLC		1 (33%), 2 (33%	D02535C01	0.791	0.030	0.004	0.387	0.034	0.160	0.054	0.019	0.791	0.074	0.346	0.038	0.011	0.535	0.050	0.232
93	TX	Monticello	6147	1		0.782	0.057	0.004	0.665	0.061	0.287	0.029	0.004	0.369	0.034	0.159	0.069	0.003	0.782	0.072	0.338
94	TX	Martin Lake	6146	3		0.758	0.053	0.007	0.651	0.061	0.284	0.027	0.008	0.374	0.036	0.167	0.064	0.006	0.758	0.070	0.327
95	VA	Chesterfield Power Station	3797	5	D037975	0.650	0.028	0.025	0.543	0.054	0.252	0.037	0.020	0.650	0.057	0.268	0.030	0.020	0.555	0.051	0.241
96	MO	Labadie		4	D021034	0.621	0.022	0.006	0.302	0.028	0.133	0.049	0.008	0.621	0.058	0.269	0.045	0.008	0.576	0.053	0.250
97	TX	Martin Lake	6146	2		0.621	0.043	0.007	0.532	0.050	0.235	0.022	0.008	0.302	0.030	0.141	0.051	0.006	0.621	0.058	0.269
98	DE	Indian River	594	4	D005944	0.576	0.020	0.004	0.260	0.023	0.110	0.047	0.005	0.576	0.053	0.247	0.025	0.001	0.290	0.027	0.127
99	IL	Baldwin Energy Complex		1,2	D008892	0.551	0.013	0.011	0.224	0.024	0.114	0.033	0.014	0.551	0.048	0.222	0.026	0.014	0.435	0.040	0.189
100	IL	Kincaid Generating Station		1, 2	D00876C02	0.551	0.012	0.009	0.263	0.022	0.103	0.032	0.017	0.551	0.049	0.232	0.023	0.011	0.378	0.035	0.165
101	GA	Scherer		4	D062574	0.547	0.004	0.019	0.547	0.024	0.112	0.002	0.024	0.357	0.028	0.129	0.002	0.031	0.373	0.035	0.162
102	GA	Scherer		1	D062571	0.546	0.003	0.020	0.546	0.024	0.111	0.002	0.025	0.363	0.028	0.130	0.002	0.032	0.379	0.035	0.165
103	MI	Dan E Karn	1702	3,4 (1,2)	D01702C09	0.469	0.037	0.008	0.469	0.045	0.213	0.023	0.005	0.287	0.028	0.131	0.018	0.009	0.293	0.027	0.128
104	NH	Newington	8002	1	D080021	0.468	0.012	0.006	0.212	0.018	0.085	0.029	0.004	0.468	0.033	0.155	0.025	0.017	0.468	0.043	0.203
105	OK	Grand River Dam Authority		1	D001651	0.459	0.021	0.000	0.187	0.021	0.098	0.050	0.000	0.459	0.051	0.239	0.026	0.000	0.283	0.026	0.124
106	VA	Chesterfield Power Station	3797	4	D037974	0.432	0.020	0.016	0.387	0.037	0.172	0.027	0.012	0.432	0.039	0.185	0.022	0.012	0.381	0.035	0.166
107	TN	Kingston	3407	1,2,3,4,5	D03407C15	0.422	0.023	0.005	0.422	0.029	0.135	0.017	0.009	0.325	0.027	0.127	0.013	0.010	0.254	0.024	0.111
108	GA	Scherer		2	D062572	0.421	0.002	0.015	0.421	0.018	0.083	0.001	0.019	0.279	0.021	0.100	0.001	0.025	0.289	0.027	0.126
109	TN	Kingston	3407	6,7,8,9	D03407C69	0.419	0.024	0.005	0.419	0.029	0.136	0.018	0.008	0.321	0.027	0.126	0.014	0.009	0.250	0.023	0.109
110	CT	Bridgeport Harbor Station	568	BHB3		0.416	0.024	0.009	0.355	0.034	0.158	0.025	0.012	0.402	0.037	0.176	0.026	0.012	0.416	0.039	0.181
111	MN	Sherburne County		1, 2	D06090CS1	0.391	0.005	0.025	0.317	0.031	0.144	0.006	0.031	0.391	0.039	0.182	0.003	0.012	0.158	0.015	0.069
112	MA	Canal Station	1599	1	D015991	0.389	0.025	0.004	0.329	0.030	0.141	0.030	0.005	0.389	0.035	0.166	0.027	0.007	0.373	0.035	0.163
113	MA	Canal Station	1599	2	D015992	0.376	0.024	0.008	0.357	0.032	0.152	0.022	0.008	0.333	0.030	0.142	0.022	0.012	0.376	0.035	0.164
114	IN	R M Schahfer Generating Station		14	D0608514	0.320	0.003	0.017	0.294	0.021	0.100	0.003	0.024	0.320	0.028	0.133	0.003	0.025	0.314	0.029	0.137
115	NH	Merrimack	2364	2	D023642	0.304	0.005	0.005	0.119	0.010	0.048	0.012	0.005	0.304	0.017	0.081	0.011	0.016	0.304	0.028	0.133
116	IN	R M Schahfer Generating Station		15	D0608515	0.283	0.002	0.020	0.263	0.023	0.106	0.002	0.023	0.283	0.026	0.123	0.002	0.023	0.278	0.026	0.121
117	WI	Columbia		1	D080231	0.255	0.005	0.013	0.178	0.019	0.088	0.007	0.018	0.255	0.026	0.122	0.004	0.009	0.143	0.013	0.063
118	GA	Yates		Y7BR	D00728Y7R	0.243	0.000	0.011	0.243	0.012	0.055	0.000	0.018	0.166	0.019	0.090	0.000	0.018	0.200	0.019	0.087
119	SC	Wateree	3297	WAT1	D03297WT1	0.236	0.003	0.003	0.182	0.007	0.032	0.004	0.011	0.236	0.015	0.069	0.002	0.012	0.158	0.015	0.069
120	WI	Columbia		2	D080232	0.231	0.005	0.012	0.157	0.017	0.080	0.007	0.016	0.231	0.024	0.111	0.004	0.007	0.129	0.012	0.057

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Stack CEMS Unit	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
121	NJ	Hudson Generating Station	2403	2	D024032	0.228	0.012	0.006	0.193	0.018	0.084	0.015	0.006	0.228	0.021	0.099	0.012	0.007	0.214	0.020	0.094
122	SC	Wateree	3297	WAT2	D03297WT2	0.198	0.003	0.002	0.153	0.006	0.026	0.004	0.009	0.198	0.013	0.063	0.002	0.010	0.132	0.012	0.058
123	MA	Brayton Point	1619	2	D016192	0.191	0.004	0.006	0.098	0.010	0.048	0.008	0.007	0.191	0.015	0.071	0.007	0.009	0.170	0.016	0.074
124	MA	Brayton Point	1619	3	D016193	0.151	0.004	0.002	0.083	0.007	0.034	0.008	0.003	0.151	0.012	0.056	0.007	0.005	0.132	0.012	0.058
125	NH	Schiller	2367	4		0.117	0.004	0.001	0.048	0.004	0.021	0.010	0.001	0.117	0.011	0.050	0.007	0.002	0.104	0.010	0.045
126	NH	Merrimack	2364	1	D023641	0.116	0.002	0.002	0.045	0.004	0.018	0.004	0.002	0.116	0.006	0.029	0.004	0.007	0.115	0.011	0.050
127	MA	Brayton Point	1619	1	D016191	0.113	0.004	0.002	0.058	0.006	0.026	0.008	0.002	0.113	0.010	0.047	0.007	0.002	0.099	0.009	0.043
128	NH	Schiller	2367	6		0.113	0.004	0.001	0.047	0.004	0.021	0.010	0.001	0.113	0.011	0.050	0.007	0.002	0.101	0.009	0.044
129	KS	La Cygne	1241	1		0.056	0.004	0.000	0.056	0.005	0.021	0.004	0.000	0.051	0.005	0.021	0.003	0.000	0.035	0.003	0.015
130	KS	La Cygne		2	D012412	0.015	0.001	0.000	0.013	0.001	0.005	0.001	0.000	0.015	0.001	0.006	0.001	0.000	0.012	0.001	0.005

F.23 2011 ICI Ranking Visibility Impairing Sources to Acadia

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Type	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
1	ME	THE JACKSON LABORATORY	7945211		S	9.00	0.027	0.643	9.002	1.24	3.54	0.02	0.41	5.70	0.80	2.38	0.02	0.42	5.83	0.82	2.43
2	ME	SAPPI - SOMERSET	8200111	1	L	2.90	0.040	0.086	1.658	0.24	0.75	0.03	0.13	2.09	0.30	0.94	0.03	0.18	2.90	0.42	1.28
3	MD	Luke Paper Company	7763811	001-0011-3-0018	L	2.54	0.180	0.013	2.505	0.36	1.12	0.13	0.03	2.14	0.31	0.96	0.17	0.02	2.54	0.37	1.13
4	MD	Luke Paper Company	7763811	001-0011-3-0019	L	2.50	0.177	0.012	2.466	0.36	1.10	0.13	0.03	2.09	0.30	0.94	0.17	0.02	2.50	0.36	1.11
5	ME	WOODLAND PULP LLC	5974211		S	2.41	0.015	0.065	1.059	0.15	0.49	0.02	0.16	2.41	0.35	1.08	0.01	0.15	2.14	0.31	0.96
6	NY	LAFARGE BUILDING MATERIALS INC	8105211	43101	L	1.70	0.067	0.062	1.697	0.25	0.77	0.06	0.05	1.36	0.20	0.62	0.04	0.03	0.95	0.14	0.44
7	ME	FMC BIOPOLYMER	5692011		S	1.68	0.076	0.052	1.682	0.24	0.76	0.07	0.05	1.56	0.23	0.71	0.06	0.05	1.41	0.20	0.64
8	OH	P. H. Glatfelter Company - Chillicothe Facility	8131111	147671	L	1.19	0.089	0.002	1.188	0.17	0.55	0.05	0.00	0.71	0.10	0.33	0.04	0.00	0.61	0.09	0.28
9	ME	SAPPI - SOMERSET	8200111	37	L	0.91	0.001	0.049	0.675	0.10	0.31	0.00	0.07	0.91	0.13	0.42	0.00	0.05	0.71	0.10	0.33
10	NY	ALCOA MASSENA OPERATIONS (WEST PLANT)	7968211	SA398	L	0.64	0.025	0.000	0.330	0.05	0.15	0.03	0.00	0.42	0.06	0.20	0.05	0.00	0.64	0.09	0.30
11	TN	EASTMAN CHEMICAL COMPANY	3982311	B2531	L	0.62	0.040	0.007	0.616	0.09	0.29	0.02	0.01	0.44	0.06	0.20	0.03	0.01	0.48	0.07	0.22
12	ME	VERSO PAPER - ANDROSCOGGIN MILL	7764711		S	0.59	0.012	0.031	0.564	0.08	0.26	0.00	0.04	0.55	0.08	0.26	0.01	0.04	0.59	0.09	0.27
13	NY	KODAK PARK DIVISION	8091511	4	L	0.57	0.016	0.009	0.325	0.05	0.15	0.02	0.01	0.44	0.06	0.20	0.03	0.02	0.57	0.08	0.27
14	ME	HUHTAMAKI INC - WATERVILLE	5691611		S	0.55	0.019	0.012	0.404	0.06	0.19	0.02	0.02	0.55	0.08	0.25	0.02	0.02	0.49	0.07	0.23
15	MD	Sparrows Point, LLC	8239711		S	0.50	0.008	0.009	0.230	0.03	0.11	0.01	0.01	0.30	0.04	0.14	0.01	0.03	0.50	0.07	0.23
16	NY	FINCH PAPER LLC	8325211	12	L	0.43	0.003	0.023	0.345	0.05	0.16	0.00	0.02	0.29	0.04	0.14	0.00	0.03	0.43	0.06	0.20
17	ME	Madison Paper	5253911		S	0.39	0.021	0.009	0.391	0.06	0.18	0.02	0.01	0.39	0.06	0.18	0.02	0.01	0.36	0.05	0.17
18	MI	U S STEEL GREAT LAKES WORKS	8483611		S	0.38	0.015	0.003	0.233	0.03	0.11	0.03	0.00	0.38	0.06	0.18	0.02	0.00	0.31	0.05	0.15
19	MA	SOLUTIA INCORPORATED	7236411	5	L	0.34	0.012	0.014	0.342	0.05	0.16	0.01	0.01	0.32	0.05	0.15	0.01	0.01	0.22	0.03	0.11
20	NY	INTERNATIONAL PAPER TICONDEROGA MILL	7991711	44	L	0.33	0.013	0.005	0.238	0.03	0.11	0.01	0.01	0.28	0.04	0.13	0.01	0.01	0.33	0.05	0.16
21	PA	PHILA ENERGY SOL REF/ PES	6652211		S	0.33	0.003	0.013	0.205	0.03	0.10	0.00	0.01	0.20	0.03	0.10	0.00	0.02	0.33	0.05	0.15
22	IN	UNIVERSITY OF NOTRE DAME DU LAC	5552011	2	L	0.33	0.007	0.003	0.130	0.02	0.06	0.02	0.00	0.33	0.05	0.15	0.01	0.00	0.22	0.03	0.11
23	IN	Indiana Harbor East	3986511		S	0.32	0.005	0.011	0.204	0.03	0.10	0.01	0.01	0.19	0.03	0.09	0.01	0.02	0.32	0.05	0.15
24	PA	KEYSTONE PORTLAND CEMENT/EAST ALLEN	6582211	S73	L	0.31	0.011	0.006	0.229	0.03	0.11	0.01	0.01	0.30	0.04	0.14	0.01	0.01	0.31	0.05	0.15
25	PA	HERCULES CEMENT CO LP/STOCKERTOWN	3881611	S03	L	0.30	0.011	0.005	0.205	0.03	0.10	0.01	0.01	0.30	0.04	0.14	0.01	0.01	0.28	0.04	0.13
26	PA	SUNOCO INC (R&M)/MARCUS HOOK REFINERY	7873611	S60	L	0.30	0.010	0.004	0.180	0.03	0.08	0.01	0.01	0.22	0.03	0.11	0.02	0.01	0.30	0.04	0.14
27	WV	CAPITOL CEMENT - ESSROC MARTINSBURG	4987611	71	L	0.29	0.010	0.007	0.216	0.03	0.10	0.01	0.01	0.29	0.04	0.14	0.01	0.01	0.21	0.03	0.10
28	IN	TATE & LYLE, LAFAYETTE SOUTH (33)	7376411	4	L	0.29	0.009	0.002	0.143	0.02	0.07	0.02	0.00	0.26	0.04	0.12	0.02	0.00	0.29	0.04	0.13
29	MI	ESCANABA PAPER COMPANY	8126511	SV0117	L	0.27	0.008	0.007	0.197	0.03	0.09	0.01	0.01	0.27	0.04	0.13	0.01	0.00	0.14	0.02	0.06
30	PA	Penn State Univ	3186811	S01	L	0.26	0.018	0.002	0.265	0.04	0.12	0.01	0.00	0.18	0.03	0.09	0.01	0.00	0.14	0.02	0.06
31	IL	Aventine Renewable Energy Inc	8065311	49	L	0.26	0.017	0.002	0.252	0.04	0.12	0.01	0.00	0.16	0.02	0.07	0.02	0.00	0.26	0.04	0.12
32	MD	Sparrows Point, LLC	8239711	005-0147-6-0941	L	0.25	0.006	0.005	0.137	0.02	0.06	0.01	0.01	0.25	0.04	0.12	0.01	0.00	0.10	0.02	0.05
33	PA	PPG IND INC/WORKS NO 6	6463511	S01	L	0.25	0.002	0.008	0.129	0.02	0.06	0.00	0.02	0.25	0.04	0.12	0.00	0.01	0.14	0.02	0.06
34	NY	FINCH PAPER LLC	8325211		S	0.25	0.001	0.013	0.185	0.03	0.09	0.00	0.01	0.16	0.02	0.08	0.00	0.02	0.25	0.04	0.12
35	IN	US STEEL GARY WORKS	8192011		S	0.24	0.003	0.005	0.115	0.02	0.05	0.01	0.00	0.14	0.02	0.06	0.00	0.02	0.24	0.04	0.11
36	PA	PPG IND INC/WORKS NO 6	6463511	S02	L	0.24	0.002	0.008	0.125	0.02	0.06	0.00	0.02	0.24	0.04	0.11	0.00	0.01	0.13	0.02	0.06
37	TN	EASTMAN CHEMICAL COMPANY	3982311	B831	L	0.24	0.016	0.002	0.238	0.03	0.11	0.01	0.00	0.18	0.03	0.09	0.01	0.00	0.19	0.03	0.09
38	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Recovery 10	L	0.23	0.016	0.002	0.235	0.03	0.11	0.01	0.00	0.12	0.02	0.06	0.01	0.00	0.12	0.02	0.06
39	IL	Aventine Renewable Energy Inc	8065311	48	L	0.23	0.016	0.002	0.231	0.03	0.11	0.01	0.00	0.13	0.02	0.06	0.02	0.00	0.23	0.03	0.11
40	IN	ArcelorMittal Burns Harbor Inc.	7376511	13	L	0.23	0.003	0.009	0.163	0.02	0.08	0.01	0.01	0.23	0.03	0.11	0.01	0.01	0.22	0.03	0.10

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Type	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
41	OH	The Medical Center Company (1318003059)	8252111	184509	L	0.22	0.014	0.001	0.196	0.03	0.09	0.01	0.00	0.17	0.02	0.08	0.02	0.00	0.22	0.03	0.10
42	VA	Philip Morris Usa Inc - Park 500	5795511	47	L	0.21	0.011	0.005	0.210	0.03	0.10	0.01	0.00	0.13	0.02	0.06	0.01	0.00	0.21	0.03	0.10
43	NH	DARTMOUTH COLLEGE	7199811		S	0.19	0.006	0.003	0.119	0.02	0.06	0.01	0.00	0.14	0.02	0.06	0.01	0.01	0.19	0.03	0.09
44	IN	ESSROC Cement Corp	8198511	15	L	0.19	0.008	0.003	0.140	0.02	0.07	0.01	0.01	0.19	0.03	0.09	0.01	0.00	0.10	0.02	0.05
45	IN	ELI LILLY & COMPANY CLINTON LABS	8223611	2	L	0.18	0.007	0.002	0.113	0.02	0.05	0.01	0.00	0.14	0.02	0.07	0.01	0.00	0.18	0.03	0.08
46	VA	Smurfit Stone Container Corporation - West F	4182011	7	L	0.17	0.008	0.000	0.108	0.02	0.05	0.01	0.00	0.13	0.02	0.06	0.01	0.00	0.17	0.03	0.08
47	MD	Luke Paper Company	7763811	001-0011-6-0235	L	0.17	0.010	0.003	0.171	0.03	0.08	0.01	0.01	0.16	0.02	0.08	0.01	0.00	0.17	0.03	0.08
48	OH	Morton Salt, Inc. (0285020059)	7997111	65589	L	0.17	0.013	0.000	0.172	0.03	0.08	0.01	0.00	0.08	0.01	0.04	0.01	0.00	0.13	0.02	0.06
49	OH	Morton Salt, Inc. (0285020059)	7997111	65590	L	0.17	0.013	0.000	0.170	0.02	0.08	0.01	0.00	0.08	0.01	0.04	0.01	0.00	0.13	0.02	0.06
50	MI	St. Marys Cement, Inc. (U.S.)	8160611	SV0009	L	0.17	0.004	0.004	0.098	0.01	0.05	0.01	0.01	0.17	0.02	0.08	0.00	0.00	0.08	0.01	0.04
51	PA	TEAM TEN/TYRONE PAPER MILL	9248211	S01	L	0.17	0.012	0.001	0.168	0.02	0.08	0.01	0.00	0.10	0.01	0.05	0.01	0.00	0.10	0.01	0.05
52	WV	BAYER CROPSCIENCE	5782411	8	L	0.17	0.009	0.002	0.151	0.02	0.07	0.01	0.01	0.17	0.02	0.08	0.00	0.00	0.10	0.02	0.05
53	PA	USS/CLAIRTON WORKS	8204511		S	0.17	0.006	0.005	0.152	0.02	0.07	0.00	0.01	0.17	0.02	0.08	0.00	0.01	0.13	0.02	0.06
54	MI	St. Marys Cement, Inc. (U.S.)	8160611	SV0011	L	0.16	0.003	0.004	0.096	0.01	0.05	0.01	0.01	0.16	0.02	0.08	0.00	0.00	0.07	0.01	0.03
55	VA	GP Big Island LLC	4183311	1	L	0.16	0.007	0.002	0.122	0.02	0.06	0.01	0.00	0.10	0.02	0.05	0.01	0.00	0.16	0.02	0.08
56	OH	AK Steel Corporation (1409010006)	8008811		S	0.16	0.009	0.004	0.160	0.02	0.08	0.01	0.00	0.15	0.02	0.07	0.01	0.00	0.11	0.02	0.05
57	NY	MORTON SALT DIV	7814711	1	L	0.16	0.010	0.000	0.135	0.02	0.06	0.01	0.00	0.16	0.02	0.08	0.01	0.00	0.10	0.01	0.05
58	VA	Roanoke Cement Company	5039811	4	L	0.15	0.005	0.003	0.115	0.02	0.05	0.00	0.01	0.14	0.02	0.07	0.01	0.00	0.15	0.02	0.07
59	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Big Bill/PG	L	0.15	0.010	0.002	0.149	0.02	0.07	0.00	0.00	0.08	0.01	0.04	0.00	0.00	0.08	0.01	0.04
60	IL	Tate & Lyle Ingredients Americas LLC	7793311	292	L	0.15	0.004	0.000	0.062	0.01	0.03	0.01	0.00	0.08	0.01	0.04	0.01	0.00	0.15	0.02	0.07
61	IN	BALL STATE UNIVERSITY	4873211	1	L	0.15	0.007	0.000	0.094	0.01	0.04	0.01	0.00	0.15	0.02	0.07	0.01	0.00	0.13	0.02	0.06
62	IN	BALL STATE UNIVERSITY	4873211	2	L	0.15	0.007	0.000	0.094	0.01	0.04	0.01	0.00	0.15	0.02	0.07	0.01	0.00	0.13	0.02	0.06
63	VA	Radford Army Ammunition Plant	5748611	1	L	0.14	0.008	0.002	0.125	0.02	0.06	0.01	0.00	0.14	0.02	0.07	0.01	0.00	0.13	0.02	0.06
64	OH	Cargill, Incorporated - Salt Division (Akron, OI	7416411	250250	L	0.14	0.010	0.001	0.142	0.02	0.07	0.01	0.00	0.08	0.01	0.04	0.01	0.00	0.12	0.02	0.06
65	MD	Naval Support Facility, Indian Head	6117011	017-0040-3-0006	L	0.14	0.005	0.001	0.077	0.01	0.04	0.01	0.00	0.14	0.02	0.07	0.01	0.00	0.12	0.02	0.06
66	IN	ArcelorMittal Burns Harbor Inc.	7376511	34	L	0.14	0.003	0.003	0.077	0.01	0.04	0.01	0.00	0.14	0.02	0.07	0.01	0.00	0.13	0.02	0.06
67	IN	ALCOA INC. - WARRICK OPERATIONS	8181811		S	0.14	0.010	0.000	0.138	0.02	0.06	0.01	0.00	0.12	0.02	0.06	0.01	0.00	0.08	0.01	0.04
68	IN	Citizens Thermal	4885311	4	L	0.14	0.007	0.002	0.106	0.02	0.05	0.01	0.00	0.14	0.02	0.06	0.01	0.00	0.10	0.01	0.05
69	IN	Citizens Thermal	4885311	1	L	0.13	0.007	0.001	0.102	0.01	0.05	0.01	0.00	0.13	0.02	0.06	0.01	0.00	0.10	0.01	0.05
70	IN	ArcelorMittal Burns Harbor Inc.	7376511		S	0.13	0.002	0.004	0.078	0.01	0.04	0.00	0.01	0.13	0.02	0.06	0.00	0.00	0.12	0.02	0.06
71	PA	APPLETON PAPERS/SPRING MILL	7872711	S18	L	0.13	0.010	0.000	0.129	0.02	0.06	0.00	0.00	0.07	0.01	0.03	0.01	0.00	0.08	0.01	0.04
72	PA	APPLETON PAPERS/SPRING MILL	7872711	S28	L	0.13	0.010	0.000	0.129	0.02	0.06	0.00	0.00	0.07	0.01	0.03	0.01	0.00	0.08	0.01	0.04
73	OH	City of Akron Steam Generating (1677010757)	8170411	253630	L	0.13	0.009	0.001	0.129	0.02	0.06	0.01	0.00	0.08	0.01	0.04	0.01	0.00	0.10	0.02	0.05
74	KY	Century Aluminum Sebree LLC	7352311	SO2ENG	L	0.13	0.010	0.000	0.125	0.02	0.06	0.00	0.00	0.06	0.01	0.03	0.01	0.00	0.09	0.01	0.04
75	OH	DTE St. Bernard, LLC (1431394148)	9301711	2170429	L	0.12	0.008	0.001	0.121	0.02	0.06	0.01	0.00	0.12	0.02	0.06	0.01	0.00	0.09	0.01	0.04
76	NY	CARGILL SALT CO- WATKINS GLEN PLANT	8176611	1	L	0.12	0.008	0.002	0.123	0.02	0.06	0.01	0.00	0.11	0.02	0.05	0.01	0.00	0.11	0.02	0.05
77	IN	ArcelorMittal Burns Harbor Inc.	7376511	14	L	0.11	0.004	0.000	0.057	0.01	0.03	0.01	0.00	0.11	0.02	0.05	0.01	0.00	0.11	0.02	0.05
78	KY	E I Dupont Inc	6096411	1	L	0.11	0.009	0.000	0.113	0.02	0.05	0.01	0.00	0.07	0.01	0.03	0.01	0.00	0.11	0.02	0.05
79	IN	US STEEL GARY WORKS	8192011	0	L	0.11	0.004	0.003	0.088	0.01	0.04	0.01	0.00	0.11	0.02	0.05	0.00	0.00	0.11	0.02	0.05
80	NC	DAK Americas LLC	8122511	ES-01	L	0.11	0.007	0.001	0.111	0.02	0.05	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.07	0.01	0.03

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81	NC	DAK Americas LLC	8122511	ES-02	L	0.11	0.007	0.001	0.111	0.02	0.05	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.07	0.01	0.03
82	MD	Sparrows Point, LLC	8239711	005-0147-6-0939	L	0.11	0.005	0.001	0.067	0.01	0.03	0.01	0.00	0.11	0.02	0.05	0.01	0.00	0.10	0.01	0.05
83	OH	BDM Warren Steel Operations, LLC (0278000	8063611	59727	L	0.11	0.008	0.000	0.109	0.02	0.05	0.01	0.00	0.09	0.01	0.04	0.00	0.00	0.06	0.01	0.03
84	WV	DUPONT WASHINGTON WORKS	4878911	477	L	0.11	0.006	0.001	0.094	0.01	0.04	0.01	0.00	0.11	0.02	0.05	0.00	0.00	0.06	0.01	0.03
85	IN	SABIC INNOVATIVE PLASTICS MT. VERNON LL	7364611	1	L	0.10	0.007	0.000	0.100	0.01	0.05	0.00	0.00	0.06	0.01	0.03	0.01	0.00	0.09	0.01	0.04
86	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Riley Coal	L	0.10	0.007	0.001	0.099	0.01	0.05	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.05	0.01	0.02
87	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-No. 4 PB	L	0.10	0.007	0.001	0.099	0.01	0.05	0.00	0.00	0.05	0.01	0.02	0.00	0.00	0.05	0.01	0.02
88	VA	Smurfit Stone Container Corporation - West F	4182011	2	L	0.10	0.000	0.004	0.059	0.01	0.03	0.00	0.00	0.06	0.01	0.03	0.00	0.01	0.10	0.01	0.05
89	PA	INTL WAXES INC/FARMERS VALLEY	6582111	S02	L	0.10	0.006	0.001	0.089	0.01	0.04	0.01	0.00	0.10	0.01	0.05	0.00	0.00	0.08	0.01	0.04
90	KY	Isp Chemicals Inc.	7365311	0AA	L	0.10	0.007	0.001	0.095	0.01	0.04	0.00	0.00	0.05	0.01	0.03	0.01	0.00	0.09	0.01	0.04
91	TN	EASTMAN CHEMICAL COMPANY	3982311	B3251	L	0.09	0.004	0.002	0.077	0.01	0.04	0.00	0.00	0.09	0.01	0.04	0.00	0.00	0.06	0.01	0.03
92	VA	Smurfit Stone Container Corporation - West F	4182011	4	L	0.09	0.001	0.005	0.070	0.01	0.03	0.00	0.00	0.05	0.01	0.03	0.00	0.01	0.09	0.01	0.04
93	OH	Youngstown Thermal (0250110024)	7219511		S	0.09	0.006	0.001	0.085	0.01	0.04	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.06	0.01	0.03
94	IN	Indiana Harbor East	3986511	134	L	0.08	0.002	0.003	0.063	0.01	0.03	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.08	0.01	0.04
95	TN	PACKAGING CORPORATION OF AMERICA	4963011	ST1198	L	0.08	0.005	0.001	0.081	0.01	0.04	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.04	0.01	0.02
96	IN	INDIANA UNIVERSITY	4553211	3	L	0.08	0.006	0.000	0.080	0.01	0.04	0.00	0.00	0.05	0.01	0.02	0.00	0.00	0.04	0.01	0.02
97	PA	USS CORP/EDGAR THOMSON WORKS	7409311		S	0.08	0.006	0.000	0.079	0.01	0.04	0.00	0.00	0.05	0.01	0.02	0.00	0.00	0.05	0.01	0.03
98	NH	GORHAM PAPER & TISSUE LLC	7866711		S	0.08	0.003	0.001	0.064	0.01	0.03	0.00	0.00	0.07	0.01	0.03	0.00	0.00	0.08	0.01	0.04
99	NC	KapStone Kraft Paper Corporation	8048011	ST-1,2	L	0.08	0.004	0.002	0.076	0.01	0.04	0.00	0.00	0.07	0.01	0.03	0.00	0.00	0.07	0.01	0.03
100	NJ	Gerresheimer Moulded Glass	12804611		S	0.07	0.002	0.002	0.046	0.01	0.02	0.00	0.00	0.07	0.01	0.03	0.00	0.00	0.07	0.01	0.03
101	OH	Kraton Polymers U.S. LLC (0684010011)	8130511	152407	L	0.07	0.005	0.000	0.072	0.01	0.03	0.01	0.00	0.07	0.01	0.03	0.00	0.00	0.04	0.01	0.02
102	IN	US STEEL GARY WORKS	8192011	301	L	0.07	0.001	0.004	0.056	0.01	0.03	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.07	0.01	0.03
103	VA	Smurfit Stone Container Corporation - West F	4182011		S	0.07	0.000	0.004	0.058	0.01	0.03	0.00	0.00	0.06	0.01	0.03	0.00	0.01	0.07	0.01	0.03
104	PA	AMER REF GROUP/BRADFORD	6532511	S13	L	0.07	0.004	0.001	0.057	0.01	0.03	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.07	0.01	0.03
105	IN	ArcelorMittal Burns Harbor Inc.	7376511	25	L	0.07	0.001	0.002	0.047	0.01	0.02	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.07	0.01	0.03
106	IN	INDIANA UNIVERSITY	4553211	2	L	0.07	0.005	0.000	0.068	0.01	0.03	0.00	0.00	0.05	0.01	0.02	0.00	0.00	0.04	0.01	0.02
107	PA	APPLETON PAPERS/SPRING MILL	7872711	S09	L	0.07	0.005	0.000	0.067	0.01	0.03	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.04	0.01	0.02
108	OH	Fluor-B&W Portsmouth LLC (0666005004)	15485811	146165	L	0.07	0.005	0.000	0.067	0.01	0.03	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.04	0.01	0.02
109	IN	ArcelorMittal Burns Harbor Inc.	7376511	5	L	0.07	0.002	0.000	0.033	0.00	0.02	0.00	0.00	0.07	0.01	0.03	0.00	0.00	0.06	0.01	0.03
110	TN	PACKAGING CORPORATION OF AMERICA	4963011		S	0.06	0.003	0.002	0.064	0.01	0.03	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.03	0.00	0.01
111	IN	ArcelorMittal Burns Harbor Inc.	7376511	7	L	0.06	0.001	0.002	0.047	0.01	0.02	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.05	0.01	0.02
112	IN	ArcelorMittal Burns Harbor Inc.	7376511	6	L	0.06	0.001	0.002	0.047	0.01	0.02	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.05	0.01	0.02
113	IN	ArcelorMittal Burns Harbor Inc.	7376511	31	L	0.06	0.002	0.001	0.033	0.00	0.02	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.06	0.01	0.03
114	OH	Fluor-B&W Portsmouth LLC (0666005004)	15485811	146164	L	0.06	0.005	0.000	0.063	0.01	0.03	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.04	0.01	0.02
115	OH	Kraton Polymers U.S. LLC (0684010011)	8130511	152405	L	0.06	0.004	0.000	0.061	0.01	0.03	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.03	0.00	0.02
116	VA	Huntington Ingalls Incorporated -NN Shipbldg	4938811	1	L	0.06	0.005	0.000	0.061	0.01	0.03	0.00	0.00	0.05	0.01	0.02	0.00	0.00	0.03	0.01	0.02
117	IN	ArcelorMittal Burns Harbor Inc.	7376511	8	L	0.06	0.002	0.000	0.029	0.00	0.01	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.06	0.01	0.03
118	PA	UNITED REFINING CO/WARREN PLT	4966711	S27	L	0.06	0.003	0.000	0.046	0.01	0.02	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.04	0.01	0.02
119	IN	ArcelorMittal Burns Harbor Inc.	7376511	4	L	0.06	0.002	0.000	0.028	0.00	0.01	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.05	0.01	0.03
120	OH	Youngstown Thermal (0250110024)	7219511	56897	L	0.05	0.004	0.000	0.053	0.01	0.03	0.00	0.00	0.03	0.00	0.02	0.00	0.00	0.04	0.01	0.02

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Type	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
121	WV	DUPONT WASHINGTON WORKS	4878911		S	0.05	0.003	0.001	0.046	0.01	0.02	0.00	0.00	0.05	0.01	0.02	0.00	0.00	0.03	0.00	0.01
122	PA	INTL WAXES INC/FARMERS VALLEY	6582111		S	0.05	0.003	0.001	0.047	0.01	0.02	0.00	0.00	0.05	0.01	0.02	0.00	0.00	0.04	0.01	0.02
123	IN	SABIC INNOVATIVE PLASTICS MT. VERNON LL(	7364611	2	L	0.05	0.002	0.002	0.047	0.01	0.02	0.00	0.00	0.03	0.00	0.02	0.00	0.00	0.04	0.01	0.02
124	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Riley Bark	L	0.05	0.003	0.000	0.047	0.01	0.02	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.02	0.00	0.01
125	NY	NORLITE CORP	8090911		S	0.04	0.001	0.001	0.035	0.01	0.02	0.00	0.00	0.03	0.00	0.02	0.00	0.00	0.04	0.01	0.02
126	VA	Huntington Ingalls Incorporated -NN Shipbldg	4938811		S	0.04	0.001	0.002	0.042	0.01	0.02	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.04	0.01	0.02
127	MI	U S STEEL GREAT LAKES WORKS	8483611	FUG001	L	0.04	0.001	0.001	0.023	0.00	0.01	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.03	0.00	0.01
128	TN	Cargill Corn Milling	5723011	8001	L	0.03	0.002	0.000	0.032	0.00	0.02	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.03	0.00	0.01
129	OH	BDM Warren Steel Operations, LLC (02780004	8063611		S	0.03	0.001	0.001	0.031	0.00	0.01	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.03	0.00	0.01
130	TN	Cargill Corn Milling	5723011	8301	L	0.03	0.002	0.000	0.029	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.02	0.00	0.01
131	NC	KapStone Kraft Paper Corporation	8048011		S	0.02	0.001	0.001	0.022	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.02	0.00	0.01
132	IN	SABIC INNOVATIVE PLASTICS MT. VERNON LL(	7364611		S	0.02	0.001	0.000	0.022	0.00	0.01	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.02	0.00	0.01
133	NJ	Atlantic County Utilities Authority Landfill	8093211		S	0.02	0.001	0.000	0.012	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.02	0.00	0.01
134	PA	PPG IND INC/WORKS NO 6	6463511		S	0.02	0.000	0.001	0.011	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.01	0.00	0.01
135	VA	Philip Morris Usa Inc - Park 500	5795511		S	0.00	0.000	0.000	0.001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
136	KY	Century Aluminum Sebree LLC	7352311		S	0.00	0.000	0.000	0.001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
137	MA	SOLUTIA INCORPORATED	7236411		S	0.00	0.000	0.000	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
138	ME	SAPPI - SOMERSET	8200111		S	0.00	0.000	0.000	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

F.24 2011 ICI Ranking Visibility Impairing Sources to Brigantine

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Large or Small?	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
1	MD	Luke Paper Company	7763811	001-0011-3-0018	L	6.04	0.28	0.02	**3.40**	0.56	**1.71**	0.40	0.14	**6.04**	0.98	**2.86**	0.28	0.06	**3.82**	0.63	**1.90**
2	MD	Luke Paper Company	7763811	001-0011-3-0019	L	5.92	0.28	0.02	**3.34**	0.55	**1.68**	0.39	0.13	**5.92**	0.96	**2.81**	0.28	0.05	**3.75**	0.62	**1.87**
3	MD	Sparrows Point, LLC	8239711		S	1.96	0.01	0.03	0.48	0.08	0.26	0.03	0.14	**1.96**	0.33	**1.02**	0.02	0.07	**1.05**	0.18	0.56
4	NJ	Atlantic County Utilities Authority Landfill	8093211		S	1.67	0.01	0.07	0.88	0.15	0.47	0.02	0.13	**1.67**	0.28	0.88	0.01	0.05	0.59	0.10	0.32
5	OH	P. H. Glatfelter Company - Chillicothe Facil	8131111	147671	L	1.48	0.12	0.00	**1.33**	0.23	0.71	0.11	0.02	**1.48**	0.25	0.78	0.09	0.01	**1.06**	0.18	0.56
6	TN	EASTMAN CHEMICAL COMPANY	3982311	B2531	L	1.40	0.07	0.01	0.90	0.15	0.48	0.04	0.02	0.66	0.11	0.36	0.08	0.05	**1.40**	0.24	0.74
7	NY	LAFARGE BUILDING MATERIALS INC	8105211	43101	L	1.13	0.05	0.03	0.90	0.15	0.48	0.06	0.04	**1.13**	0.19	0.60	0.04	0.04	0.83	0.14	0.44
8	PA	KEYSTONE PORTLAND CEMENT/EAST ALLE	6582211	S73	L	1.07	0.02	0.03	0.62	0.10	0.33	0.03	0.05	0.94	0.16	0.50	0.04	0.06	**1.07**	0.18	0.57
9	PA	PHILA ENERGY SOL REF/ PES	6652211		S	1.05	0.01	0.07	0.89	0.15	0.48	0.01	0.08	**1.05**	0.18	0.56	0.01	0.07	0.89	0.15	0.48
10	NJ	Gerresheimer Moulded Glass	12804611		S	1.00	0.01	0.03	0.49	0.08	0.27	0.01	0.07	**1.00**	0.17	0.53	0.01	0.07	0.96	0.16	0.51
11	PA	SUNOCO INC (R&M)/MARCUS HOOK REFIN	7873611	S60	L	1.00	0.02	0.02	0.53	0.09	0.29	0.05	0.04	1.00	0.17	0.53	0.05	0.04	0.96	0.16	0.52
12	PA	HERCULES CEMENT CO LP/STOCKERTOWN	3881611	S03	L	0.96	0.02	0.02	0.47	0.08	0.26	0.02	0.04	0.77	0.13	0.41	0.04	0.05	0.96	0.16	0.51
13	VA	Philip Morris Usa Inc - Park 500	5795511	47	L	0.84	0.03	0.02	0.59	0.10	0.32	0.04	0.03	0.82	0.14	0.44	0.03	0.04	0.84	0.14	0.45
14	WV	CAPITOL CEMENT - ESSROC MARTINSBURG	4987611	71	L	0.72	0.01	0.01	0.20	0.03	0.11	0.02	0.05	0.72	0.12	0.39	0.01	0.02	0.36	0.06	0.20
15	VA	Smurfit Stone Container Corporation - West	4182011	2	L	0.69	0.00	0.03	0.34	0.06	0.19	0.00	0.06	0.69	0.12	0.37	0.00	0.05	0.53	0.09	0.29
16	VA	Smurfit Stone Container Corporation - West	4182011		S	0.67	0.00	0.04	0.49	0.08	0.27	0.00	0.06	0.67	0.11	0.36	0.00	0.05	0.61	0.10	0.33
17	PA	PPG IND INC/WORKS NO 6	6463511	S01	L	0.57	0.00	0.03	0.39	0.07	0.21	0.00	0.04	0.55	0.09	0.30	0.00	0.05	0.57	0.10	0.31
18	NY	KODAK PARK DIVISION	8091511	4	L	0.56	0.02	0.01	0.44	0.07	0.24	0.03	0.02	0.56	0.09	0.30	0.02	0.02	0.46	0.08	0.25
19	PA	PPG IND INC/WORKS NO 6	6463511	S02	L	0.54	0.00	0.03	0.38	0.06	0.20	0.00	0.04	0.53	0.09	0.29	0.00	0.04	0.54	0.09	0.29
20	TN	EASTMAN CHEMICAL COMPANY	3982311	B831	L	0.54	0.03	0.00	0.35	0.06	0.19	0.02	0.01	0.25	0.04	0.14	0.03	0.02	0.54	0.09	0.29
21	MD	Luke Paper Company	7763811	001-0011-6-0235	L	0.51	0.01	0.00	0.22	0.04	0.12	0.02	0.03	0.51	0.09	0.27	0.01	0.02	0.34	0.06	0.19
22	PA	INTL WAXES INC/FARMERS VALLEY	6582111	S02	L	0.46	0.00	0.00	0.08	0.01	0.04	0.01	0.00	0.15	0.03	0.08	0.03	0.01	0.46	0.08	0.25
23	PA	Penn State Univ	3186811	S01	L	0.45	0.01	0.01	0.20	0.03	0.11	0.03	0.01	0.45	0.08	0.25	0.03	0.01	0.44	0.07	0.24
24	NY	FINCH PAPER LLC	8325211	12	L	0.44	0.00	0.01	0.08	0.01	0.05	0.00	0.02	0.25	0.04	0.13	0.00	0.04	0.44	0.08	0.24
25	PA	USS/CLAIRTON WORKS	8204511		S	0.44	0.01	0.01	0.17	0.03	0.09	0.01	0.03	0.44	0.07	0.24	0.01	0.02	0.36	0.06	0.19
26	VA	Smurfit Stone Container Corporation - West	4182011	4	L	0.43	0.00	0.01	0.18	0.03	0.10	0.00	0.04	0.43	0.07	0.23	0.00	0.03	0.32	0.05	0.17
27	IN	TATE & LYLE, LAFAYETTE SOUTH (33)	7376411	4	L	0.41	0.02	0.00	0.25	0.04	0.14	0.03	0.01	0.41	0.07	0.22	0.01	0.00	0.14	0.02	0.08
28	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Recovery 10	L	0.41	0.02	0.00	0.25	0.04	0.14	0.01	0.01	0.17	0.03	0.09	0.02	0.01	0.41	0.07	0.22
29	MD	Naval Support Facility, Indian Head	6117011	017-0040-3-0006	L	0.38	0.01	0.01	0.19	0.03	0.10	0.02	0.01	0.36	0.06	0.20	0.03	0.01	0.38	0.06	0.20
30	MI	U S STEEL GREAT LAKES WORKS	8483611		S	0.37	0.01	0.00	0.16	0.03	0.09	0.02	0.01	0.33	0.06	0.18	0.03	0.00	0.37	0.06	0.20
31	MD	Sparrows Point, LLC	8239711	005-0147-6-0939	L	0.37	0.01	0.00	0.10	0.02	0.05	0.02	0.01	0.37	0.06	0.20	0.02	0.01	0.26	0.04	0.14
32	VA	GP Big Island LLC	4183311	1	L	0.36	0.02	0.01	0.36	0.06	0.20	0.01	0.01	0.19	0.03	0.10	0.02	0.01	0.25	0.04	0.14
33	IL	Aventine Renewable Energy Inc	8065311	49	L	0.36	0.02	0.00	0.23	0.04	0.13	0.03	0.01	0.36	0.06	0.19	0.02	0.00	0.28	0.05	0.15
34	WV	BAYER CROPSCIENCE	5782411	8	L	0.36	0.02	0.01	0.30	0.05	0.16	0.02	0.01	0.28	0.05	0.15	0.02	0.01	0.36	0.06	0.19
35	OH	AK Steel Corporation (1409010006)	8008811		S	0.34	0.01	0.00	0.17	0.03	0.09	0.01	0.02	0.34	0.06	0.19	0.01	0.01	0.16	0.03	0.09
36	PA	AMER REF GROUP/BRADFORD	6532511	S13	L	0.33	0.00	0.00	0.06	0.01	0.03	0.01	0.00	0.09	0.02	0.05	0.02	0.01	0.33	0.06	0.18
37	VA	Radford Army Ammunition Plant	5748611	1	L	0.32	0.02	0.01	0.30	0.05	0.16	0.01	0.01	0.22	0.04	0.12	0.02	0.01	0.32	0.06	0.18
38	VA	Roanoke Cement Company	5039811	4	L	0.32	0.02	0.01	0.32	0.05	0.17	0.01	0.01	0.27	0.05	0.15	0.01	0.01	0.31	0.05	0.17
39	VA	Huntington Ingalls Incorporated -NN Shipbl	4938811		S	0.31	0.00	0.01	0.16	0.03	0.09	0.00	0.01	0.19	0.03	0.10	0.00	0.02	0.31	0.05	0.17
40	IL	Aventine Renewable Energy Inc	8065311	48	L	0.31	0.02	0.00	0.20	0.03	0.11	0.02	0.00	0.31	0.05	0.17	0.02	0.00	0.24	0.04	0.13

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Type	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
41	IN	Indiana Harbor East	3986511		S	0.31	0.01	0.01	0.21	0.04	0.11	0.01	0.02	0.31	0.05	0.17	0.01	0.01	0.21	0.04	0.11
42	VA	Smurfit Stone Container Corporation - West	4182011	7	L	0.29	0.02	0.00	0.27	0.05	0.15	0.02	0.00	0.29	0.05	0.16	0.02	0.00	0.21	0.04	0.11
43	MA	SOLUTIA INCORPORATED	7236411	5	L	0.28	0.01	0.01	0.18	0.03	0.10	0.01	0.01	0.24	0.04	0.13	0.01	0.02	0.28	0.05	0.15
44	WV	DUPONT WASHINGTON WORKS	4878911	477	L	0.28	0.01	0.00	0.13	0.02	0.07	0.01	0.01	0.28	0.05	0.15	0.01	0.01	0.18	0.03	0.10
45	IN	ArcelorMittal Burns Harbor Inc.	7376511	13	L	0.28	0.01	0.01	0.16	0.03	0.09	0.01	0.02	0.28	0.05	0.15	0.01	0.01	0.20	0.03	0.11
46	IN	ELI LILLY & COMPANY CLINTON LABS	8223611	2	L	0.28	0.02	0.00	0.21	0.04	0.12	0.02	0.01	0.28	0.05	0.15	0.01	0.00	0.11	0.02	0.06
47	NC	KapStone Kraft Paper Corporation	8048011	ST-1,2	L	0.28	0.01	0.01	0.22	0.04	0.12	0.01	0.01	0.24	0.04	0.13	0.01	0.02	0.28	0.05	0.15
48	ME	SAPPI - SOMERSET	8200111	1	L	0.27	0.00	0.01	0.13	0.02	0.07	0.00	0.01	0.16	0.03	0.09	0.01	0.01	0.27	0.05	0.15
49	PA	TEAM TEN/TYRONE PAPER MILL	9248211	S01	L	0.27	0.01	0.00	0.12	0.02	0.06	0.02	0.00	0.24	0.04	0.13	0.02	0.01	0.27	0.05	0.14
50	IN	UNIVERSITY OF NOTRE DAME DU LAC	5552011	2	L	0.26	0.01	0.00	0.17	0.03	0.09	0.02	0.01	0.26	0.05	0.14	0.02	0.00	0.23	0.04	0.12
51	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Big Bill/PG	L	0.26	0.01	0.00	0.15	0.03	0.08	0.01	0.00	0.11	0.02	0.06	0.01	0.01	0.26	0.04	0.14
52	IN	ESSROC Cement Corp	8198511	15	L	0.25	0.01	0.01	0.22	0.04	0.12	0.01	0.01	0.25	0.04	0.14	0.01	0.01	0.19	0.03	0.10
53	NY	ALCOA MASSENA OPERATIONS (WEST PLA	7968211	SA398	L	0.25	0.01	0.00	0.13	0.02	0.07	0.02	0.00	0.25	0.04	0.13	0.02	0.00	0.20	0.03	0.11
54	NY	FINCH PAPER LLC	8325211		S	0.24	0.00	0.00	0.04	0.01	0.02	0.00	0.01	0.13	0.02	0.07	0.00	0.02	0.24	0.04	0.13
55	TN	EASTMAN CHEMICAL COMPANY	3982311	B3251	L	0.24	0.01	0.00	0.11	0.02	0.06	0.00	0.01	0.10	0.02	0.06	0.01	0.01	0.24	0.04	0.13
56	PA	INTL WAXES INC/FARMERS VALLEY	6582111		S	0.23	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.08	0.01	0.05	0.01	0.01	0.23	0.04	0.13
57	IN	US STEEL GARY WORKS	8192011		S	0.22	0.01	0.01	0.14	0.02	0.07	0.01	0.01	0.19	0.03	0.10	0.01	0.01	0.22	0.04	0.12
58	KY	E I Dupont Inc	6096411	1	L	0.22	0.02	0.00	0.22	0.04	0.12	0.02	0.00	0.20	0.03	0.11	0.01	0.00	0.14	0.02	0.08
59	IL	Tate & Lyle Ingredients Americas LLC	7793311	292	L	0.21	0.01	0.00	0.15	0.02	0.08	0.02	0.00	0.21	0.04	0.12	0.01	0.00	0.17	0.03	0.09
60	OH	The Medical Center Company (1318003059	8252111	184509	L	0.21	0.01	0.00	0.09	0.02	0.05	0.02	0.00	0.21	0.04	0.11	0.02	0.00	0.20	0.03	0.11
61	PA	UNITED REFINING CO/WARREN PLT	4966711	S27	L	0.20	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.06	0.01	0.03	0.02	0.00	0.20	0.03	0.11
62	MD	Sparrows Point, LLC	8239711	005-0147-6-0941	L	0.20	0.01	0.01	0.19	0.03	0.10	0.01	0.00	0.15	0.03	0.08	0.01	0.01	0.20	0.03	0.11
63	NY	INTERNATIONAL PAPER TICONDEROGA MI	7991711	44	L	0.20	0.01	0.00	0.09	0.02	0.05	0.01	0.00	0.16	0.03	0.09	0.01	0.01	0.20	0.03	0.11
64	IN	Citizens Thermal	4885311	4	L	0.20	0.01	0.00	0.15	0.03	0.08	0.01	0.01	0.20	0.03	0.11	0.01	0.00	0.12	0.02	0.07
65	NY	MORTON SALT DIV	7814711	1	L	0.19	0.01	0.00	0.14	0.02	0.07	0.01	0.00	0.18	0.03	0.10	0.02	0.00	0.19	0.03	0.10
66	NY	CARGILL SALT CO- WATKINS GLEN PLANT	8176611	1	L	0.18	0.01	0.00	0.13	0.02	0.07	0.01	0.00	0.18	0.03	0.10	0.01	0.00	0.18	0.03	0.10
67	KY	Isp Chemicals Inc.	7365311	0AA	L	0.18	0.01	0.00	0.09	0.02	0.05	0.02	0.00	0.18	0.03	0.10	0.01	0.00	0.12	0.02	0.07
68	IN	BALL STATE UNIVERSITY	4873211	1	L	0.17	0.01	0.00	0.12	0.02	0.06	0.01	0.00	0.17	0.03	0.09	0.00	0.00	0.06	0.01	0.03
69	IN	BALL STATE UNIVERSITY	4873211	2	L	0.17	0.01	0.00	0.12	0.02	0.06	0.01	0.00	0.17	0.03	0.09	0.00	0.00	0.06	0.01	0.03
70	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-No. 4 PB	L	0.17	0.01	0.00	0.11	0.02	0.06	0.00	0.00	0.06	0.01	0.03	0.01	0.00	0.17	0.03	0.09
71	IN	Citizens Thermal	4885311	1	L	0.17	0.01	0.00	0.15	0.03	0.08	0.01	0.00	0.17	0.03	0.09	0.01	0.00	0.10	0.02	0.06
72	MI	ESCANABA PAPER COMPANY	8126511	SV0117	L	0.17	0.01	0.01	0.17	0.03	0.09	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.14	0.02	0.08
73	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Riley Coal	L	0.16	0.01	0.00	0.11	0.02	0.06	0.00	0.00	0.07	0.01	0.04	0.01	0.00	0.16	0.03	0.09
74	PA	APPLETON PAPERS/SPRING MILL	7872711	S18	L	0.16	0.01	0.00	0.07	0.01	0.04	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.16	0.03	0.09
75	PA	APPLETON PAPERS/SPRING MILL	7872711	S28	L	0.16	0.01	0.00	0.07	0.01	0.04	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.16	0.03	0.09
76	OH	DTE St. Bernard, LLC (1431394148)	9301711	2170429	L	0.16	0.01	0.00	0.16	0.03	0.09	0.01	0.00	0.14	0.02	0.08	0.01	0.00	0.10	0.02	0.05
77	IN	ALCOA INC. - WARRICK OPERATIONS	8181811		S	0.15	0.01	0.00	0.14	0.02	0.08	0.01	0.00	0.15	0.03	0.08	0.01	0.00	0.13	0.02	0.07
78	OH	Kraton Polymers U.S. LLC (0684010011)	8130511	152407	L	0.15	0.01	0.00	0.09	0.01	0.05	0.01	0.00	0.15	0.03	0.08	0.01	0.00	0.11	0.02	0.06
79	IN	ArcelorMittal Burns Harbor Inc.	7376511		S	0.15	0.00	0.00	0.09	0.02	0.05	0.01	0.01	0.15	0.03	0.08	0.01	0.00	0.11	0.02	0.06
80	ME	FMC BIOPOLYMER	5692011		S	0.15	0.00	0.00	0.07	0.01	0.04	0.00	0.00	0.05	0.01	0.03	0.01	0.00	0.15	0.03	0.08

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81	IN	ArcelorMittal Burns Harbor Inc.	7376511	34	L	0.15	0.01	0.00	0.10	0.02	0.06	0.01	0.01	0.15	0.03	0.08	0.01	0.00	0.13	0.02	0.07
82	MI	St. Marys Cement, Inc. (U.S.)	8160611	SV0009	L	0.14	0.01	0.00	0.11	0.02	0.06	0.00	0.00	0.06	0.01	0.03	0.01	0.00	0.14	0.02	0.08
83	IN	US STEEL GARY WORKS	8192011	0	L	0.14	0.01	0.00	0.11	0.02	0.06	0.01	0.01	0.14	0.02	0.08	0.01	0.00	0.14	0.02	0.08
84	NC	DAK Americas LLC	8122511	ES-01	L	0.14	0.01	0.00	0.14	0.02	0.08	0.01	0.00	0.12	0.02	0.07	0.01	0.00	0.12	0.02	0.06
85	NC	DAK Americas LLC	8122511	ES-02	L	0.14	0.01	0.00	0.14	0.02	0.08	0.01	0.00	0.12	0.02	0.07	0.01	0.00	0.12	0.02	0.06
86	KY	Century Aluminum Sebree LLC	7352311	SO2ENG	L	0.14	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.14	0.02	0.08	0.01	0.00	0.10	0.02	0.05
87	IN	ArcelorMittal Burns Harbor Inc.	7376511	14	L	0.14	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.13	0.02	0.07	0.01	0.00	0.14	0.02	0.07
88	WV	DUPONT WASHINGTON WORKS	4878911		S	0.13	0.00	0.00	0.06	0.01	0.04	0.01	0.01	0.13	0.02	0.07	0.00	0.00	0.09	0.02	0.05
89	OH	Kraton Polymers U.S. LLC (0684010011)	8130511	152405	L	0.13	0.01	0.00	0.07	0.01	0.04	0.01	0.00	0.13	0.02	0.07	0.01	0.00	0.09	0.02	0.05
90	OH	Cargill, Incorporated - Salt Division (Akron,	7416411	250250	L	0.13	0.01	0.00	0.08	0.01	0.04	0.01	0.00	0.10	0.02	0.05	0.01	0.00	0.13	0.02	0.07
91	MI	St. Marys Cement, Inc. (U.S.)	8160611	SV0011	L	0.13	0.01	0.00	0.12	0.02	0.07	0.00	0.00	0.06	0.01	0.03	0.01	0.00	0.13	0.02	0.07
92	IN	SABIC INNOVATIVE PLASTICS MT. VERNON	7364611	1	L	0.13	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.13	0.02	0.07	0.01	0.00	0.11	0.02	0.06
93	OH	Morton Salt, Inc. (0285020059)	7997111	65589	L	0.12	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.12	0.02	0.06	0.01	0.00	0.12	0.02	0.07
94	OH	Morton Salt, Inc. (0285020059)	7997111	65590	L	0.12	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.12	0.02	0.07
95	OH	City of Akron Steam Generating (16770107	8170411	253630	L	0.12	0.01	0.00	0.07	0.01	0.04	0.01	0.00	0.10	0.02	0.05	0.01	0.00	0.12	0.02	0.07
96	VA	Huntington Ingalls Incorporated -NN Shipbl	4938811	1	L	0.11	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.11	0.02	0.06
97	OH	Fluor-B&W Portsmouth LLC (0666005004)	15485811	146165	L	0.11	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.09	0.01	0.05	0.00	0.00	0.06	0.01	0.03
98	ME	WOODLAND PULP LLC	5974211		S	0.11	0.00	0.00	0.04	0.01	0.02	0.00	0.01	0.11	0.02	0.06	0.00	0.00	0.07	0.01	0.04
99	TN	PACKAGING CORPORATION OF AMERICA	4963011	ST1198	L	0.11	0.00	0.00	0.05	0.01	0.03	0.01	0.00	0.08	0.01	0.05	0.01	0.00	0.11	0.02	0.06
100	TN	PACKAGING CORPORATION OF AMERICA	4963011		S	0.11	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.07	0.01	0.04	0.00	0.01	0.11	0.02	0.06
101	OH	Fluor-B&W Portsmouth LLC (0666005004)	15485811	146164	L	0.11	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.08	0.01	0.05	0.00	0.00	0.06	0.01	0.03
102	PA	USS CORP/EDGAR THOMSON WORKS	7409311		S	0.10	0.01	0.00	0.07	0.01	0.04	0.01	0.00	0.09	0.02	0.05	0.01	0.00	0.10	0.02	0.06
103	OH	Youngstown Thermal (0250110024)	7219511		S	0.10	0.00	0.00	0.04	0.01	0.02	0.01	0.00	0.08	0.01	0.05	0.01	0.00	0.10	0.02	0.05
104	OH	BDM Warren Steel Operations, LLC (02780	8063611	59727	L	0.10	0.01	0.00	0.07	0.01	0.04	0.01	0.00	0.06	0.01	0.03	0.01	0.00	0.10	0.02	0.05
105	ME	VERSO PAPER - ANDROSCOGGIN MILL	7764711		S	0.09	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.07	0.01	0.04	0.00	0.00	0.09	0.02	0.05
106	PA	APPLETON PAPERS/SPRING MILL	7872711	S09	L	0.09	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.06	0.01	0.04	0.01	0.00	0.09	0.02	0.05
107	IN	INDIANA UNIVERSITY	4553211	3	L	0.09	0.01	0.00	0.09	0.02	0.05	0.01	0.00	0.07	0.01	0.04	0.00	0.00	0.05	0.01	0.03
108	IN	US STEEL GARY WORKS	8192011	301	L	0.09	0.00	0.00	0.06	0.01	0.03	0.00	0.01	0.09	0.02	0.05	0.00	0.00	0.06	0.01	0.03
109	ME	Madison Paper	5253911		S	0.09	0.00	0.00	0.03	0.01	0.02	0.00	0.00	0.04	0.01	0.02	0.01	0.00	0.09	0.01	0.05
110	IN	ArcelorMittal Burns Harbor Inc.	7376511	6	L	0.09	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.09	0.01	0.05	0.00	0.00	0.05	0.01	0.03
111	IN	ArcelorMittal Burns Harbor Inc.	7376511	7	L	0.09	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.09	0.01	0.05	0.00	0.00	0.05	0.01	0.03
112	IN	ArcelorMittal Burns Harbor Inc.	7376511	25	L	0.09	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.09	0.01	0.05	0.00	0.00	0.07	0.01	0.04
113	IN	Indiana Harbor East	3986511	134	L	0.08	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.08	0.01	0.05	0.00	0.00	0.06	0.01	0.03
114	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Riley Bark	L	0.08	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.08	0.01	0.05
115	IN	INDIANA UNIVERSITY	4553211	2	L	0.08	0.01	0.00	0.08	0.01	0.04	0.00	0.00	0.07	0.01	0.04	0.00	0.00	0.04	0.01	0.02
116	TN	Cargill Corn Milling	5723011	8001	L	0.07	0.00	0.00	0.03	0.01	0.02	0.00	0.00	0.04	0.01	0.02	0.01	0.00	0.07	0.01	0.04
117	IN	ArcelorMittal Burns Harbor Inc.	7376511	5	L	0.07	0.00	0.00	0.06	0.01	0.03	0.01	0.00	0.07	0.01	0.04	0.01	0.00	0.07	0.01	0.04
118	NC	KapStone Kraft Paper Corporation	8048011		S	0.07	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.06	0.01	0.04	0.00	0.00	0.07	0.01	0.04
119	ME	HUHTAMAKI INC - WATERVILLE	5691611		S	0.07	0.00	0.00	0.03	0.00	0.02	0.00	0.00	0.02	0.00	0.01	0.01	0.00	0.07	0.01	0.04
120	IN	SABIC INNOVATIVE PLASTICS MT. VERNON	7364611	2	L	0.07	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.07	0.01	0.04

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121	TN	Cargill Corn Milling	5723011	8301	L	0.07	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.03	0.01	0.02	0.00	0.00	0.07	0.01	0.04
122	IN	ArcelorMittal Burns Harbor Inc.	7376511	8	L	0.07	0.00	0.00	0.05	0.01	0.03	0.01	0.00	0.07	0.01	0.04	0.01	0.00	0.07	0.01	0.04
123	IN	ArcelorMittal Burns Harbor Inc.	7376511	31	L	0.07	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.07	0.01	0.04	0.00	0.00	0.06	0.01	0.03
124	ME	SAPPI - SOMERSET	8200111	37	L	0.06	0.00	0.00	0.03	0.00	0.02	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.06	0.01	0.03
125	OH	Youngstown Thermal (0250110024)	7219511	56897	L	0.06	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.06	0.01	0.03
126	IN	ArcelorMittal Burns Harbor Inc.	7376511	4	L	0.06	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.06	0.01	0.03	0.01	0.00	0.06	0.01	0.03
127	NH	DARTMOUTH COLLEGE	7199811		S	0.06	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.06	0.01	0.03
128	OH	BDM Warren Steel Operations, LLC (02780	8063611		S	0.05	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.05	0.01	0.03
129	NY	NORLITE CORP	8090911		S	0.05	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.03	0.01	0.02	0.00	0.00	0.05	0.01	0.03
130	MI	U S STEEL GREAT LAKES WORKS	8483611	FUG001	L	0.05	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.05	0.01	0.03
131	PA	PPG IND INC/WORKS NO 6	6463511		S	0.04	0.00	0.00	0.03	0.00	0.02	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.04	0.01	0.02
132	NH	GORHAM PAPER & TISSUE LLC	7866711		S	0.03	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.03	0.01	0.02
133	IN	SABIC INNOVATIVE PLASTICS MT. VERNON	7364611		S	0.03	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.03	0.01	0.02	0.00	0.00	0.03	0.00	0.01
134	ME	THE JACKSON LABORATORY	7945211		S	0.02	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.02	0.00	0.01
135	VA	Philip Morris Usa Inc - Park 500	5795511		S	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.01
136	KY	Century Aluminum Sebree LLC	7352311		S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
137	MA	SOLUTIA INCORPORATED	7236411		S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
138	ME	SAPPI - SOMERSET	8200111		S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

F.25 2011 ICI Ranking Visibility Impairing Sources to Campobello

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Large or Small?	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
1	ME	WOODLAND PULP LLC	5974211		S	2.66	0.03	0.19	**2.66**	0.41	**1.28**	0.02	0.11	**1.68**	0.26	0.82	0.01	0.18	**2.39**	0.37	**1.15**
2	MD	Luke Paper Company	7763811	001-0011-3-0018	L	1.96	0.15	0.01	**1.93**	0.30	0.94	0.14	0.03	**1.96**	0.31	0.95	0.10	0.02	**1.49**	0.23	0.73
3	MD	Luke Paper Company	7763811	001-0011-3-0019	L	1.92	0.15	0.01	**1.90**	0.30	0.93	0.13	0.03	**1.92**	0.30	0.94	0.10	0.02	**1.46**	0.23	0.72
4	ME	SAPPI - SOMERSET	8200111	1	L	1.84	0.04	0.11	**1.84**	0.29	0.90	0.02	0.07	**1.01**	0.16	0.50	0.01	0.04	0.62	0.10	0.31
5	NY	LAFARGE BUILDING MATERIALS INC	8105211	43101	L	1.28	0.06	0.05	**1.28**	0.20	0.63	0.05	0.03	0.97	0.15	0.48	0.04	0.02	0.71	0.11	0.36
6	OH	P. H. Glatfelter Company - Chillicothe Facil	8131111	147671	L	1.06	0.09	0.00	**1.06**	0.17	0.53	0.05	0.00	0.63	0.10	0.31	0.04	0.00	0.57	0.09	0.29
7	ME	THE JACKSON LABORATORY	7945211		S	0.72	0.00	0.05	0.60	0.10	0.30	0.00	0.05	0.65	0.10	0.33	0.00	0.06	0.72	0.11	0.36
8	ME	FMC BIOPOLYMER	5692011		S	0.70	0.03	0.02	0.64	0.10	0.32	0.04	0.01	0.70	0.11	0.35	0.04	0.02	0.69	0.11	0.35
9	TN	EASTMAN CHEMICAL COMPANY	3982311	B2531	L	0.57	0.04	0.01	0.57	0.09	0.29	0.02	0.01	0.39	0.06	0.20	0.02	0.01	0.35	0.06	0.18
10	ME	SAPPI - SOMERSET	8200111	37	L	0.45	0.00	0.04	0.45	0.07	0.23	0.00	0.03	0.44	0.07	0.22	0.00	0.03	0.32	0.05	0.16
11	NY	ALCOA MASSENA OPERATIONS (WEST PLA	7968211	SA398	L	0.42	0.03	0.00	0.31	0.05	0.16	0.02	0.00	0.22	0.04	0.11	0.03	0.00	0.42	0.07	0.21
12	ME	HUHTAMAKI INC - WATERVILLE	5691611		S	0.41	0.03	0.01	0.41	0.07	0.21	0.01	0.01	0.21	0.03	0.11	0.01	0.00	0.17	0.03	0.08
13	MD	Sparrows Point, LLC	8239711		S	0.41	0.01	0.01	0.17	0.03	0.09	0.01	0.01	0.32	0.05	0.16	0.01	0.02	0.41	0.07	0.21
14	NY	KODAK PARK DIVISION	8091511	4	L	0.33	0.02	0.01	0.29	0.05	0.15	0.01	0.01	0.33	0.05	0.17	0.01	0.01	0.31	0.05	0.16
15	IN	Indiana Harbor East	3986511		S	0.32	0.00	0.01	0.17	0.03	0.09	0.01	0.01	0.21	0.03	0.10	0.01	0.02	0.32	0.05	0.16
16	PA	SUNOCO INC (R&M)/MARCUS HOOK REFIN	7873611	S60	L	0.30	0.01	0.00	0.13	0.02	0.07	0.02	0.01	0.30	0.05	0.15	0.01	0.01	0.24	0.04	0.12
17	ME	VERSO PAPER - ANDROSCOGGIN MILL	7764711		S	0.30	0.01	0.01	0.25	0.04	0.13	0.01	0.02	0.30	0.05	0.15	0.01	0.02	0.29	0.05	0.15
18	IL	Aventine Renewable Energy Inc	8065311	49	L	0.29	0.02	0.00	0.21	0.03	0.11	0.01	0.00	0.13	0.02	0.06	0.02	0.00	0.29	0.05	0.15
19	PA	KEYSTONE PORTLAND CEMENT/EAST ALLE	6582211	S73	L	0.29	0.01	0.01	0.18	0.03	0.09	0.01	0.01	0.24	0.04	0.12	0.01	0.01	0.29	0.05	0.15
20	PA	HERCULES CEMENT CO LP/STOCKERTOWN	3881611	S03	L	0.27	0.01	0.00	0.17	0.03	0.08	0.01	0.01	0.23	0.04	0.12	0.01	0.01	0.27	0.04	0.14
21	MA	SOLUTIA INCORPORATED	7236411	5	L	0.27	0.01	0.01	0.27	0.04	0.13	0.01	0.01	0.21	0.03	0.10	0.01	0.01	0.21	0.03	0.11
22	IL	Aventine Renewable Energy Inc	8065311	48	L	0.25	0.01	0.00	0.20	0.03	0.10	0.01	0.00	0.11	0.02	0.05	0.02	0.00	0.25	0.04	0.13
23	NY	INTERNATIONAL PAPER TICONDEROGA MI	7991711	44	L	0.25	0.01	0.00	0.18	0.03	0.09	0.01	0.01	0.25	0.04	0.13	0.01	0.01	0.25	0.04	0.13
24	MI	U S STEEL GREAT LAKES WORKS	8483611		S	0.25	0.01	0.00	0.18	0.03	0.09	0.01	0.00	0.20	0.03	0.10	0.01	0.01	0.25	0.04	0.12
25	PA	PHILA ENERGY SOL REF/ PES	6652211		S	0.25	0.00	0.01	0.13	0.02	0.07	0.01	0.01	0.22	0.04	0.11	0.00	0.02	0.25	0.04	0.12
26	ME	Madison Paper	5253911		S	0.23	0.01	0.01	0.19	0.03	0.10	0.01	0.01	0.23	0.04	0.12	0.01	0.01	0.15	0.02	0.08
27	WV	CAPITOL CEMENT - ESSROC MARTINSBURG	4987611	71	L	0.22	0.00	0.00	0.12	0.02	0.06	0.01	0.01	0.22	0.04	0.11	0.01	0.01	0.16	0.03	0.08
28	PA	Penn State Univ	3186811	S01	L	0.22	0.02	0.00	0.22	0.04	0.11	0.01	0.00	0.12	0.02	0.06	0.01	0.00	0.11	0.02	0.06
29	TN	EASTMAN CHEMICAL COMPANY	3982311	B831	L	0.22	0.02	0.00	0.22	0.04	0.11	0.01	0.00	0.17	0.03	0.08	0.01	0.00	0.14	0.02	0.07
30	IN	US STEEL GARY WORKS	8192011		S	0.22	0.00	0.00	0.09	0.01	0.04	0.01	0.01	0.13	0.02	0.07	0.00	0.01	0.22	0.04	0.11
31	NY	FINCH PAPER LLC	8325211	12	L	0.22	0.00	0.01	0.17	0.03	0.09	0.00	0.01	0.20	0.03	0.10	0.00	0.02	0.22	0.03	0.11
32	IN	TATE & LYLE, LAFAYETTE SOUTH (33)	7376411	4	L	0.22	0.01	0.00	0.14	0.02	0.07	0.02	0.00	0.22	0.03	0.11	0.01	0.00	0.17	0.03	0.08
33	IN	ArcelorMittal Burns Harbor Inc.	7376511	13	L	0.21	0.00	0.01	0.12	0.02	0.06	0.01	0.01	0.18	0.03	0.09	0.01	0.01	0.21	0.03	0.11
34	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Recovery 10	L	0.21	0.02	0.00	0.21	0.03	0.10	0.01	0.00	0.10	0.02	0.05	0.01	0.00	0.11	0.02	0.06
35	IN	UNIVERSITY OF NOTRE DAME DU LAC	5552011	2	L	0.21	0.00	0.00	0.07	0.01	0.04	0.02	0.00	0.21	0.03	0.10	0.01	0.00	0.15	0.02	0.07
36	PA	PPG IND INC/WORKS NO 6	6463511	S01	L	0.20	0.00	0.00	0.07	0.01	0.04	0.00	0.02	0.20	0.03	0.10	0.00	0.01	0.09	0.01	0.05
37	PA	PPG IND INC/WORKS NO 6	6463511	S02	L	0.19	0.00	0.00	0.07	0.01	0.04	0.00	0.01	0.19	0.03	0.10	0.00	0.01	0.09	0.01	0.04
38	VA	Philip Morris Usa Inc - Park 500	5795511	47	L	0.19	0.01	0.00	0.19	0.03	0.10	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.14	0.02	0.07
39	OH	The Medical Center Company (131800305	8252111	184509	L	0.19	0.01	0.00	0.19	0.03	0.09	0.01	0.00	0.13	0.02	0.07	0.01	0.00	0.17	0.03	0.08
40	MI	ESCANABA PAPER COMPANY	8126511	SV0117	L	0.18	0.01	0.01	0.18	0.03	0.09	0.01	0.00	0.13	0.02	0.07	0.01	0.01	0.17	0.03	0.09

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Type	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
41	WV	BAYER CROPSCIENCE	5782411	8	L	0.18	0.01	0.00	0.11	0.02	0.06	0.01	0.01	0.18	0.03	0.09	0.01	0.00	0.09	0.01	0.05
42	PA	USS/CLAIRTON WORKS	8204511		S	0.16	0.01	0.00	0.12	0.02	0.06	0.00	0.01	0.16	0.03	0.08	0.00	0.01	0.10	0.02	0.05
43	MD	Luke Paper Company	7763811	001-0011-6-0235	L	0.15	0.01	0.00	0.13	0.02	0.07	0.01	0.01	0.15	0.02	0.08	0.00	0.00	0.10	0.02	0.05
44	VA	Smurfit Stone Container Corporation - West	4182011	7	L	0.15	0.01	0.00	0.10	0.02	0.05	0.01	0.00	0.09	0.01	0.05	0.01	0.00	0.15	0.02	0.08
45	OH	AK Steel Corporation (1409010006)	8008811		S	0.15	0.01	0.00	0.15	0.02	0.08	0.01	0.00	0.12	0.02	0.06	0.00	0.00	0.08	0.01	0.04
46	OH	Morton Salt, Inc. (0285020059)	7997111	65589	L	0.14	0.01	0.00	0.14	0.02	0.07	0.01	0.00	0.07	0.01	0.04	0.01	0.00	0.09	0.01	0.05
47	MD	Sparrows Point, LLC	8239711	005-0147-6-0941	L	0.14	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.14	0.02	0.07	0.01	0.00	0.10	0.02	0.05
48	OH	Morton Salt, Inc. (0285020059)	7997111	65590	L	0.14	0.01	0.00	0.14	0.02	0.07	0.01	0.00	0.07	0.01	0.03	0.01	0.00	0.09	0.01	0.04
49	IN	ALCOA INC. - WARRICK OPERATIONS	8181811		S	0.13	0.01	0.00	0.13	0.02	0.07	0.01	0.00	0.09	0.01	0.04	0.01	0.00	0.08	0.01	0.04
50	VA	Radford Army Ammunition Plant	5748611	1	L	0.13	0.01	0.00	0.12	0.02	0.06	0.01	0.00	0.13	0.02	0.07	0.01	0.00	0.09	0.01	0.04
51	IL	Tate & Lyle Ingredients Americas LLC	7793311	292	L	0.13	0.00	0.00	0.06	0.01	0.03	0.01	0.00	0.09	0.01	0.04	0.01	0.00	0.13	0.02	0.07
52	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Big Bill/PG	L	0.13	0.01	0.00	0.13	0.02	0.07	0.00	0.00	0.07	0.01	0.03	0.00	0.00	0.07	0.01	0.04
53	PA	TEAM TEN/TYRONE PAPER MILL	9248211	S01	L	0.13	0.01	0.00	0.13	0.02	0.07	0.00	0.00	0.05	0.01	0.03	0.01	0.00	0.07	0.01	0.04
54	IN	ESSROC Cement Corp	8198511	15	L	0.13	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.13	0.02	0.07	0.01	0.00	0.09	0.01	0.04
55	IN	ELI LILLY & COMPANY CLINTON LABS	8223611	2	L	0.13	0.01	0.00	0.13	0.02	0.06	0.01	0.00	0.10	0.02	0.05	0.01	0.00	0.09	0.01	0.05
56	OH	Cargill, Incorporated - Salt Division (Akron,	7416411	250250	L	0.12	0.01	0.00	0.12	0.02	0.06	0.00	0.00	0.06	0.01	0.03	0.01	0.00	0.08	0.01	0.04
57	NY	FINCH PAPER LLC	8325211		S	0.12	0.00	0.01	0.09	0.01	0.05	0.00	0.01	0.11	0.02	0.05	0.00	0.01	0.12	0.02	0.06
58	MD	Naval Support Facility, Indian Head	6117011	017-0040-3-0006	L	0.12	0.00	0.00	0.07	0.01	0.03	0.01	0.00	0.12	0.02	0.06	0.01	0.00	0.09	0.01	0.04
59	VA	Roanoke Cement Company	5039811	4	L	0.12	0.01	0.00	0.10	0.02	0.05	0.00	0.01	0.12	0.02	0.06	0.01	0.00	0.09	0.01	0.05
60	NY	CARGILL SALT CO- WATKINS GLEN PLANT	8176611	1	L	0.12	0.01	0.00	0.12	0.02	0.06	0.01	0.00	0.08	0.01	0.04	0.01	0.00	0.10	0.02	0.05
61	NY	MORTON SALT DIV	7814711	1	L	0.11	0.01	0.00	0.10	0.02	0.05	0.01	0.00	0.10	0.02	0.05	0.01	0.00	0.11	0.02	0.06
62	MI	St. Marys Cement, Inc. (U.S.)	8160611	SV0009	L	0.11	0.00	0.00	0.10	0.02	0.05	0.00	0.00	0.10	0.02	0.05	0.00	0.01	0.11	0.02	0.06
63	NC	DAK Americas LLC	8122511	ES-01	L	0.11	0.01	0.00	0.11	0.02	0.06	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.06	0.01	0.03
64	NC	DAK Americas LLC	8122511	ES-02	L	0.11	0.01	0.00	0.11	0.02	0.06	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.06	0.01	0.03
65	IN	ArcelorMittal Burns Harbor Inc.	7376511		S	0.11	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.10	0.02	0.05	0.00	0.01	0.11	0.02	0.06
66	IN	BALL STATE UNIVERSITY	4873211	1	L	0.11	0.01	0.00	0.09	0.01	0.05	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.07	0.01	0.04
67	IN	BALL STATE UNIVERSITY	4873211	2	L	0.11	0.01	0.00	0.09	0.01	0.05	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.07	0.01	0.04
68	OH	City of Akron Steam Generating (16770107	8170411	253630	L	0.11	0.01	0.00	0.11	0.02	0.06	0.00	0.00	0.05	0.01	0.03	0.01	0.00	0.07	0.01	0.04
69	MD	Sparrows Point, LLC	8239711	005-0147-6-0939	L	0.11	0.00	0.00	0.04	0.01	0.02	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.08	0.01	0.04
70	KY	Century Aluminum Sebree LLC	7352311	SO2ENG	L	0.11	0.01	0.00	0.11	0.02	0.06	0.00	0.00	0.05	0.01	0.02	0.01	0.00	0.08	0.01	0.04
71	IN	ArcelorMittal Burns Harbor Inc.	7376511	34	L	0.11	0.00	0.00	0.06	0.01	0.03	0.01	0.00	0.11	0.02	0.05	0.00	0.00	0.11	0.02	0.06
72	IN	Citizens Thermal	4885311	4	L	0.11	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.08	0.01	0.04	0.00	0.00	0.07	0.01	0.03
73	OH	DTE St. Bernard, LLC (1431394148)	9301711	2170429	L	0.11	0.01	0.00	0.11	0.02	0.05	0.01	0.00	0.10	0.02	0.05	0.00	0.00	0.06	0.01	0.03
74	IN	Citizens Thermal	4885311	1	L	0.10	0.01	0.00	0.10	0.02	0.05	0.01	0.00	0.08	0.01	0.04	0.00	0.00	0.06	0.01	0.03
75	IN	US STEEL GARY WORKS	8192011	0	L	0.10	0.00	0.00	0.07	0.01	0.03	0.01	0.00	0.10	0.02	0.05	0.00	0.00	0.10	0.02	0.05
76	NH	DARTMOUTH COLLEGE	7199811		S	0.10	0.00	0.00	0.08	0.01	0.04	0.01	0.00	0.10	0.02	0.05	0.01	0.00	0.09	0.01	0.05
77	OH	BDM Warren Steel Operations, LLC (02780	8063611	59727	L	0.10	0.01	0.00	0.10	0.02	0.05	0.01	0.00	0.07	0.01	0.04	0.00	0.00	0.05	0.01	0.03
78	PA	INTL WAXES INC/FARMERS VALLEY	6582111	S02	L	0.10	0.01	0.00	0.08	0.01	0.04	0.01	0.00	0.10	0.02	0.05	0.00	0.00	0.07	0.01	0.04
79	MI	St. Marys Cement, Inc. (U.S.)	8160611	SV0011	L	0.10	0.00	0.00	0.09	0.01	0.05	0.00	0.00	0.10	0.02	0.05	0.00	0.00	0.09	0.01	0.05
80	IN	ArcelorMittal Burns Harbor Inc.	7376511	14	L	0.09	0.00	0.00	0.05	0.01	0.03	0.01	0.00	0.09	0.01	0.05	0.01	0.00	0.08	0.01	0.04

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Type	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
81	VA	GP Big Island LLC	4183311	1	L	0.09	0.01	0.00	0.09	0.01	0.05	0.00	0.00	0.08	0.01	0.04	0.01	0.00	0.09	0.01	0.05
82	NJ	Gerresheimer Moulded Glass	12804611		S	0.09	0.00	0.00	0.03	0.01	0.02	0.00	0.00	0.09	0.01	0.05	0.00	0.00	0.04	0.01	0.02
83	IN	SABIC INNOVATIVE PLASTICS MT. VERNON	7364611	1	L	0.09	0.01	0.00	0.09	0.01	0.05	0.00	0.00	0.05	0.01	0.03	0.01	0.00	0.07	0.01	0.03
84	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-No. 4 PB	L	0.09	0.01	0.00	0.09	0.01	0.05	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.05	0.01	0.02
85	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Riley Coal	L	0.09	0.01	0.00	0.09	0.01	0.04	0.00	0.00	0.05	0.01	0.02	0.00	0.00	0.04	0.01	0.02
86	PA	APPLETON PAPERS/SPRING MILL	7872711	S18	L	0.09	0.01	0.00	0.09	0.01	0.04	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.05	0.01	0.03
87	PA	APPLETON PAPERS/SPRING MILL	7872711	S28	L	0.09	0.01	0.00	0.09	0.01	0.04	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.05	0.01	0.03
88	KY	Isp Chemicals Inc.	7365311	0AA	L	0.09	0.01	0.00	0.09	0.01	0.04	0.00	0.00	0.05	0.01	0.02	0.01	0.00	0.08	0.01	0.04
89	IN	Indiana Harbor East	3986511	134	L	0.08	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.06	0.01	0.03	0.00	0.01	0.08	0.01	0.04
90	KY	E I Dupont Inc	6096411	1	L	0.08	0.01	0.00	0.08	0.01	0.04	0.01	0.00	0.07	0.01	0.04	0.01	0.00	0.07	0.01	0.03
91	OH	Youngstown Thermal (0250110024)	7219511		S	0.08	0.01	0.00	0.08	0.01	0.04	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.05	0.01	0.02
92	WV	DUPONT WASHINGTON WORKS	4878911	477	L	0.08	0.01	0.00	0.08	0.01	0.04	0.00	0.00	0.07	0.01	0.04	0.00	0.00	0.06	0.01	0.03
93	TN	EASTMAN CHEMICAL COMPANY	3982311	B3251	L	0.08	0.00	0.00	0.07	0.01	0.04	0.00	0.00	0.08	0.01	0.04	0.00	0.00	0.05	0.01	0.02
94	TN	PACKAGING CORPORATION OF AMERICA	4963011	ST1198	L	0.08	0.01	0.00	0.08	0.01	0.04	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.03	0.00	0.02
95	IN	INDIANA UNIVERSITY	4553211	3	L	0.07	0.01	0.00	0.07	0.01	0.04	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.03	0.01	0.02
96	NH	GORHAM PAPER & TISSUE LLC	7866711		S	0.07	0.00	0.00	0.05	0.01	0.02	0.00	0.00	0.07	0.01	0.04	0.00	0.00	0.06	0.01	0.03
97	PA	AMER REF GROUP/BRADFORD	6532511	S13	L	0.07	0.00	0.00	0.05	0.01	0.03	0.01	0.00	0.07	0.01	0.04	0.00	0.00	0.06	0.01	0.03
98	PA	USS CORP/EDGAR THOMSON WORKS	7409311		S	0.07	0.01	0.00	0.07	0.01	0.03	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.03	0.01	0.02
99	IN	US STEEL GARY WORKS	8192011	301	L	0.06	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.06	0.01	0.03
100	NC	KapStone Kraft Paper Corporation	8048011	ST-1,2	L	0.06	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.05	0.01	0.03
101	IN	INDIANA UNIVERSITY	4553211	2	L	0.06	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.03	0.00	0.02	0.00	0.00	0.03	0.00	0.01
102	IN	ArcelorMittal Burns Harbor Inc.	7376511	25	L	0.06	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.06	0.01	0.03
103	TN	PACKAGING CORPORATION OF AMERICA	4963011		S	0.06	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.02	0.00	0.01
104	PA	UNITED REFINING CO/WARREN PLT	4966711	S27	L	0.06	0.00	0.00	0.05	0.01	0.02	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.04	0.01	0.02
105	VA	Smurfit Stone Container Corporation - West	4182011	2	L	0.06	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.03	0.01	0.02	0.00	0.00	0.04	0.01	0.02
106	OH	Kraton Polymers U.S. LLC (0684010011)	8130511	152407	L	0.06	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.05	0.01	0.02	0.00	0.00	0.04	0.01	0.02
107	VA	Smurfit Stone Container Corporation - West	4182011	4	L	0.06	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.03	0.01	0.02	0.00	0.00	0.06	0.01	0.03
108	VA	Smurfit Stone Container Corporation - West	4182011		S	0.06	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.04	0.01	0.02
109	OH	Fluor-B&W Portsmouth LLC (0666005004)	15485811	146165	L	0.06	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.04	0.01	0.02
110	VA	Huntington Ingalls Incorporated -NN Shipbl	4938811	1	L	0.05	0.00	0.00	0.05	0.01	0.02	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.03	0.01	0.02
111	IN	ArcelorMittal Burns Harbor Inc.	7376511	6	L	0.05	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.03	0.01	0.02
112	IN	ArcelorMittal Burns Harbor Inc.	7376511	7	L	0.05	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.03	0.01	0.02
113	OH	Youngstown Thermal (0250110024)	7219511	56897	L	0.05	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.03	0.00	0.01
114	OH	Fluor-B&W Portsmouth LLC (0666005004)	15485811	146164	L	0.05	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.03	0.01	0.02
115	IN	ArcelorMittal Burns Harbor Inc.	7376511	5	L	0.05	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.05	0.01	0.02
116	IN	ArcelorMittal Burns Harbor Inc.	7376511	31	L	0.05	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.05	0.01	0.02	0.00	0.00	0.05	0.01	0.02
117	IN	ArcelorMittal Burns Harbor Inc.	7376511	8	L	0.05	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.05	0.01	0.02	0.00	0.00	0.04	0.01	0.02
118	PA	INTL WAXES INC/FARMERS VALLEY	6582111		S	0.05	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.05	0.01	0.02	0.00	0.00	0.04	0.01	0.02
119	OH	Kraton Polymers U.S. LLC (0684010011)	8130511	152405	L	0.05	0.00	0.00	0.05	0.01	0.02	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.03	0.01	0.02
120	IN	SABIC INNOVATIVE PLASTICS MT. VERNON	7364611	2	L	0.05	0.00	0.00	0.05	0.01	0.02	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.03	0.00	0.01

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Type	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
121	PA	APPLETON PAPERS/SPRING MILL	7872711	S09	L	0.04	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.03	0.00	0.01
122	IN	ArcelorMittal Burns Harbor Inc.	7376511	4	L	0.04	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.04	0.01	0.02
123	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Riley Bark	L	0.04	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.02	0.00	0.01
124	WV	DUPONT WASHINGTON WORKS	4878911		S	0.04	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.03	0.00	0.01
125	VA	Huntington Ingalls Incorporated -NN Shipbl	4938811		S	0.03	0.00	0.00	0.03	0.01	0.02	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.02	0.00	0.01
126	TN	Cargill Corn Milling	5723011	8001	L	0.03	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.02	0.00	0.01
127	NY	NORLITE CORP	8090911		S	0.03	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.02	0.00	0.01
128	MI	U S STEEL GREAT LAKES WORKS	8483611	FUG001	L	0.03	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.03	0.00	0.01
129	TN	Cargill Corn Milling	5723011	8301	L	0.03	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.02	0.00	0.01
130	OH	BDM Warren Steel Operations, LLC (02780	8063611		S	0.03	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.02	0.00	0.01
131	IN	SABIC INNOVATIVE PLASTICS MT. VERNON	7364611		S	0.02	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.01	0.00	0.01
132	NC	KapStone Kraft Paper Corporation	8048011		S	0.02	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.01	0.00	0.01
133	NJ	Atlantic County Utilities Authority Landfill	8093211		S	0.02	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.01	0.00	0.01
134	PA	PPG IND INC/WORKS NO 6	6463511		S	0.02	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.01	0.00	0.00
135	VA	Philip Morris Usa Inc - Park 500	5795511		S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
136	KY	Century Aluminum Sebree LLC	7352311		S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
137	MA	SOLUTIA INCORPORATED	7236411		S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
138	ME	SAPPI - SOMERSET	8200111		S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

F.26 2011 ICI Ranking Visibility Impairing Sources to Great Gulf

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Large or Small?	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
1	MD	Luke Paper Company	7763811	001-0011-3-0018	L	3.39	0.18	0.02	**2.25**	0.37	**1.14**	0.19	0.05	**2.78**	0.45	**1.39**	0.27	0.03	**3.39**	0.55	**1.67**
2	MD	Luke Paper Company	7763811	001-0011-3-0019	L	3.34	0.18	0.02	**2.22**	0.36	**1.12**	0.19	0.05	**2.72**	0.44	**1.36**	0.27	0.03	**3.34**	0.54	**1.65**
3	ME	SAPPI - SOMERSET	8200111	1	L	2.23	0.00	0.03	0.36	0.06	0.19	0.02	0.17	**2.23**	0.37	**1.13**	0.01	0.04	0.56	0.09	0.30
4	NY	LAFARGE BUILDING MATERIALS INC	8105211	43101	L	1.44	0.08	0.04	**1.39**	0.23	0.72	0.04	0.04	0.88	0.15	0.46	0.06	0.07	**1.44**	0.24	0.75
5	ME	VERSO PAPER - ANDROSCOGGIN MILL	7764711		S	1.44	0.00	0.03	0.36	0.06	0.19	0.01	0.11	**1.44**	0.24	0.74	0.00	0.01	0.22	0.04	0.12
6	NY	FINCH PAPER LLC	8325211	12	L	1.12	0.00	0.03	0.33	0.05	0.18	0.01	0.09	**1.12**	0.19	0.58	0.00	0.07	0.82	0.14	0.43
7	OH	P. H. Glatfelter Company - Chillicothe Facil	8131111	147671	L	1.07	0.09	0.00	**1.07**	0.18	0.56	0.07	0.01	0.96	0.16	0.50	0.06	0.01	0.70	0.12	0.37
8	NY	KODAK PARK DIVISION	8091511	4	L	0.87	0.02	0.01	0.32	0.05	0.17	0.02	0.02	0.45	0.07	0.24	0.03	0.04	0.87	0.14	0.46
9	ME	SAPPI - SOMERSET	8200111	37	L	0.82	0.00	0.01	0.14	0.02	0.07	0.00	0.07	0.82	0.14	0.43	0.00	0.01	0.15	0.02	0.08
10	NY	INTERNATIONAL PAPER TICONDEROGA MI	7991711	44	L	0.81	0.01	0.01	0.20	0.03	0.11	0.04	0.03	0.81	0.13	0.43	0.02	0.02	0.47	0.08	0.25
11	NH	GORHAM PAPER & TISSUE LLC	7866711		S	0.66	0.01	0.02	0.39	0.07	0.21	0.02	0.04	0.66	0.11	0.35	0.01	0.02	0.38	0.06	0.20
12	NY	FINCH PAPER LLC	8325211		S	0.61	0.00	0.02	0.19	0.03	0.10	0.00	0.05	0.61	0.10	0.32	0.00	0.04	0.44	0.07	0.23
13	NY	ALCOA MASSENA OPERATIONS (WEST PLA	7968211	SA398	L	0.59	0.02	0.00	0.22	0.04	0.12	0.05	0.00	0.59	0.10	0.31	0.03	0.00	0.36	0.06	0.19
14	TN	EASTMAN CHEMICAL COMPANY	3982311	B2531	L	0.56	0.03	0.00	0.43	0.07	0.23	0.03	0.01	0.51	0.09	0.27	0.04	0.01	0.56	0.09	0.30
15	MI	U S STEEL GREAT LAKES WORKS	8483611		S	0.52	0.01	0.00	0.21	0.04	0.11	0.04	0.01	0.52	0.09	0.27	0.03	0.01	0.39	0.06	0.21
16	MI	ESCANABA PAPER COMPANY	8126511	SV0117	L	0.41	0.01	0.01	0.14	0.02	0.08	0.02	0.02	0.41	0.07	0.22	0.01	0.01	0.24	0.04	0.13
17	PA	PHILA ENERGY SOL REF/ PES	6652211		S	0.39	0.00	0.01	0.10	0.02	0.06	0.00	0.03	0.39	0.06	0.21	0.00	0.01	0.13	0.02	0.07
18	WV	BAYER CROPSCIENCE	5782411	8	L	0.37	0.01	0.00	0.15	0.03	0.08	0.01	0.02	0.37	0.06	0.20	0.01	0.01	0.16	0.03	0.08
19	IL	Aventine Renewable Energy Inc	8065311	49	L	0.37	0.01	0.00	0.13	0.02	0.07	0.01	0.00	0.18	0.03	0.10	0.03	0.00	0.37	0.06	0.19
20	IN	US STEEL GARY WORKS	8192011		S	0.36	0.00	0.00	0.07	0.01	0.04	0.01	0.00	0.12	0.02	0.06	0.00	0.03	0.36	0.06	0.19
21	IN	Indiana Harbor East	3986511		S	0.35	0.00	0.01	0.11	0.02	0.06	0.01	0.01	0.18	0.03	0.09	0.01	0.02	0.35	0.06	0.19
22	PA	KEYSTONE PORTLAND CEMENT/EAST ALLE	6582211	S73	L	0.34	0.00	0.00	0.08	0.01	0.04	0.01	0.02	0.34	0.06	0.18	0.01	0.01	0.19	0.03	0.10
23	IL	Aventine Renewable Energy Inc	8065311	48	L	0.32	0.01	0.00	0.10	0.02	0.05	0.01	0.00	0.16	0.03	0.08	0.03	0.00	0.32	0.05	0.17
24	ME	Madison Paper	5253911		S	0.30	0.00	0.00	0.06	0.01	0.03	0.01	0.01	0.30	0.05	0.16	0.01	0.01	0.20	0.03	0.11
25	MI	St. Marys Cement, Inc. (U.S.)	8160611	SV0009	L	0.29	0.00	0.00	0.08	0.01	0.04	0.01	0.01	0.29	0.05	0.16	0.00	0.01	0.11	0.02	0.06
26	IN	ArcelorMittal Burns Harbor Inc.	7376511	13	L	0.29	0.00	0.01	0.10	0.02	0.05	0.01	0.01	0.21	0.03	0.11	0.01	0.02	0.29	0.05	0.15
27	MI	St. Marys Cement, Inc. (U.S.)	8160611	SV0011	L	0.28	0.00	0.00	0.06	0.01	0.03	0.01	0.01	0.28	0.05	0.15	0.00	0.01	0.12	0.02	0.06
28	IN	TATE & LYLE, LAFAYETTE SOUTH (33)	7376411	4	L	0.28	0.02	0.00	0.22	0.04	0.12	0.01	0.00	0.19	0.03	0.10	0.02	0.01	0.28	0.05	0.15
29	PA	USS/CLAIRTON WORKS	8204511		S	0.28	0.01	0.01	0.19	0.03	0.10	0.00	0.02	0.28	0.05	0.15	0.01	0.01	0.14	0.02	0.07
30	MD	Sparrows Point, LLC	8239711		S	0.27	0.01	0.01	0.12	0.02	0.07	0.00	0.02	0.27	0.04	0.14	0.01	0.01	0.18	0.03	0.10
31	PA	HERCULES CEMENT CO LP/STOCKERTOWN	3881611	S03	L	0.26	0.00	0.00	0.08	0.01	0.04	0.01	0.01	0.26	0.04	0.14	0.01	0.01	0.16	0.03	0.09
32	MD	Luke Paper Company	7763811	001-0011-6-0235	L	0.26	0.01	0.00	0.15	0.03	0.08	0.01	0.01	0.26	0.04	0.14	0.01	0.01	0.20	0.03	0.11
33	PA	Penn State Univ	3186811	S01	L	0.25	0.01	0.00	0.17	0.03	0.09	0.01	0.01	0.25	0.04	0.13	0.01	0.00	0.18	0.03	0.10
34	IN	ELI LILLY & COMPANY CLINTON LABS	8223611	2	L	0.25	0.01	0.00	0.15	0.02	0.08	0.01	0.00	0.16	0.03	0.08	0.02	0.00	0.25	0.04	0.13
35	PA	SUNOCO INC (R&M)/MARCUS HOOK REFIN	7873611	S60	L	0.23	0.00	0.00	0.08	0.01	0.04	0.01	0.01	0.23	0.04	0.12	0.01	0.00	0.14	0.02	0.07
36	WV	CAPITOL CEMENT - ESSROC MARTINSBURG	4987611	71	L	0.23	0.01	0.00	0.13	0.02	0.07	0.01	0.01	0.18	0.03	0.10	0.01	0.01	0.23	0.04	0.12
37	OH	The Medical Center Company (131800305	8252111	184509	L	0.23	0.01	0.00	0.14	0.02	0.08	0.02	0.00	0.23	0.04	0.12	0.01	0.00	0.16	0.03	0.08
38	NH	DARTMOUTH COLLEGE	7199811		S	0.22	0.01	0.01	0.14	0.02	0.07	0.01	0.01	0.22	0.04	0.12	0.01	0.01	0.20	0.03	0.11
39	IN	UNIVERSITY OF NOTRE DAME DU LAC	5552011	2	L	0.22	0.01	0.00	0.12	0.02	0.07	0.02	0.00	0.22	0.04	0.12	0.01	0.01	0.20	0.03	0.10
40	MA	SOLUTIA INCORPORATED	7236411	5	L	0.21	0.00	0.01	0.10	0.02	0.05	0.01	0.01	0.14	0.02	0.07	0.01	0.01	0.21	0.04	0.11

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Type	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
41	TN	EASTMAN CHEMICAL COMPANY	3982311	B831	L	0.21	0.01	0.00	0.17	0.03	0.09	0.01	0.00	0.18	0.03	0.09	0.02	0.00	0.21	0.04	0.11
42	ME	HUHTAMAKI INC - WATERVILLE	5691611		S	0.20	0.00	0.01	0.11	0.02	0.06	0.01	0.01	0.20	0.03	0.10	0.01	0.01	0.14	0.02	0.07
43	NY	MORTON SALT DIV	7814711	1	L	0.18	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.08	0.01	0.04	0.01	0.00	0.18	0.03	0.10
44	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Recovery 10	L	0.18	0.01	0.00	0.18	0.03	0.09	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.11	0.02	0.06
45	VA	GP Big Island LLC	4183311	1	L	0.17	0.01	0.00	0.09	0.01	0.05	0.00	0.00	0.05	0.01	0.03	0.01	0.00	0.17	0.03	0.09
46	ME	FMC BIOPOLYMER	5692011		S	0.17	0.00	0.00	0.10	0.02	0.05	0.01	0.01	0.17	0.03	0.09	0.01	0.00	0.17	0.03	0.09
47	PA	PPG IND INC/WORKS NO 6	6463511	S01	L	0.17	0.00	0.00	0.05	0.01	0.02	0.00	0.01	0.13	0.02	0.07	0.00	0.01	0.17	0.03	0.09
48	VA	Radford Army Ammunition Plant	5748611	1	L	0.17	0.01	0.00	0.10	0.02	0.05	0.00	0.00	0.08	0.01	0.04	0.01	0.00	0.17	0.03	0.09
49	ME	WOODLAND PULP LLC	5974211		S	0.16	0.00	0.01	0.10	0.02	0.05	0.00	0.01	0.16	0.03	0.09	0.00	0.01	0.13	0.02	0.07
50	IL	Tate & Lyle Ingredients Americas LLC	7793311	292	L	0.16	0.01	0.00	0.06	0.01	0.03	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.16	0.03	0.09
51	PA	PPG IND INC/WORKS NO 6	6463511	S02	L	0.16	0.00	0.00	0.04	0.01	0.02	0.00	0.01	0.13	0.02	0.07	0.00	0.01	0.16	0.03	0.09
52	VA	Roanoke Cement Company	5039811	4	L	0.16	0.01	0.00	0.10	0.02	0.05	0.00	0.01	0.10	0.02	0.05	0.01	0.01	0.16	0.03	0.08
53	IN	Citizens Thermal	4885311	4	L	0.16	0.01	0.00	0.12	0.02	0.06	0.01	0.00	0.10	0.02	0.05	0.01	0.00	0.16	0.03	0.08
54	IN	Citizens Thermal	4885311	1	L	0.15	0.01	0.00	0.12	0.02	0.06	0.01	0.00	0.09	0.02	0.05	0.01	0.00	0.15	0.03	0.08
55	IN	ArcelorMittal Burns Harbor Inc.	7376511		S	0.15	0.00	0.00	0.05	0.01	0.03	0.00	0.01	0.11	0.02	0.06	0.01	0.01	0.15	0.03	0.08
56	IN	ArcelorMittal Burns Harbor Inc.	7376511	34	L	0.15	0.00	0.00	0.05	0.01	0.03	0.01	0.00	0.12	0.02	0.06	0.01	0.01	0.15	0.03	0.08
57	WV	DUPONT WASHINGTON WORKS	4878911	477	L	0.15	0.01	0.00	0.08	0.01	0.04	0.01	0.01	0.15	0.03	0.08	0.00	0.00	0.07	0.01	0.04
58	IN	US STEEL GARY WORKS	8192011	0	L	0.15	0.00	0.00	0.06	0.01	0.03	0.01	0.00	0.09	0.02	0.05	0.01	0.01	0.15	0.03	0.08
59	MD	Sparrows Point, LLC	8239711	005-0147-6-0941	L	0.15	0.00	0.00	0.09	0.01	0.05	0.00	0.01	0.15	0.02	0.08	0.00	0.00	0.09	0.01	0.05
60	OH	AK Steel Corporation (1409010006)	8008811		S	0.14	0.01	0.00	0.14	0.02	0.07	0.01	0.01	0.13	0.02	0.07	0.01	0.00	0.12	0.02	0.06
61	IN	ESSROC Cement Corp	8198511	15	L	0.14	0.01	0.00	0.14	0.02	0.07	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.11	0.02	0.06
62	MD	Naval Support Facility, Indian Head	6117011	017-0040-3-0006	L	0.13	0.01	0.00	0.07	0.01	0.04	0.00	0.00	0.05	0.01	0.03	0.01	0.00	0.13	0.02	0.07
63	KY	E I Dupont Inc	6096411	1	L	0.13	0.01	0.00	0.10	0.02	0.06	0.01	0.00	0.13	0.02	0.07	0.01	0.00	0.06	0.01	0.03
64	OH	Morton Salt, Inc. (0285020059)	7997111	65589	L	0.12	0.01	0.00	0.12	0.02	0.06	0.01	0.00	0.12	0.02	0.06	0.01	0.00	0.07	0.01	0.04
65	OH	Morton Salt, Inc. (0285020059)	7997111	65590	L	0.12	0.01	0.00	0.12	0.02	0.06	0.01	0.00	0.12	0.02	0.06	0.01	0.00	0.07	0.01	0.04
66	OH	City of Akron Steam Generating (16770107	8170411	253630	L	0.12	0.01	0.00	0.08	0.01	0.04	0.01	0.00	0.12	0.02	0.06	0.00	0.00	0.07	0.01	0.04
67	OH	Cargill, Incorporated - Salt Division (Akron,	7416411	250250	L	0.12	0.01	0.00	0.09	0.02	0.05	0.01	0.00	0.12	0.02	0.06	0.01	0.00	0.07	0.01	0.04
68	IN	ArcelorMittal Burns Harbor Inc.	7376511	14	L	0.12	0.00	0.00	0.05	0.01	0.02	0.01	0.00	0.08	0.01	0.05	0.01	0.00	0.12	0.02	0.06
69	PA	TEAM TEN/TYRONE PAPER MILL	9248211	S01	L	0.11	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.10	0.02	0.05
70	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Big Bill/PG	L	0.11	0.01	0.00	0.11	0.02	0.06	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.07	0.01	0.04
71	IN	ALCOA INC. - WARRICK OPERATIONS	8181811		S	0.11	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.10	0.02	0.06	0.01	0.00	0.09	0.01	0.05
72	IN	BALL STATE UNIVERSITY	4873211	1	L	0.11	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.08	0.01	0.05	0.01	0.00	0.11	0.02	0.06
73	IN	BALL STATE UNIVERSITY	4873211	2	L	0.11	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.08	0.01	0.05	0.01	0.00	0.11	0.02	0.06
74	VA	Philip Morris Usa Inc - Park 500	5795511	47	L	0.10	0.00	0.00	0.09	0.01	0.05	0.00	0.00	0.08	0.01	0.04	0.01	0.00	0.10	0.02	0.06
75	IN	US STEEL GARY WORKS	8192011	301	L	0.10	0.00	0.00	0.03	0.01	0.02	0.00	0.00	0.05	0.01	0.03	0.00	0.01	0.10	0.02	0.06
76	NY	CARGILL SALT CO- WATKINS GLEN PLANT	8176611	1	L	0.10	0.01	0.00	0.10	0.02	0.05	0.00	0.00	0.06	0.01	0.03	0.01	0.00	0.09	0.01	0.05
77	IN	Indiana Harbor East	3986511	134	L	0.10	0.00	0.00	0.03	0.01	0.02	0.00	0.00	0.05	0.01	0.03	0.00	0.01	0.10	0.02	0.05
78	OH	BDM Warren Steel Operations, LLC (02780	8063611	59727	L	0.10	0.01	0.00	0.10	0.02	0.05	0.01	0.00	0.08	0.01	0.04	0.01	0.00	0.06	0.01	0.03
79	OH	DTE St. Bernard, LLC (1431394148)	9301711	2170429	L	0.10	0.01	0.00	0.10	0.02	0.05	0.01	0.00	0.08	0.01	0.04	0.00	0.00	0.05	0.01	0.03
80	KY	Century Aluminum Sebree LLC	7352311	SO2ENG	L	0.10	0.01	0.00	0.10	0.02	0.05	0.00	0.00	0.05	0.01	0.03	0.01	0.00	0.10	0.02	0.05

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81	TN	EASTMAN CHEMICAL COMPANY	3982311	B3251	L	0.10	0.00	0.00	0.05	0.01	0.03	0.00	0.01	0.10	0.02	0.05	0.00	0.00	0.07	0.01	0.04
82	IN	SABIC INNOVATIVE PLASTICS MT. VERNON	7364611	1	L	0.09	0.01	0.00	0.08	0.01	0.05	0.00	0.00	0.04	0.01	0.02	0.01	0.00	0.09	0.02	0.05
83	VA	Huntington Ingalls Incorporated -NN Shipbl	4938811	1	L	0.09	0.00	0.00	0.05	0.01	0.03	0.01	0.00	0.09	0.02	0.05	0.00	0.00	0.04	0.01	0.02
84	PA	INTL WAXES INC/FARMERS VALLEY	6582111	S02	L	0.09	0.01	0.00	0.08	0.01	0.04	0.00	0.00	0.07	0.01	0.04	0.00	0.00	0.09	0.02	0.05
85	KY	Isp Chemicals Inc.	7365311	0AA	L	0.09	0.01	0.00	0.09	0.02	0.05	0.00	0.00	0.05	0.01	0.03	0.01	0.00	0.09	0.01	0.05
86	PA	APPLETON PAPERS/SPRING MILL	7872711	S18	L	0.09	0.01	0.00	0.09	0.01	0.05	0.01	0.00	0.09	0.01	0.05	0.01	0.00	0.09	0.01	0.05
87	PA	APPLETON PAPERS/SPRING MILL	7872711	S28	L	0.09	0.01	0.00	0.09	0.01	0.05	0.01	0.00	0.09	0.01	0.05	0.01	0.00	0.09	0.01	0.05
88	OH	Kraton Polymers U.S. LLC (0684010011)	8130511	152407	L	0.09	0.00	0.00	0.06	0.01	0.03	0.01	0.00	0.09	0.01	0.05	0.00	0.00	0.04	0.01	0.02
89	IN	ArcelorMittal Burns Harbor Inc.	7376511	25	L	0.09	0.00	0.00	0.03	0.00	0.02	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.09	0.01	0.05
90	PA	USS CORP/EDGAR THOMSON WORKS	7409311		S	0.09	0.01	0.00	0.09	0.01	0.05	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.06	0.01	0.03
91	OH	Youngstown Thermal (0250110024)	7219511		S	0.08	0.01	0.00	0.08	0.01	0.04	0.01	0.00	0.07	0.01	0.04	0.00	0.00	0.05	0.01	0.03
92	MD	Sparrows Point, LLC	8239711	005-0147-6-0939	L	0.08	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.03	0.01	0.02	0.01	0.00	0.08	0.01	0.04
93	WV	DUPONT WASHINGTON WORKS	4878911		S	0.08	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.08	0.01	0.04	0.00	0.00	0.03	0.01	0.02
94	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Riley Coal	L	0.08	0.01	0.00	0.08	0.01	0.04	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.05	0.01	0.03
95	OH	Kraton Polymers U.S. LLC (0684010011)	8130511	152405	L	0.08	0.00	0.00	0.05	0.01	0.03	0.01	0.00	0.08	0.01	0.04	0.00	0.00	0.04	0.01	0.02
96	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-No. 4 PB	L	0.08	0.01	0.00	0.08	0.01	0.04	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.05	0.01	0.03
97	NC	KapStone Kraft Paper Corporation	8048011	ST-1,2	L	0.07	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.07	0.01	0.04
98	IN	INDIANA UNIVERSITY	4553211	3	L	0.07	0.01	0.00	0.07	0.01	0.04	0.00	0.00	0.06	0.01	0.03	0.01	0.00	0.06	0.01	0.03
99	IN	ArcelorMittal Burns Harbor Inc.	7376511	5	L	0.07	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.05	0.01	0.03	0.01	0.00	0.07	0.01	0.04
100	IN	ArcelorMittal Burns Harbor Inc.	7376511	31	L	0.07	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.07	0.01	0.04
101	NJ	Gerresheimer Moulded Glass	12804611		S	0.07	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.07	0.01	0.04	0.00	0.00	0.04	0.01	0.02
102	VA	Smurfit Stone Container Corporation - West	4182011	4	L	0.07	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.04	0.01	0.02	0.00	0.01	0.07	0.01	0.04
103	IN	ArcelorMittal Burns Harbor Inc.	7376511	8	L	0.07	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.07	0.01	0.04
104	VA	Smurfit Stone Container Corporation - West	4182011		S	0.07	0.00	0.01	0.06	0.01	0.03	0.00	0.00	0.04	0.01	0.02	0.00	0.01	0.07	0.01	0.04
105	PA	AMER REF GROUP/BRADFORD	6532511	S13	L	0.06	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.05	0.01	0.02	0.00	0.00	0.06	0.01	0.03
106	VA	Smurfit Stone Container Corporation - West	4182011	7	L	0.06	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.04	0.01	0.02	0.01	0.00	0.06	0.01	0.03
107	OH	Fluor-B&W Portsmouth LLC (0666005004)	15485811	146165	L	0.06	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.04	0.01	0.02
108	VA	Smurfit Stone Container Corporation - West	4182011	2	L	0.06	0.00	0.01	0.06	0.01	0.03	0.00	0.00	0.04	0.01	0.02	0.00	0.01	0.06	0.01	0.03
109	IN	ArcelorMittal Burns Harbor Inc.	7376511	6	L	0.06	0.00	0.00	0.03	0.00	0.02	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.05	0.01	0.03
110	IN	ArcelorMittal Burns Harbor Inc.	7376511	7	L	0.06	0.00	0.00	0.03	0.00	0.02	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.05	0.01	0.03
111	OH	Fluor-B&W Portsmouth LLC (0666005004)	15485811	146164	L	0.06	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.04	0.01	0.02
112	IN	INDIANA UNIVERSITY	4553211	2	L	0.06	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.06	0.01	0.03
113	IN	ArcelorMittal Burns Harbor Inc.	7376511	4	L	0.06	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.06	0.01	0.03
114	NC	DAK Americas LLC	8122511	ES-01	L	0.05	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.04	0.01	0.02
115	NC	DAK Americas LLC	8122511	ES-02	L	0.05	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.04	0.01	0.02
116	OH	Youngstown Thermal (0250110024)	7219511	56897	L	0.05	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.05	0.01	0.02	0.00	0.00	0.03	0.01	0.02
117	PA	APPLETON PAPERS/SPRING MILL	7872711	S09	L	0.05	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.04	0.01	0.02
118	MI	U S STEEL GREAT LAKES WORKS	8483611	FUG001	L	0.05	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.05	0.01	0.02
119	PA	INTL WAXES INC/FARMERS VALLEY	6582111		S	0.05	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.03	0.01	0.02	0.00	0.00	0.05	0.01	0.03
120	ME	THE JACKSON LABORATORY	7945211		S	0.05	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.05	0.01	0.02	0.00	0.00	0.03	0.01	0.02

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Type	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
121	TN	PACKAGING CORPORATION OF AMERICA	4963011	ST1198	L	0.05	0.00	0.00	0.05	0.01	0.02	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.03	0.01	0.02
122	IN	SABIC INNOVATIVE PLASTICS MT. VERNON	7364611	2	L	0.05	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.05	0.01	0.02
123	PA	UNITED REFINING CO/WARREN PLT	4966711	S27	L	0.04	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.04	0.01	0.02
124	NY	NORLITE CORP	8090911		S	0.04	0.00	0.00	0.03	0.01	0.02	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.03	0.01	0.02
125	TN	PACKAGING CORPORATION OF AMERICA	4963011		S	0.04	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.02	0.00	0.01
126	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Riley Bark	L	0.04	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.02	0.00	0.01
127	OH	BDM Warren Steel Operations, LLC (02780	8063611		S	0.03	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.03	0.01	0.02	0.00	0.00	0.03	0.01	0.02
128	TN	Cargill Corn Milling	5723011	8001	L	0.03	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.03	0.00	0.02
129	TN	Cargill Corn Milling	5723011	8301	L	0.03	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.03	0.00	0.01
130	VA	Huntington Ingalls Incorporated -NN Shipbl	4938811		S	0.02	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.02	0.00	0.01
131	NC	KapStone Kraft Paper Corporation	8048011		S	0.02	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.02	0.00	0.01
132	IN	SABIC INNOVATIVE PLASTICS MT. VERNON	7364611		S	0.02	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.02	0.00	0.01
133	PA	PPG IND INC/WORKS NO 6	6463511		S	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.01	0.00	0.01
134	NJ	Atlantic County Utilities Authority Landfill	8093211		S	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.01
135	KY	Century Aluminum Sebree LLC	7352311		S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
136	VA	Philip Morris Usa Inc - Park 500	5795511		S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
137	MA	SOLUTIA INCORPORATED	7236411		S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
138	ME	SAPPI - SOMERSET	8200111		S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

F.27 2011 ICI Ranking Visibility Impairing Sources to Lye Brook

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Large or Small?	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
1	NY	LAFARGE BUILDING MATERIALS INC	8105211	43101	L	8.14	0.12	0.15	**2.96**	0.51	**1.57**	0.27	0.47	**8.14**	**1.35**	**3.82**	0.10	0.16	**2.81**	0.49	**1.49**
2	MD	Luke Paper Company	7763811	001-0011-3-0018	L	5.31	0.31	0.02	**3.50**	0.61	**1.83**	0.36	0.07	**4.63**	0.79	**2.35**	0.47	0.03	**5.31**	0.90	**2.66**
3	MD	Luke Paper Company	7763811	001-0011-3-0019	L	5.23	0.30	0.02	**3.45**	0.60	**1.80**	0.36	0.06	**4.55**	0.78	**2.31**	0.46	0.02	**5.23**	0.89	**2.62**
4	NY	FINCH PAPER LLC	8325211	12	L	4.77	0.01	0.29	**3.28**	0.57	**1.72**	0.01	0.42	**4.77**	0.82	**2.42**	0.01	0.25	**2.90**	0.50	**1.54**
5	NY	FINCH PAPER LLC	8325211		S	2.87	0.00	0.17	**1.89**	0.33	**1.03**	0.00	0.26	**2.87**	0.50	**1.52**	0.00	0.15	**1.66**	0.29	0.91
6	OH	P. H. Glatfelter Company - Chillicothe Facil	8131111	147671	L	1.44	0.13	0.00	**1.44**	0.25	0.79	0.11	0.01	**1.22**	0.21	0.67	0.11	0.01	**1.25**	0.22	0.69
7	NY	KODAK PARK DIVISION	8091511	4	L	1.42	0.02	0.02	0.46	0.08	0.26	0.06	0.07	**1.42**	0.25	0.78	0.04	0.05	0.93	0.17	0.52
8	ME	SAPPI - SOMERSET	8200111	1	L	1.37	0.01	0.03	0.38	0.07	0.22	0.02	0.10	**1.37**	0.24	0.76	0.01	0.06	0.78	0.14	0.44
9	NY	INTERNATIONAL PAPER TICONDEROGA MI	7991711	44	L	1.14	0.03	0.06	0.97	0.17	0.54	0.04	0.06	**1.14**	0.20	0.63	0.03	0.06	**1.02**	0.18	0.57
10	NY	ALCOA MASSENA OPERATIONS (WEST PLA	7968211	SA398	L	0.99	0.03	0.00	0.34	0.06	0.19	0.04	0.00	0.40	0.07	0.23	0.09	0.00	0.99	0.18	0.55
11	TN	EASTMAN CHEMICAL COMPANY	3982311	B2531	L	0.97	0.04	0.01	0.56	0.10	0.32	0.06	0.03	0.97	0.17	0.54	0.04	0.01	0.53	0.09	0.30
12	NH	DARTMOUTH COLLEGE	7199811		S	0.57	0.01	0.02	0.26	0.05	0.15	0.02	0.02	0.41	0.07	0.23	0.02	0.03	0.57	0.10	0.32
13	MI	ESCANABA PAPER COMPANY	8126511	SV0117	L	0.53	0.01	0.01	0.19	0.03	0.11	0.03	0.02	0.53	0.09	0.30	0.01	0.01	0.16	0.03	0.09
14	MA	SOLUTIA INCORPORATED	7236411	5	L	0.50	0.01	0.01	0.29	0.05	0.17	0.03	0.02	0.50	0.09	0.28	0.02	0.02	0.39	0.07	0.22
15	WV	CAPITOL CEMENT - ESSROC MARTINSBURG	4987611	71	L	0.50	0.01	0.01	0.21	0.04	0.12	0.01	0.03	0.50	0.09	0.28	0.02	0.01	0.31	0.05	0.17
16	MD	Sparrows Point, LLC	8239711		S	0.46	0.01	0.01	0.20	0.03	0.11	0.01	0.03	0.46	0.08	0.26	0.01	0.01	0.21	0.04	0.12
17	ME	SAPPI - SOMERSET	8200111	37	L	0.42	0.00	0.01	0.08	0.01	0.05	0.00	0.04	0.42	0.07	0.24	0.00	0.02	0.17	0.03	0.10
18	PA	KEYSTONE PORTLAND CEMENT/EAST ALLE	6582211	S73	L	0.41	0.01	0.01	0.27	0.05	0.16	0.01	0.02	0.41	0.07	0.24	0.01	0.02	0.40	0.07	0.23
19	ME	VERSO PAPER - ANDROSCOGGIN MILL	7764711		S	0.41	0.00	0.00	0.07	0.01	0.04	0.01	0.03	0.41	0.07	0.23	0.00	0.03	0.32	0.06	0.18
20	PA	PPG IND INC/WORKS NO 6	6463511	S01	L	0.39	0.00	0.00	0.07	0.01	0.04	0.00	0.03	0.39	0.07	0.22	0.00	0.01	0.18	0.03	0.10
21	MI	U S STEEL GREAT LAKES WORKS	8483611		S	0.39	0.02	0.01	0.29	0.05	0.16	0.02	0.01	0.27	0.05	0.15	0.03	0.01	0.39	0.07	0.22
22	PA	PPG IND INC/WORKS NO 6	6463511	S02	L	0.38	0.00	0.00	0.07	0.01	0.04	0.00	0.03	0.38	0.07	0.21	0.00	0.01	0.17	0.03	0.10
23	PA	HERCULES CEMENT CO LP/STOCKERTOWN	3881611	S03	L	0.36	0.01	0.01	0.24	0.04	0.14	0.01	0.01	0.31	0.06	0.18	0.01	0.02	0.36	0.06	0.20
24	TN	EASTMAN CHEMICAL COMPANY	3982311	B831	L	0.35	0.02	0.00	0.21	0.04	0.12	0.02	0.01	0.35	0.06	0.20	0.02	0.00	0.20	0.04	0.11
25	NY	NORLITE CORP	8090911		S	0.35	0.01	0.03	0.35	0.06	0.20	0.01	0.02	0.23	0.04	0.13	0.01	0.02	0.34	0.06	0.19
26	PA	USS/CLAIRTON WORKS	8204511		S	0.35	0.01	0.01	0.18	0.03	0.10	0.01	0.02	0.35	0.06	0.20	0.01	0.02	0.27	0.05	0.15
27	IN	Indiana Harbor East	3986511		S	0.34	0.00	0.02	0.25	0.04	0.14	0.01	0.01	0.32	0.06	0.18	0.01	0.02	0.34	0.06	0.19
28	MI	St. Marys Cement, Inc. (U.S.)	8160611	SV0009	L	0.32	0.00	0.00	0.08	0.01	0.05	0.01	0.02	0.32	0.06	0.18	0.00	0.01	0.11	0.02	0.06
29	MD	Luke Paper Company	7763811	001-0011-6-0235	L	0.31	0.02	0.00	0.22	0.04	0.12	0.02	0.01	0.31	0.06	0.18	0.02	0.01	0.29	0.05	0.17
30	PA	PHILA ENERGY SOL REF/ PES	6652211		S	0.31	0.00	0.01	0.13	0.02	0.08	0.00	0.03	0.31	0.06	0.18	0.00	0.02	0.25	0.04	0.14
31	IN	ArcelorMittal Burns Harbor Inc.	7376511	13	L	0.30	0.01	0.01	0.19	0.03	0.11	0.01	0.01	0.30	0.05	0.17	0.01	0.01	0.22	0.04	0.13
32	IN	US STEEL GARY WORKS	8192011		S	0.29	0.00	0.01	0.16	0.03	0.09	0.01	0.01	0.19	0.03	0.11	0.01	0.02	0.29	0.05	0.17
33	IL	Aventine Renewable Energy Inc	8065311	49	L	0.29	0.01	0.00	0.16	0.03	0.09	0.02	0.00	0.21	0.04	0.12	0.03	0.00	0.29	0.05	0.16
34	MI	St. Marys Cement, Inc. (U.S.)	8160611	SV0011	L	0.28	0.00	0.00	0.08	0.01	0.04	0.01	0.01	0.28	0.05	0.16	0.00	0.01	0.12	0.02	0.07
35	PA	Penn State Univ	3186811	S01	L	0.27	0.02	0.00	0.23	0.04	0.13	0.02	0.01	0.27	0.05	0.15	0.01	0.00	0.21	0.04	0.12
36	ME	WOODLAND PULP LLC	5974211		S	0.26	0.00	0.01	0.08	0.01	0.04	0.00	0.02	0.26	0.05	0.15	0.00	0.02	0.24	0.04	0.14
37	IL	Aventine Renewable Energy Inc	8065311	48	L	0.25	0.01	0.00	0.13	0.02	0.08	0.01	0.00	0.18	0.03	0.10	0.02	0.00	0.25	0.04	0.14
38	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Recovery 10	L	0.24	0.02	0.00	0.19	0.03	0.11	0.02	0.01	0.24	0.04	0.14	0.01	0.00	0.13	0.02	0.07
39	PA	SUNOCO INC (R&M)/MARCUS HOOK REFIN	7873611	S60	L	0.23	0.01	0.00	0.18	0.03	0.10	0.01	0.01	0.23	0.04	0.13	0.01	0.01	0.19	0.03	0.11
40	IN	UNIVERSITY OF NOTRE DAME DU LAC	5552011	2	L	0.22	0.01	0.00	0.14	0.02	0.08	0.02	0.00	0.22	0.04	0.13	0.01	0.00	0.15	0.03	0.08

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Type	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
41	VA	Radford Army Ammunition Plant	5748611	1	L	0.22	0.01	0.00	0.11	0.02	0.06	0.01	0.01	0.22	0.04	0.13	0.01	0.00	0.18	0.03	0.10
42	WV	BAYER CROPSCIENCE	5782411	8	L	0.22	0.01	0.00	0.14	0.02	0.08	0.01	0.01	0.22	0.04	0.13	0.01	0.01	0.18	0.03	0.10
43	NY	CARGILL SALT CO- WATKINS GLEN PLANT	8176611	1	L	0.22	0.01	0.00	0.16	0.03	0.09	0.01	0.01	0.22	0.04	0.13	0.01	0.00	0.17	0.03	0.10
44	ME	Madison Paper	5253911		S	0.22	0.00	0.00	0.03	0.01	0.02	0.01	0.01	0.22	0.04	0.12	0.01	0.00	0.12	0.02	0.07
45	VA	Philip Morris Usa Inc - Park 500	5795511	47	L	0.22	0.01	0.00	0.10	0.02	0.06	0.01	0.01	0.22	0.04	0.12	0.01	0.00	0.19	0.03	0.11
46	VA	Roanoke Cement Company	5039811	4	L	0.20	0.01	0.00	0.10	0.02	0.06	0.01	0.01	0.20	0.04	0.12	0.01	0.01	0.17	0.03	0.10
47	IN	TATE & LYLE, LAFAYETTE SOUTH (33)	7376411	4	L	0.20	0.02	0.00	0.19	0.03	0.11	0.02	0.00	0.20	0.04	0.12	0.01	0.00	0.16	0.03	0.09
48	IN	ESSROC Cement Corp	8198511	15	L	0.19	0.01	0.00	0.18	0.03	0.10	0.01	0.01	0.19	0.03	0.11	0.01	0.01	0.15	0.03	0.09
49	IN	ArcelorMittal Burns Harbor Inc.	7376511	14	L	0.19	0.01	0.00	0.07	0.01	0.04	0.02	0.00	0.19	0.03	0.11	0.01	0.00	0.09	0.02	0.05
50	IN	ArcelorMittal Burns Harbor Inc.	7376511	34	L	0.18	0.00	0.00	0.10	0.02	0.06	0.01	0.01	0.18	0.03	0.11	0.00	0.01	0.11	0.02	0.06
51	VA	GP Big Island LLC	4183311	1	L	0.18	0.01	0.00	0.11	0.02	0.06	0.00	0.00	0.10	0.02	0.06	0.01	0.00	0.18	0.03	0.10
52	IN	ELI LILLY & COMPANY CLINTON LABS	8223611	2	L	0.18	0.01	0.00	0.17	0.03	0.09	0.01	0.00	0.18	0.03	0.10	0.01	0.00	0.12	0.02	0.07
53	OH	AK Steel Corporation (1409010006)	8008811		S	0.17	0.01	0.00	0.17	0.03	0.10	0.01	0.01	0.14	0.02	0.08	0.01	0.01	0.16	0.03	0.09
54	TN	EASTMAN CHEMICAL COMPANY	3982311	B3251	L	0.17	0.00	0.00	0.06	0.01	0.04	0.01	0.01	0.17	0.03	0.10	0.00	0.00	0.07	0.01	0.04
55	IN	ArcelorMittal Burns Harbor Inc.	7376511		S	0.17	0.00	0.01	0.10	0.02	0.06	0.01	0.01	0.17	0.03	0.10	0.00	0.01	0.11	0.02	0.06
56	OH	The Medical Center Company (13180030598	8252111	184509	L	0.17	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.12	0.02	0.07	0.01	0.00	0.17	0.03	0.10
57	MD	Sparrows Point, LLC	8239711	005-0147-6-0941	L	0.16	0.00	0.01	0.12	0.02	0.07	0.00	0.00	0.08	0.01	0.05	0.01	0.01	0.16	0.03	0.09
58	VA	Smurfit Stone Container Corporation - West	4182011		S	0.16	0.00	0.01	0.06	0.01	0.03	0.00	0.01	0.13	0.02	0.08	0.00	0.01	0.16	0.03	0.09
59	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Big Bill/PG	L	0.16	0.01	0.00	0.12	0.02	0.07	0.01	0.00	0.16	0.03	0.09	0.01	0.00	0.08	0.01	0.05
60	VA	Smurfit Stone Container Corporation - West	4182011	2	L	0.16	0.00	0.01	0.06	0.01	0.03	0.00	0.01	0.14	0.02	0.08	0.00	0.01	0.16	0.03	0.09
61	PA	TEAM TEN/TYRONE PAPER MILL	9248211	S01	L	0.15	0.01	0.00	0.15	0.03	0.09	0.01	0.00	0.14	0.03	0.08	0.01	0.00	0.13	0.02	0.07
62	IN	US STEEL GARY WORKS	8192011	0	L	0.15	0.00	0.01	0.11	0.02	0.06	0.01	0.00	0.15	0.03	0.09	0.01	0.01	0.14	0.02	0.08
63	IN	Citizens Thermal	4885311	4	L	0.15	0.01	0.00	0.15	0.03	0.08	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.09	0.02	0.05
64	VA	Smurfit Stone Container Corporation - West	4182011	7	L	0.14	0.01	0.00	0.06	0.01	0.03	0.01	0.00	0.08	0.01	0.04	0.01	0.00	0.14	0.03	0.08
65	OH	DTE St. Bernard, LLC (1431394148)	9301711	2170429	L	0.14	0.01	0.00	0.14	0.03	0.08	0.01	0.00	0.09	0.02	0.05	0.01	0.00	0.11	0.02	0.06
66	NY	MORTON SALT DIV	7814711	1	L	0.14	0.01	0.00	0.09	0.02	0.05	0.01	0.00	0.14	0.02	0.08	0.01	0.00	0.14	0.03	0.08
67	OH	Morton Salt, Inc. (0285020059)	7997111	65589	L	0.14	0.01	0.00	0.12	0.02	0.07	0.01	0.00	0.09	0.02	0.05	0.01	0.00	0.14	0.03	0.08
68	PA	APPLETON PAPERS/SPRING MILL	7872711	S18	L	0.14	0.01	0.00	0.13	0.02	0.07	0.01	0.00	0.14	0.03	0.08	0.01	0.00	0.11	0.02	0.07
69	PA	APPLETON PAPERS/SPRING MILL	7872711	S28	L	0.14	0.01	0.00	0.13	0.02	0.07	0.01	0.00	0.14	0.03	0.08	0.01	0.00	0.11	0.02	0.07
70	OH	Cargill, Incorporated - Salt Division (Akron,	7416411	250250	L	0.14	0.01	0.00	0.10	0.02	0.06	0.01	0.00	0.08	0.01	0.05	0.01	0.00	0.14	0.03	0.08
71	OH	Morton Salt, Inc. (0285020059)	7997111	65590	L	0.14	0.01	0.00	0.12	0.02	0.07	0.01	0.00	0.09	0.02	0.05	0.01	0.00	0.14	0.03	0.08
72	IN	Citizens Thermal	4885311	1	L	0.14	0.01	0.00	0.14	0.02	0.08	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.09	0.02	0.05
73	MD	Naval Support Facility, Indian Head	6117011	017-0040-3-0006	L	0.14	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.14	0.02	0.08
74	KY	E I Dupont Inc	6096411	1	L	0.14	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.14	0.02	0.08	0.01	0.00	0.13	0.02	0.07
75	PA	INTL WAXES INC/FARMERS VALLEY	6582111	S02	L	0.13	0.01	0.00	0.09	0.02	0.05	0.01	0.00	0.09	0.02	0.05	0.01	0.00	0.13	0.02	0.08
76	OH	City of Akron Steam Generating (16770107	8170411	253630	L	0.13	0.01	0.00	0.09	0.02	0.05	0.01	0.00	0.07	0.01	0.04	0.01	0.00	0.13	0.02	0.07
77	IN	BALL STATE UNIVERSITY	4873211	1	L	0.13	0.01	0.00	0.13	0.02	0.07	0.01	0.00	0.11	0.02	0.06	0.00	0.00	0.06	0.01	0.04
78	IN	BALL STATE UNIVERSITY	4873211	2	L	0.13	0.01	0.00	0.13	0.02	0.07	0.01	0.00	0.11	0.02	0.06	0.00	0.00	0.06	0.01	0.04
79	NC	KapStone Kraft Paper Corporation	8048011	ST-1,2	L	0.12	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.08	0.01	0.05	0.01	0.00	0.12	0.02	0.07
80	IN	ALCOA INC. - WARRICK OPERATIONS	8181811		S	0.12	0.01	0.00	0.12	0.02	0.07	0.01	0.00	0.12	0.02	0.07	0.01	0.00	0.08	0.02	0.05

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Type	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
81	WV	DUPONT WASHINGTON WORKS	4878911	477	L	0.12	0.01	0.00	0.12	0.02	0.07	0.00	0.00	0.07	0.01	0.04	0.01	0.00	0.10	0.02	0.06
82	OH	Youngstown Thermal (0250110024)	7219511		S	0.12	0.01	0.00	0.09	0.02	0.05	0.00	0.00	0.06	0.01	0.03	0.01	0.00	0.12	0.02	0.07
83	PA	AMER REF GROUP/BRADFORD	6532511	S13	L	0.11	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.07	0.01	0.04	0.01	0.00	0.11	0.02	0.06
84	OH	BDM Warren Steel Operations, LLC (02780	8063611	59727	L	0.11	0.01	0.00	0.10	0.02	0.06	0.01	0.00	0.08	0.02	0.05	0.01	0.00	0.11	0.02	0.06
85	ME	FMC BIOPOLYMER	5692011		S	0.11	0.00	0.00	0.05	0.01	0.03	0.01	0.00	0.11	0.02	0.06	0.00	0.00	0.05	0.01	0.03
86	IL	Tate & Lyle Ingredients Americas LLC	7793311	292	L	0.11	0.01	0.00	0.08	0.01	0.04	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.10	0.02	0.05
87	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Riley Coal	L	0.10	0.01	0.00	0.08	0.01	0.05	0.01	0.00	0.10	0.02	0.06	0.00	0.00	0.06	0.01	0.03
88	PA	USS CORP/EDGAR THOMSON WORKS	7409311		S	0.10	0.01	0.00	0.10	0.02	0.06	0.01	0.00	0.09	0.02	0.05	0.01	0.00	0.10	0.02	0.06
89	VA	Smurfit Stone Container Corporation - West	4182011	4	L	0.10	0.00	0.00	0.06	0.01	0.03	0.00	0.01	0.10	0.02	0.06	0.00	0.01	0.10	0.02	0.06
90	ME	HUHTAMAKI INC - WATERVILLE	5691611		S	0.10	0.00	0.00	0.02	0.00	0.01	0.01	0.00	0.10	0.02	0.06	0.00	0.00	0.05	0.01	0.03
91	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-No. 4 PB	L	0.10	0.01	0.00	0.08	0.01	0.05	0.01	0.00	0.10	0.02	0.06	0.00	0.00	0.05	0.01	0.03
92	IN	ArcelorMittal Burns Harbor Inc.	7376511	5	L	0.10	0.00	0.00	0.04	0.01	0.02	0.01	0.00	0.10	0.02	0.06	0.00	0.00	0.04	0.01	0.02
93	IN	ArcelorMittal Burns Harbor Inc.	7376511	6	L	0.10	0.00	0.00	0.06	0.01	0.04	0.01	0.00	0.10	0.02	0.06	0.00	0.00	0.03	0.01	0.02
94	IN	ArcelorMittal Burns Harbor Inc.	7376511	7	L	0.10	0.00	0.00	0.06	0.01	0.04	0.01	0.00	0.10	0.02	0.06	0.00	0.00	0.03	0.01	0.02
95	IN	ArcelorMittal Burns Harbor Inc.	7376511	25	L	0.10	0.00	0.00	0.06	0.01	0.04	0.01	0.00	0.10	0.02	0.06	0.00	0.00	0.07	0.01	0.04
96	IN	Indiana Harbor East	3986511	134	L	0.10	0.00	0.01	0.07	0.01	0.04	0.00	0.00	0.09	0.02	0.05	0.00	0.01	0.10	0.02	0.05
97	IN	ArcelorMittal Burns Harbor Inc.	7376511	8	L	0.10	0.00	0.00	0.04	0.01	0.02	0.01	0.00	0.10	0.02	0.05	0.00	0.00	0.04	0.01	0.02
98	NH	GORHAM PAPER & TISSUE LLC	7866711		S	0.09	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.07	0.01	0.04	0.01	0.00	0.09	0.02	0.05
99	IN	INDIANA UNIVERSITY	4553211	3	L	0.09	0.01	0.00	0.09	0.02	0.05	0.00	0.00	0.06	0.01	0.03	0.01	0.00	0.09	0.02	0.05
100	IN	ArcelorMittal Burns Harbor Inc.	7376511	31	L	0.09	0.00	0.00	0.04	0.01	0.02	0.01	0.00	0.09	0.02	0.05	0.00	0.00	0.05	0.01	0.03
101	KY	Century Aluminum Sebree LLC	7352311	SO2ENG	L	0.09	0.01	0.00	0.09	0.02	0.05	0.01	0.00	0.09	0.02	0.05	0.01	0.00	0.09	0.02	0.05
102	OH	Kraton Polymers U.S. LLC (0684010011)	8130511	152407	L	0.09	0.01	0.00	0.09	0.02	0.05	0.00	0.00	0.04	0.01	0.02	0.01	0.00	0.07	0.01	0.04
103	IN	US STEEL GARY WORKS	8192011	301	L	0.09	0.00	0.01	0.09	0.02	0.05	0.00	0.01	0.08	0.01	0.04	0.00	0.01	0.09	0.02	0.05
104	IN	SABIC INNOVATIVE PLASTICS MT. VERNON	7364611	1	L	0.09	0.01	0.00	0.09	0.02	0.05	0.01	0.00	0.08	0.01	0.04	0.01	0.00	0.07	0.01	0.04
105	IN	ArcelorMittal Burns Harbor Inc.	7376511	4	L	0.09	0.00	0.00	0.04	0.01	0.02	0.01	0.00	0.09	0.02	0.05	0.00	0.00	0.04	0.01	0.02
106	MD	Sparrows Point, LLC	8239711	005-0147-6-0939	L	0.08	0.00	0.00	0.06	0.01	0.03	0.01	0.00	0.08	0.01	0.05	0.00	0.00	0.07	0.01	0.04
107	IN	INDIANA UNIVERSITY	4553211	2	L	0.08	0.01	0.00	0.08	0.01	0.04	0.00	0.00	0.05	0.01	0.03	0.01	0.00	0.08	0.01	0.05
108	PA	APPLETON PAPERS/SPRING MILL	7872711	S09	L	0.08	0.01	0.00	0.07	0.01	0.04	0.01	0.00	0.08	0.01	0.05	0.00	0.00	0.06	0.01	0.04
109	OH	Fluor-B&W Portsmouth LLC (0666005004)	15485811	146165	L	0.08	0.01	0.00	0.08	0.01	0.05	0.01	0.00	0.07	0.01	0.04	0.01	0.00	0.07	0.01	0.04
110	KY	Isp Chemicals Inc.	7365311	0AA	L	0.08	0.01	0.00	0.07	0.01	0.04	0.01	0.00	0.07	0.01	0.04	0.01	0.00	0.08	0.01	0.04
111	VA	Huntington Ingalls Incorporated -NN Shipbl	4938811	1	L	0.08	0.01	0.00	0.06	0.01	0.04	0.01	0.00	0.08	0.01	0.04	0.00	0.00	0.06	0.01	0.03
112	OH	Kraton Polymers U.S. LLC (0684010011)	8130511	152405	L	0.08	0.01	0.00	0.08	0.01	0.04	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.06	0.01	0.03
113	OH	Fluor-B&W Portsmouth LLC (0666005004)	15485811	146164	L	0.08	0.01	0.00	0.08	0.01	0.04	0.01	0.00	0.07	0.01	0.04	0.01	0.00	0.06	0.01	0.04
114	OH	Youngstown Thermal (0250110024)	7219511	56897	L	0.07	0.01	0.00	0.06	0.01	0.03	0.00	0.00	0.04	0.01	0.02	0.01	0.00	0.07	0.01	0.04
115	PA	UNITED REFINING CO/WARREN PLT	4966711	S27	L	0.07	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.04	0.01	0.03	0.01	0.00	0.07	0.01	0.04
116	NC	DAK Americas LLC	8122511	ES-01	L	0.07	0.00	0.00	0.03	0.01	0.02	0.01	0.00	0.07	0.01	0.04	0.00	0.00	0.07	0.01	0.04
117	NC	DAK Americas LLC	8122511	ES-02	L	0.07	0.00	0.00	0.03	0.01	0.02	0.01	0.00	0.07	0.01	0.04	0.00	0.00	0.07	0.01	0.04
118	PA	INTL WAXES INC/FARMERS VALLEY	6582111		S	0.06	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.06	0.01	0.04
119	NJ	Gerresheimer Moulded Glass	12804611		S	0.06	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.06	0.01	0.03
120	WV	DUPONT WASHINGTON WORKS	4878911		S	0.06	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.03	0.01	0.02	0.00	0.00	0.05	0.01	0.03

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Type	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
121	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Riley Bark	L	0.05	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.03	0.00	0.02
122	ME	THE JACKSON LABORATORY	7945211		S	0.05	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.05	0.01	0.03
123	VA	Huntington Ingalls Incorporated -NN Shipbl	4938811		S	0.04	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.04	0.01	0.03	0.00	0.00	0.04	0.01	0.02
124	IN	SABIC INNOVATIVE PLASTICS MT. VERNON	7364611	2	L	0.04	0.00	0.00	0.03	0.01	0.02	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.04	0.01	0.02
125	OH	BDM Warren Steel Operations, LLC (02780	8063611		S	0.04	0.00	0.00	0.03	0.01	0.02	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.04	0.01	0.02
126	TN	PACKAGING CORPORATION OF AMERICA	4963011	ST1198	L	0.04	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.03	0.00	0.01
127	NC	KapStone Kraft Paper Corporation	8048011		S	0.04	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.04	0.01	0.02
128	TN	PACKAGING CORPORATION OF AMERICA	4963011		S	0.04	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.02	0.00	0.01
129	MI	U S STEEL GREAT LAKES WORKS	8483611	FUG001	L	0.04	0.00	0.00	0.03	0.01	0.02	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.04	0.01	0.02
130	PA	PPG IND INC/WORKS NO 6	6463511		S	0.03	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.03	0.01	0.02	0.00	0.00	0.01	0.00	0.01
131	TN	Cargill Corn Milling	5723011	8001	L	0.03	0.00	0.00	0.03	0.00	0.02	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.03	0.00	0.01
132	TN	Cargill Corn Milling	5723011	8301	L	0.02	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.02	0.00	0.01
133	IN	SABIC INNOVATIVE PLASTICS MT. VERNON	7364611		S	0.02	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.02	0.00	0.01
134	NJ	Atlantic County Utilities Authority Landfill	8093211		S	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.01
135	VA	Philip Morris Usa Inc - Park 500	5795511		S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
136	KY	Century Aluminum Sebree LLC	7352311		S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
137	MA	SOLUTIA INCORPORATED	7236411		S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
138	ME	SAPPI - SOMERSET	8200111		S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

F.28 2011 ICI Ranking Visibility Impairing Sources to Moosehorn

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Large or Small?	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
1	ME	WOODLAND PULP LLC	5974211		S	7.47	0.15	0.46	**7.47**	**1.11**	**3.21**	0.04	0.33	**4.70**	0.72	**2.14**	0.08	0.30	**4.67**	0.71	**2.13**
2	MD	Luke Paper Company	7763811	001-0011-3-0018	L	2.21	0.14	0.01	**1.87**	0.29	0.91	0.15	0.03	**2.21**	0.34	**1.06**	0.11	0.02	**1.60**	0.25	0.78
3	MD	Luke Paper Company	7763811	001-0011-3-0019	L	2.17	0.14	0.01	**1.84**	0.29	0.89	0.15	0.03	**2.17**	0.34	**1.04**	0.11	0.02	**1.57**	0.24	0.77
4	ME	SAPPI - SOMERSET	8200111	1	L	2.11	0.04	0.13	**2.11**	0.33	**1.02**	0.03	0.09	**1.46**	0.23	0.71	0.02	0.05	0.88	0.14	0.44
5	NY	LAFARGE BUILDING MATERIALS INC	8105211	43101	L	1.25	0.06	0.04	**1.25**	0.20	0.61	0.05	0.04	**1.07**	0.17	0.53	0.04	0.02	0.78	0.12	0.39
6	OH	P. H. Glatfelter Company - Chillicothe Facil	8131111	147671	L	1.07	0.09	0.00	**1.07**	0.17	0.53	0.05	0.00	0.69	0.11	0.35	0.05	0.00	0.65	0.10	0.33
7	ME	THE JACKSON LABORATORY	7945211		S	0.84	0.00	0.04	0.51	0.08	0.26	0.00	0.06	0.77	0.12	0.38	0.00	0.07	0.84	0.13	0.42
8	ME	FMC BIOPOLYMER	5692011		S	0.80	0.04	0.02	0.73	0.11	0.36	0.04	0.02	0.68	0.11	0.34	0.04	0.02	0.80	0.13	0.40
9	TN	EASTMAN CHEMICAL COMPANY	3982311	B2531	L	0.60	0.04	0.01	0.60	0.09	0.30	0.02	0.01	0.42	0.07	0.21	0.03	0.01	0.41	0.06	0.21
10	ME	SAPPI - SOMERSET	8200111	37	L	0.54	0.00	0.04	0.53	0.08	0.27	0.00	0.04	0.54	0.08	0.27	0.00	0.03	0.34	0.05	0.17
11	ME	HUHTAMAKI INC - WATERVILLE	5691611		S	0.44	0.03	0.01	0.44	0.07	0.22	0.01	0.01	0.22	0.03	0.11	0.01	0.01	0.20	0.03	0.10
12	NY	ALCOA MASSENA OPERATIONS (WEST PLA	7968211	SA398	L	0.42	0.02	0.00	0.29	0.05	0.14	0.02	0.00	0.28	0.04	0.14	0.03	0.00	0.42	0.07	0.21
13	MD	Sparrows Point, LLC	8239711		S	0.42	0.01	0.01	0.18	0.03	0.09	0.01	0.01	0.28	0.04	0.14	0.01	0.02	0.42	0.07	0.21
14	NY	KODAK PARK DIVISION	8091511	4	L	0.37	0.02	0.01	0.32	0.05	0.16	0.02	0.01	0.37	0.06	0.19	0.01	0.01	0.34	0.05	0.17
15	ME	VERSO PAPER - ANDROSCOGGIN MILL	7764711		S	0.37	0.01	0.02	0.37	0.06	0.18	0.01	0.02	0.33	0.05	0.17	0.01	0.02	0.32	0.05	0.16
16	IL	Aventine Renewable Energy Inc	8065311	49	L	0.34	0.02	0.00	0.22	0.04	0.11	0.01	0.00	0.15	0.02	0.07	0.03	0.00	0.34	0.05	0.17
17	PA	KEYSTONE PORTLAND CEMENT/EAST ALLE	6582211	S73	L	0.32	0.01	0.01	0.17	0.03	0.09	0.01	0.01	0.25	0.04	0.13	0.01	0.01	0.32	0.05	0.16
18	IN	Indiana Harbor East	3986511		S	0.32	0.00	0.01	0.18	0.03	0.09	0.01	0.01	0.22	0.03	0.11	0.01	0.02	0.32	0.05	0.16
19	MI	U S STEEL GREAT LAKES WORKS	8483611		S	0.31	0.01	0.00	0.20	0.03	0.10	0.02	0.00	0.24	0.04	0.12	0.02	0.01	0.31	0.05	0.15
20	IL	Aventine Renewable Energy Inc	8065311	48	L	0.30	0.02	0.00	0.21	0.03	0.11	0.01	0.00	0.12	0.02	0.06	0.02	0.00	0.30	0.05	0.15
21	PA	HERCULES CEMENT CO LP/STOCKERTOWN	3881611	S03	L	0.29	0.01	0.00	0.16	0.02	0.08	0.01	0.01	0.25	0.04	0.13	0.01	0.01	0.29	0.05	0.15
22	PA	SUNOCO INC (R&M)/MARCUS HOOK REFIN	7873611	S60	L	0.29	0.01	0.00	0.14	0.02	0.07	0.02	0.01	0.29	0.05	0.15	0.01	0.01	0.23	0.04	0.12
23	IN	US STEEL GARY WORKS	8192011		S	0.27	0.00	0.00	0.09	0.01	0.05	0.01	0.01	0.15	0.02	0.07	0.00	0.02	0.27	0.04	0.14
24	NY	INTERNATIONAL PAPER TICONDEROGA MI	7991711	44	L	0.26	0.01	0.00	0.19	0.03	0.09	0.01	0.01	0.26	0.04	0.13	0.01	0.01	0.22	0.04	0.11
25	IN	ArcelorMittal Burns Harbor Inc.	7376511	13	L	0.26	0.00	0.01	0.13	0.02	0.07	0.01	0.01	0.19	0.03	0.10	0.01	0.01	0.26	0.04	0.13
26	ME	Madison Paper	5253911		S	0.25	0.01	0.01	0.21	0.03	0.11	0.01	0.01	0.25	0.04	0.12	0.01	0.01	0.17	0.03	0.09
27	NY	FINCH PAPER LLC	8325211	12	L	0.25	0.00	0.01	0.16	0.03	0.08	0.00	0.02	0.21	0.03	0.11	0.00	0.02	0.25	0.04	0.12
28	MA	SOLUTIA INCORPORATED	7236411	5	L	0.24	0.01	0.01	0.23	0.04	0.12	0.01	0.01	0.24	0.04	0.12	0.01	0.01	0.18	0.03	0.09
29	PA	PHILA ENERGY SOL REF/ PES	6652211		S	0.24	0.00	0.01	0.15	0.02	0.07	0.01	0.01	0.21	0.03	0.10	0.00	0.02	0.24	0.04	0.12
30	TN	EASTMAN CHEMICAL COMPANY	3982311	B831	L	0.23	0.02	0.00	0.23	0.04	0.12	0.01	0.00	0.18	0.03	0.09	0.01	0.00	0.16	0.03	0.08
31	IN	UNIVERSITY OF NOTRE DAME DU LAC	5552011	2	L	0.23	0.00	0.00	0.08	0.01	0.04	0.02	0.00	0.23	0.04	0.11	0.01	0.00	0.18	0.03	0.09
32	PA	Penn State Univ	3186811	S01	L	0.22	0.02	0.00	0.22	0.03	0.11	0.01	0.00	0.13	0.02	0.07	0.01	0.00	0.11	0.02	0.06
33	IN	TATE & LYLE, LAFAYETTE SOUTH (33)	7376411	4	L	0.22	0.01	0.00	0.15	0.02	0.08	0.02	0.00	0.22	0.03	0.11	0.01	0.00	0.20	0.03	0.10
34	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Recovery 10	L	0.21	0.02	0.00	0.21	0.03	0.11	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.14	0.02	0.07
35	WV	CAPITOL CEMENT - ESSROC MARTINSBURG	4987611	71	L	0.21	0.00	0.00	0.12	0.02	0.06	0.01	0.01	0.21	0.03	0.11	0.01	0.01	0.19	0.03	0.09
36	PA	PPG IND INC/WORKS NO 6	6463511	S01	L	0.21	0.00	0.01	0.08	0.01	0.04	0.00	0.02	0.21	0.03	0.11	0.00	0.01	0.11	0.02	0.06
37	OH	The Medical Center Company (131800305	8252111	184509	L	0.21	0.02	0.00	0.21	0.03	0.10	0.01	0.00	0.14	0.02	0.07	0.01	0.00	0.17	0.03	0.09
38	PA	PPG IND INC/WORKS NO 6	6463511	S02	L	0.20	0.00	0.01	0.08	0.01	0.04	0.00	0.01	0.20	0.03	0.10	0.00	0.01	0.11	0.02	0.05
39	MI	ESCANABA PAPER COMPANY	8126511	SV0117	L	0.19	0.01	0.01	0.19	0.03	0.10	0.01	0.01	0.16	0.02	0.08	0.01	0.01	0.18	0.03	0.09
40	VA	Philip Morris Usa Inc - Park 500	5795511	47	L	0.19	0.01	0.00	0.19	0.03	0.09	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.15	0.02	0.08

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Type	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
41	WV	BAYER CROPSCIENCE	5782411	8	L	0.17	0.01	0.00	0.11	0.02	0.06	0.01	0.01	0.17	0.03	0.09	0.01	0.00	0.11	0.02	0.05
42	MD	Sparrows Point, LLC	8239711	005-0147-6-0941	L	0.17	0.01	0.00	0.13	0.02	0.06	0.01	0.00	0.17	0.03	0.08	0.01	0.00	0.11	0.02	0.05
43	PA	USS/CLAIRTON WORKS	8204511		S	0.16	0.01	0.00	0.12	0.02	0.06	0.00	0.01	0.16	0.03	0.08	0.00	0.01	0.11	0.02	0.06
44	MD	Luke Paper Company	7763811	001-0011-6-0235	L	0.16	0.01	0.00	0.13	0.02	0.07	0.01	0.01	0.16	0.03	0.08	0.01	0.00	0.11	0.02	0.05
45	OH	AK Steel Corporation (1409010006)	8008811		S	0.16	0.01	0.00	0.16	0.03	0.08	0.01	0.00	0.14	0.02	0.07	0.00	0.00	0.08	0.01	0.04
46	OH	Morton Salt, Inc. (0285020059)	7997111	65589	L	0.15	0.01	0.00	0.15	0.02	0.08	0.01	0.00	0.08	0.01	0.04	0.01	0.00	0.09	0.01	0.05
47	OH	Morton Salt, Inc. (0285020059)	7997111	65590	L	0.15	0.01	0.00	0.15	0.02	0.08	0.01	0.00	0.08	0.01	0.04	0.01	0.00	0.09	0.01	0.05
48	VA	Smurfit Stone Container Corporation - West	4182011	7	L	0.15	0.01	0.00	0.10	0.02	0.05	0.01	0.00	0.10	0.02	0.05	0.01	0.00	0.15	0.02	0.07
49	IL	Tate & Lyle Ingredients Americas LLC	7793311	292	L	0.14	0.01	0.00	0.07	0.01	0.04	0.01	0.00	0.10	0.02	0.05	0.01	0.00	0.14	0.02	0.07
50	IN	ELI LILLY & COMPANY CLINTON LABS	8223611	2	L	0.14	0.01	0.00	0.14	0.02	0.07	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.10	0.02	0.05
51	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Big Bill/PG	L	0.14	0.01	0.00	0.14	0.02	0.07	0.00	0.00	0.07	0.01	0.03	0.01	0.00	0.09	0.01	0.04
52	IN	ArcelorMittal Burns Harbor Inc.	7376511		S	0.13	0.00	0.00	0.07	0.01	0.04	0.00	0.00	0.10	0.02	0.05	0.00	0.01	0.13	0.02	0.07
53	IN	ALCOA INC. - WARRICK OPERATIONS	8181811		S	0.13	0.01	0.00	0.13	0.02	0.07	0.01	0.00	0.09	0.01	0.04	0.01	0.00	0.08	0.01	0.04
54	NY	FINCH PAPER LLC	8325211		S	0.13	0.00	0.01	0.09	0.01	0.05	0.00	0.01	0.12	0.02	0.06	0.00	0.01	0.13	0.02	0.07
55	VA	Radford Army Ammunition Plant	5748611	1	L	0.13	0.01	0.00	0.13	0.02	0.06	0.01	0.00	0.13	0.02	0.07	0.01	0.00	0.09	0.01	0.05
56	PA	TEAM TEN/TYRONE PAPER MILL	9248211	S01	L	0.13	0.01	0.00	0.13	0.02	0.07	0.00	0.00	0.06	0.01	0.03	0.01	0.00	0.08	0.01	0.04
57	IN	ArcelorMittal Burns Harbor Inc.	7376511	34	L	0.13	0.00	0.00	0.07	0.01	0.03	0.01	0.00	0.12	0.02	0.06	0.01	0.01	0.13	0.02	0.07
58	IN	ESSROC Cement Corp	8198511	15	L	0.13	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.13	0.02	0.06	0.01	0.00	0.09	0.01	0.05
59	OH	Cargill, Incorporated - Salt Division (Akron,	7416411	250250	L	0.13	0.01	0.00	0.13	0.02	0.06	0.01	0.00	0.07	0.01	0.04	0.01	0.00	0.08	0.01	0.04
60	IN	BALL STATE UNIVERSITY	4873211	1	L	0.12	0.01	0.00	0.09	0.01	0.04	0.01	0.00	0.12	0.02	0.06	0.01	0.00	0.08	0.01	0.04
61	IN	BALL STATE UNIVERSITY	4873211	2	L	0.12	0.01	0.00	0.09	0.01	0.04	0.01	0.00	0.12	0.02	0.06	0.01	0.00	0.08	0.01	0.04
62	VA	Roanoke Cement Company	5039811	4	L	0.12	0.01	0.00	0.10	0.02	0.05	0.00	0.01	0.12	0.02	0.06	0.01	0.00	0.11	0.02	0.06
63	NY	CARGILL SALT CO- WATKINS GLEN PLANT	8176611	1	L	0.12	0.01	0.00	0.12	0.02	0.06	0.01	0.00	0.08	0.01	0.04	0.01	0.00	0.10	0.02	0.05
64	MD	Naval Support Facility, Indian Head	6117011	017-0040-3-0006	L	0.12	0.00	0.00	0.07	0.01	0.04	0.01	0.00	0.12	0.02	0.06	0.01	0.00	0.10	0.02	0.05
65	IN	Citizens Thermal	4885311	4	L	0.12	0.01	0.00	0.12	0.02	0.06	0.01	0.00	0.09	0.01	0.04	0.00	0.00	0.07	0.01	0.04
66	OH	City of Akron Steam Generating (16770107	8170411	253630	L	0.11	0.01	0.00	0.11	0.02	0.06	0.00	0.00	0.06	0.01	0.03	0.01	0.00	0.07	0.01	0.04
67	MI	St. Marys Cement, Inc. (U.S.)	8160611	SV0009	L	0.11	0.00	0.00	0.10	0.02	0.05	0.00	0.00	0.10	0.02	0.05	0.00	0.01	0.11	0.02	0.06
68	IN	US STEEL GARY WORKS	8192011	0	L	0.11	0.00	0.00	0.07	0.01	0.04	0.01	0.00	0.11	0.02	0.06	0.00	0.00	0.11	0.02	0.06
69	PA	INTL WAXES INC/FARMERS VALLEY	6582111	S02	L	0.11	0.01	0.00	0.09	0.01	0.05	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.08	0.01	0.04
70	IN	Citizens Thermal	4885311	1	L	0.11	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.09	0.01	0.04	0.01	0.00	0.07	0.01	0.04
71	NY	MORTON SALT DIV	7814711	1	L	0.11	0.01	0.00	0.10	0.02	0.05	0.01	0.00	0.10	0.02	0.05	0.01	0.00	0.11	0.02	0.06
72	OH	DTE St. Bernard, LLC (1431394148)	9301711	2170429	L	0.11	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.11	0.02	0.06	0.00	0.00	0.06	0.01	0.03
73	KY	Century Aluminum Sebree LLC	7352311	SO2ENG	L	0.11	0.01	0.00	0.11	0.02	0.05	0.00	0.00	0.05	0.01	0.02	0.01	0.00	0.08	0.01	0.04
74	NC	DAK Americas LLC	8122511	ES-01	L	0.11	0.01	0.00	0.11	0.02	0.05	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.07	0.01	0.03
75	NC	DAK Americas LLC	8122511	ES-02	L	0.11	0.01	0.00	0.11	0.02	0.05	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.07	0.01	0.03
76	MD	Sparrows Point, LLC	8239711	005-0147-6-0939	L	0.11	0.00	0.00	0.05	0.01	0.03	0.01	0.00	0.11	0.02	0.05	0.01	0.00	0.09	0.01	0.04
77	IN	ArcelorMittal Burns Harbor Inc.	7376511	14	L	0.10	0.00	0.00	0.05	0.01	0.03	0.01	0.00	0.10	0.02	0.05	0.01	0.00	0.09	0.01	0.05
78	VA	GP Big Island LLC	4183311	1	L	0.10	0.01	0.00	0.10	0.02	0.05	0.01	0.00	0.09	0.01	0.04	0.01	0.00	0.10	0.02	0.05
79	NH	DARTMOUTH COLLEGE	7199811		S	0.10	0.00	0.00	0.08	0.01	0.04	0.01	0.00	0.10	0.02	0.05	0.01	0.00	0.10	0.02	0.05
80	IN	SABIC INNOVATIVE PLASTICS MT. VERNON	7364611	1	L	0.10	0.01	0.00	0.10	0.02	0.05	0.00	0.00	0.05	0.01	0.03	0.01	0.00	0.07	0.01	0.04

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Type	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
81	MI	St. Marys Cement, Inc. (U.S.)	8160611	SV0011	L	0.10	0.00	0.00	0.09	0.01	0.05	0.00	0.00	0.10	0.02	0.05	0.00	0.01	0.10	0.02	0.05
82	OH	BDM Warren Steel Operations, LLC (02780	8063611	59727	L	0.10	0.01	0.00	0.10	0.02	0.05	0.01	0.00	0.07	0.01	0.04	0.00	0.00	0.06	0.01	0.03
83	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-No. 4 PB	L	0.09	0.01	0.00	0.09	0.01	0.05	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.06	0.01	0.03
84	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Riley Coal	L	0.09	0.01	0.00	0.09	0.01	0.05	0.00	0.00	0.05	0.01	0.02	0.00	0.00	0.05	0.01	0.03
85	PA	APPLETON PAPERS/SPRING MILL	7872711	S18	L	0.09	0.01	0.00	0.09	0.01	0.05	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.06	0.01	0.03
86	PA	APPLETON PAPERS/SPRING MILL	7872711	S28	L	0.09	0.01	0.00	0.09	0.01	0.05	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.06	0.01	0.03
87	KY	Isp Chemicals Inc.	7365311	0AA	L	0.09	0.01	0.00	0.09	0.01	0.04	0.00	0.00	0.05	0.01	0.03	0.01	0.00	0.08	0.01	0.04
88	IN	Indiana Harbor East	3986511	134	L	0.08	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.06	0.01	0.03	0.00	0.01	0.08	0.01	0.04
89	KY	E I Dupont Inc	6096411	1	L	0.08	0.01	0.00	0.08	0.01	0.04	0.01	0.00	0.07	0.01	0.04	0.01	0.00	0.07	0.01	0.03
90	OH	Youngstown Thermal (0250110024)	7219511		S	0.08	0.01	0.00	0.08	0.01	0.04	0.01	0.00	0.07	0.01	0.03	0.00	0.00	0.05	0.01	0.03
91	PA	AMER REF GROUP/BRADFORD	6532511	S13	L	0.08	0.00	0.00	0.05	0.01	0.03	0.01	0.00	0.08	0.01	0.04	0.00	0.00	0.06	0.01	0.03
92	TN	EASTMAN CHEMICAL COMPANY	3982311	B3251	L	0.08	0.00	0.00	0.07	0.01	0.04	0.00	0.00	0.08	0.01	0.04	0.00	0.00	0.06	0.01	0.03
93	WV	DUPONT WASHINGTON WORKS	4878911	477	L	0.08	0.01	0.00	0.07	0.01	0.04	0.00	0.00	0.08	0.01	0.04	0.00	0.00	0.07	0.01	0.03
94	IN	INDIANA UNIVERSITY	4553211	3	L	0.08	0.01	0.00	0.08	0.01	0.04	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.03	0.01	0.02
95	IN	US STEEL GARY WORKS	8192011	301	L	0.08	0.00	0.00	0.05	0.01	0.02	0.00	0.00	0.06	0.01	0.03	0.00	0.01	0.08	0.01	0.04
96	TN	PACKAGING CORPORATION OF AMERICA	4963011	ST1198	L	0.08	0.01	0.00	0.08	0.01	0.04	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.03	0.01	0.02
97	IN	ArcelorMittal Burns Harbor Inc.	7376511	25	L	0.07	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.07	0.01	0.04
98	NH	GORHAM PAPER & TISSUE LLC	7866711		S	0.07	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.07	0.01	0.04	0.00	0.00	0.06	0.01	0.03
99	NJ	Gerresheimer Moulded Glass	12804611		S	0.07	0.00	0.00	0.03	0.01	0.02	0.00	0.00	0.07	0.01	0.04	0.00	0.00	0.04	0.01	0.02
100	IN	INDIANA UNIVERSITY	4553211	2	L	0.07	0.00	0.00	0.07	0.01	0.03	0.00	0.00	0.03	0.01	0.02	0.00	0.00	0.03	0.00	0.01
101	VA	Smurfit Stone Container Corporation - West	4182011	4	L	0.07	0.00	0.00	0.07	0.01	0.03	0.00	0.00	0.03	0.01	0.02	0.00	0.00	0.06	0.01	0.03
102	NC	KapStone Kraft Paper Corporation	8048011	ST-1,2	L	0.07	0.00	0.00	0.07	0.01	0.03	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.06	0.01	0.03
103	PA	USS CORP/EDGAR THOMSON WORKS	7409311		S	0.06	0.01	0.00	0.06	0.01	0.03	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.03	0.01	0.02
104	PA	UNITED REFINING CO/WARREN PLT	4966711	S27	L	0.06	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.04	0.01	0.02
105	TN	PACKAGING CORPORATION OF AMERICA	4963011		S	0.06	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.02	0.00	0.01
106	IN	ArcelorMittal Burns Harbor Inc.	7376511	6	L	0.06	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.04	0.01	0.02
107	IN	ArcelorMittal Burns Harbor Inc.	7376511	7	L	0.06	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.04	0.01	0.02
108	IN	ArcelorMittal Burns Harbor Inc.	7376511	5	L	0.06	0.00	0.00	0.03	0.00	0.02	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.05	0.01	0.03
109	VA	Smurfit Stone Container Corporation - West	4182011	2	L	0.06	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.05	0.01	0.03
110	OH	Fluor-B&W Portsmouth LLC (0666005004)	15485811	146165	L	0.06	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.04	0.01	0.02
111	IN	ArcelorMittal Burns Harbor Inc.	7376511	31	L	0.06	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.06	0.01	0.03
112	OH	Kraton Polymers U.S. LLC (0684010011)	8130511	152407	L	0.06	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.05	0.01	0.02	0.00	0.00	0.04	0.01	0.02
113	VA	Smurfit Stone Container Corporation - West	4182011		S	0.05	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.04	0.01	0.02
114	IN	ArcelorMittal Burns Harbor Inc.	7376511	8	L	0.05	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.05	0.01	0.03
115	PA	INTL WAXES INC/FARMERS VALLEY	6582111		S	0.05	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.04	0.01	0.02
116	OH	Youngstown Thermal (0250110024)	7219511	56897	L	0.05	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.03	0.00	0.02
117	OH	Fluor-B&W Portsmouth LLC (0666005004)	15485811	146164	L	0.05	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.04	0.01	0.02
118	VA	Huntington Ingalls Incorporated -NN Shipbl	4938811	1	L	0.05	0.00	0.00	0.05	0.01	0.02	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.04	0.01	0.02
119	IN	SABIC INNOVATIVE PLASTICS MT. VERNON	7364611	2	L	0.05	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.03	0.00	0.02	0.00	0.00	0.03	0.00	0.01
120	IN	ArcelorMittal Burns Harbor Inc.	7376511	4	L	0.05	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.05	0.01	0.02	0.00	0.00	0.05	0.01	0.02

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Type	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
121	OH	Kraton Polymers U.S. LLC (0684010011)	8130511	152405	L	0.05	0.00	0.00	0.05	0.01	0.02	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.03	0.01	0.02
122	PA	APPLETON PAPERS/SPRING MILL	7872711	S09	L	0.05	0.00	0.00	0.05	0.01	0.02	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.03	0.00	0.01
123	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Riley Bark	L	0.04	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.02	0.00	0.01
124	WV	DUPONT WASHINGTON WORKS	4878911		S	0.04	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.03	0.00	0.02
125	VA	Huntington Ingalls Incorporated -NN Shipbl	4938811		S	0.03	0.00	0.00	0.03	0.01	0.02	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.02	0.00	0.01
126	MI	U S STEEL GREAT LAKES WORKS	8483611	FUG001	L	0.03	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.03	0.01	0.02
127	TN	Cargill Corn Milling	5723011	8001	L	0.03	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.02	0.00	0.01
128	NY	NORLITE CORP	8090911		S	0.03	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.02	0.00	0.01
129	TN	Cargill Corn Milling	5723011	8301	L	0.03	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.02	0.00	0.01
130	OH	BDM Warren Steel Operations, LLC (02780	8063611		S	0.03	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.02	0.00	0.01
131	IN	SABIC INNOVATIVE PLASTICS MT. VERNON	7364611		S	0.02	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.02	0.00	0.01
132	NC	KapStone Kraft Paper Corporation	8048011		S	0.02	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.02	0.00	0.01
133	PA	PPG IND INC/WORKS NO 6	6463511		S	0.02	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.01	0.00	0.00
134	NJ	Atlantic County Utilities Authority Landfill	8093211		S	0.02	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.01	0.00	0.01
135	VA	Philip Morris Usa Inc - Park 500	5795511		S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
136	KY	Century Aluminum Sebree LLC	7352311		S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
137	MA	SOLUTIA INCORPORATED	7236411		S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
138	ME	SAPPI - SOMERSET	8200111		S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

F.29 2011 ICI Ranking Visibility Impairing Sources to Presidential/Dry River

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Large or Small?	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
1	MD	Luke Paper Company	7763811	001-0011-3-0018	L	3.56	0.211	0.017	**2.690**	0.428	**1.316**	0.21	0.06	**3.11**	0.49	**1.51**	0.28	0.02	**3.56**	0.56	**1.71**
2	MD	Luke Paper Company	7763811	001-0011-3-0019	L	3.50	0.209	0.016	**2.648**	0.422	**1.297**	0.20	0.06	**3.05**	0.48	**1.48**	0.27	0.02	**3.50**	0.55	**1.68**
3	ME	SAPPI - SOMERSET	8200111	1	L	2.63	0.005	0.027	0.375	0.061	0.194	0.02	0.20	**2.63**	0.42	**1.29**	0.01	0.05	0.72	0.12	0.37
4	NY	LAFARGE BUILDING MATERIALS INC	8105211	43101	L	1.78	0.095	0.056	**1.783**	0.286	0.891	0.04	0.06	**1.10**	0.18	0.56	0.05	0.07	**1.46**	0.24	0.74
5	NY	FINCH PAPER LLC	8325211	12	L	1.33	0.002	0.024	0.302	0.049	0.157	0.01	0.10	**1.33**	0.21	0.67	0.00	0.06	0.84	0.14	0.43
6	OH	P. H. Glatfelter Company - Chillicothe Facil	8131111	147671	L	1.19	0.098	0.004	**1.193**	0.192	0.605	0.07	0.01	0.94	0.15	0.48	0.05	0.01	0.71	0.11	0.36
7	ME	VERSO PAPER - ANDROSCOGGIN MILL	7764711		S	1.07	0.003	0.019	0.269	0.044	0.140	0.01	0.08	**1.07**	0.17	0.54	0.00	0.07	0.88	0.14	0.45
8	NY	KODAK PARK DIVISION	8091511	4	L	0.90	0.021	0.008	0.339	0.055	0.176	0.03	0.02	0.59	0.10	0.30	0.03	0.04	0.90	0.15	0.46
9	ME	SAPPI - SOMERSET	8200111	37	L	0.84	0.000	0.010	0.120	0.020	0.063	0.00	0.07	0.84	0.14	0.43	0.00	0.04	0.46	0.07	0.24
10	NY	INTERNATIONAL PAPER TICONDEROGA MI	7991711	44	L	0.77	0.011	0.012	0.279	0.045	0.145	0.04	0.03	0.77	0.13	0.40	0.02	0.02	0.46	0.07	0.24
11	NY	FINCH PAPER LLC	8325211		S	0.72	0.000	0.014	0.168	0.027	0.087	0.00	0.06	0.72	0.12	0.37	0.00	0.04	0.45	0.07	0.23
12	NY	ALCOA MASSENA OPERATIONS (WEST PLA	7968211	SA398	L	0.69	0.020	0.001	0.249	0.040	0.129	0.06	0.00	0.69	0.11	0.35	0.03	0.00	0.37	0.06	0.19
13	TN	EASTMAN CHEMICAL COMPANY	3982311	B2531	L	0.58	0.033	0.005	0.444	0.072	0.230	0.03	0.02	0.57	0.09	0.29	0.04	0.01	0.58	0.09	0.30
14	MI	U S STEEL GREAT LAKES WORKS	8483611		S	0.53	0.014	0.004	0.213	0.035	0.111	0.04	0.01	0.53	0.09	0.27	0.02	0.01	0.39	0.06	0.20
15	MI	ESCANABA PAPER COMPANY	8126511	SV0117	L	0.45	0.006	0.006	0.142	0.023	0.074	0.02	0.02	0.45	0.07	0.23	0.01	0.01	0.24	0.04	0.12
16	PA	PHILA ENERGY SOL REF/ PES	6652211		S	0.41	0.001	0.008	0.112	0.018	0.058	0.00	0.03	0.41	0.07	0.21	0.00	0.01	0.17	0.03	0.09
17	IN	US STEEL GARY WORKS	8192011		S	0.40	0.003	0.003	0.075	0.012	0.039	0.01	0.00	0.12	0.02	0.06	0.00	0.03	0.40	0.06	0.20
18	IN	Indiana Harbor East	3986511		S	0.38	0.004	0.005	0.108	0.018	0.056	0.01	0.01	0.19	0.03	0.10	0.01	0.02	0.38	0.06	0.20
19	WV	BAYER CROPSCIENCE	5782411	8	L	0.38	0.008	0.005	0.149	0.024	0.078	0.01	0.02	0.38	0.06	0.20	0.01	0.01	0.16	0.03	0.08
20	IL	Aventine Renewable Energy Inc	8065311	49	L	0.36	0.009	0.001	0.126	0.021	0.066	0.01	0.00	0.18	0.03	0.09	0.03	0.00	0.36	0.06	0.19
21	ME	Madison Paper	5253911		S	0.36	0.004	0.003	0.078	0.013	0.041	0.01	0.02	0.30	0.05	0.16	0.01	0.02	0.36	0.06	0.18
22	PA	KEYSTONE PORTLAND CEMENT/EAST ALLE	6582211	S73	L	0.35	0.005	0.003	0.098	0.016	0.051	0.01	0.02	0.35	0.06	0.18	0.01	0.01	0.20	0.03	0.10
23	NH	GORHAM PAPER & TISSUE LLC	7866711		S	0.34	0.012	0.008	0.237	0.039	0.123	0.01	0.01	0.23	0.04	0.12	0.01	0.02	0.34	0.06	0.18
24	IN	ArcelorMittal Burns Harbor Inc.	7376511	13	L	0.32	0.003	0.005	0.100	0.016	0.052	0.01	0.01	0.22	0.04	0.11	0.01	0.02	0.32	0.05	0.17
25	IL	Aventine Renewable Energy Inc	8065311	48	L	0.32	0.008	0.001	0.099	0.016	0.051	0.01	0.00	0.15	0.03	0.08	0.03	0.00	0.32	0.05	0.17
26	MI	St. Marys Cement, Inc. (U.S.)	8160611	SV0009	L	0.31	0.003	0.003	0.078	0.013	0.041	0.01	0.01	0.31	0.05	0.16	0.00	0.00	0.10	0.02	0.05
27	MI	St. Marys Cement, Inc. (U.S.)	8160611	SV0011	L	0.30	0.003	0.003	0.064	0.010	0.033	0.01	0.01	0.30	0.05	0.15	0.00	0.01	0.12	0.02	0.06
28	IN	TATE & LYLE, LAFAYETTE SOUTH (33)	7376411	4	L	0.29	0.018	0.002	0.233	0.038	0.121	0.01	0.00	0.20	0.03	0.11	0.02	0.01	0.29	0.05	0.15
29	MD	Sparrows Point, LLC	8239711		S	0.29	0.007	0.005	0.138	0.022	0.072	0.01	0.02	0.29	0.05	0.15	0.01	0.01	0.19	0.03	0.10
30	MA	SOLUTIA INCORPORATED	7236411	5	L	0.28	0.004	0.008	0.140	0.023	0.073	0.01	0.01	0.16	0.03	0.08	0.01	0.01	0.28	0.05	0.15
31	PA	USS/CLAIRTON WORKS	8204511		S	0.28	0.008	0.008	0.195	0.032	0.101	0.00	0.02	0.28	0.05	0.14	0.00	0.01	0.16	0.03	0.08
32	MD	Luke Paper Company	7763811	001-0011-6-0235	L	0.28	0.011	0.003	0.174	0.028	0.091	0.01	0.01	0.28	0.04	0.14	0.01	0.00	0.21	0.03	0.11
33	PA	HERCULES CEMENT CO LP/STOCKERTOWN	3881611	S03	L	0.27	0.005	0.002	0.081	0.013	0.042	0.01	0.01	0.27	0.04	0.14	0.01	0.01	0.17	0.03	0.09
34	IN	ELI LILLY & COMPANY CLINTON LABS	8223611	2	L	0.25	0.012	0.002	0.155	0.025	0.081	0.01	0.00	0.16	0.03	0.08	0.02	0.00	0.25	0.04	0.13
35	PA	SUNOCO INC (R&M)/MARCUS HOOK REFIN	7873611	S60	L	0.25	0.005	0.003	0.092	0.015	0.048	0.01	0.01	0.25	0.04	0.13	0.01	0.00	0.15	0.02	0.08
36	WV	CAPITOL CEMENT - ESSROC MARTINSBUR	4987611	71	L	0.25	0.008	0.004	0.144	0.023	0.075	0.01	0.01	0.22	0.04	0.11	0.01	0.01	0.25	0.04	0.13
37	PA	Penn State Univ	3186811	S01	L	0.25	0.013	0.002	0.187	0.030	0.097	0.01	0.01	0.25	0.04	0.13	0.01	0.00	0.18	0.03	0.09
38	OH	The Medical Center Company (131800305	8252111	184509	L	0.24	0.011	0.001	0.145	0.024	0.076	0.02	0.00	0.24	0.04	0.12	0.01	0.00	0.18	0.03	0.09
39	NH	DARTMOUTH COLLEGE	7199811		S	0.23	0.006	0.009	0.185	0.030	0.096	0.01	0.01	0.23	0.04	0.12	0.01	0.01	0.23	0.04	0.12
40	IN	UNIVERSITY OF NOTRE DAME DU LAC	5552011	2	L	0.22	0.010	0.001	0.129	0.021	0.067	0.01	0.00	0.22	0.04	0.11	0.01	0.01	0.21	0.03	0.11

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Type	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
41	TN	EASTMAN CHEMICAL COMPANY	3982311	B831	L	0.22	0.013	0.002	0.171	0.028	0.089	0.01	0.01	0.20	0.03	0.10	0.02	0.00	0.22	0.04	0.11
42	ME	WOODLAND PULP LLC	5974211		S	0.22	0.002	0.007	0.112	0.018	0.058	0.00	0.02	0.22	0.04	0.11	0.00	0.01	0.13	0.02	0.07
43	ME	FMC BIOPOLYMER	5692011		S	0.22	0.005	0.005	0.121	0.020	0.063	0.01	0.00	0.16	0.03	0.08	0.01	0.01	0.22	0.04	0.11
44	NY	MORTON SALT DIV	7814711	1	L	0.20	0.010	0.000	0.121	0.020	0.063	0.01	0.00	0.09	0.02	0.05	0.02	0.00	0.20	0.03	0.10
45	ME	HUHTAMAKI INC - WATERVILLE	5691611		S	0.20	0.004	0.004	0.090	0.015	0.047	0.01	0.01	0.20	0.03	0.10	0.01	0.01	0.17	0.03	0.09
46	VA	GP Big Island LLC	4183311	1	L	0.19	0.006	0.001	0.090	0.015	0.047	0.00	0.00	0.07	0.01	0.03	0.01	0.00	0.19	0.03	0.10
47	PA	PPG IND INC/WORKS NO 6	6463511	S01	L	0.18	0.001	0.003	0.053	0.009	0.028	0.00	0.01	0.18	0.03	0.09	0.00	0.01	0.16	0.03	0.08
48	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Recovery 10	L	0.18	0.014	0.001	0.179	0.029	0.093	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.12	0.02	0.06
49	PA	PPG IND INC/WORKS NO 6	6463511	S02	L	0.17	0.001	0.003	0.052	0.008	0.027	0.00	0.01	0.17	0.03	0.09	0.00	0.01	0.16	0.03	0.08
50	VA	Radford Army Ammunition Plant	5748611	1	L	0.17	0.007	0.002	0.102	0.017	0.053	0.00	0.00	0.10	0.02	0.05	0.01	0.00	0.17	0.03	0.09
51	IN	ArcelorMittal Burns Harbor Inc.	7376511		S	0.17	0.002	0.002	0.053	0.009	0.028	0.00	0.01	0.12	0.02	0.06	0.01	0.01	0.17	0.03	0.09
52	VA	Roanoke Cement Company	5039811	4	L	0.17	0.005	0.003	0.098	0.016	0.051	0.00	0.01	0.13	0.02	0.07	0.01	0.01	0.17	0.03	0.09
53	IL	Tate & Lyle Ingredients Americas LLC	7793311	292	L	0.16	0.005	0.000	0.065	0.011	0.034	0.01	0.00	0.12	0.02	0.06	0.01	0.00	0.16	0.03	0.08
54	IN	US STEEL GARY WORKS	8192011	0	L	0.16	0.003	0.002	0.060	0.010	0.031	0.01	0.00	0.10	0.02	0.05	0.01	0.01	0.16	0.03	0.08
55	IN	Citizens Thermal	4885311	4	L	0.16	0.009	0.001	0.126	0.020	0.066	0.01	0.00	0.10	0.02	0.05	0.01	0.00	0.16	0.03	0.08
56	IN	Citizens Thermal	4885311	1	L	0.16	0.010	0.001	0.126	0.021	0.066	0.01	0.00	0.10	0.02	0.05	0.01	0.00	0.16	0.03	0.08
57	IN	ArcelorMittal Burns Harbor Inc.	7376511	34	L	0.16	0.003	0.002	0.056	0.009	0.029	0.01	0.00	0.12	0.02	0.06	0.01	0.01	0.16	0.03	0.08
58	MD	Sparrows Point, LLC	8239711	005-0147-6-0941	L	0.15	0.006	0.003	0.098	0.016	0.051	0.00	0.01	0.15	0.02	0.08	0.00	0.00	0.09	0.02	0.05
59	WV	DUPONT WASHINGTON WORKS	4878911	477	L	0.15	0.006	0.002	0.092	0.015	0.048	0.01	0.01	0.15	0.02	0.08	0.00	0.00	0.07	0.01	0.04
60	OH	AK Steel Corporation (1409010006)	8008811		S	0.15	0.010	0.002	0.147	0.024	0.076	0.01	0.01	0.13	0.02	0.07	0.01	0.01	0.13	0.02	0.07
61	MD	Naval Support Facility, Indian Head	6117011	017-0040-3-0006	L	0.14	0.006	0.001	0.078	0.013	0.041	0.00	0.00	0.06	0.01	0.03	0.01	0.00	0.14	0.02	0.07
62	IN	ESSROC Cement Corp	8198511	15	L	0.14	0.009	0.003	0.138	0.022	0.072	0.01	0.00	0.13	0.02	0.07	0.01	0.00	0.11	0.02	0.06
63	KY	E I Dupont Inc	6096411	1	L	0.13	0.009	0.000	0.105	0.017	0.055	0.01	0.00	0.13	0.02	0.07	0.01	0.00	0.06	0.01	0.03
64	OH	City of Akron Steam Generating (16770107	8170411	253630	L	0.13	0.007	0.001	0.085	0.014	0.044	0.01	0.00	0.13	0.02	0.07	0.01	0.00	0.08	0.01	0.04
65	OH	Cargill, Incorporated - Salt Division (Akron,	7416411	250250	L	0.13	0.008	0.001	0.099	0.016	0.052	0.01	0.00	0.13	0.02	0.07	0.01	0.00	0.09	0.01	0.05
66	PA	TEAM TEN/TYRONE PAPER MILL	9248211	S01	L	0.12	0.010	0.001	0.124	0.020	0.065	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.11	0.02	0.06
67	OH	Morton Salt, Inc. (0285020059)	7997111	65589	L	0.12	0.010	0.000	0.121	0.020	0.063	0.01	0.00	0.12	0.02	0.06	0.01	0.00	0.09	0.01	0.05
68	OH	Morton Salt, Inc. (0285020059)	7997111	65590	L	0.12	0.010	0.000	0.120	0.020	0.063	0.01	0.00	0.12	0.02	0.06	0.01	0.00	0.09	0.01	0.05
69	IN	ArcelorMittal Burns Harbor Inc.	7376511	14	L	0.12	0.004	0.000	0.049	0.008	0.026	0.01	0.00	0.09	0.02	0.05	0.01	0.00	0.12	0.02	0.06
70	IN	ALCOA INC. - WARRICK OPERATIONS	8181811		S	0.12	0.009	0.000	0.110	0.018	0.057	0.01	0.00	0.12	0.02	0.06	0.01	0.00	0.09	0.01	0.05
71	IN	BALL STATE UNIVERSITY	4873211	1	L	0.12	0.009	0.001	0.117	0.019	0.061	0.01	0.00	0.08	0.01	0.04	0.01	0.00	0.11	0.02	0.06
72	IN	BALL STATE UNIVERSITY	4873211	2	L	0.12	0.009	0.001	0.117	0.019	0.061	0.01	0.00	0.08	0.01	0.04	0.01	0.00	0.11	0.02	0.06
73	IN	US STEEL GARY WORKS	8192011	301	L	0.12	0.001	0.002	0.032	0.005	0.017	0.00	0.00	0.06	0.01	0.03	0.00	0.01	0.12	0.02	0.06
74	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Big Bill/PG	L	0.11	0.009	0.001	0.113	0.018	0.059	0.00	0.00	0.07	0.01	0.04	0.00	0.00	0.08	0.01	0.04
75	VA	Philip Morris Usa Inc - Park 500	5795511	47	L	0.11	0.004	0.004	0.099	0.016	0.051	0.01	0.00	0.09	0.01	0.05	0.01	0.00	0.11	0.02	0.06
76	TN	EASTMAN CHEMICAL COMPANY	3982311	B3251	L	0.11	0.003	0.001	0.051	0.008	0.027	0.00	0.01	0.11	0.02	0.06	0.00	0.00	0.08	0.01	0.04
77	IN	Indiana Harbor East	3986511	134	L	0.11	0.001	0.002	0.035	0.006	0.018	0.00	0.00	0.06	0.01	0.03	0.00	0.01	0.11	0.02	0.06
78	PA	INTL WAXES INC/FARMERS VALLEY	6582111	S02	L	0.10	0.005	0.001	0.078	0.013	0.040	0.00	0.00	0.08	0.01	0.04	0.01	0.00	0.10	0.02	0.05
79	OH	DTE St. Bernard, LLC (1431394148)	9301711	2170429	L	0.10	0.008	0.001	0.104	0.017	0.054	0.01	0.00	0.08	0.01	0.04	0.00	0.00	0.07	0.01	0.04
80	NY	CARGILL SALT CO- WATKINS GLEN PLANT	8176611	1	L	0.10	0.007	0.001	0.104	0.017	0.054	0.00	0.00	0.06	0.01	0.03	0.01	0.00	0.10	0.02	0.05

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81	OH	BDM Warren Steel Operations, LLC (02780	8063611	59727	L	0.10	0.009	0.000	0.103	0.017	0.054	0.01	0.00	0.08	0.01	0.04	0.01	0.00	0.06	0.01	0.03
82	KY	Century Aluminum Sebree LLC	7352311	SO2ENG	L	0.10	0.008	0.000	0.098	0.016	0.051	0.00	0.00	0.05	0.01	0.02	0.01	0.00	0.10	0.02	0.05
83	IN	SABIC INNOVATIVE PLASTICS MT. VERNON	7364611	1	L	0.10	0.007	0.000	0.084	0.014	0.044	0.00	0.00	0.04	0.01	0.02	0.01	0.00	0.10	0.02	0.05
84	PA	APPLETON PAPERS/SPRING MILL	7872711	S18	L	0.09	0.008	0.000	0.095	0.015	0.049	0.01	0.00	0.09	0.01	0.05	0.01	0.00	0.09	0.01	0.05
85	PA	APPLETON PAPERS/SPRING MILL	7872711	S28	L	0.09	0.008	0.000	0.095	0.015	0.049	0.01	0.00	0.09	0.01	0.05	0.01	0.00	0.09	0.01	0.05
86	IN	ArcelorMittal Burns Harbor Inc.	7376511	25	L	0.09	0.001	0.001	0.030	0.005	0.016	0.00	0.00	0.07	0.01	0.03	0.00	0.01	0.09	0.02	0.05
87	VA	Huntington Ingalls Incorporated -NN Shipbl	4938811	1	L	0.09	0.004	0.000	0.054	0.009	0.028	0.01	0.00	0.09	0.02	0.05	0.00	0.00	0.04	0.01	0.02
88	PA	USS CORP/EDGAR THOMSON WORKS	7409311		S	0.09	0.007	0.001	0.094	0.015	0.049	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.06	0.01	0.03
89	KY	Isp Chemicals Inc.	7365311	0AA	L	0.09	0.007	0.001	0.093	0.015	0.049	0.00	0.00	0.05	0.01	0.03	0.01	0.00	0.09	0.01	0.05
90	OH	Kraton Polymers U.S. LLC (0684010011)	8130511	152407	L	0.09	0.005	0.001	0.064	0.010	0.034	0.01	0.00	0.09	0.01	0.04	0.00	0.00	0.04	0.01	0.02
91	OH	Youngstown Thermal (0250110024)	7219511		S	0.08	0.007	0.000	0.084	0.014	0.044	0.01	0.00	0.08	0.01	0.04	0.00	0.00	0.06	0.01	0.03
92	NJ	Gerresheimer Moulded Glass	12804611		S	0.08	0.001	0.002	0.029	0.005	0.015	0.00	0.01	0.08	0.01	0.04	0.00	0.00	0.04	0.01	0.02
93	NC	KapStone Kraft Paper Corporation	8048011	ST-1,2	L	0.08	0.002	0.003	0.058	0.009	0.030	0.00	0.00	0.05	0.01	0.02	0.00	0.00	0.08	0.01	0.04
94	PA	AMER REF GROUP/BRADFORD	6532511	S13	L	0.08	0.004	0.001	0.050	0.008	0.026	0.00	0.00	0.05	0.01	0.02	0.01	0.00	0.08	0.01	0.04
95	MD	Sparrows Point, LLC	8239711	005-0147-6-0939	L	0.08	0.004	0.000	0.052	0.008	0.027	0.00	0.00	0.04	0.01	0.02	0.01	0.00	0.08	0.01	0.04
96	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Riley Coal	L	0.08	0.006	0.001	0.077	0.012	0.040	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.05	0.01	0.03
97	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-No. 4 PB	L	0.08	0.006	0.000	0.076	0.012	0.040	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.05	0.01	0.03
98	WV	DUPONT WASHINGTON WORKS	4878911		S	0.07	0.003	0.001	0.045	0.007	0.024	0.00	0.00	0.07	0.01	0.04	0.00	0.00	0.03	0.01	0.02
99	OH	Kraton Polymers U.S. LLC (0684010011)	8130511	152405	L	0.07	0.004	0.000	0.055	0.009	0.029	0.00	0.00	0.07	0.01	0.04	0.00	0.00	0.04	0.01	0.02
100	VA	Smurfit Stone Container Corporation - West	4182011	4	L	0.07	0.000	0.004	0.053	0.009	0.028	0.00	0.00	0.06	0.01	0.03	0.00	0.01	0.07	0.01	0.04
101	IN	INDIANA UNIVERSITY	4553211	3	L	0.07	0.006	0.000	0.071	0.012	0.037	0.00	0.00	0.06	0.01	0.03	0.01	0.00	0.07	0.01	0.03
102	IN	ArcelorMittal Burns Harbor Inc.	7376511	5	L	0.07	0.002	0.000	0.027	0.004	0.014	0.00	0.00	0.06	0.01	0.03	0.01	0.00	0.07	0.01	0.04
103	NY	NORLITE CORP	8090911		S	0.07	0.002	0.001	0.039	0.006	0.020	0.00	0.00	0.07	0.01	0.04	0.00	0.00	0.04	0.01	0.02
104	IN	ArcelorMittal Burns Harbor Inc.	7376511	31	L	0.07	0.002	0.001	0.025	0.004	0.013	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.07	0.01	0.04
105	VA	Smurfit Stone Container Corporation - West	4182011	2	L	0.07	0.000	0.006	0.068	0.011	0.036	0.00	0.00	0.04	0.01	0.02	0.00	0.01	0.07	0.01	0.03
106	IN	ArcelorMittal Burns Harbor Inc.	7376511	8	L	0.07	0.002	0.000	0.026	0.004	0.014	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.07	0.01	0.04
107	VA	Smurfit Stone Container Corporation - West	4182011		S	0.07	0.000	0.006	0.068	0.011	0.035	0.00	0.00	0.04	0.01	0.02	0.00	0.01	0.06	0.01	0.03
108	VA	Smurfit Stone Container Corporation - West	4182011	7	L	0.07	0.005	0.000	0.064	0.010	0.033	0.00	0.00	0.05	0.01	0.03	0.01	0.00	0.07	0.01	0.03
109	IN	ArcelorMittal Burns Harbor Inc.	7376511	6	L	0.07	0.001	0.001	0.030	0.005	0.016	0.00	0.00	0.07	0.01	0.03	0.00	0.00	0.05	0.01	0.03
110	IN	ArcelorMittal Burns Harbor Inc.	7376511	7	L	0.07	0.001	0.001	0.030	0.005	0.016	0.00	0.00	0.07	0.01	0.03	0.00	0.00	0.05	0.01	0.03
111	NC	DAK Americas LLC	8122511	ES-01	L	0.06	0.002	0.001	0.040	0.006	0.021	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.04	0.01	0.02
112	NC	DAK Americas LLC	8122511	ES-02	L	0.06	0.002	0.001	0.040	0.006	0.021	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.04	0.01	0.02
113	OH	Fluor-B&W Portsmouth LLC (0666005004)	15485811	146165	L	0.06	0.005	0.000	0.059	0.010	0.031	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.04	0.01	0.02
114	IN	INDIANA UNIVERSITY	4553211	2	L	0.06	0.005	0.000	0.060	0.010	0.031	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.06	0.01	0.03
115	IN	ArcelorMittal Burns Harbor Inc.	7376511	4	L	0.06	0.002	0.000	0.023	0.004	0.012	0.00	0.00	0.05	0.01	0.02	0.00	0.00	0.06	0.01	0.03
116	OH	Fluor-B&W Portsmouth LLC (0666005004)	15485811	146164	L	0.06	0.004	0.000	0.056	0.009	0.029	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.04	0.01	0.02
117	PA	INTL WAXES INC/FARMERS VALLEY	6582111		S	0.05	0.003	0.001	0.040	0.006	0.021	0.00	0.00	0.03	0.01	0.02	0.00	0.00	0.05	0.01	0.03
118	PA	APPLETON PAPERS/SPRING MILL	7872711	S09	L	0.05	0.004	0.001	0.051	0.008	0.027	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.04	0.01	0.02
119	OH	Youngstown Thermal (0250110024)	7219511	56897	L	0.05	0.004	0.000	0.053	0.009	0.028	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.04	0.01	0.02
120	MI	U S STEEL GREAT LAKES WORKS	8483611	FUG001	L	0.05	0.001	0.001	0.019	0.003	0.010	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.04	0.01	0.02
121	ME	THE JACKSON LABORATORY	7945211		S	0.05	0.000	0.004	0.049	0.008	0.025	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.03	0.01	0.02

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Type	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
122	TN	PACKAGING CORPORATION OF AMERICA	4963011	ST1198	L	0.05	0.003	0.001	0.047	0.008	0.024	0.00	0.00	0.03	0.00	0.02	0.00	0.00	0.03	0.01	0.02
123	IN	SABIC INNOVATIVE PLASTICS MT. VERNON	7364611	2	L	0.05	0.002	0.002	0.036	0.006	0.019	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.05	0.01	0.02
124	PA	UNITED REFINING CO/WARREN PLT	4966711	S27	L	0.04	0.003	0.000	0.040	0.006	0.021	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.04	0.01	0.02
125	TN	PACKAGING CORPORATION OF AMERICA	4963011		S	0.04	0.002	0.001	0.038	0.006	0.020	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.02	0.00	0.01
126	OH	BDM Warren Steel Operations, LLC (02780	8063611		S	0.04	0.002	0.001	0.026	0.004	0.014	0.00	0.00	0.03	0.01	0.02	0.00	0.00	0.04	0.01	0.02
127	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Riley Bark	L	0.04	0.003	0.000	0.036	0.006	0.019	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.02	0.00	0.01
128	TN	Cargill Corn Milling	5723011	8001	L	0.03	0.002	0.000	0.025	0.004	0.013	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.03	0.00	0.02
129	TN	Cargill Corn Milling	5723011	8301	L	0.03	0.002	0.000	0.022	0.004	0.012	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.03	0.00	0.01
130	VA	Huntington Ingalls Incorporated -NN Shipbl	4938811		S	0.03	0.000	0.002	0.026	0.004	0.014	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.02	0.00	0.01
131	NC	KapStone Kraft Paper Corporation	8048011		S	0.02	0.001	0.001	0.016	0.003	0.008	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.02	0.00	0.01
132	IN	SABIC INNOVATIVE PLASTICS MT. VERNON	7364611		S	0.02	0.001	0.000	0.018	0.003	0.009	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.02	0.00	0.01
133	PA	PPG IND INC/WORKS NO 6	6463511		S	0.01	0.000	0.000	0.005	0.001	0.003	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.01	0.00	0.01
134	NJ	Atlantic County Utilities Authority Landfill	8093211		S	0.01	0.000	0.000	0.007	0.001	0.004	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.01	0.00	0.01
135	KY	Century Aluminum Sebree LLC	7352311		S	0.00	0.000	0.000	0.001	0.000	0.001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
136	VA	Philip Morris Usa Inc - Park 500	5795511		S	0.00	0.000	0.000	0.001	0.000	0.001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
137	MA	SOLUTIA INCORPORATED	7236411		S	0.00	0.000	0.000	0.000	0.000	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
138	ME	SAPPI - SOMERSET	8200111		S	0.00	0.000	0.000	0.000	0.000	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

F.30 2011 ICI Ranking Visibility Impairing Sources to Dolly Sods

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Large or Small?	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
1	MD	Luke Paper Company	7763811	001-0011-3-0018	L	43.83	**1.65**	0.51	**25.87**	**3.57**	**8.66**	**1.46**	0.61	**24.62**	**3.42**	**8.37**	**3.00**	0.55	**43.83**	**5.44**	**12.01**
2	MD	Luke Paper Company	7763811	001-0011-3-0019	L	43.06	**1.63**	0.49	**25.35**	**3.51**	**8.54**	**1.44**	0.59	**24.10**	**3.36**	**8.26**	**2.96**	0.53	**43.06**	**5.37**	**11.89**
3	MD	Luke Paper Company	7763811	001-0011-6-0235	L	3.90	0.08	0.18	**3.04**	0.49	**1.50**	0.11	0.22	**3.90**	0.63	**1.89**	0.13	0.11	**2.71**	0.44	**1.35**
4	TN	EASTMAN CHEMICAL COMPANY	3982311	B2531	L	2.80	0.13	0.05	**2.06**	0.34	**1.04**	0.12	0.12	**2.80**	0.45	**1.39**	0.14	0.05	**2.30**	0.38	**1.16**
5	OH	P. H. Glatfelter Company - Chillicothe Facil	8131111	147671	L	2.68	0.17	0.03	**2.30**	0.38	**1.16**	0.18	0.02	**2.34**	0.38	**1.18**	0.21	0.02	**2.68**	0.44	**1.34**
6	PA	USS/CLAIRTON WORKS	8204511		S	2.30	0.02	0.10	**1.37**	0.23	0.71	0.02	0.11	**1.53**	0.25	0.79	0.02	0.18	**2.30**	0.38	**1.16**
7	WV	CAPITOL CEMENT - ESSROC MARTINSBURG	4987611	71	L	1.81	0.03	0.04	0.85	0.14	0.45	0.07	0.08	**1.81**	0.30	0.92	0.05	0.05	**1.19**	0.20	0.61
8	VA	Roanoke Cement Company	5039811	4	L	1.59	0.02	0.03	0.56	0.09	0.30	0.04	0.09	**1.59**	0.26	0.81	0.02	0.04	0.74	0.12	0.39
9	VA	GP Big Island LLC	4183311	1	L	1.11	0.03	0.01	0.52	0.09	0.28	0.05	0.04	**1.11**	0.18	0.58	0.05	0.02	0.74	0.12	0.39
10	MI	U S STEEL GREAT LAKES WORKS	8483611		S	1.05	0.03	0.02	0.56	0.09	0.29	0.07	0.02	**1.05**	0.17	0.55	0.03	0.01	0.46	0.08	0.24
11	TN	EASTMAN CHEMICAL COMPANY	3982311	B831	L	0.94	0.05	0.01	0.76	0.13	0.40	0.04	0.02	0.75	0.12	0.39	0.07	0.02	0.94	0.16	0.49
12	PA	PHILA ENERGY SOL REF/ PES	6652211		S	0.91	0.00	0.01	0.19	0.03	0.10	0.01	0.07	0.91	0.15	0.48	0.00	0.02	0.29	0.05	0.15
13	NY	LAFARGE BUILDING MATERIALS INC	8105211	43101	L	0.89	0.01	0.01	0.30	0.05	0.16	0.06	0.01	0.82	0.13	0.43	0.05	0.03	0.89	0.15	0.46
14	VA	Radford Army Ammunition Plant	5748611	1	L	0.85	0.03	0.02	0.62	0.10	0.33	0.05	0.02	0.85	0.14	0.44	0.03	0.04	0.76	0.13	0.40
15	WV	BAYER CROPSCIENCE	5782411	8	L	0.83	0.03	0.03	0.71	0.12	0.37	0.02	0.05	0.83	0.14	0.43	0.03	0.04	0.80	0.13	0.42
16	MD	Sparrows Point, LLC	8239711		S	0.79	0.01	0.05	0.79	0.13	0.41	0.01	0.03	0.47	0.08	0.25	0.02	0.04	0.73	0.12	0.38
17	OH	AK Steel Corporation (1409010006)	8008811		S	0.68	0.03	0.03	0.68	0.11	0.36	0.01	0.04	0.60	0.10	0.31	0.02	0.02	0.45	0.07	0.24
18	PA	SUNOCO INC (R&M)/MARCUS HOOK REFIN	7873611	S60	L	0.66	0.01	0.01	0.18	0.03	0.10	0.02	0.03	0.66	0.11	0.35	0.01	0.01	0.24	0.04	0.13
19	PA	PPG IND INC/WORKS NO 6	6463511	S01	L	0.64	0.00	0.05	0.64	0.11	0.34	0.00	0.03	0.45	0.07	0.24	0.00	0.03	0.43	0.07	0.23
20	WV	DUPONT WASHINGTON WORKS	4878911	477	L	0.63	0.02	0.02	0.53	0.09	0.28	0.02	0.03	0.63	0.10	0.33	0.02	0.02	0.44	0.07	0.23
21	PA	PPG IND INC/WORKS NO 6	6463511	S02	L	0.61	0.00	0.05	0.61	0.10	0.32	0.00	0.03	0.43	0.07	0.23	0.00	0.03	0.41	0.07	0.22
22	IN	ELI LILLY & COMPANY CLINTON LABS	8223611	2	L	0.58	0.03	0.01	0.40	0.07	0.21	0.04	0.01	0.58	0.10	0.30	0.02	0.01	0.35	0.06	0.18
23	NY	KODAK PARK DIVISION	8091511	4	L	0.57	0.02	0.01	0.27	0.05	0.14	0.03	0.02	0.57	0.09	0.30	0.02	0.02	0.47	0.08	0.25
24	IL	Aventine Renewable Energy Inc	8065311	49	L	0.57	0.02	0.01	0.30	0.05	0.16	0.04	0.01	0.57	0.09	0.30	0.03	0.00	0.43	0.07	0.23
25	PA	Penn State Univ	3186811	S01	L	0.54	0.02	0.01	0.31	0.05	0.16	0.03	0.01	0.51	0.08	0.27	0.03	0.02	0.54	0.09	0.29
26	IN	ESSROC Cement Corp	8198511	15	L	0.52	0.02	0.01	0.33	0.05	0.17	0.03	0.02	0.52	0.09	0.28	0.02	0.02	0.44	0.07	0.23
27	IN	TATE & LYLE, LAFAYETTE SOUTH (33)	7376411	4	L	0.50	0.03	0.01	0.50	0.08	0.26	0.02	0.01	0.40	0.07	0.21	0.02	0.01	0.33	0.05	0.18
28	IN	Indiana Harbor East	3986511		S	0.49	0.01	0.03	0.45	0.07	0.24	0.01	0.03	0.49	0.08	0.26	0.01	0.02	0.34	0.06	0.18
29	IL	Aventine Renewable Energy Inc	8065311	48	L	0.49	0.02	0.00	0.25	0.04	0.13	0.04	0.00	0.49	0.08	0.26	0.03	0.00	0.37	0.06	0.19
30	PA	TEAM TEN/TYRONE PAPER MILL	9248211	S01	L	0.47	0.01	0.00	0.20	0.03	0.11	0.03	0.01	0.47	0.08	0.25	0.02	0.01	0.27	0.05	0.14
31	TN	EASTMAN CHEMICAL COMPANY	3982311	B3251	L	0.46	0.01	0.01	0.28	0.05	0.15	0.01	0.03	0.46	0.08	0.24	0.01	0.02	0.36	0.06	0.19
32	OH	The Medical Center Company (131800305	8252111	184509	L	0.45	0.03	0.00	0.41	0.07	0.22	0.02	0.00	0.22	0.04	0.12	0.04	0.00	0.45	0.07	0.24
33	IN	ArcelorMittal Burns Harbor Inc.	7376511	13	L	0.44	0.01	0.02	0.39	0.07	0.21	0.01	0.03	0.44	0.07	0.23	0.01	0.02	0.33	0.05	0.17
34	OH	Morton Salt, Inc. (0285020059)	7997111	65589	L	0.44	0.02	0.00	0.31	0.05	0.16	0.02	0.00	0.20	0.03	0.11	0.04	0.00	0.44	0.07	0.23
35	OH	Morton Salt, Inc. (0285020059)	7997111	65590	L	0.44	0.02	0.00	0.31	0.05	0.16	0.02	0.00	0.20	0.03	0.11	0.04	0.00	0.44	0.07	0.23
36	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Recovery 10	L	0.42	0.03	0.01	0.38	0.06	0.20	0.02	0.02	0.42	0.07	0.22	0.02	0.01	0.33	0.05	0.18
37	OH	DTE St. Bernard, LLC (1431394148)	9301711	2170429	L	0.41	0.03	0.01	0.41	0.07	0.22	0.01	0.01	0.22	0.04	0.12	0.01	0.01	0.24	0.04	0.13
38	IN	Citizens Thermal	4885311	4	L	0.40	0.02	0.01	0.40	0.07	0.21	0.02	0.01	0.31	0.05	0.16	0.02	0.00	0.25	0.04	0.13
39	IL	Tate & Lyle Ingredients Americas LLC	7793311	292	L	0.39	0.01	0.00	0.13	0.02	0.07	0.03	0.00	0.39	0.07	0.21	0.01	0.00	0.14	0.02	0.08
40	IN	US STEEL GARY WORKS	8192011		S	0.39	0.01	0.01	0.29	0.05	0.15	0.01	0.01	0.29	0.05	0.15	0.01	0.03	0.39	0.06	0.21

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Type	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
41	KY	Isp Chemicals Inc.	7365311	0AA	L	0.39	0.01	0.00	0.16	0.03	0.08	0.03	0.00	0.39	0.06	0.21	0.02	0.00	0.24	0.04	0.13
42	OH	Cargill, Incorporated - Salt Division (Akron,	7416411	250250	L	0.37	0.03	0.01	0.37	0.06	0.20	0.02	0.00	0.22	0.04	0.11	0.03	0.00	0.35	0.06	0.18
43	IN	UNIVERSITY OF NOTRE DAME DU LAC	5552011	2	L	0.37	0.01	0.01	0.22	0.04	0.12	0.02	0.01	0.37	0.06	0.20	0.01	0.01	0.27	0.04	0.14
44	IN	Citizens Thermal	4885311	1	L	0.35	0.02	0.01	0.35	0.06	0.19	0.02	0.01	0.26	0.04	0.14	0.02	0.00	0.24	0.04	0.13
45	PA	USS CORP/EDGAR THOMSON WORKS	7409311		S	0.33	0.02	0.01	0.28	0.05	0.15	0.02	0.01	0.28	0.05	0.15	0.02	0.01	0.33	0.06	0.18
46	WV	DUPONT WASHINGTON WORKS	4878911		S	0.33	0.01	0.01	0.25	0.04	0.13	0.01	0.02	0.33	0.05	0.17	0.01	0.01	0.21	0.03	0.11
47	OH	Kraton Polymers U.S. LLC (0684010011)	8130511	152407	L	0.33	0.02	0.01	0.30	0.05	0.16	0.02	0.01	0.33	0.05	0.17	0.02	0.01	0.24	0.04	0.13
48	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Big Bill/PG	L	0.32	0.02	0.01	0.25	0.04	0.14	0.02	0.01	0.32	0.05	0.17	0.02	0.01	0.25	0.04	0.13
49	KY	E I Dupont Inc	6096411	1	L	0.30	0.03	0.00	0.30	0.05	0.16	0.02	0.00	0.25	0.04	0.13	0.02	0.00	0.26	0.04	0.14
50	OH	City of Akron Steam Generating (16770107	8170411	253630	L	0.30	0.02	0.01	0.30	0.05	0.16	0.01	0.00	0.20	0.03	0.11	0.02	0.00	0.29	0.05	0.15
51	PA	APPLETON PAPERS/SPRING MILL	7872711	S18	L	0.29	0.02	0.00	0.27	0.05	0.14	0.02	0.00	0.29	0.05	0.16	0.02	0.00	0.25	0.04	0.13
52	PA	APPLETON PAPERS/SPRING MILL	7872711	S28	L	0.29	0.02	0.00	0.27	0.05	0.14	0.02	0.00	0.29	0.05	0.16	0.02	0.00	0.25	0.04	0.13
53	MD	Naval Support Facility, Indian Head	6117011	017-0040-3-0006	L	0.29	0.02	0.00	0.28	0.05	0.15	0.02	0.01	0.29	0.05	0.16	0.01	0.00	0.16	0.03	0.08
54	OH	Kraton Polymers U.S. LLC (0684010011)	8130511	152405	L	0.29	0.02	0.01	0.26	0.04	0.14	0.02	0.01	0.29	0.05	0.15	0.01	0.01	0.21	0.03	0.11
55	IN	ALCOA INC. - WARRICK OPERATIONS	8181811		S	0.28	0.02	0.00	0.20	0.03	0.11	0.02	0.00	0.28	0.05	0.15	0.02	0.00	0.27	0.04	0.14
56	PA	KEYSTONE PORTLAND CEMENT/EAST ALLE	6582211	S73	L	0.27	0.01	0.01	0.14	0.02	0.08	0.01	0.01	0.27	0.05	0.14	0.01	0.01	0.24	0.04	0.13
57	VA	Philip Morris Usa Inc - Park 500	5795511	47	L	0.27	0.01	0.01	0.27	0.04	0.14	0.01	0.01	0.19	0.03	0.10	0.01	0.00	0.20	0.03	0.11
58	OH	Youngstown Thermal (0250110024)	7219511		S	0.26	0.02	0.00	0.26	0.04	0.14	0.01	0.00	0.21	0.03	0.11	0.01	0.01	0.22	0.04	0.12
59	NY	ALCOA MASSENA OPERATIONS (WEST PLA	7968211	SA398	L	0.26	0.00	0.00	0.05	0.01	0.03	0.01	0.00	0.12	0.02	0.06	0.02	0.00	0.26	0.04	0.14
60	VA	Smurfit Stone Container Corporation - West	4182011	4	L	0.25	0.00	0.02	0.25	0.04	0.13	0.00	0.01	0.09	0.01	0.05	0.00	0.01	0.14	0.02	0.08
61	IN	SABIC INNOVATIVE PLASTICS MT. VERNON	7364611	1	L	0.25	0.02	0.00	0.21	0.03	0.11	0.02	0.00	0.23	0.04	0.12	0.02	0.00	0.25	0.04	0.13
62	MD	Sparrows Point, LLC	8239711	005-0147-6-0941	L	0.25	0.01	0.00	0.15	0.03	0.08	0.01	0.01	0.25	0.04	0.13	0.01	0.00	0.12	0.02	0.07
63	KY	Century Aluminum Sebree LLC	7352311	SO2ENG	L	0.24	0.02	0.00	0.17	0.03	0.09	0.02	0.00	0.24	0.04	0.13	0.02	0.00	0.24	0.04	0.13
64	IN	BALL STATE UNIVERSITY	4873211	1	L	0.24	0.02	0.00	0.24	0.04	0.13	0.01	0.00	0.18	0.03	0.10	0.02	0.00	0.21	0.03	0.11
65	IN	BALL STATE UNIVERSITY	4873211	2	L	0.24	0.02	0.00	0.24	0.04	0.13	0.01	0.00	0.18	0.03	0.10	0.02	0.00	0.21	0.03	0.11
66	VA	Huntington Ingalls Incorporated -NN Shipbl	4938811	1	L	0.24	0.02	0.00	0.23	0.04	0.12	0.01	0.00	0.18	0.03	0.09	0.02	0.00	0.24	0.04	0.13
67	IN	ArcelorMittal Burns Harbor Inc.	7376511		S	0.24	0.01	0.01	0.21	0.03	0.11	0.01	0.01	0.24	0.04	0.13	0.01	0.01	0.18	0.03	0.10
68	IN	ArcelorMittal Burns Harbor Inc.	7376511	34	L	0.24	0.01	0.01	0.20	0.03	0.11	0.01	0.01	0.24	0.04	0.13	0.01	0.01	0.18	0.03	0.10
69	IN	US STEEL GARY WORKS	8192011	0	L	0.21	0.01	0.01	0.21	0.04	0.11	0.01	0.01	0.21	0.04	0.11	0.01	0.01	0.17	0.03	0.09
70	VA	Smurfit Stone Container Corporation - West	4182011	2	L	0.21	0.00	0.02	0.21	0.04	0.11	0.00	0.01	0.10	0.02	0.05	0.00	0.01	0.16	0.03	0.09
71	IN	INDIANA UNIVERSITY	4553211	3	L	0.21	0.01	0.00	0.13	0.02	0.07	0.02	0.00	0.21	0.03	0.11	0.01	0.00	0.19	0.03	0.10
72	PA	HERCULES CEMENT CO LP/STOCKERTOWN	3881611	S03	L	0.21	0.01	0.00	0.13	0.02	0.07	0.01	0.00	0.18	0.03	0.09	0.01	0.01	0.21	0.03	0.11
73	PA	APPLETON PAPERS/SPRING MILL	7872711	S09	L	0.21	0.01	0.00	0.14	0.02	0.08	0.01	0.01	0.21	0.03	0.11	0.01	0.01	0.20	0.03	0.11
74	NY	CARGILL SALT CO- WATKINS GLEN PLANT	8176611	1	L	0.20	0.00	0.00	0.04	0.01	0.02	0.01	0.00	0.20	0.03	0.11	0.01	0.00	0.15	0.02	0.08
75	ME	SAPPI - SOMERSET	8200111	1	L	0.19	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.04	0.01	0.02	0.01	0.01	0.19	0.03	0.10
76	IN	INDIANA UNIVERSITY	4553211	2	L	0.19	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.19	0.03	0.10	0.01	0.00	0.16	0.03	0.09
77	OH	BDM Warren Steel Operations, LLC (02780	8063611	59727	L	0.19	0.02	0.00	0.19	0.03	0.10	0.01	0.00	0.17	0.03	0.09	0.01	0.00	0.12	0.02	0.06
78	VA	Smurfit Stone Container Corporation - West	4182011	7	L	0.18	0.01	0.00	0.18	0.03	0.10	0.01	0.00	0.12	0.02	0.07	0.01	0.00	0.15	0.03	0.08
79	IN	ArcelorMittal Burns Harbor Inc.	7376511	14	L	0.18	0.01	0.00	0.15	0.02	0.08	0.01	0.00	0.18	0.03	0.10	0.01	0.00	0.15	0.02	0.08
80	MD	Sparrows Point, LLC	8239711	005-0147-6-0939	L	0.18	0.01	0.00	0.09	0.01	0.05	0.01	0.00	0.14	0.02	0.07	0.01	0.00	0.18	0.03	0.09

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Type	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
81	PA	INTL WAXES INC/FARMERS VALLEY	6582111	S02	L	0.17	0.01	0.00	0.09	0.02	0.05	0.01	0.00	0.15	0.02	0.08	0.01	0.00	0.17	0.03	0.09
82	TN	PACKAGING CORPORATION OF AMERICA	4963011	ST1198	L	0.17	0.01	0.00	0.09	0.02	0.05	0.01	0.01	0.17	0.03	0.09	0.00	0.00	0.06	0.01	0.03
83	OH	Fluor-B&W Portsmouth LLC (0666005004)	15485811	146165	L	0.17	0.01	0.00	0.17	0.03	0.09	0.01	0.00	0.16	0.03	0.09	0.01	0.00	0.16	0.03	0.09
84	MI	ESCANABA PAPER COMPANY	8126511	SV0117	L	0.16	0.01	0.01	0.16	0.03	0.09	0.01	0.01	0.15	0.02	0.08	0.01	0.00	0.10	0.02	0.05
85	OH	Youngstown Thermal (0250110024)	7219511	56897	L	0.16	0.01	0.00	0.16	0.03	0.09	0.01	0.00	0.13	0.02	0.07	0.01	0.00	0.14	0.02	0.07
86	NY	FINCH PAPER LLC	8325211	12	L	0.16	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.06	0.01	0.03	0.00	0.01	0.16	0.03	0.09
87	OH	Fluor-B&W Portsmouth LLC (0666005004)	15485811	146164	L	0.16	0.01	0.00	0.16	0.03	0.08	0.01	0.00	0.15	0.03	0.08	0.01	0.00	0.15	0.03	0.08
88	TN	PACKAGING CORPORATION OF AMERICA	4963011		S	0.16	0.00	0.00	0.08	0.01	0.04	0.01	0.01	0.16	0.03	0.08	0.00	0.00	0.05	0.01	0.03
89	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-No. 4 PB	L	0.15	0.01	0.00	0.15	0.03	0.08	0.01	0.00	0.13	0.02	0.07	0.01	0.00	0.14	0.02	0.07
90	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Riley Coal	L	0.15	0.01	0.00	0.15	0.03	0.08	0.01	0.00	0.15	0.02	0.08	0.01	0.00	0.14	0.02	0.08
91	IN	SABIC INNOVATIVE PLASTICS MT. VERNON	7364611	2	L	0.15	0.00	0.01	0.15	0.03	0.08	0.00	0.01	0.13	0.02	0.07	0.00	0.01	0.13	0.02	0.07
92	NC	KapStone Kraft Paper Corporation	8048011	ST-1,2	L	0.15	0.00	0.00	0.10	0.02	0.05	0.01	0.01	0.15	0.02	0.08	0.00	0.00	0.11	0.02	0.06
93	IN	US STEEL GARY WORKS	8192011	301	L	0.15	0.00	0.01	0.15	0.02	0.08	0.00	0.01	0.14	0.02	0.07	0.00	0.01	0.11	0.02	0.06
94	NY	MORTON SALT DIV	7814711	1	L	0.15	0.01	0.00	0.15	0.02	0.08	0.01	0.00	0.13	0.02	0.07	0.01	0.00	0.14	0.02	0.08
95	NY	INTERNATIONAL PAPER TICONDEROGA MI	7991711	44	L	0.14	0.00	0.00	0.02	0.00	0.01	0.01	0.00	0.09	0.01	0.05	0.01	0.00	0.14	0.02	0.07
96	VA	Smurfit Stone Container Corporation - West	4182011		S	0.14	0.00	0.01	0.14	0.02	0.07	0.00	0.01	0.09	0.01	0.05	0.00	0.01	0.14	0.02	0.07
97	IN	Indiana Harbor East	3986511	134	L	0.14	0.00	0.01	0.14	0.02	0.07	0.00	0.01	0.13	0.02	0.07	0.00	0.01	0.09	0.01	0.05
98	PA	AMER REF GROUP/BRADFORD	6532511	S13	L	0.13	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.08	0.01	0.04	0.01	0.00	0.13	0.02	0.07
99	OH	BDM Warren Steel Operations, LLC (02780	8063611		S	0.13	0.00	0.01	0.13	0.02	0.07	0.00	0.01	0.13	0.02	0.07	0.00	0.01	0.13	0.02	0.07
100	IN	ArcelorMittal Burns Harbor Inc.	7376511	6	L	0.13	0.00	0.01	0.12	0.02	0.07	0.00	0.01	0.13	0.02	0.07	0.00	0.00	0.06	0.01	0.03
101	IN	ArcelorMittal Burns Harbor Inc.	7376511	7	L	0.13	0.00	0.01	0.12	0.02	0.07	0.00	0.01	0.13	0.02	0.07	0.00	0.00	0.06	0.01	0.03
102	IN	ArcelorMittal Burns Harbor Inc.	7376511	25	L	0.13	0.00	0.01	0.12	0.02	0.07	0.00	0.01	0.13	0.02	0.07	0.00	0.00	0.10	0.02	0.05
103	PA	UNITED REFINING CO/WARREN PLT	4966711	S27	L	0.12	0.00	0.00	0.05	0.01	0.03	0.01	0.00	0.08	0.01	0.04	0.01	0.00	0.12	0.02	0.06
104	MI	U S STEEL GREAT LAKES WORKS	8483611	FUG001	L	0.11	0.00	0.00	0.07	0.01	0.04	0.01	0.00	0.11	0.02	0.06	0.00	0.00	0.05	0.01	0.03
105	MI	St. Marys Cement, Inc. (U.S.)	8160611	SV0009	L	0.11	0.00	0.00	0.11	0.02	0.06	0.00	0.00	0.09	0.01	0.05	0.00	0.00	0.07	0.01	0.04
106	MI	St. Marys Cement, Inc. (U.S.)	8160611	SV0011	L	0.10	0.00	0.00	0.10	0.02	0.05	0.00	0.01	0.10	0.02	0.06	0.00	0.00	0.08	0.01	0.04
107	IN	ArcelorMittal Burns Harbor Inc.	7376511	31	L	0.10	0.00	0.00	0.08	0.01	0.05	0.01	0.00	0.10	0.02	0.06	0.00	0.00	0.08	0.01	0.04
108	IN	ArcelorMittal Burns Harbor Inc.	7376511	5	L	0.10	0.01	0.00	0.08	0.01	0.04	0.01	0.00	0.10	0.02	0.06	0.01	0.00	0.08	0.01	0.04
109	PA	INTL WAXES INC/FARMERS VALLEY	6582111		S	0.10	0.00	0.00	0.05	0.01	0.02	0.00	0.00	0.08	0.01	0.04	0.01	0.00	0.10	0.02	0.05
110	IN	ArcelorMittal Burns Harbor Inc.	7376511	8	L	0.10	0.01	0.00	0.08	0.01	0.04	0.01	0.00	0.10	0.02	0.05	0.01	0.00	0.08	0.01	0.04
111	NC	DAK Americas LLC	8122511	ES-01	L	0.09	0.00	0.00	0.03	0.00	0.02	0.01	0.00	0.09	0.02	0.05	0.00	0.00	0.04	0.01	0.02
112	NC	DAK Americas LLC	8122511	ES-02	L	0.09	0.00	0.00	0.03	0.00	0.02	0.01	0.00	0.09	0.02	0.05	0.00	0.00	0.04	0.01	0.02
113	IN	ArcelorMittal Burns Harbor Inc.	7376511	4	L	0.09	0.01	0.00	0.07	0.01	0.04	0.01	0.00	0.09	0.01	0.05	0.01	0.00	0.07	0.01	0.04
114	TN	Cargill Corn Milling	5723011	8001	L	0.09	0.00	0.00	0.05	0.01	0.03	0.01	0.00	0.09	0.01	0.05	0.01	0.00	0.08	0.01	0.04
115	NY	FINCH PAPER LLC	8325211		S	0.08	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.00	0.01	0.08	0.01	0.04
116	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Riley Bark	L	0.08	0.01	0.00	0.07	0.01	0.04	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.08	0.01	0.04
117	TN	Cargill Corn Milling	5723011	8301	L	0.07	0.00	0.00	0.04	0.01	0.02	0.01	0.00	0.07	0.01	0.04	0.01	0.00	0.07	0.01	0.04
118	MA	SOLUTIA INCORPORATED	7236411	5	L	0.07	0.00	0.00	0.03	0.01	0.02	0.01	0.00	0.07	0.01	0.04	0.00	0.00	0.06	0.01	0.03
119	VA	Huntington Ingalls Incorporated -NN Shipbl	4938811		S	0.06	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.04	0.01	0.02
120	ME	VERSO PAPER - ANDROSCOGGIN MILL	7764711		S	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.06	0.01	0.03

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Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Type	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
121	IN	SABIC INNOVATIVE PLASTICS MT. VERNON	7364611		S	0.06	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.06	0.01	0.03
122	PA	PPG IND INC/WORKS NO 6	6463511		S	0.05	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.03	0.01	0.02	0.00	0.00	0.03	0.01	0.02
123	ME	SAPPI - SOMERSET	8200111	37	L	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.01	0.02
124	ME	Madison Paper	5253911		S	0.04	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.04	0.01	0.02
125	NC	KapStone Kraft Paper Corporation	8048011		S	0.04	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.03	0.00	0.02
126	NH	DARTMOUTH COLLEGE	7199811		S	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.01	0.02	0.00	0.00	0.04	0.01	0.02
127	NJ	Gerresheimer Moulded Glass	12804611		S	0.04	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.03	0.01	0.02
128	ME	WOODLAND PULP LLC	5974211		S	0.03	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.03	0.01	0.02
129	ME	FMC BIOPOLYMER	5692011		S	0.03	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.03	0.00	0.02
130	ME	HUHTAMAKI INC - WATERVILLE	5691611		S	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.02	0.00	0.01
131	NY	NORLITE CORP	8090911		S	0.02	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.02	0.00	0.01
132	NH	GORHAM PAPER & TISSUE LLC	7866711		S	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.01	0.00	0.01
133	NJ	Atlantic County Utilities Authority Landfill	8093211		S	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.00
134	KY	Century Aluminum Sebree LLC	7352311		S	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135	VA	Philip Morris Usa Inc - Park 500	5795511		S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
136	ME	THE JACKSON LABORATORY	7945211		S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
137	MA	SOLUTIA INCORPORATED	7236411		S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
138	ME	SAPPI - SOMERSET	8200111		S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

F.31 2011 ICI Ranking Visibility Impairing Sources to James River Face

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Large or Small?	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
1	VA	GP Big Island LLC	4183311	1	L	21.32	**1.53**	0.35	**21.32**	**3.16**	**7.85**	0.21	0.18	**4.30**	0.73	**2.17**	0.59	0.30	**9.84**	**1.59**	**4.40**
2	MD	Luke Paper Company	7763811	001-0011-3-0018	L	6.58	0.51	0.05	**6.11**	**1.01**	**2.95**	0.44	0.16	**6.58**	**1.09**	**3.15**	0.44	0.06	**5.48**	0.91	**2.68**
3	MD	Luke Paper Company	7763811	001-0011-3-0019	L	6.44	0.50	0.05	**6.01**	1.00	**2.91**	0.43	0.15	**6.44**	**1.07**	**3.09**	0.43	0.06	**5.39**	0.90	**2.64**
4	OH	P. H. Glatfelter Company - Chillicothe Facil	8131111	147671	L	3.30	0.17	0.02	**2.02**	0.35	**1.08**	0.20	0.02	**2.41**	0.41	**1.27**	0.27	0.03	**3.30**	0.56	**1.70**
5	TN	EASTMAN CHEMICAL COMPANY	3982311	B2531	L	1.79	0.13	0.04	**1.79**	0.31	0.96	0.10	0.06	**1.74**	0.30	0.93	0.10	0.04	**1.62**	0.28	0.87
6	VA	Roanoke Cement Company	5039811	4	L	1.78	0.05	0.04	0.94	0.16	0.52	0.08	0.09	**1.78**	0.31	0.96	0.09	0.05	**1.58**	0.27	0.85
7	VA	Radford Army Ammunition Plant	5748611	1	L	1.21	0.07	0.03	**1.07**	0.18	0.58	0.06	0.03	**1.08**	0.19	0.59	0.09	0.03	**1.21**	0.21	0.66
8	WV	BAYER CROPSCIENCE	5782411	8	L	1.08	0.05	0.05	**1.08**	0.19	0.59	0.03	0.04	0.77	0.13	0.43	0.02	0.03	0.54	0.09	0.30
9	MD	Sparrows Point, LLC	8239711		S	0.93	0.01	0.04	0.54	0.09	0.30	0.02	0.06	0.93	0.16	0.51	0.01	0.02	0.30	0.05	0.17
10	PA	USS/CLAIRTON WORKS	8204511		S	0.77	0.01	0.05	0.65	0.11	0.36	0.01	0.03	0.50	0.09	0.28	0.02	0.05	0.77	0.13	0.42
11	TN	EASTMAN CHEMICAL COMPANY	3982311	B831	L	0.73	0.05	0.01	0.67	0.12	0.37	0.05	0.02	0.73	0.13	0.40	0.04	0.01	0.60	0.11	0.33
12	MI	U S STEEL GREAT LAKES WORKS	8483611		S	0.72	0.04	0.01	0.54	0.09	0.30	0.05	0.02	0.72	0.13	0.40	0.03	0.02	0.52	0.09	0.29
13	IL	Aventine Renewable Energy Inc	8065311	49	L	0.67	0.02	0.00	0.27	0.05	0.15	0.05	0.01	0.67	0.12	0.37	0.03	0.00	0.38	0.07	0.21
14	MD	Luke Paper Company	7763811	001-0011-6-0235	L	0.65	0.03	0.02	0.54	0.09	0.30	0.02	0.03	0.57	0.10	0.32	0.03	0.03	0.65	0.11	0.36
15	NY	LAFARGE BUILDING MATERIALS INC	8105211	43101	L	0.63	0.02	0.01	0.35	0.06	0.20	0.02	0.00	0.24	0.04	0.13	0.04	0.02	0.63	0.11	0.35
16	WV	CAPITOL CEMENT - ESSROC MARTINSBURG	4987611	71	L	0.63	0.02	0.02	0.46	0.08	0.25	0.02	0.03	0.60	0.10	0.33	0.02	0.04	0.63	0.11	0.35
17	PA	KEYSTONE PORTLAND CEMENT/EAST ALLE	6582211	S73	L	0.60	0.01	0.00	0.16	0.03	0.09	0.01	0.00	0.11	0.02	0.06	0.02	0.03	0.60	0.11	0.33
18	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Recovery 10	L	0.59	0.04	0.01	0.51	0.09	0.28	0.02	0.01	0.39	0.07	0.22	0.04	0.02	0.59	0.10	0.32
19	IL	Aventine Renewable Energy Inc	8065311	48	L	0.57	0.02	0.00	0.23	0.04	0.13	0.05	0.01	0.57	0.10	0.32	0.03	0.00	0.33	0.06	0.18
20	IN	ESSROC Cement Corp	8198511	15	L	0.52	0.01	0.01	0.23	0.04	0.13	0.03	0.01	0.52	0.09	0.29	0.02	0.01	0.40	0.07	0.22
21	NC	KapStone Kraft Paper Corporation	8048011	ST-1,2	L	0.47	0.01	0.03	0.47	0.08	0.26	0.01	0.02	0.26	0.05	0.15	0.01	0.02	0.30	0.05	0.17
22	IN	ALCOA INC. - WARRICK OPERATIONS	8181811		S	0.45	0.01	0.00	0.15	0.03	0.08	0.04	0.00	0.45	0.08	0.25	0.02	0.00	0.20	0.03	0.11
23	IN	Indiana Harbor East	3986511		S	0.45	0.01	0.01	0.25	0.04	0.14	0.01	0.03	0.45	0.08	0.25	0.01	0.02	0.26	0.05	0.15
24	VA	Smurfit Stone Container Corporation - West	4182011		S	0.45	0.00	0.04	0.42	0.07	0.23	0.00	0.04	0.45	0.08	0.25	0.00	0.02	0.17	0.03	0.10
25	WV	DUPONT WASHINGTON WORKS	4878911	477	L	0.44	0.02	0.01	0.36	0.06	0.20	0.02	0.01	0.33	0.06	0.18	0.02	0.02	0.44	0.08	0.25
26	IN	ArcelorMittal Burns Harbor Inc.	7376511	13	L	0.44	0.01	0.01	0.23	0.04	0.13	0.01	0.03	0.44	0.08	0.25	0.01	0.01	0.25	0.04	0.14
27	VA	Smurfit Stone Container Corporation - West	4182011	2	L	0.44	0.00	0.03	0.35	0.06	0.19	0.00	0.04	0.44	0.08	0.24	0.00	0.01	0.17	0.03	0.09
28	PA	HERCULES CEMENT CO LP/STOCKERTOWN	3881611	S03	L	0.44	0.01	0.00	0.17	0.03	0.09	0.01	0.00	0.09	0.02	0.05	0.02	0.02	0.44	0.08	0.24
29	OH	AK Steel Corporation (1409010006)	8008811		S	0.43	0.02	0.02	0.42	0.07	0.24	0.02	0.02	0.43	0.08	0.24	0.02	0.01	0.32	0.06	0.18
30	PA	PPG IND INC/WORKS NO 6	6463511	S01	L	0.42	0.00	0.01	0.21	0.04	0.11	0.00	0.02	0.28	0.05	0.16	0.00	0.04	0.42	0.07	0.23
31	KY	E I Dupont Inc	6096411	1	L	0.42	0.04	0.00	0.42	0.07	0.23	0.04	0.00	0.42	0.07	0.23	0.03	0.00	0.28	0.05	0.16
32	VA	Philip Morris Usa Inc - Park 500	5795511	47	L	0.42	0.01	0.01	0.20	0.04	0.11	0.02	0.02	0.42	0.07	0.23	0.01	0.01	0.23	0.04	0.13
33	VA	Smurfit Stone Container Corporation - West	4182011	4	L	0.41	0.00	0.01	0.16	0.03	0.09	0.00	0.04	0.41	0.07	0.23	0.00	0.02	0.26	0.05	0.15
34	PA	Penn State Univ	3186811	S01	L	0.41	0.02	0.00	0.27	0.05	0.15	0.03	0.01	0.41	0.07	0.23	0.02	0.01	0.28	0.05	0.16
35	PA	PPG IND INC/WORKS NO 6	6463511	S02	L	0.41	0.00	0.01	0.20	0.03	0.11	0.00	0.02	0.27	0.05	0.15	0.00	0.03	0.41	0.07	0.23
36	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Big Bill/PG	L	0.40	0.02	0.01	0.34	0.06	0.19	0.01	0.01	0.26	0.05	0.14	0.02	0.01	0.40	0.07	0.22
37	VA	Huntington Ingalls Incorporated -NN Shipbl	4938811	1	L	0.38	0.03	0.01	0.38	0.07	0.21	0.02	0.00	0.27	0.05	0.15	0.01	0.00	0.18	0.03	0.10
38	NY	KODAK PARK DIVISION	8091511	4	L	0.37	0.01	0.01	0.22	0.04	0.12	0.02	0.01	0.34	0.06	0.19	0.02	0.01	0.37	0.06	0.20
39	OH	DTE St. Bernard, LLC (1431394148)	9301711	2170429	L	0.35	0.02	0.01	0.35	0.06	0.19	0.01	0.01	0.24	0.04	0.13	0.02	0.00	0.26	0.05	0.14
40	OH	The Medical Center Company (131800305	8252111	184509	L	0.34	0.03	0.00	0.34	0.06	0.19	0.01	0.00	0.15	0.03	0.09	0.02	0.00	0.24	0.04	0.13

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Type	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
41	IN	SABIC INNOVATIVE PLASTICS MT. VERNON	7364611	1	L	0.34	0.01	0.00	0.11	0.02	0.06	0.03	0.00	0.34	0.06	0.19	0.02	0.00	0.19	0.03	0.10
42	KY	Century Aluminum Sebree LLC	7352311	SO2ENG	L	0.34	0.01	0.00	0.12	0.02	0.06	0.03	0.00	0.34	0.06	0.19	0.02	0.00	0.21	0.04	0.12
43	IN	ELI LILLY & COMPANY CLINTON LABS	8223611	2	L	0.33	0.02	0.01	0.33	0.06	0.19	0.02	0.01	0.30	0.05	0.17	0.01	0.01	0.21	0.04	0.12
44	TN	EASTMAN CHEMICAL COMPANY	3982311	B3251	L	0.33	0.01	0.01	0.23	0.04	0.13	0.01	0.02	0.33	0.06	0.18	0.01	0.01	0.25	0.04	0.14
45	OH	Fluor-B&W Portsmouth LLC (0666005004)	15485811	146165	L	0.33	0.03	0.00	0.33	0.06	0.18	0.02	0.00	0.26	0.05	0.15	0.02	0.00	0.19	0.03	0.10
46	IN	TATE & LYLE, LAFAYETTE SOUTH (33)	7376411	4	L	0.32	0.02	0.00	0.26	0.05	0.15	0.02	0.01	0.32	0.06	0.18	0.01	0.01	0.22	0.04	0.12
47	OH	Fluor-B&W Portsmouth LLC (0666005004)	15485811	146164	L	0.31	0.03	0.00	0.31	0.05	0.17	0.02	0.00	0.25	0.04	0.14	0.01	0.00	0.18	0.03	0.10
48	PA	APPLETON PAPERS/SPRING MILL	7872711	S18	L	0.29	0.01	0.00	0.11	0.02	0.06	0.03	0.00	0.29	0.05	0.16	0.01	0.00	0.13	0.02	0.07
49	PA	APPLETON PAPERS/SPRING MILL	7872711	S28	L	0.29	0.01	0.00	0.11	0.02	0.06	0.03	0.00	0.29	0.05	0.16	0.01	0.00	0.13	0.02	0.07
50	PA	TEAM TEN/TYRONE PAPER MILL	9248211	S01	L	0.29	0.01	0.00	0.11	0.02	0.06	0.02	0.00	0.29	0.05	0.16	0.01	0.00	0.16	0.03	0.09
51	IN	UNIVERSITY OF NOTRE DAME DU LAC	5552011	2	L	0.28	0.02	0.00	0.23	0.04	0.13	0.02	0.01	0.28	0.05	0.16	0.01	0.01	0.17	0.03	0.10
52	KY	Isp Chemicals Inc.	7365311	0AA	L	0.28	0.01	0.00	0.11	0.02	0.06	0.02	0.00	0.28	0.05	0.15	0.01	0.00	0.16	0.03	0.09
53	IL	Tate & Lyle Ingredients Americas LLC	7793311	292	L	0.27	0.01	0.00	0.09	0.02	0.05	0.02	0.00	0.25	0.04	0.14	0.02	0.00	0.27	0.05	0.15
54	IN	US STEEL GARY WORKS	8192011		S	0.27	0.01	0.01	0.17	0.03	0.09	0.01	0.02	0.27	0.05	0.15	0.00	0.02	0.22	0.04	0.12
55	PA	PHILA ENERGY SOL REF/ PES	6652211		S	0.27	0.00	0.01	0.17	0.03	0.10	0.00	0.02	0.22	0.04	0.12	0.00	0.02	0.27	0.05	0.15
56	MD	Naval Support Facility, Indian Head	6117011	017-0040-3-0006	L	0.27	0.01	0.00	0.19	0.03	0.11	0.02	0.01	0.27	0.05	0.15	0.02	0.01	0.23	0.04	0.13
57	VA	Smurfit Stone Container Corporation - West	4182011	7	L	0.27	0.02	0.00	0.24	0.04	0.13	0.02	0.00	0.27	0.05	0.15	0.01	0.00	0.20	0.04	0.11
58	NY	ALCOA MASSENA OPERATIONS (WEST PLA	7968211	SA398	L	0.26	0.01	0.00	0.10	0.02	0.06	0.01	0.00	0.16	0.03	0.09	0.02	0.00	0.26	0.05	0.14
59	PA	SUNOCO INC (R&M)/MARCUS HOOK REFIN	7873611	S60	L	0.26	0.01	0.00	0.19	0.03	0.11	0.01	0.01	0.26	0.05	0.14	0.01	0.01	0.22	0.04	0.12
60	MI	ESCANABA PAPER COMPANY	8126511	SV0117	L	0.25	0.01	0.01	0.19	0.03	0.11	0.01	0.01	0.25	0.04	0.14	0.01	0.00	0.11	0.02	0.06
61	OH	Kraton Polymers U.S. LLC (0684010011)	8130511	152407	L	0.24	0.02	0.00	0.21	0.04	0.12	0.01	0.00	0.18	0.03	0.10	0.02	0.01	0.24	0.04	0.14
62	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Riley Coal	L	0.24	0.02	0.00	0.21	0.04	0.12	0.01	0.00	0.16	0.03	0.09	0.02	0.01	0.24	0.04	0.14
63	IN	ArcelorMittal Burns Harbor Inc.	7376511		S	0.24	0.01	0.01	0.12	0.02	0.07	0.01	0.01	0.24	0.04	0.13	0.00	0.01	0.13	0.02	0.07
64	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-No. 4 PB	L	0.24	0.02	0.00	0.21	0.04	0.12	0.01	0.00	0.16	0.03	0.09	0.02	0.01	0.24	0.04	0.13
65	OH	Morton Salt, Inc. (0285020059)	7997111	65589	L	0.23	0.02	0.00	0.21	0.04	0.12	0.01	0.00	0.17	0.03	0.10	0.02	0.00	0.23	0.04	0.13
66	IN	ArcelorMittal Burns Harbor Inc.	7376511	34	L	0.23	0.01	0.00	0.13	0.02	0.08	0.01	0.01	0.23	0.04	0.13	0.01	0.01	0.13	0.02	0.07
67	OH	Morton Salt, Inc. (0285020059)	7997111	65590	L	0.23	0.02	0.00	0.21	0.04	0.12	0.01	0.00	0.17	0.03	0.09	0.02	0.00	0.23	0.04	0.13
68	OH	Cargill, Incorporated - Salt Division (Akron,	7416411	250250	L	0.22	0.02	0.00	0.22	0.04	0.12	0.01	0.00	0.13	0.02	0.07	0.02	0.00	0.19	0.03	0.10
69	OH	City of Akron Steam Generating (16770107	8170411	253630	L	0.22	0.02	0.00	0.22	0.04	0.12	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.16	0.03	0.09
70	OH	Kraton Polymers U.S. LLC (0684010011)	8130511	152405	L	0.21	0.01	0.00	0.19	0.03	0.10	0.01	0.00	0.16	0.03	0.09	0.01	0.01	0.21	0.04	0.12
71	IN	Citizens Thermal	4885311	4	L	0.21	0.01	0.01	0.21	0.04	0.12	0.01	0.01	0.18	0.03	0.10	0.01	0.01	0.16	0.03	0.09
72	WV	DUPONT WASHINGTON WORKS	4878911		S	0.21	0.01	0.01	0.19	0.03	0.10	0.01	0.01	0.16	0.03	0.09	0.01	0.01	0.21	0.04	0.12
73	MD	Sparrows Point, LLC	8239711	005-0147-6-0939	L	0.21	0.01	0.00	0.11	0.02	0.06	0.02	0.00	0.21	0.04	0.12	0.01	0.00	0.10	0.02	0.06
74	OH	Youngstown Thermal (0250110024)	7219511		S	0.21	0.02	0.00	0.21	0.04	0.12	0.01	0.00	0.12	0.02	0.07	0.01	0.00	0.16	0.03	0.09
75	MD	Sparrows Point, LLC	8239711	005-0147-6-0941	L	0.20	0.01	0.00	0.15	0.03	0.08	0.01	0.01	0.20	0.04	0.11	0.01	0.00	0.09	0.02	0.05
76	IN	US STEEL GARY WORKS	8192011	0	L	0.20	0.01	0.00	0.13	0.02	0.07	0.01	0.01	0.20	0.03	0.11	0.01	0.00	0.11	0.02	0.06
77	IN	Citizens Thermal	4885311	1	L	0.19	0.01	0.00	0.19	0.03	0.11	0.01	0.00	0.16	0.03	0.09	0.01	0.00	0.14	0.02	0.08
78	PA	APPLETON PAPERS/SPRING MILL	7872711	S09	L	0.17	0.00	0.00	0.06	0.01	0.04	0.01	0.00	0.17	0.03	0.10	0.01	0.00	0.08	0.01	0.05
79	ME	SAPPI - SOMERSET	8200111	1	L	0.17	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.04	0.01	0.02	0.01	0.01	0.17	0.03	0.09
80	IN	ArcelorMittal Burns Harbor Inc.	7376511	14	L	0.17	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.17	0.03	0.09	0.01	0.00	0.10	0.02	0.06

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Type	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
81	PA	USS CORP/EDGAR THOMSON WORKS	7409311		S	0.17	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.17	0.03	0.09	0.01	0.00	0.15	0.03	0.09
82	NY	MORTON SALT DIV	7814711	1	L	0.16	0.01	0.00	0.09	0.02	0.05	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.16	0.03	0.09
83	NJ	Gerresheimer Moulded Glass	12804611		S	0.16	0.00	0.00	0.03	0.01	0.02	0.00	0.01	0.16	0.03	0.09	0.00	0.00	0.07	0.01	0.04
84	IN	INDIANA UNIVERSITY	4553211	3	L	0.15	0.01	0.00	0.10	0.02	0.06	0.01	0.00	0.15	0.03	0.08	0.01	0.00	0.11	0.02	0.06
85	IN	BALL STATE UNIVERSITY	4873211	1	L	0.15	0.01	0.00	0.13	0.02	0.07	0.01	0.00	0.14	0.02	0.08	0.01	0.00	0.15	0.03	0.08
86	IN	BALL STATE UNIVERSITY	4873211	2	L	0.15	0.01	0.00	0.13	0.02	0.07	0.01	0.00	0.14	0.02	0.08	0.01	0.00	0.15	0.03	0.08
87	IN	US STEEL GARY WORKS	8192011	301	L	0.15	0.00	0.00	0.07	0.01	0.04	0.00	0.01	0.15	0.03	0.08	0.00	0.01	0.07	0.01	0.04
88	TN	PACKAGING CORPORATION OF AMERICA	4963011		S	0.14	0.00	0.01	0.11	0.02	0.06	0.00	0.01	0.14	0.03	0.08	0.00	0.00	0.05	0.01	0.03
89	TN	PACKAGING CORPORATION OF AMERICA	4963011	ST1198	L	0.14	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.14	0.03	0.08	0.00	0.00	0.06	0.01	0.04
90	OH	BDM Warren Steel Operations, LLC (02780	8063611	59727	L	0.14	0.01	0.00	0.10	0.02	0.05	0.01	0.00	0.14	0.02	0.08	0.01	0.00	0.14	0.02	0.08
91	MI	St. Marys Cement, Inc. (U.S.)	8160611	SV0011	L	0.13	0.00	0.01	0.13	0.02	0.07	0.00	0.01	0.11	0.02	0.06	0.01	0.00	0.09	0.02	0.05
92	MI	St. Marys Cement, Inc. (U.S.)	8160611	SV0009	L	0.13	0.00	0.01	0.13	0.02	0.07	0.00	0.01	0.10	0.02	0.06	0.00	0.00	0.08	0.01	0.05
93	IN	ArcelorMittal Burns Harbor Inc.	7376511	6	L	0.13	0.00	0.00	0.07	0.01	0.04	0.00	0.01	0.13	0.02	0.07	0.00	0.00	0.04	0.01	0.02
94	IN	ArcelorMittal Burns Harbor Inc.	7376511	7	L	0.13	0.00	0.00	0.07	0.01	0.04	0.00	0.01	0.13	0.02	0.07	0.00	0.00	0.04	0.01	0.02
95	IN	ArcelorMittal Burns Harbor Inc.	7376511	25	L	0.13	0.00	0.00	0.07	0.01	0.04	0.00	0.01	0.13	0.02	0.07	0.00	0.00	0.07	0.01	0.04
96	IN	SABIC INNOVATIVE PLASTICS MT. VERNON	7364611	2	L	0.13	0.00	0.00	0.08	0.01	0.04	0.01	0.01	0.13	0.02	0.07	0.00	0.01	0.10	0.02	0.06
97	IN	INDIANA UNIVERSITY	4553211	2	L	0.13	0.01	0.00	0.09	0.02	0.05	0.01	0.00	0.13	0.02	0.07	0.01	0.00	0.09	0.02	0.05
98	OH	Youngstown Thermal (0250110024)	7219511	56897	L	0.13	0.01	0.00	0.13	0.02	0.07	0.01	0.00	0.08	0.01	0.04	0.01	0.00	0.10	0.02	0.06
99	NY	CARGILL SALT CO- WATKINS GLEN PLANT	8176611	1	L	0.13	0.00	0.00	0.06	0.01	0.03	0.01	0.00	0.13	0.02	0.07	0.01	0.00	0.11	0.02	0.06
100	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Riley Bark	L	0.13	0.01	0.00	0.10	0.02	0.06	0.00	0.00	0.08	0.01	0.04	0.01	0.00	0.13	0.02	0.07
101	NC	KapStone Kraft Paper Corporation	8048011		S	0.12	0.00	0.01	0.12	0.02	0.07	0.00	0.00	0.07	0.01	0.04	0.00	0.00	0.08	0.01	0.04
102	IN	Indiana Harbor East	3986511	134	L	0.12	0.00	0.00	0.07	0.01	0.04	0.00	0.01	0.12	0.02	0.07	0.00	0.00	0.06	0.01	0.04
103	NY	INTERNATIONAL PAPER TICONDEROGA MI	7991711	44	L	0.12	0.00	0.00	0.03	0.01	0.02	0.00	0.00	0.03	0.01	0.02	0.01	0.00	0.12	0.02	0.06
104	VA	Huntington Ingalls Incorporated -NN Shipbl	4938811		S	0.11	0.00	0.00	0.05	0.01	0.03	0.00	0.01	0.11	0.02	0.06	0.00	0.00	0.05	0.01	0.03
105	NY	FINCH PAPER LLC	8325211	12	L	0.11	0.00	0.00	0.03	0.01	0.02	0.00	0.00	0.02	0.00	0.01	0.00	0.01	0.11	0.02	0.06
106	PA	INTL WAXES INC/FARMERS VALLEY	6582111	S02	L	0.10	0.01	0.00	0.08	0.01	0.04	0.01	0.00	0.08	0.01	0.05	0.01	0.00	0.10	0.02	0.06
107	IN	ArcelorMittal Burns Harbor Inc.	7376511	31	L	0.10	0.00	0.00	0.06	0.01	0.03	0.01	0.00	0.10	0.02	0.05	0.00	0.00	0.06	0.01	0.03
108	IN	ArcelorMittal Burns Harbor Inc.	7376511	5	L	0.10	0.01	0.00	0.06	0.01	0.04	0.01	0.00	0.10	0.02	0.05	0.00	0.00	0.06	0.01	0.03
109	NC	DAK Americas LLC	8122511	ES-01	L	0.09	0.01	0.00	0.09	0.02	0.05	0.00	0.00	0.08	0.01	0.04	0.00	0.00	0.05	0.01	0.03
110	NC	DAK Americas LLC	8122511	ES-02	L	0.09	0.01	0.00	0.09	0.02	0.05	0.00	0.00	0.08	0.01	0.04	0.00	0.00	0.05	0.01	0.03
111	IN	ArcelorMittal Burns Harbor Inc.	7376511	8	L	0.09	0.00	0.00	0.06	0.01	0.03	0.01	0.00	0.09	0.02	0.05	0.00	0.00	0.06	0.01	0.03
112	OH	BDM Warren Steel Operations, LLC (02780	8063611		S	0.09	0.00	0.00	0.08	0.01	0.05	0.00	0.00	0.04	0.01	0.02	0.00	0.01	0.09	0.02	0.05
113	TN	Cargill Corn Milling	5723011	8001	L	0.08	0.00	0.00	0.05	0.01	0.03	0.01	0.00	0.08	0.01	0.05	0.00	0.00	0.05	0.01	0.03
114	MI	U S STEEL GREAT LAKES WORKS	8483611	FUG001	L	0.08	0.01	0.00	0.07	0.01	0.04	0.01	0.00	0.08	0.01	0.05	0.00	0.00	0.06	0.01	0.03
115	PA	UNITED REFINING CO/WARREN PLT	4966711	S27	L	0.08	0.00	0.00	0.05	0.01	0.03	0.01	0.00	0.08	0.01	0.05	0.00	0.00	0.05	0.01	0.03
116	IN	ArcelorMittal Burns Harbor Inc.	7376511	4	L	0.08	0.00	0.00	0.05	0.01	0.03	0.01	0.00	0.08	0.01	0.05	0.00	0.00	0.05	0.01	0.03
117	TN	Cargill Corn Milling	5723011	8301	L	0.07	0.00	0.00	0.04	0.01	0.02	0.01	0.00	0.07	0.01	0.04	0.00	0.00	0.04	0.01	0.02
118	PA	AMER REF GROUP/BRADFORD	6532511	S13	L	0.07	0.00	0.00	0.06	0.01	0.04	0.00	0.00	0.06	0.01	0.03	0.01	0.00	0.07	0.01	0.04
119	IN	SABIC INNOVATIVE PLASTICS MT. VERNON	7364611		S	0.06	0.00	0.00	0.03	0.00	0.01	0.01	0.00	0.06	0.01	0.04	0.00	0.00	0.04	0.01	0.02
120	MA	SOLUTIA INCORPORATED	7236411	5	L	0.06	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.03	0.01	0.02	0.00	0.00	0.06	0.01	0.03

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Type	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
121	PA	INTL WAXES INC/FARMERS VALLEY	6582111		S	0.06	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.06	0.01	0.03
122	NY	FINCH PAPER LLC	8325211		S	0.06	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.06	0.01	0.03
123	ME	VERSO PAPER - ANDROSCOGGIN MILL	7764711		S	0.05	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.05	0.01	0.03
124	ME	WOODLAND PULP LLC	5974211		S	0.04	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.03	0.01	0.02	0.00	0.00	0.04	0.01	0.02
125	ME	Madison Paper	5253911		S	0.04	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.04	0.01	0.02
126	ME	SAPPI - SOMERSET	8200111	37	L	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.04	0.01	0.02
127	NH	DARTMOUTH COLLEGE	7199811		S	0.04	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.04	0.01	0.02
128	PA	PPG IND INC/WORKS NO 6	6463511		S	0.03	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.03	0.01	0.02
129	ME	HUHTAMAKI INC - WATERVILLE	5691611		S	0.02	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.02	0.00	0.01
130	ME	FMC BIOPOLYMER	5692011		S	0.02	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.02	0.00	0.01
131	NY	NORLITE CORP	8090911		S	0.02	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.01
132	NJ	Atlantic County Utilities Authority Landfill	8093211		S	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.01	0.00	0.01
133	NH	GORHAM PAPER & TISSUE LLC	7866711		S	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01
134	VA	Philip Morris Usa Inc - Park 500	5795511		S	0.01	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135	ME	THE JACKSON LABORATORY	7945211		S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
136	KY	Century Aluminum Sebree LLC	7352311		S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
137	MA	SOLUTIA INCORPORATED	7236411		S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
138	ME	SAPPI - SOMERSET	8200111		S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

F.32 2011 ICI Ranking Visibility Impairing Sources to Otter Creek

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Large or Small?	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
1	MD	Luke Paper Company	7763811	001-0011-3-0018	L	24.36	**1.50**	0.32	**22.31**	**3.08**	**7.69**	0.99	0.23	**14.79**	**2.14**	**5.70**	**1.53**	0.46	**24.36**	**3.32**	**8.17**
2	MD	Luke Paper Company	7763811	001-0011-3-0019	L	23.89	**1.48**	0.31	**21.90**	**3.03**	**7.59**	0.98	0.22	**14.51**	**2.11**	**5.62**	**1.51**	0.44	**23.89**	**3.26**	**8.06**
3	TN	EASTMAN CHEMICAL COMPANY	3982311	B2531	L	2.94	0.14	0.05	**2.23**	0.36	**1.10**	0.13	0.12	**2.94**	0.46	**1.42**	0.13	0.05	**2.21**	0.35	**1.09**
4	OH	P. H. Glatfelter Company - Chillicothe Facil	8131111	147671	L	2.63	0.15	0.03	**2.21**	0.35	**1.09**	0.19	0.02	**2.46**	0.39	**1.20**	0.20	0.02	**2.63**	0.42	**1.28**
5	MD	Luke Paper Company	7763811	001-0011-6-0235	L	2.52	0.09	0.13	**2.52**	0.40	**1.23**	0.07	0.07	**1.62**	0.26	0.81	0.08	0.08	**1.95**	0.31	0.96
6	PA	USS/CLAIRTON WORKS	8204511		S	2.19	0.03	0.13	**1.87**	0.30	0.93	0.02	0.07	**1.06**	0.17	0.53	0.02	0.16	**2.19**	0.35	**1.08**
7	WV	CAPITOL CEMENT - ESSROC MARTINSBURG	4987611	71	L	1.62	0.03	0.03	0.69	0.11	0.35	0.05	0.08	**1.62**	0.26	0.81	0.04	0.04	0.97	0.16	0.49
8	VA	Roanoke Cement Company	5039811	4	L	1.41	0.03	0.03	0.69	0.11	0.35	0.05	0.07	**1.41**	0.23	0.71	0.03	0.03	0.67	0.11	0.34
9	WV	BAYER CROPSCIENCE	5782411	8	L	1.21	0.04	0.04	0.92	0.15	0.47	0.02	0.08	**1.21**	0.19	0.61	0.04	0.05	**1.07**	0.17	0.54
10	VA	Radford Army Ammunition Plant	5748611	1	L	1.09	0.03	0.03	0.68	0.11	0.35	0.05	0.04	**1.09**	0.17	0.55	0.03	0.03	0.69	0.11	0.35
11	VA	GP Big Island LLC	4183311	1	L	1.04	0.03	0.02	0.56	0.09	0.29	0.05	0.03	**1.04**	0.17	0.53	0.05	0.01	0.74	0.12	0.38
12	MI	U S STEEL GREAT LAKES WORKS	8483611		S	1.02	0.04	0.01	0.66	0.11	0.34	0.06	0.02	**1.02**	0.16	0.52	0.03	0.01	0.46	0.07	0.24
13	NY	LAFARGE BUILDING MATERIALS INC	8105211	43101	L	0.93	0.01	0.01	0.29	0.05	0.15	0.05	0.01	0.73	0.12	0.37	0.05	0.03	0.93	0.15	0.47
14	TN	EASTMAN CHEMICAL COMPANY	3982311	B831	L	0.91	0.06	0.01	0.82	0.13	0.42	0.05	0.02	0.85	0.14	0.43	0.06	0.02	0.91	0.15	0.46
15	PA	PHILA ENERGY SOL REF/ PES	6652211		S	0.78	0.00	0.01	0.19	0.03	0.10	0.01	0.06	0.78	0.13	0.40	0.00	0.02	0.23	0.04	0.12
16	OH	AK Steel Corporation (1409010006)	8008811		S	0.77	0.03	0.04	0.77	0.12	0.39	0.01	0.04	0.64	0.10	0.33	0.02	0.03	0.52	0.08	0.27
17	PA	PPG IND INC/WORKS NO 6	6463511	S01	L	0.73	0.00	0.06	0.73	0.12	0.37	0.00	0.03	0.43	0.07	0.22	0.00	0.02	0.24	0.04	0.13
18	WV	DUPONT WASHINGTON WORKS	4878911	477	L	0.73	0.02	0.03	0.59	0.10	0.30	0.03	0.03	0.73	0.12	0.37	0.02	0.02	0.54	0.09	0.28
19	PA	PPG IND INC/WORKS NO 6	6463511	S02	L	0.70	0.00	0.05	0.70	0.11	0.36	0.00	0.03	0.41	0.07	0.21	0.00	0.02	0.24	0.04	0.12
20	MD	Sparrows Point, LLC	8239711		S	0.65	0.01	0.04	0.65	0.10	0.33	0.01	0.02	0.40	0.06	0.21	0.02	0.03	0.52	0.08	0.27
21	PA	Penn State Univ	3186811	S01	L	0.61	0.02	0.01	0.36	0.06	0.19	0.04	0.01	0.61	0.10	0.31	0.03	0.01	0.50	0.08	0.26
22	IL	Aventine Renewable Energy Inc	8065311	49	L	0.60	0.02	0.01	0.34	0.06	0.18	0.04	0.01	0.60	0.10	0.31	0.03	0.01	0.44	0.07	0.23
23	PA	SUNOCO INC (R&M)/MARCUS HOOK REFIN	7873611	S60	L	0.60	0.01	0.00	0.21	0.03	0.11	0.02	0.03	0.60	0.10	0.31	0.01	0.01	0.19	0.03	0.10
24	NY	KODAK PARK DIVISION	8091511	4	L	0.60	0.01	0.01	0.24	0.04	0.13	0.03	0.02	0.60	0.10	0.31	0.02	0.02	0.49	0.08	0.25
25	IN	ELI LILLY & COMPANY CLINTON LABS	8223611	2	L	0.58	0.03	0.01	0.41	0.07	0.21	0.04	0.01	0.58	0.09	0.29	0.02	0.01	0.35	0.06	0.18
26	IN	ESSROC Cement Corp	8198511	15	L	0.55	0.02	0.01	0.34	0.05	0.17	0.03	0.02	0.55	0.09	0.28	0.02	0.02	0.46	0.07	0.23
27	IN	TATE & LYLE, LAFAYETTE SOUTH (33)	7376411	4	L	0.53	0.03	0.01	0.53	0.09	0.27	0.02	0.01	0.43	0.07	0.22	0.02	0.01	0.33	0.05	0.17
28	IL	Aventine Renewable Energy Inc	8065311	48	L	0.52	0.02	0.00	0.29	0.05	0.15	0.04	0.01	0.52	0.08	0.27	0.03	0.00	0.37	0.06	0.19
29	IN	Indiana Harbor East	3986511		S	0.50	0.01	0.03	0.50	0.08	0.26	0.01	0.03	0.48	0.08	0.25	0.01	0.02	0.38	0.06	0.20
30	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Recovery 10	L	0.50	0.03	0.01	0.41	0.07	0.21	0.02	0.02	0.50	0.08	0.26	0.02	0.01	0.38	0.06	0.20
31	IN	Citizens Thermal	4885311	4	L	0.48	0.03	0.01	0.48	0.08	0.25	0.02	0.01	0.31	0.05	0.16	0.02	0.01	0.27	0.04	0.14
32	TN	EASTMAN CHEMICAL COMPANY	3982311	B3251	L	0.48	0.01	0.01	0.30	0.05	0.15	0.01	0.03	0.48	0.08	0.25	0.01	0.02	0.37	0.06	0.19
33	OH	DTE St. Bernard, LLC (1431394148)	9301711	2170429	L	0.48	0.03	0.01	0.48	0.08	0.24	0.02	0.01	0.27	0.04	0.14	0.01	0.01	0.26	0.04	0.14
34	IN	ArcelorMittal Burns Harbor Inc.	7376511	13	L	0.47	0.01	0.03	0.44	0.07	0.23	0.01	0.03	0.47	0.08	0.24	0.01	0.02	0.36	0.06	0.19
35	IN	US STEEL GARY WORKS	8192011		S	0.45	0.01	0.02	0.32	0.05	0.16	0.01	0.01	0.30	0.05	0.15	0.01	0.03	0.45	0.07	0.23
36	KY	Isp Chemicals Inc.	7365311	0AA	L	0.43	0.01	0.00	0.18	0.03	0.09	0.03	0.00	0.43	0.07	0.22	0.02	0.00	0.25	0.04	0.13
37	IN	Citizens Thermal	4885311	1	L	0.43	0.03	0.01	0.43	0.07	0.22	0.02	0.01	0.26	0.04	0.13	0.02	0.00	0.26	0.04	0.13
38	IL	Tate & Lyle Ingredients Americas LLC	7793311	292	L	0.42	0.01	0.00	0.13	0.02	0.07	0.03	0.00	0.42	0.07	0.21	0.01	0.00	0.15	0.02	0.08
39	WV	DUPONT WASHINGTON WORKS	4878911		S	0.41	0.01	0.01	0.29	0.05	0.15	0.01	0.02	0.41	0.07	0.21	0.01	0.01	0.26	0.04	0.13
40	IN	UNIVERSITY OF NOTRE DAME DU LAC	5552011	2	L	0.41	0.01	0.01	0.25	0.04	0.13	0.02	0.01	0.41	0.07	0.21	0.02	0.01	0.30	0.05	0.15

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Type	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
41	OH	The Medical Center Company (1318003059	8252111	184509	L	0.40	0.03	0.00	0.39	0.06	0.20	0.02	0.00	0.28	0.05	0.15	0.03	0.00	0.40	0.06	0.21
42	OH	Morton Salt, Inc. (0285020059)	7997111	65589	L	0.39	0.03	0.00	0.39	0.06	0.20	0.02	0.00	0.23	0.04	0.12	0.03	0.00	0.36	0.06	0.18
43	OH	Morton Salt, Inc. (0285020059)	7997111	65590	L	0.39	0.03	0.00	0.39	0.06	0.20	0.02	0.00	0.23	0.04	0.12	0.03	0.00	0.36	0.06	0.18
44	PA	USS CORP/EDGAR THOMSON WORKS	7409311		S	0.39	0.02	0.01	0.39	0.06	0.20	0.02	0.01	0.31	0.05	0.16	0.02	0.01	0.30	0.05	0.16
45	OH	Kraton Polymers U.S. LLC (0684010011)	8130511	152407	L	0.38	0.02	0.01	0.30	0.05	0.16	0.02	0.01	0.38	0.06	0.20	0.02	0.01	0.28	0.05	0.15
46	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Big Bill/PG	L	0.35	0.02	0.01	0.27	0.04	0.14	0.02	0.01	0.35	0.06	0.18	0.02	0.01	0.28	0.05	0.15
47	KY	E I Dupont Inc	6096411	1	L	0.34	0.03	0.00	0.34	0.06	0.18	0.03	0.00	0.30	0.05	0.16	0.02	0.00	0.28	0.05	0.14
48	OH	Youngstown Thermal (0250110024)	7219511		S	0.34	0.02	0.01	0.34	0.05	0.17	0.02	0.00	0.23	0.04	0.12	0.01	0.01	0.24	0.04	0.13
49	OH	Kraton Polymers U.S. LLC (0684010011)	8130511	152405	L	0.33	0.01	0.01	0.27	0.04	0.14	0.02	0.01	0.33	0.05	0.17	0.01	0.01	0.25	0.04	0.13
50	IN	ALCOA INC. - WARRICK OPERATIONS	8181811		S	0.33	0.02	0.00	0.23	0.04	0.12	0.02	0.00	0.33	0.05	0.17	0.02	0.00	0.30	0.05	0.16
51	PA	APPLETON PAPERS/SPRING MILL	7872711	S18	L	0.32	0.02	0.00	0.27	0.04	0.14	0.01	0.00	0.18	0.03	0.09	0.02	0.00	0.32	0.05	0.17
52	PA	APPLETON PAPERS/SPRING MILL	7872711	S28	L	0.32	0.02	0.00	0.27	0.04	0.14	0.01	0.00	0.18	0.03	0.09	0.02	0.00	0.32	0.05	0.17
53	OH	Cargill, Incorporated - Salt Division (Akron,	7416411	250250	L	0.31	0.02	0.00	0.31	0.05	0.16	0.02	0.00	0.22	0.03	0.11	0.02	0.00	0.28	0.05	0.15
54	PA	TEAM TEN/TYRONE PAPER MILL	9248211	S01	L	0.31	0.02	0.00	0.22	0.04	0.12	0.01	0.00	0.21	0.03	0.11	0.02	0.01	0.31	0.05	0.16
55	VA	Huntington Ingalls Incorporated -NN Shipbl	4938811	1	L	0.30	0.02	0.00	0.25	0.04	0.13	0.01	0.00	0.20	0.03	0.10	0.02	0.01	0.30	0.05	0.16
56	MD	Naval Support Facility, Indian Head	6117011	017-0040-3-0006	L	0.30	0.02	0.00	0.30	0.05	0.15	0.02	0.00	0.24	0.04	0.12	0.01	0.00	0.13	0.02	0.07
57	IN	BALL STATE UNIVERSITY	4873211	1	L	0.28	0.02	0.00	0.28	0.04	0.14	0.01	0.00	0.18	0.03	0.09	0.02	0.00	0.22	0.04	0.11
58	IN	BALL STATE UNIVERSITY	4873211	2	L	0.28	0.02	0.00	0.28	0.04	0.14	0.01	0.00	0.18	0.03	0.09	0.02	0.00	0.22	0.04	0.11
59	IN	SABIC INNOVATIVE PLASTICS MT. VERNON	7364611	1	L	0.27	0.02	0.00	0.24	0.04	0.13	0.02	0.00	0.23	0.04	0.12	0.02	0.00	0.27	0.04	0.14
60	KY	Century Aluminum Sebree LLC	7352311	SO2ENG	L	0.26	0.02	0.00	0.18	0.03	0.09	0.02	0.00	0.26	0.04	0.14	0.02	0.00	0.26	0.04	0.14
61	NY	ALCOA MASSENA OPERATIONS (WEST PLA	7968211	SA398	L	0.26	0.00	0.00	0.06	0.01	0.03	0.01	0.00	0.12	0.02	0.06	0.02	0.00	0.26	0.04	0.13
62	OH	City of Akron Steam Generating (16770107	8170411	253630	L	0.26	0.02	0.01	0.26	0.04	0.13	0.01	0.00	0.22	0.04	0.11	0.02	0.00	0.24	0.04	0.13
63	IN	ArcelorMittal Burns Harbor Inc.	7376511		S	0.25	0.01	0.01	0.23	0.04	0.12	0.01	0.01	0.25	0.04	0.13	0.01	0.01	0.20	0.03	0.10
64	IN	ArcelorMittal Burns Harbor Inc.	7376511	34	L	0.24	0.01	0.01	0.22	0.04	0.11	0.01	0.01	0.24	0.04	0.13	0.01	0.01	0.20	0.03	0.10
65	MD	Sparrows Point, LLC	8239711	005-0147-6-0941	L	0.24	0.01	0.00	0.14	0.02	0.07	0.01	0.01	0.24	0.04	0.12	0.01	0.00	0.13	0.02	0.07
66	IN	US STEEL GARY WORKS	8192011	0	L	0.23	0.01	0.01	0.23	0.04	0.12	0.01	0.01	0.22	0.04	0.11	0.01	0.01	0.19	0.03	0.10
67	IN	INDIANA UNIVERSITY	4553211	3	L	0.22	0.01	0.00	0.14	0.02	0.07	0.02	0.00	0.22	0.04	0.12	0.01	0.00	0.20	0.03	0.10
68	OH	Fluor-B&W Portsmouth LLC (0666005004)	15485811	146165	L	0.21	0.02	0.00	0.21	0.03	0.11	0.01	0.00	0.21	0.03	0.11	0.01	0.00	0.15	0.02	0.08
69	PA	APPLETON PAPERS/SPRING MILL	7872711	S09	L	0.21	0.01	0.01	0.17	0.03	0.09	0.01	0.00	0.12	0.02	0.06	0.01	0.01	0.21	0.03	0.11
70	PA	KEYSTONE PORTLAND CEMENT/EAST ALLE	6582211	S73	L	0.21	0.01	0.01	0.16	0.03	0.08	0.01	0.01	0.21	0.03	0.11	0.01	0.01	0.20	0.03	0.11
71	OH	Youngstown Thermal (0250110024)	7219511	56897	L	0.21	0.01	0.00	0.21	0.03	0.11	0.01	0.00	0.14	0.02	0.07	0.01	0.00	0.15	0.02	0.08
72	VA	Philip Morris Usa Inc - Park 500	5795511	47	L	0.21	0.01	0.01	0.21	0.03	0.11	0.01	0.01	0.19	0.03	0.10	0.01	0.00	0.16	0.03	0.08
73	IN	INDIANA UNIVERSITY	4553211	2	L	0.20	0.01	0.00	0.12	0.02	0.06	0.01	0.00	0.20	0.03	0.10	0.01	0.00	0.18	0.03	0.09
74	OH	Fluor-B&W Portsmouth LLC (0666005004)	15485811	146164	L	0.20	0.01	0.00	0.20	0.03	0.10	0.01	0.00	0.20	0.03	0.10	0.01	0.00	0.14	0.02	0.07
75	IN	ArcelorMittal Burns Harbor Inc.	7376511	14	L	0.20	0.01	0.00	0.16	0.03	0.08	0.02	0.00	0.20	0.03	0.10	0.01	0.00	0.15	0.02	0.08
76	PA	INTL WAXES INC/FARMERS VALLEY	6582111	S02	L	0.19	0.01	0.00	0.12	0.02	0.06	0.01	0.00	0.19	0.03	0.10	0.01	0.00	0.15	0.02	0.08
77	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Riley Coal	L	0.19	0.01	0.00	0.16	0.03	0.08	0.01	0.01	0.19	0.03	0.10	0.01	0.00	0.16	0.03	0.08
78	TN	PACKAGING CORPORATION OF AMERICA	4963011	ST1198	L	0.19	0.01	0.00	0.10	0.02	0.05	0.01	0.01	0.19	0.03	0.10	0.00	0.00	0.07	0.01	0.04
79	OH	BDM Warren Steel Operations, LLC (02780	8063611	59727	L	0.19	0.01	0.00	0.17	0.03	0.09	0.02	0.00	0.19	0.03	0.10	0.01	0.00	0.16	0.03	0.08
80	MI	ESCANABA PAPER COMPANY	8126511	SV0117	L	0.18	0.01	0.01	0.18	0.03	0.09	0.01	0.01	0.15	0.02	0.08	0.01	0.00	0.10	0.02	0.05

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81	ME	SAPPI - SOMERSET	8200111	1	L	0.18	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.03	0.01	0.02	0.01	0.01	0.18	0.03	0.09
82	TN	PACKAGING CORPORATION OF AMERICA	4963011		S	0.18	0.00	0.00	0.09	0.01	0.05	0.01	0.01	0.18	0.03	0.09	0.00	0.00	0.06	0.01	0.03
83	IN	SABIC INNOVATIVE PLASTICS MT. VERNON	7364611	2	L	0.18	0.00	0.01	0.18	0.03	0.09	0.00	0.01	0.14	0.02	0.07	0.00	0.01	0.14	0.02	0.07
84	PA	HERCULES CEMENT CO LP/STOCKERTOWN	3881611	S03	L	0.17	0.01	0.00	0.14	0.02	0.07	0.01	0.00	0.14	0.02	0.07	0.01	0.00	0.17	0.03	0.09
85	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-No. 4 PB	L	0.17	0.01	0.00	0.17	0.03	0.09	0.01	0.00	0.17	0.03	0.09	0.01	0.00	0.16	0.03	0.08
86	OH	BDM Warren Steel Operations, LLC (02780	8063611		S	0.17	0.01	0.01	0.17	0.03	0.09	0.00	0.01	0.12	0.02	0.06	0.00	0.01	0.15	0.02	0.08
87	IN	US STEEL GARY WORKS	8192011	301	L	0.17	0.00	0.01	0.17	0.03	0.09	0.00	0.01	0.14	0.02	0.07	0.00	0.01	0.13	0.02	0.07
88	NY	CARGILL SALT CO- WATKINS GLEN PLANT	8176611	1	L	0.17	0.00	0.00	0.04	0.01	0.02	0.01	0.00	0.15	0.02	0.08	0.01	0.00	0.17	0.03	0.09
89	VA	Smurfit Stone Container Corporation - West	4182011	7	L	0.16	0.01	0.00	0.16	0.03	0.08	0.01	0.00	0.15	0.02	0.08	0.01	0.00	0.11	0.02	0.06
90	NY	FINCH PAPER LLC	8325211	12	L	0.16	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.06	0.01	0.03	0.00	0.01	0.16	0.03	0.08
91	VA	Smurfit Stone Container Corporation - West	4182011	4	L	0.15	0.00	0.01	0.15	0.02	0.08	0.00	0.01	0.11	0.02	0.06	0.00	0.01	0.08	0.01	0.04
92	NY	MORTON SALT DIV	7814711	1	L	0.15	0.01	0.00	0.15	0.02	0.08	0.01	0.00	0.13	0.02	0.07	0.01	0.00	0.11	0.02	0.06
93	IN	Indiana Harbor East	3986511	134	L	0.15	0.00	0.01	0.15	0.02	0.08	0.00	0.01	0.13	0.02	0.07	0.00	0.01	0.10	0.02	0.05
94	VA	Smurfit Stone Container Corporation - West	4182011	2	L	0.15	0.00	0.01	0.15	0.02	0.08	0.00	0.01	0.11	0.02	0.06	0.00	0.01	0.09	0.01	0.05
95	NY	INTERNATIONAL PAPER TICONDEROGA MI	7991711	44	L	0.14	0.00	0.00	0.02	0.00	0.01	0.01	0.00	0.08	0.01	0.04	0.01	0.00	0.14	0.02	0.07
96	IN	ArcelorMittal Burns Harbor Inc.	7376511	6	L	0.14	0.00	0.01	0.14	0.02	0.07	0.00	0.01	0.13	0.02	0.07	0.00	0.00	0.06	0.01	0.03
97	IN	ArcelorMittal Burns Harbor Inc.	7376511	7	L	0.14	0.00	0.01	0.14	0.02	0.07	0.00	0.01	0.13	0.02	0.07	0.00	0.00	0.06	0.01	0.03
98	IN	ArcelorMittal Burns Harbor Inc.	7376511	25	L	0.14	0.00	0.01	0.14	0.02	0.07	0.00	0.01	0.13	0.02	0.07	0.00	0.01	0.11	0.02	0.06
99	PA	AMER REF GROUP/BRADFORD	6532511	S13	L	0.13	0.01	0.00	0.09	0.01	0.05	0.01	0.00	0.10	0.02	0.05	0.01	0.00	0.13	0.02	0.07
100	MD	Sparrows Point, LLC	8239711	005-0147-6-0939	L	0.12	0.01	0.00	0.08	0.01	0.04	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.12	0.02	0.06
101	MI	St. Marys Cement, Inc. (U.S.)	8160611	SV0011	L	0.12	0.00	0.00	0.11	0.02	0.05	0.00	0.01	0.12	0.02	0.06	0.00	0.00	0.08	0.01	0.04
102	MI	St. Marys Cement, Inc. (U.S.)	8160611	SV0009	L	0.12	0.01	0.00	0.12	0.02	0.06	0.00	0.01	0.10	0.02	0.05	0.00	0.00	0.07	0.01	0.04
103	PA	UNITED REFINING CO/WARREN PLT	4966711	S27	L	0.12	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.06	0.01	0.03	0.01	0.00	0.12	0.02	0.06
104	NC	KapStone Kraft Paper Corporation	8048011	ST-1,2	L	0.12	0.01	0.01	0.12	0.02	0.06	0.00	0.00	0.11	0.02	0.05	0.00	0.00	0.10	0.02	0.05
105	IN	ArcelorMittal Burns Harbor Inc.	7376511	5	L	0.11	0.01	0.00	0.09	0.01	0.05	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.08	0.01	0.04
106	MI	U S STEEL GREAT LAKES WORKS	8483611	FUG001	L	0.11	0.00	0.00	0.08	0.01	0.04	0.01	0.00	0.11	0.02	0.06	0.00	0.00	0.05	0.01	0.02
107	IN	ArcelorMittal Burns Harbor Inc.	7376511	31	L	0.11	0.00	0.00	0.09	0.01	0.05	0.01	0.00	0.11	0.02	0.06	0.00	0.00	0.08	0.01	0.04
108	IN	ArcelorMittal Burns Harbor Inc.	7376511	8	L	0.11	0.01	0.00	0.08	0.01	0.04	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.08	0.01	0.04
109	PA	INTL WAXES INC/FARMERS VALLEY	6582111		S	0.10	0.00	0.00	0.06	0.01	0.03	0.01	0.00	0.10	0.02	0.05	0.01	0.00	0.09	0.01	0.05
110	VA	Smurfit Stone Container Corporation - West	4182011		S	0.10	0.00	0.01	0.10	0.02	0.05	0.00	0.01	0.09	0.01	0.05	0.00	0.01	0.08	0.01	0.04
111	IN	ArcelorMittal Burns Harbor Inc.	7376511	4	L	0.09	0.01	0.00	0.07	0.01	0.04	0.01	0.00	0.09	0.02	0.05	0.01	0.00	0.07	0.01	0.04
112	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Riley Bark	L	0.09	0.01	0.00	0.08	0.01	0.04	0.00	0.00	0.07	0.01	0.04	0.01	0.00	0.09	0.01	0.05
113	TN	Cargill Corn Milling	5723011	8001	L	0.08	0.00	0.00	0.05	0.01	0.03	0.01	0.00	0.08	0.01	0.04	0.01	0.00	0.08	0.01	0.04
114	NY	FINCH PAPER LLC	8325211		S	0.08	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.03	0.00	0.01	0.00	0.01	0.08	0.01	0.04
115	NC	DAK Americas LLC	8122511	ES-01	L	0.08	0.00	0.00	0.03	0.01	0.02	0.01	0.00	0.08	0.01	0.04	0.00	0.00	0.05	0.01	0.02
116	NC	DAK Americas LLC	8122511	ES-02	L	0.08	0.00	0.00	0.03	0.01	0.02	0.01	0.00	0.08	0.01	0.04	0.00	0.00	0.05	0.01	0.02
117	TN	Cargill Corn Milling	5723011	8301	L	0.07	0.00	0.00	0.05	0.01	0.02	0.01	0.00	0.07	0.01	0.04	0.01	0.00	0.07	0.01	0.04
118	MA	SOLUTIA INCORPORATED	7236411	5	L	0.07	0.00	0.00	0.03	0.00	0.02	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.07	0.01	0.03
119	IN	SABIC INNOVATIVE PLASTICS MT. VERNON	7364611		S	0.06	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.06	0.01	0.03
120	ME	VERSO PAPER - ANDROSCOGGIN MILL	7764711		S	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.06	0.01	0.03

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Type	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
121	PA	PPG IND INC/WORKS NO 6	6463511		S	0.05	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.03	0.01	0.02	0.00	0.00	0.02	0.00	0.01
122	VA	Huntington Ingalls Incorporated -NN Shipbl	4938811		S	0.05	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.03	0.00	0.02
123	ME	Madison Paper	5253911		S	0.04	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.04	0.01	0.02
124	NH	DARTMOUTH COLLEGE	7199811		S	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.04	0.01	0.02
125	ME	SAPPI - SOMERSET	8200111	37	L	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.01	0.02
126	NJ	Gerresheimer Moulded Glass	12804611		S	0.03	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.03	0.01	0.02	0.00	0.00	0.03	0.00	0.01
127	NC	KapStone Kraft Paper Corporation	8048011		S	0.03	0.00	0.00	0.03	0.01	0.02	0.00	0.00	0.03	0.00	0.02	0.00	0.00	0.03	0.00	0.02
128	ME	FMC BIOPOLYMER	5692011		S	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.03	0.00	0.01
129	ME	WOODLAND PULP LLC	5974211		S	0.03	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.03	0.00	0.01
130	ME	HUHTAMAKI INC - WATERVILLE	5691611		S	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.02	0.00	0.01
131	NY	NORLITE CORP	8090911		S	0.02	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.02	0.00	0.01
132	NH	GORHAM PAPER & TISSUE LLC	7866711		S	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.01
133	KY	Century Aluminum Sebree LLC	7352311		S	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
134	NJ	Atlantic County Utilities Authority Landfill	8093211		S	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135	VA	Philip Morris Usa Inc - Park 500	5795511		S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
136	ME	THE JACKSON LABORATORY	7945211		S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
137	MA	SOLUTIA INCORPORATED	7236411		S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
138	ME	SAPPI - SOMERSET	8200111		S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

F.33 2011 ICI Ranking Visibility Impairing Sources to Shenandoah

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Large or Small?	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
1	MD	Luke Paper Company	7763811	001-0011-3-0018	L	15.84	0.99	0.21	**13.42**	**2.10**	**5.61**	0.81	0.24	**11.75**	**1.87**	**5.06**	1.00	0.41	**15.84**	**2.44**	**6.35**
2	MD	Luke Paper Company	7763811	001-0011-3-0019	L	15.49	0.98	0.20	**13.17**	**2.07**	**5.53**	0.80	0.23	**11.52**	**1.83**	**4.98**	0.98	0.40	**15.49**	**2.39**	**6.25**
3	OH	P. H. Glatfelter Company - Chillicothe Facil	8131111	147671	L	3.74	0.31	0.02	**3.65**	0.62	**1.86**	0.20	0.03	**2.49**	0.43	**1.31**	0.32	0.02	**3.74**	0.63	**1.90**
4	WV	CAPITOL CEMENT - ESSROC MARTINSBURG	4987611	71	L	2.24	0.06	0.14	**2.24**	0.38	**1.19**	0.04	0.13	**1.91**	0.33	**1.02**	0.03	0.07	**1.18**	0.20	0.64
5	VA	GP Big Island LLC	4183311	1	L	2.11	0.07	0.09	**1.78**	0.31	0.95	0.04	0.06	**1.07**	0.19	0.59	0.06	0.13	**2.11**	0.36	**1.12**
6	MD	Luke Paper Company	7763811	001-0011-6-0235	L	1.82	0.05	0.11	**1.82**	0.31	0.97	0.04	0.10	**1.52**	0.26	0.82	0.04	0.08	**1.39**	0.24	0.75
7	TN	EASTMAN CHEMICAL COMPANY	3982311	B2531	L	1.81	0.13	0.04	**1.81**	0.31	0.97	0.12	0.04	**1.70**	0.29	0.91	0.12	0.04	**1.79**	0.31	0.96
8	MD	Sparrows Point, LLC	8239711		S	1.52	0.03	0.05	0.88	0.15	0.48	0.04	0.09	**1.48**	0.26	0.80	0.05	0.09	**1.52**	0.26	0.82
9	PA	USS/CLAIRTON WORKS	8204511		S	1.20	0.01	0.09	**1.20**	0.21	0.65	0.01	0.07	0.95	0.16	0.52	0.02	0.09	**1.16**	0.20	0.63
10	PA	PHILA ENERGY SOL REF/ PES	6652211		S	0.98	0.00	0.04	0.47	0.08	0.26	0.01	0.08	0.98	0.17	0.54	0.01	0.02	0.35	0.06	0.20
11	MI	U S STEEL GREAT LAKES WORKS	8483611		S	0.94	0.03	0.01	0.47	0.08	0.26	0.06	0.02	0.94	0.16	0.52	0.03	0.01	0.51	0.09	0.28
12	VA	Roanoke Cement Company	5039811	4	L	0.87	0.05	0.03	0.87	0.15	0.48	0.02	0.04	0.71	0.12	0.39	0.04	0.03	0.84	0.15	0.46
13	PA	PPG IND INC/WORKS NO 6	6463511	S01	L	0.87	0.00	0.06	0.70	0.12	0.39	0.01	0.06	0.73	0.13	0.40	0.00	0.07	0.87	0.15	0.48
14	VA	Radford Army Ammunition Plant	5748611	1	L	0.86	0.04	0.02	0.71	0.12	0.39	0.04	0.04	0.86	0.15	0.47	0.03	0.02	0.63	0.11	0.35
15	PA	PPG IND INC/WORKS NO 6	6463511	S02	L	0.84	0.00	0.06	0.67	0.12	0.37	0.01	0.06	0.71	0.12	0.39	0.00	0.07	0.84	0.15	0.46
16	WV	BAYER CROPSCIENCE	5782411	8	L	0.83	0.04	0.03	0.83	0.14	0.45	0.02	0.05	0.76	0.13	0.42	0.02	0.04	0.63	0.11	0.35
17	PA	Penn State Univ	3186811	S01	L	0.81	0.03	0.01	0.40	0.07	0.22	0.05	0.02	0.81	0.14	0.45	0.03	0.02	0.55	0.10	0.30
18	NY	LAFARGE BUILDING MATERIALS INC	8105211	43101	L	0.81	0.02	0.01	0.36	0.06	0.20	0.06	0.02	0.81	0.14	0.44	0.04	0.03	0.69	0.12	0.38
19	TN	EASTMAN CHEMICAL COMPANY	3982311	B831	L	0.76	0.05	0.01	0.68	0.12	0.38	0.05	0.01	0.70	0.12	0.39	0.06	0.01	0.76	0.13	0.42
20	MD	Naval Support Facility, Indian Head	6117011	017-0040-3-0006	L	0.74	0.03	0.02	0.52	0.09	0.29	0.04	0.03	0.74	0.13	0.41	0.03	0.02	0.57	0.10	0.31
21	IL	Aventine Renewable Energy Inc	8065311	49	L	0.69	0.02	0.00	0.21	0.04	0.12	0.06	0.01	0.69	0.12	0.38	0.03	0.00	0.43	0.07	0.24
22	OH	AK Steel Corporation (1409010006)	8008811		S	0.66	0.02	0.03	0.55	0.10	0.30	0.02	0.04	0.66	0.12	0.37	0.02	0.02	0.38	0.07	0.21
23	VA	Smurfit Stone Container Corporation - West	4182011	2	L	0.64	0.00	0.06	0.64	0.11	0.35	0.00	0.04	0.40	0.07	0.22	0.00	0.04	0.44	0.08	0.24
24	PA	SUNOCO INC (R&M)/MARCUS HOOK REFIN	7873611	S60	L	0.61	0.02	0.01	0.31	0.05	0.18	0.03	0.03	0.61	0.11	0.34	0.02	0.01	0.37	0.07	0.21
25	IL	Aventine Renewable Energy Inc	8065311	48	L	0.60	0.01	0.00	0.18	0.03	0.10	0.05	0.01	0.60	0.10	0.33	0.03	0.00	0.36	0.06	0.20
26	IN	Indiana Harbor East	3986511		S	0.57	0.01	0.02	0.31	0.05	0.17	0.02	0.04	0.57	0.10	0.31	0.01	0.01	0.26	0.04	0.14
27	VA	Smurfit Stone Container Corporation - West	4182011		S	0.54	0.00	0.05	0.54	0.09	0.30	0.00	0.03	0.37	0.06	0.21	0.00	0.03	0.38	0.07	0.21
28	WV	DUPONT WASHINGTON WORKS	4878911	477	L	0.54	0.02	0.01	0.43	0.08	0.24	0.02	0.02	0.54	0.09	0.30	0.03	0.02	0.47	0.08	0.26
29	IN	ELI LILLY & COMPANY CLINTON LABS	8223611	2	L	0.52	0.03	0.01	0.36	0.06	0.20	0.04	0.01	0.52	0.09	0.29	0.02	0.01	0.30	0.05	0.17
30	MD	Sparrows Point, LLC	8239711	005-0147-6-0941	L	0.51	0.02	0.01	0.29	0.05	0.16	0.03	0.02	0.51	0.09	0.28	0.01	0.00	0.13	0.02	0.07
31	VA	Philip Morris Usa Inc - Park 500	5795511	47	L	0.51	0.02	0.02	0.51	0.09	0.28	0.02	0.01	0.33	0.06	0.18	0.02	0.01	0.40	0.07	0.23
32	OH	The Medical Center Company (131800305	8252111	184509	L	0.49	0.03	0.00	0.31	0.05	0.18	0.02	0.00	0.21	0.04	0.12	0.04	0.01	0.49	0.09	0.27
33	IN	ArcelorMittal Burns Harbor Inc.	7376511	13	L	0.48	0.01	0.02	0.28	0.05	0.16	0.01	0.03	0.48	0.08	0.27	0.01	0.01	0.25	0.04	0.14
34	VA	Smurfit Stone Container Corporation - West	4182011	4	L	0.48	0.00	0.04	0.48	0.08	0.27	0.00	0.03	0.41	0.07	0.23	0.00	0.03	0.39	0.07	0.22
35	OH	Morton Salt, Inc. (0285020059)	7997111	65589	L	0.48	0.02	0.00	0.23	0.04	0.13	0.02	0.00	0.19	0.03	0.11	0.04	0.00	0.48	0.08	0.27
36	OH	Morton Salt, Inc. (0285020059)	7997111	65590	L	0.48	0.02	0.00	0.22	0.04	0.13	0.02	0.00	0.19	0.03	0.11	0.04	0.00	0.48	0.08	0.26
37	IN	ESSROC Cement Corp	8198511	15	L	0.47	0.02	0.01	0.34	0.06	0.19	0.03	0.01	0.47	0.08	0.26	0.02	0.02	0.45	0.08	0.25
38	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Recovery 10	L	0.47	0.04	0.01	0.47	0.08	0.26	0.02	0.01	0.36	0.06	0.20	0.03	0.01	0.40	0.07	0.22
39	NY	KODAK PARK DIVISION	8091511	4	L	0.45	0.02	0.01	0.27	0.05	0.15	0.02	0.02	0.45	0.08	0.25	0.02	0.01	0.41	0.07	0.23
40	OH	Cargill, Incorporated - Salt Division (Akron,	7416411	250250	L	0.44	0.02	0.00	0.23	0.04	0.13	0.01	0.00	0.18	0.03	0.10	0.04	0.00	0.44	0.08	0.25

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Type	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
41	PA	TEAM TEN/TYRONE PAPER MILL	9248211	S01	L	0.43	0.02	0.00	0.24	0.04	0.13	0.03	0.00	0.43	0.07	0.24	0.02	0.00	0.24	0.04	0.14
42	PA	KEYSTONE PORTLAND CEMENT/EAST ALLE	6582211	S73	L	0.42	0.01	0.02	0.42	0.07	0.23	0.02	0.02	0.42	0.07	0.23	0.01	0.02	0.31	0.05	0.17
43	IN	TATE & LYLE, LAFAYETTE SOUTH (33)	7376411	4	L	0.41	0.03	0.01	0.35	0.06	0.20	0.03	0.01	0.41	0.07	0.23	0.02	0.00	0.30	0.05	0.17
44	VA	Smurfit Stone Container Corporation - West	4182011	7	L	0.39	0.02	0.00	0.29	0.05	0.16	0.03	0.00	0.39	0.07	0.22	0.03	0.00	0.34	0.06	0.19
45	KY	E I Dupont Inc	6096411	1	L	0.38	0.03	0.00	0.28	0.05	0.16	0.03	0.00	0.38	0.07	0.21	0.03	0.00	0.30	0.05	0.17
46	OH	DTE St. Bernard, LLC (1431394148)	9301711	2170429	L	0.37	0.03	0.01	0.37	0.07	0.21	0.02	0.01	0.32	0.06	0.18	0.02	0.01	0.25	0.04	0.14
47	OH	City of Akron Steam Generating (16770107	8170411	253630	L	0.37	0.02	0.00	0.21	0.04	0.12	0.01	0.00	0.16	0.03	0.09	0.03	0.00	0.37	0.06	0.21
48	IN	UNIVERSITY OF NOTRE DAME DU LAC	5552011	2	L	0.37	0.01	0.00	0.19	0.03	0.11	0.02	0.01	0.37	0.06	0.21	0.02	0.00	0.22	0.04	0.12
49	MD	Sparrows Point, LLC	8239711	005-0147-6-0939	L	0.35	0.01	0.01	0.23	0.04	0.13	0.02	0.01	0.31	0.05	0.17	0.02	0.01	0.35	0.06	0.20
50	PA	HERCULES CEMENT CO LP/STOCKERTOWN	3881611	S03	L	0.34	0.02	0.02	0.34	0.06	0.19	0.02	0.01	0.30	0.05	0.17	0.01	0.01	0.28	0.05	0.16
51	IN	US STEEL GARY WORKS	8192011		S	0.34	0.01	0.01	0.20	0.03	0.11	0.01	0.02	0.34	0.06	0.19	0.01	0.02	0.27	0.05	0.15
52	KY	Isp Chemicals Inc.	7365311	0AA	L	0.33	0.01	0.00	0.13	0.02	0.07	0.03	0.00	0.33	0.06	0.18	0.02	0.00	0.20	0.03	0.11
53	PA	APPLETON PAPERS/SPRING MILL	7872711	S18	L	0.33	0.02	0.00	0.25	0.04	0.14	0.03	0.00	0.33	0.06	0.18	0.02	0.00	0.21	0.04	0.12
54	PA	APPLETON PAPERS/SPRING MILL	7872711	S28	L	0.33	0.02	0.00	0.25	0.04	0.14	0.03	0.00	0.33	0.06	0.18	0.02	0.00	0.21	0.04	0.12
55	IN	ALCOA INC. - WARRICK OPERATIONS	8181811		S	0.33	0.01	0.00	0.16	0.03	0.09	0.03	0.00	0.33	0.06	0.18	0.02	0.00	0.23	0.04	0.13
56	NC	KapStone Kraft Paper Corporation	8048011	ST-1,2	L	0.32	0.01	0.01	0.25	0.04	0.14	0.01	0.02	0.32	0.06	0.18	0.01	0.01	0.23	0.04	0.13
57	IN	Citizens Thermal	4885311	4	L	0.32	0.02	0.01	0.25	0.04	0.14	0.02	0.01	0.32	0.06	0.18	0.01	0.01	0.21	0.04	0.12
58	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Big Bill/PG	L	0.30	0.02	0.00	0.30	0.05	0.17	0.01	0.01	0.26	0.05	0.15	0.02	0.01	0.27	0.05	0.15
59	OH	Kraton Polymers U.S. LLC (0684010011)	8130511	152407	L	0.30	0.02	0.00	0.27	0.05	0.15	0.02	0.01	0.30	0.05	0.17	0.02	0.01	0.28	0.05	0.15
60	IN	Citizens Thermal	4885311	1	L	0.27	0.02	0.00	0.23	0.04	0.13	0.02	0.01	0.27	0.05	0.15	0.01	0.00	0.19	0.03	0.11
61	TN	EASTMAN CHEMICAL COMPANY	3982311	B3251	L	0.27	0.01	0.01	0.25	0.04	0.14	0.01	0.01	0.27	0.05	0.15	0.01	0.01	0.26	0.05	0.15
62	WV	DUPONT WASHINGTON WORKS	4878911		S	0.27	0.01	0.01	0.23	0.04	0.13	0.01	0.01	0.27	0.05	0.15	0.01	0.01	0.23	0.04	0.13
63	NY	MORTON SALT DIV	7814711	1	L	0.27	0.01	0.00	0.10	0.02	0.05	0.02	0.00	0.27	0.05	0.15	0.01	0.00	0.13	0.02	0.07
64	OH	Kraton Polymers U.S. LLC (0684010011)	8130511	152405	L	0.26	0.02	0.00	0.23	0.04	0.13	0.02	0.01	0.26	0.05	0.15	0.02	0.00	0.24	0.04	0.13
65	OH	Youngstown Thermal (0250110024)	7219511		S	0.26	0.01	0.00	0.16	0.03	0.09	0.01	0.00	0.14	0.02	0.08	0.02	0.00	0.26	0.05	0.15
66	KY	Century Aluminum Sebree LLC	7352311	SO2ENG	L	0.26	0.01	0.00	0.14	0.02	0.08	0.02	0.00	0.26	0.05	0.14	0.02	0.00	0.21	0.04	0.12
67	MI	ESCANABA PAPER COMPANY	8126511	SV0117	L	0.26	0.01	0.01	0.25	0.04	0.14	0.01	0.01	0.26	0.05	0.14	0.01	0.00	0.11	0.02	0.06
68	IN	ArcelorMittal Burns Harbor Inc.	7376511		S	0.26	0.01	0.01	0.16	0.03	0.09	0.01	0.01	0.26	0.04	0.14	0.01	0.01	0.14	0.02	0.08
69	IL	Tate & Lyle Ingredients Americas LLC	7793311	292	L	0.26	0.01	0.00	0.10	0.02	0.06	0.02	0.00	0.26	0.04	0.14	0.02	0.00	0.20	0.03	0.11
70	OH	Fluor-B&W Portsmouth LLC (0666005004)	15485811	146165	L	0.25	0.02	0.00	0.25	0.04	0.14	0.02	0.00	0.20	0.04	0.11	0.02	0.00	0.20	0.03	0.11
71	IN	ArcelorMittal Burns Harbor Inc.	7376511	34	L	0.25	0.01	0.01	0.17	0.03	0.09	0.01	0.01	0.25	0.04	0.14	0.01	0.00	0.15	0.03	0.08
72	IN	US STEEL GARY WORKS	8192011	0	L	0.25	0.01	0.00	0.16	0.03	0.09	0.01	0.01	0.25	0.04	0.14	0.01	0.00	0.14	0.02	0.08
73	OH	Fluor-B&W Portsmouth LLC (0666005004)	15485811	146164	L	0.24	0.02	0.00	0.24	0.04	0.13	0.01	0.00	0.19	0.03	0.11	0.02	0.00	0.19	0.03	0.10
74	IN	INDIANA UNIVERSITY	4553211	3	L	0.24	0.01	0.00	0.11	0.02	0.06	0.02	0.00	0.24	0.04	0.13	0.01	0.00	0.14	0.03	0.08
75	PA	INTL WAXES INC/FARMERS VALLEY	6582111	S02	L	0.23	0.01	0.00	0.11	0.02	0.06	0.02	0.00	0.23	0.04	0.13	0.01	0.00	0.13	0.02	0.07
76	IN	SABIC INNOVATIVE PLASTICS MT. VERNON	7364611	1	L	0.22	0.01	0.00	0.14	0.02	0.08	0.02	0.00	0.22	0.04	0.12	0.02	0.00	0.20	0.03	0.11
77	VA	Huntington Ingalls Incorporated -NN Shipbl	4938811	1	L	0.22	0.02	0.00	0.22	0.04	0.12	0.01	0.00	0.15	0.03	0.09	0.01	0.00	0.18	0.03	0.10
78	PA	USS CORP/EDGAR THOMSON WORKS	7409311		S	0.21	0.01	0.01	0.21	0.04	0.12	0.01	0.01	0.19	0.03	0.10	0.01	0.01	0.21	0.04	0.12
79	IN	INDIANA UNIVERSITY	4553211	2	L	0.21	0.01	0.00	0.10	0.02	0.05	0.02	0.00	0.21	0.04	0.12	0.01	0.00	0.12	0.02	0.07
80	IN	BALL STATE UNIVERSITY	4873211	1	L	0.21	0.01	0.00	0.13	0.02	0.07	0.02	0.00	0.21	0.04	0.12	0.01	0.00	0.14	0.03	0.08

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Type	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
81	IN	BALL STATE UNIVERSITY	4873211	2	L	0.21	0.01	0.00	0.13	0.02	0.07	0.02	0.00	0.21	0.04	0.12	0.01	0.00	0.14	0.03	0.08
82	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-No. 4 PB	L	0.20	0.02	0.00	0.20	0.03	0.11	0.01	0.00	0.14	0.03	0.08	0.01	0.00	0.16	0.03	0.09
83	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Riley Coal	L	0.20	0.02	0.00	0.20	0.03	0.11	0.01	0.00	0.14	0.02	0.08	0.01	0.00	0.18	0.03	0.10
84	IN	ArcelorMittal Burns Harbor Inc.	7376511	14	L	0.19	0.01	0.00	0.14	0.02	0.08	0.02	0.00	0.19	0.03	0.11	0.01	0.00	0.13	0.02	0.08
85	PA	APPLETON PAPERS/SPRING MILL	7872711	S09	L	0.19	0.01	0.00	0.15	0.03	0.08	0.01	0.00	0.19	0.03	0.11	0.01	0.01	0.16	0.03	0.09
86	TN	PACKAGING CORPORATION OF AMERICA	4963011		S	0.19	0.00	0.00	0.11	0.02	0.06	0.01	0.01	0.19	0.03	0.11	0.00	0.00	0.07	0.01	0.04
87	NY	ALCOA MASSENA OPERATIONS (WEST PLA	7968211	SA398	L	0.19	0.01	0.00	0.08	0.01	0.04	0.02	0.00	0.17	0.03	0.09	0.02	0.00	0.19	0.03	0.10
88	TN	PACKAGING CORPORATION OF AMERICA	4963011	ST1198	L	0.19	0.01	0.00	0.12	0.02	0.07	0.01	0.01	0.19	0.03	0.10	0.00	0.00	0.08	0.01	0.04
89	OH	BDM Warren Steel Operations, LLC (0278	8063611	59727	L	0.18	0.01	0.00	0.13	0.02	0.07	0.01	0.00	0.12	0.02	0.07	0.02	0.00	0.18	0.03	0.10
90	ME	SAPPI - SOMERSET	8200111	1	L	0.18	0.00	0.00	0.03	0.01	0.02	0.00	0.00	0.08	0.01	0.04	0.01	0.01	0.18	0.03	0.10
91	NJ	Gerresheimer Moulded Glass	12804611		S	0.18	0.00	0.00	0.06	0.01	0.03	0.00	0.01	0.18	0.03	0.10	0.00	0.00	0.08	0.01	0.05
92	IN	US STEEL GARY WORKS	8192011	301	L	0.17	0.00	0.01	0.09	0.02	0.05	0.00	0.01	0.17	0.03	0.09	0.00	0.01	0.08	0.01	0.04
93	OH	Youngstown Thermal (0250110024)	7219511	56897	L	0.16	0.01	0.00	0.10	0.02	0.06	0.01	0.00	0.08	0.01	0.05	0.01	0.00	0.16	0.03	0.09
94	PA	AMER REF GROUP/BRADFORD	6532511	S13	L	0.16	0.01	0.00	0.08	0.01	0.04	0.01	0.00	0.16	0.03	0.09	0.01	0.00	0.08	0.01	0.04
95	IN	Indiana Harbor East	3986511	134	L	0.16	0.00	0.00	0.08	0.01	0.05	0.00	0.01	0.16	0.03	0.09	0.00	0.00	0.07	0.01	0.04
96	NY	CARGILL SALT CO- WATKINS GLEN PLANT	8176611	1	L	0.15	0.01	0.00	0.10	0.02	0.06	0.01	0.00	0.15	0.03	0.08	0.01	0.00	0.11	0.02	0.06
97	NY	FINCH PAPER LLC	8325211	12	L	0.15	0.00	0.00	0.06	0.01	0.03	0.00	0.00	0.08	0.01	0.04	0.00	0.01	0.15	0.03	0.08
98	IN	ArcelorMittal Burns Harbor Inc.	7376511	6	L	0.14	0.00	0.00	0.09	0.02	0.05	0.01	0.01	0.14	0.03	0.08	0.00	0.00	0.05	0.01	0.03
99	IN	ArcelorMittal Burns Harbor Inc.	7376511	7	L	0.14	0.00	0.00	0.09	0.02	0.05	0.01	0.01	0.14	0.03	0.08	0.00	0.00	0.05	0.01	0.03
100	IN	ArcelorMittal Burns Harbor Inc.	7376511	25	L	0.14	0.00	0.00	0.09	0.02	0.05	0.01	0.01	0.14	0.03	0.08	0.00	0.00	0.08	0.01	0.04
101	IN	SABIC INNOVATIVE PLASTICS MT. VERNON	7364611	2	L	0.14	0.00	0.01	0.14	0.02	0.08	0.00	0.00	0.10	0.02	0.05	0.00	0.01	0.12	0.02	0.07
102	PA	UNITED REFINING CO/WARREN PLT	4966711	S27	L	0.14	0.00	0.00	0.06	0.01	0.03	0.01	0.00	0.14	0.02	0.08	0.01	0.00	0.06	0.01	0.03
103	VA	Huntington Ingalls Incorporated -NN Shipbl	4938811		S	0.13	0.00	0.01	0.13	0.02	0.08	0.00	0.00	0.07	0.01	0.04	0.00	0.01	0.09	0.02	0.05
104	PA	INTL WAXES INC/FARMERS VALLEY	6582111		S	0.12	0.00	0.00	0.05	0.01	0.03	0.01	0.00	0.12	0.02	0.07	0.00	0.00	0.07	0.01	0.04
105	NC	DAK Americas LLC	8122511	ES-01	L	0.12	0.00	0.00	0.07	0.01	0.04	0.01	0.00	0.12	0.02	0.07	0.00	0.00	0.07	0.01	0.04
106	NC	DAK Americas LLC	8122511	ES-02	L	0.12	0.00	0.00	0.07	0.01	0.04	0.01	0.00	0.12	0.02	0.07	0.00	0.00	0.07	0.01	0.04
107	MI	St. Marys Cement, Inc. (U.S.)	8160611	SV0009	L	0.11	0.01	0.01	0.11	0.02	0.06	0.00	0.00	0.07	0.01	0.04	0.00	0.00	0.08	0.01	0.04
108	MI	U S STEEL GREAT LAKES WORKS	8483611	FUG001	L	0.11	0.00	0.00	0.06	0.01	0.04	0.01	0.00	0.11	0.02	0.06	0.00	0.00	0.06	0.01	0.03
109	MI	St. Marys Cement, Inc. (U.S.)	8160611	SV0011	L	0.11	0.01	0.00	0.11	0.02	0.06	0.00	0.01	0.09	0.02	0.05	0.00	0.00	0.08	0.01	0.05
110	MA	SOLUTIA INCORPORATED	7236411	5	L	0.11	0.00	0.00	0.08	0.01	0.04	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.10	0.02	0.05
111	IN	ArcelorMittal Burns Harbor Inc.	7376511	31	L	0.11	0.01	0.00	0.08	0.01	0.04	0.01	0.00	0.11	0.02	0.06	0.00	0.00	0.07	0.01	0.04
112	NY	INTERNATIONAL PAPER TICONDEROGA MI	7991711	44	L	0.11	0.00	0.00	0.04	0.01	0.02	0.01	0.00	0.08	0.01	0.05	0.01	0.00	0.11	0.02	0.06
113	IN	ArcelorMittal Burns Harbor Inc.	7376511	5	L	0.11	0.01	0.00	0.08	0.01	0.04	0.01	0.00	0.11	0.02	0.06	0.01	0.00	0.07	0.01	0.04
114	OH	BDM Warren Steel Operations, LLC (0278	8063611		S	0.10	0.00	0.00	0.09	0.01	0.05	0.00	0.00	0.07	0.01	0.04	0.01	0.00	0.10	0.02	0.06
115	IN	ArcelorMittal Burns Harbor Inc.	7376511	8	L	0.10	0.01	0.00	0.07	0.01	0.04	0.01	0.00	0.10	0.02	0.06	0.01	0.00	0.07	0.01	0.04
116	TN	Cargill Corn Milling	5723011	8001	L	0.10	0.00	0.00	0.05	0.01	0.03	0.01	0.00	0.10	0.02	0.05	0.01	0.00	0.06	0.01	0.04
117	NC	Blue Ridge Paper Products - Canton Mill	7920511	EP-Riley Bark	L	0.10	0.01	0.00	0.10	0.02	0.05	0.00	0.00	0.07	0.01	0.04	0.01	0.00	0.09	0.02	0.05
118	IN	ArcelorMittal Burns Harbor Inc.	7376511	4	L	0.09	0.01	0.00	0.07	0.01	0.04	0.01	0.00	0.09	0.02	0.05	0.01	0.00	0.06	0.01	0.04
119	NC	KapStone Kraft Paper Corporation	8048011		S	0.09	0.00	0.00	0.07	0.01	0.04	0.00	0.00	0.09	0.02	0.05	0.00	0.00	0.06	0.01	0.03
120	TN	Cargill Corn Milling	5723011	8301	L	0.09	0.00	0.00	0.04	0.01	0.02	0.01	0.00	0.09	0.01	0.05	0.00	0.00	0.06	0.01	0.03

	Facility Info						2002 Meteorology					2011 Meteorology					2015 Meteorology				
Rank	State	Facility Name	Facility/ ORIS ID	Unit IDs	Type	Maximum Extinction (Mm-1)	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV	24-hr Max SO4 Ion (µg/m3)	24-hr Max NO3 Ion (µg/m3)	Est Extinction (Mm-1)	20% Worst 24-hr Max ΔDV	20% Best 24-hr Max ΔDV
121	NY	FINCH PAPER LLC	8325211		S	0.08	0.00	0.00	0.03	0.01	0.02	0.00	0.00	0.03	0.01	0.02	0.00	0.01	0.08	0.01	0.04
122	ME	WOODLAND PULP LLC	5974211		S	0.07	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.03	0.01	0.02	0.00	0.00	0.07	0.01	0.04
123	PA	PPG IND INC/WORKS NO 6	6463511		S	0.06	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.06	0.01	0.03	0.00	0.01	0.06	0.01	0.04
124	ME	VERSO PAPER - ANDROSCOGGIN MILL	7764711		S	0.05	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.05	0.01	0.03
125	IN	SABIC INNOVATIVE PLASTICS MT. VERNON	7364611		S	0.05	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.05	0.01	0.03	0.00	0.00	0.05	0.01	0.03
126	ME	Madison Paper	5253911		S	0.05	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.05	0.01	0.03
127	ME	SAPPI - SOMERSET	8200111	37	L	0.05	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.05	0.01	0.03
128	ME	FMC BIOPOLYMER	5692011		S	0.04	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.04	0.01	0.02
129	NH	DARTMOUTH COLLEGE	7199811		S	0.04	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.04	0.01	0.02	0.00	0.00	0.04	0.01	0.02
130	ME	HUHTAMAKI INC - WATERVILLE	5691611		S	0.03	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.03	0.00	0.01
131	NY	NORLITE CORP	8090911		S	0.02	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.02	0.00	0.01
132	NJ	Atlantic County Utilities Authority Landfill	8093211		S	0.02	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.01	0.00	0.01
133	NH	GORHAM PAPER & TISSUE LLC	7866711		S	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.01	0.00	0.01
134	VA	Philip Morris Usa Inc - Park 500	5795511		S	0.01	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.01
135	ME	THE JACKSON LABORATORY	7945211		S	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
136	KY	Century Aluminum Sebree LLC	7352311		S	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
137	MA	SOLUTIA INCORPORATED	7236411		S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
138	ME	SAPPI - SOMERSET	8200111		S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

(Return to Section 4.0 Mane-VU Modeling Results)