

The State of New Hampshire

Department of Environmental Services

Thomas S. Burack, Commissioner



Celebrating 25 years of protecting New Hampshire's environment.

August 1, 2012

H. Curtis Spalding, Regional Administrator U.S. Environmental Protection Agency – Region 1 5 Post Office Square - Suite 100 Boston, MA 02109-3912

Re: Manchester and Nashua Carbon Monoxide Limited Maintenance Plan

Dear Administrator Spalding:

On February 2, 1999, the New Hampshire Department of Environmental Services (the Department) submitted a request to redesignate the City of Manchester (Manchester) and the City of Nashua (Nashua) from carbon monoxide (CO) nonattainment, to CO attainment areas. The Department provided a CO maintenance plan for both cities and, on January 29, 2001, Manchester and Nashua were redesignated as attainment areas (65 FR 71060).

As part of the Manchester and Nashua 1999 CO maintenance plans, the Department committed to monitoring CO in Manchester and Nashua for the duration of the plans. However, over time the CO levels in downtown Manchester and Nashua had decreased to the point that a future exceedance of the federal standards for CO was then, and now remains, highly unlikely. Accordingly, the Department amended the City of Nashua CO maintenance plan to discontinue monitoring CO in Nashua, relying on CO monitoring in nearby Manchester. The amendment was approved on September 10, 2007 (72 FR 51564).

In addition to the downward CO trend shown by monitoring data, the state has performed mobile source modeling and conformity analyses indicating CO levels in Manchester and Nashua will not even reach half of the CO conformity budget as far into the future as 2035, well beyond the end of the maintenance plan. Therefore, the Department is submitting a CO Maintenance Plan for Manchester and Nashua utilizing the "Limited Maintenance Plan Option." Under this plan, DES would discontinue CO monitoring in Manchester, instead utilizing a CO monitoring station in Londonderry, mid-way between Manchester and Nashua.

Under this CO Limited Maintenance Plan, New Hampshire will continue to implement the strategies that have helped reduce CO in Manchester and Nashua. These include:

• Vehicle Inspection/Maintenance (I/M) - New Hampshire recently awarded a 5-year contract to continue the On Board Diagnostics (OBD II) program initiated in 2005. Although federal regulations (40 CFR 51.350) required New Hampshire to implement an I/M program with tailpipe emissions testing, New Hampshire's program of anti-tampering inspections for pre-1996 vehicles less than 20 years old and an OBD II

inspection on all model year 1996 and newer statewide has provided superior environmental benefits to expensive and onerous tailpipe testing. New Hampshire will continue its EPA-approved OBD II program as a SIP strengthening measure.

- Vehicle Miles Travelled reductions Reducing vehicle use, traffic congestion, and their associated emissions, are key state and local transportation objectives. New Hampshire's Statewide Transportation Improvement Program (STIP), in coordination with Metropolitan Planning Organization (MPO) Transportation Improvement Programs (TIP) will continue to implement congestion and emissions reduction programs such as traffic signal coordination, increased mass transit, RideShare, antiidling and other traffic mitigation measures.
- Low Emissions Vehicles Standards New Hampshire continues to enjoy the benefits of the Federal Tier 1 and Tier II emissions standards that include reduced CO emissions. In keeping with President Obama's 2009 national fuel economy and emissions policy, the Department and local MPOs are actively promoting low emissions vehicles as part of STIP and TIP emissions reductions strategies.

Enclosed is the Carbon Monoxide Limited Maintenance Plan for the City of Manchester and the City of Nashua Carbon Monoxide Maintenance Area. An electronic version of this submittal, which is an exact duplicate of the paper version, is also enclosed on a disk. As Governor John Lynch's designee, I am requesting EPA's prompt approval of this SIP revision. Please contact Paul Lockwood of my staff at (603) 271-5552 or paul.lockwood@des.nh.gov if you have any questions.

Sincerely,

Craig A. Wright
Acting Director

Air Resources Division

Enclosures

ec: Anne Arnold, EPA Donald Cooke, EPA

STATE OF NEW HAMPSHIRE

STATE IMPLEMENTATION PLAN REVISION

CARBON MONOXIDE LIMITED MAINTENANCE PLAN for the THE CITY OF MANCHESTER AND THE CITY OF NASHUA CARBON MONOXIDE MAINTENANCE AREAS

August 1, 2012



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1. Introduction

The City of Manchester (Manchester) and the City of Nashua (Nashua) were designated nonattainment by the U.S. Environmental Protection Agency (EPA) for carbon monoxide (CO) in 1980 (45 FR 24869 and 48 FR 29479, respectively). The National Ambient Air Quality Standard (NAAQS) for CO is 9.0 parts per million (ppm) for an 8-hour average concentration and 35 ppm for a 1-hour concentration, not to be exceeded more than once per calendar year. In 1991, following passage of the Clean Air Act Amendments of 1990 (CAA), both cities were classified "nonattainment" and "not classified" (56 FR 56694) although ambient monitoring showed NAAQS attainment had been achieved by that time. In February 1999, the State of New Hampshire submitted a formal CO redesignation request as part of a CO Maintenance Plan for Manchester and Nashua and, effective January 29, 2001, EPA redesignated Manchester (65 FR 71078) and Nashua (65 FR 71078) from CO nonattainment, to CO attainment and approved New Hampshire's CO Maintenance Plan.

Significant progress continues to be made in reducing CO levels across the northeast including the Manchester and Nashua areas. Dramatic reductions in CO levels from more fuel-efficient and cleaner operating vehicles, improved (OBD II) vehicle diagnostic equipment and cleaner burning fuels have cut CO emissions despite growth. No violations of the CO NAAQS have been recorded in the Manchester or Nashua areas since 1986 and the highest level of CO in either town in the last three years has been less than one half of the CO NAAQS. In addition to the downward trend shown by the monitoring data, the state has performed mobile source modeling and conformity analyses that indicate winter CO emissions in Manchester and Nashua will not reach even half of the CO Conformity Budget as far into the future as 2035, well beyond the end of the maintenance plan.

Section 175A of the CAA requires a demonstration of continued attainment for at least ten years following EPA's redesignation to attainment. Eight years after the redesignation, a state must submit a revised maintenance plan demonstrating attainment for the ten years following the initial ten-year period. Although New Hampshire's 1999 redesignation submittal was developed as a 20-year maintenance plan starting with the CO redesignation effective date, the New Hampshire Department of Environmental Services (DES) is submitting this State Implementation Plan (SIP) revision under the limited maintenance plan option as described in an October 6, 1995, U.S. EPA guidance memorandum ("Option Memo") (Attachment 1). This maintenance plan is being submitted to cover the second 10-year maintenance period starting January 29, 2011 and running through January 29, 2021.

2. Background

The cities of Manchester and Nashua were designated CO nonattainment areas on April 11, 1980. Pursuant to Section 107(d)(1)(C) of the CAA, the cities retained their designation of nonattainment for CO under the law even though that at the same time, the cities were

¹ Memorandum: "Limited Maintenance Plan Option for Nonclassifiable CO Nonattainment Areas"; Joseph W. Paisie, Group Leader; Integrated Policy and Strategies Group; October 6, 1995

classified as "not classified" since ambient monitoring data for the areas showed attainment of the CO NAAQS. In 1987, the State of New Hampshire initiated a basic CO Inspection/Maintenance (I/M) program in Nashua and 11 surrounding towns. That program was designed to cease operating on January 1, 1995, at which time the State legislature allowed it to end. On February 1, 1999, DES submitted a revision to the SIP to remove the Nashua I/M program. That program was replaced with controls consisting of the existing federal Tier 1 emission standards for new vehicles and the federal reformulated gasoline program. Because the Manchester and Nashua areas were "not classified" under Section 172, the CAA set forth the applicable requirements for nonattainment areas. The CAA required such an area to achieve the standard by November 15, 1995, and both cities have fulfilled this requirement.

On February 2, 1999, DES submitted a request to redesignate the cities of Manchester and Nashua from CO nonattainment areas to CO attainment areas. EPA approved the redesignation in November, 2000 (65 FR 71060). As part of the redesignation request, the State submitted a maintenance plan as required by 175A of the Clean Air Act, as amended in 1990. Elements of the Section 175A maintenance plan included a base year (1990 attainment year) emission inventory for CO, a demonstration of NAAQS maintenance, a plan to verify continued attainment, a contingency plan and an obligation to submit additional information acknowledging that the maintenance plan would remain in effect through the year 2020, as required by the CAA. The redesignation request established a Manchester motor vehicle emissions budget of 55.83 tons per day and a Nashua motor vehicles CO emission budget of 60.13 tons per day to be used in determining transportation conformity in the Manchester and Nashua areas.

On May 30, 2007, DES submitted a modification of the approved Nashua maintenance plan, discontinuing CO monitoring in Nashua, which was approved by EPA on September 10, 2007 (72 FR 51564). Under that modification, DES agreed to continue to collect and review CO monitoring data from nearby Manchester. In the event monitoring data showed CO levels in Manchester reached 75% of the federal 1-hour or 8-hour NAAQS CO limit, an operating monitoring site in Nashua would be re-established and DES would resume analyzing and reporting monitoring data. New Hampshire is now proposing to discontinue CO monitoring in Manchester and to rely instead on the monitoring station in nearby Londonderry.

3. Limited Maintenance Plan Option

On October 6, 1995, EPA published the Joseph W. Paisie Limited Maintenance Plan Option Memo. Based on that guidance, the core elements of a Limited Maintenance Plan are:

- Attainment inventory identifying the levels of emissions in an area;
- Maintenance Demonstration showing that design values do not exceed 85% of the NAAQS;
- Monitoring to verify continued eligibility;

- Contingency Plan identifying measures to be adopted in the event of a NAAQS violation; and
- Conformity Determination discussion.

3.1 Attainment Inventory

Regarding the attainment inventory, the Option Memo notes that "[t]he State should develop an attainment emissions inventory to identify a level of emissions in the area which is sufficient to attain the NAAQS. This inventory should be consistent with EPA's most recent guidance on emissions inventories for nonattainment areas available at the time and should represent emissions during the time period associated with the monitoring data showing attainment. The inventory should be based on actual 'typical winter day' emissions of CO." To this end, DES has prepared an attainment inventory for year 2008 for Hillsborough County which encompasses the cities of Manchester and Nashua.

The 2008 attainment inventory is subdivided into the following general emissions categories:

- *Point Sources*, which represent discrete facilities. These sources usually must meet certain emission criteria to be included as point sources and generally represent larger facilities.
- Area Sources, which represent facilities and activities too numerous and widespread to be inventoried individually but which collectively may account for significant emissions.
- Non-Road Mobile Sources, including aircraft, locomotives, commercial marine vessels, construction vehicles, lawn & garden equipment, and other mobile vehicles and equipment that are not meant to be operated on roadways.
- On-Road Mobile Sources, including cars, trucks, buses, motorcycles, and other vehicles that operate on public roadways.

The methodologies used in preparing the 2008 emissions estimates are summarized in the following paragraphs.

For **point sources**, affected facilities in New Hampshire are required to report their emissions on an annual basis. The reporting requirements for these facilities are provided under New Hampshire's air regulations, its state air permitting program, and the Air Emissions Reporting Requirement. Data submitted by these facilities are extensively cross-checked and quality assured by DES staff before eventual submittal to EPA. The point source data contained in New Hampshire's 2008 attainment inventory originated from the quality-assured 2008 data from all reporting point sources in Hillsborough County.

The methodologies used to estimate emissions for area source categories come primarily from EPA's Emissions Inventory Improvement Program (EIIP). Calculations for many area source categories are based on variables such as population, employment, and fuel consumption data. Descriptions of the methodologies for specific area source categories can be found in EIIP Volume 3, *Area Sources*, which is available at EPA's Clearinghouse for Inventories and Emissions Factors website at http://www.epa.gov/ttn/chief/eiip/techreport/volume03/index.html. Seasonal adjustment factors from Table 1.4-3 of EIIP Volume III were used to derive winter season day estimates for the applicable source categories (e.g. residential heating).

For the **non-road mobile** category, DES used EPA's NONROAD2008a model to estimate 2008 emissions for those equipment types that are included in the model. The NONROAD model was run for a winter season day. For commercial aircraft and airport ground service equipment, the Federal Aviation Agency's (FAA's) Emissions & Dispersion Modeling System (EDMS) was used. Standardized methodologies and references were employed for equipment types not included in the EDMS or NONROAD models (e.g., locomotives and commercial marine vessels).

For on-road mobile sources, DES used MOVES2010a with VMT and other road related data provided by the relevant metropolitan planning organizations (MPOs) as well as vehicle population data obtained from the New Hampshire Department of Safety, Division of Motor Vehicles.

Estimated winter day CO emissions for the 2008 attainment inventory are shown in Table 1.

Table 1 - Winter Day CO Emissions for Hillsborough County, 2008

Category	CO emissions (tons	per winter day)
Point	0.6*	
Area	37.1	
Non-Road Mobile	40.0	
On-Road Mobile	165	
Total	242.7	

^{*}Estimated tons per average day

On-Road Mobile emissions generated using MOVES2010a

Tables 2 and 3 illustrate annual CO emissions in the Manchester and Nashua area (Hillsborough County) and statewide. As Table 2 demonstrates, the total 2008 Hillsborough County emissions from all sources are estimated to be 77,311 tons with all mobile sources estimated to contribute 40,576 tons or 52% of the total.

Table 2 - CO Emissions for Hillsborough County, 1999 - 2008

	CO emissions (tons per year)				
Category	1999	2002	2005	2008	
Point	184	143	191	92	
Area	12,822	12,864	13,210	13,384	
Non-Road Mobile	32,162	29,216	26,776	23,259	
On-Road Mobile	92,831	58,379	58,666	40,576	
Total	137,999	100,602	98,841	77,311	

Sources of Data

1999 and 2002: National Emissions Inventory data from EPA's Air Data website.

2005: 2005 National Emissions Inventory, Version 2 downloaded from EPA's CHIEF website.

2008: 2008 National Emissions Inventory, Version 1.5 downloaded from EPA's EIS Gateway.

Table 3 - CO Emissions for New Hampshire, 1999 - 2008

		CO emission	s (tons per year)	
Category	1999	2002	2005	2008
Point	4,923	2,724	4,754	3,357
Area	78,133	74,099	73,706	47,798
Non-Road Mobile	123,530	124,801	119,322	104,887
On-Road Mobile	345,413	294,533	236,990	174,154
Total	552,000	496,157	434,772	330,196

Sources of Data

1999 and 2002: National Emissions Inventory data from EPA's Air Data website.

2005: 2005 National Emissions Inventory, Version 2 downloaded from EPA's CHIEF website.

2008: 2008 National Emissions Inventory, Version 1.5 downloaded from EPA's EIS Gateway.

From 1999 to 2008, CO mobile source emissions declined by 49% in Hillsborough County and by 22%, statewide. Monitored levels of CO have continued to decrease over the last decade and the modeled emissions of CO from on-road sources mirror this downward trend. The availability of cleaner cars through the Federal Motor Vehicle Control Program, together with the addition of local transportation controls such as New Hampshire's Inspection & Maintenance Program, including an annual On-Board Diagnostics inspection, have resulted in decreased emissions and, hence, lower CO concentrations.

3.2. Demonstration of Continued Attainment

According to the Option Memo, "[t]he maintenance demonstration requirement is considered to be satisfied if the monitoring data show that the area is meeting the air quality criteria for limited maintenance areas (7.65 ppm or 85% of the CO NAAQS). There is no requirement to project emissions over the maintenance period. EPA believes if the area

begins the maintenance period at or below 85 percent of exceedance levels, the air quality along with the continued applicability of PSD requirements, any control measures already in the SIP, and Federal measures, should provide adequate assurance of maintenance over the initial 10-year maintenance period.

When EPA approves a limited maintenance plan, EPA is concluding that an emissions budget may be treated as essentially not constraining for the length of the maintenance period because it is unreasonable to expect that such an area will experience so much growth in that period that a violation of the CO NAAQS would result." DES interprets this to mean that such an area is no longer required to demonstrate conformity to a CO motor vehicle emissions budget.

To qualify for the limited maintenance plan option, the CO Design Value for the area must be at or below 7.65 ppm (85% of the NAAQS 8-hour level of 9 ppm), based on at least 8 consecutive quarters (2 years) of data used to demonstrate attainment. Observation of the second highest 8-hour concentration is also an indicator of the area's proximity to violating the standard.

2000 to 2010 1-hour and 8-hour Design Values and 1-hour and 8-hour second highest CO concentrations for Manchester and Nashua are summarized in Tables 4 and 5. The annual 1-hour and 8-hour second highest concentrations are represented graphically in Figures 1 and 2. In all cases, the design values and second highest concentrations are significantly less than the 7.65 ppm threshold specified in EPA guidance, thus making each area eligible for the limited maintenance plan option.

Table 4 - 1-hour and 8-hour Design Values by year (Manchester and Nashua)*

		Mancl	Nashua			
	Brid	ge St	Pearl St		Main St	
Year	1-hr	8-hr	1-hr	8-hr	1-hr	8-hr
2000						•
2001	7.1	3.6			. 8	4.1
2002		7	3.7	2	6.5	4
2003			4.8	3.4	6.2	4
2004			4.8	3.4	6.2	4
2005			2.8	1.8	6.1	3.2
2006			8.1	3	9.1	3.2
2007			8.1	3	9.1	2.4
2008			6	3.5		
2009			6	3.5		
2010			3.2	2.4		

^{*} Note: Because CO Design Values are based on the higher value between one year and the previous year, there is no design value for 2000, the first year in which data was recorded.

Table 5 - 1-hour and 8-hour 2nd high concentrations by year (Manchester and Nashua)

		Manchester			Nas	shua	
	Brid	Bridge St		Pearl St		Main St	
Year	1-hr	8-hr	1-hr	8-hr	1-hr	8-hr	
2000	7.1	3.6			8	4.1	
2001	4.6	3.1			6.5	4	
2002			3.7	2	5.9	3.7	
2003		80.	4.8	3.4	6.2	4	
2004			2.2	1.4	4.3	2.8	
2005			2.8	1.8	6.1	3.2	
2006			8.1	3	9.1	2.4	
2007			2.6	1.8	3.7	2.2	
2008			6	3.5			
2009			3.2	2			
2010			3.1	2.4			

Figure 1 - Annual 1-Hour 2nd Highest Concentrations - 2000 - 2010

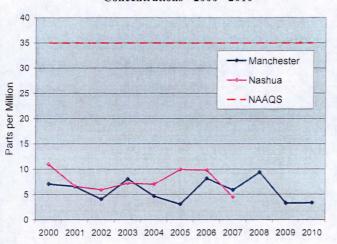
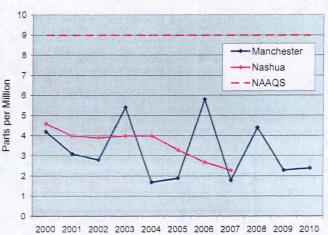


Figure 2 - Annual 8-Hour 2nd Highest Concentrations - 2000 - 2010



3.3. Monitoring Network/Verification of Continued Attainment

With respect to monitoring, the Option Memo reads: "To verify the attainment status of the area over the maintenance period, the maintenance plan should contain provisions for continued operation of an appropriate, EPA-approved air quality monitoring network, in accordance with 40 CFR 58. This is particularly important for areas using a limited maintenance plan, because there will be no cap on emissions."

As part of this Limited CO Maintenance Plan, New Hampshire is proposing to discontinue monitoring CO at its Manchester site. In lieu of operating that site, DES plans to track CO using data collected from the following sources:

- 1. CO monitoring will continue year-round at the Londonderry Moose Hill station in Londonderry. The Londonderry Moose Hill Station came online on January 1, 2011 as an NCore² superstation measuring a wide variety of pollutants. DES worked closely with EPA to carefully select this site due to its central proximity to Manchester and Nashua. The Londonderry station measures PM 2.5 (continuous and filter-based) Nitrogen Oxides, Ozone, Sulfur Dioxide (trace) and Carbon Monoxide (trace) as well as wind speed, wind direction and relative humidity.
- 2. New Hampshire's emissions inventory tabulates CO emissions from point, area and mobile sources. As demonstrated earlier (see Table 1), New Hampshire has been in attainment for CO since 1999 and the vast preponderance of NH CO emissions are from mobile sources. New Hampshire will continue to provide a multi-source inventory every 3 years that will be used for identifying CO mobile source emissions trends within the state.

A review of over 8,600 hourly samples taken since the Londonderry station came online shows 1-hour CO levels varying from 0.0 ppm to a high of 2.65 ppm at 2:00 AM on January 11, 2011. Because design values are based on two years of data, and the Londonderry station has been operating for only 15 months, it is not yet possible to calculate the maximum and second maximum 8-hour design values over two years as protocol requires. Using 15 months of values averaged over 8-hour non-overlappping periods, the maximum 8-hour highest and 2nd highest CO Design Values, are 1.77 and 1.23 ppm, respectively. Similar to the Nashua and Manchester station results, these levels are well below the CO NAAQS. The relatively short period of Londonderry station operation, however, makes it impossible to determine if there is a general downward trend in CO levels, as demonstrated by 10 years of data from the Nashua and Manchester stations.

Should the present downward trend of mobile source CO emissions reverse, and in the event the second-highest CO concentration in any calendar year monitored in Londonderry reaches 50 percent of either the federal 1-hour or 8-hour NAAQS for CO, New Hampshire will, within six months, reestablish a CO monitoring site in Manchester consistent with EPA siting criteria and resume analyzing and reporting those data. New Hampshire commits to implement its contingency program in Nashua in the event that a CO violation is monitored at the re-established Nashua monitoring site at any time during the

² One of the most significant changes in the EPA air monitoring regulations was the requirement to establish National Core (NCore) multi-pollutant monitoring stations. These stations will provide data on several pollutants at lower detection limits and replace the National Air Monitoring Station (NAMS) networks that have existed for several years.

maintenance period. If the Manchester CO monitor measures a violation of the either the federal 1-hour or 8-hour NAAQS for CO, contingency measures will be implemented in Nashua as well, until a re-established CO monitor in Nashua shows that the area is in attainment of the CO standard.

3.4. Contingency Plan

According to the Option Memo, "Section 175A of the CAA requires that a maintenance plan include contingency provisions, as necessary, to promptly correct any violation of the NAAQS that occurs after redesignation of the area. These contingency measures do not have to be fully adopted at the time of redesignation. However, the contingency plan is considered to be an enforceable part of the SIP and should ensure that the contingency measures are adopted expeditiously once they are triggered by a specified event. The contingency plan should identify the measures to be promptly adopted and provide a schedule and procedure for adoption and implementation of the measures. The State should also identify specific indicators, or triggers, that will be used to determine when the contingency measures need to be implemented. While an exceedance of the NAAQS is an acceptable trigger, States may wish to choose a pre-exceedance action level as a trigger. By taking early action, a State may be able to prevent any actual violation of the NAAQS and, therefore, eliminate any need on the part of EPA to redesignate an area back to nonattainment."

DES believes that specific contingency measures are not needed at the present time, since the current CO levels are so far below the NAAQS, and since emissions from mobile sources, the dominant source of CO in the State and Manchester and Nashua regions, are decreasing in spite of increasing population. As mentioned, previously implemented contingency measures and emissions reductions strategies have proven successful, and these will be continued through the maintenance period. These include:

- Vehicle Inspection/Maintenance (I/M) Although federal regulations (40 CFR 51.350) required New Hampshire to implement an I/M program with tailpipe emissions testing, New Hampshire's program of anti-tampering inspections for pre-1996 vehicles less than 20 years old and an OBD II inspection on all model years 1996 and newer has provided superior environmental benefits to expensive and onerous tailpipe testing. New Hampshire will continue its EPA-approved OBD II program as a SIP strengthening measure.
- Vehicle Miles Traveled reductions Reducing vehicle use and traffic congestion, and their associated emissions, are key state and local transportation objectives.
 DES will continue to work with DOT and regional MPOs to identify effective congestion and emission reduction project and programs such as such as traffic signal coordination, increased mass transit, RideShare, anti-idling and other traffic management strategies.

Emissions reductions – New Hampshire continues to enjoy the benefits of the
Federal Clean Fuel Programs that resulted in reduced CO emissions. In keeping
with President Obama's 2009 national fuel economy and emissions policy, DES and
local MPOs are actively promoting low emissions vehicles and emissions reductions
strategies such as anti-idling programs and park & ride lot construction as part of
their long range transportation plans.

Because New Hampshire proposes to discontinue monitoring CO in Manchester, it will adopt a more stringent contingency threshold or "trigger" than indicated in the 2007 SIP revision. As indicated in Section 3.3 above, New Hampshire will monitor CO levels using the Londonderry Moose Hill station and emissions inventories. In the event the second-highest CO concentration in any calendar year monitored in Londonderry reaches 50 percent of the federal 1-hour or 8-hour NAAQS for CO, New Hampshire will, within six months of recording such concentrations, reestablish the CO monitoring site in Manchester consistent with EPA siting criteria, and resume analyzing and reporting those data. New Hampshire commits to implement a contingency program in Nashua in the event that a CO violation is monitored at the re-established Nashua monitoring site at any time during the maintenance period. If the Manchester CO monitor measures a violation of the either the federal 1-hour or 8-hour NAAQS for CO, contingency measures will be implemented in Nashua as well, until a re-established CO monitor in Nashua shows that the area is in attainment of the CO standard.

3.5. Conformity Determination under Limited Maintenance Plans

In discussing conformity, the Option Memo reads: "The transportation conformity rule (Determining Conformity of Federal Actions to State or Federal Implementation Plans; 40 CFR 93; amended 1998) and the general conformity rule (Requirements for Preparation, Adoption, and Submittal of Implementation Plans; 40 CFR 51; adopted 1994) apply to nonattainment areas and maintenance areas operating under maintenance plans. Under either rule, one means of demonstrating conformity of Federal actions is to indicate that expected emissions from planned actions are consistent with the emissions budgets for the area. Emissions budgets in limited maintenance plan areas may be treated as essentially not constraining for the length of the initial maintenance period because it is unreasonable to expect that such an area will experience so much growth in that period that a violation of the CO NAAQS would result. In other words, EPA would be concluding that emissions need not be capped for the maintenance period. Therefore, in areas with approved limited maintenance plans, Federal actions requiring conformity determinations under the transportation conformity rule could be considered to satisfy the 'budget test' required in 40 CFR 93.118, 93.119, and 93.120 of the rule. Similarly, in these areas, Federal actions subject to the general conformity rule could be considered to satisfy the 'budget test' specified in section 93.158 (a) (5) (i) (A) of the rule." As this is guidance, final and binding determinations regarding the eligibility of areas for the limited maintenance plan option will only be made in the context of notice and comment rulemaking actions regarding specific redesignation requests.

In recent conformity determinations (see attachment 2: May 4, 2011 letter to FHWA Administrator Ms. Kathleen O. Laffey from EPA Air Quality Planning Unit Manager Anne E. Arnold) the Southern NH MPO and the Nashua MPO have demonstrated that transportation conformity for the Manchester and Nashua CO attainment areas and the motor vehicle emissions for future years are consistent with the 2010 motor vehicles emissions budgets of 55.83 tons of CO per winter day in Manchester and 60.13 tons of CO per day in Nashua (Tables 6 and 7). In fact, the projected CO emissions are less than half of the budgets in both areas.

Table 6 - Manchester CO Conformity Determination Projection

Carbon Monoxide Analysis Summary for the City of Manchester				
Year	ear CO tons/day (winter) CO Budget (tor			
2012	28.80	55.83		
2017	26.65	55.83		
2026	26.38	55.83		
2035	27.66	55.83		

Table 7 - Nashua CO Conformity Determination Projection

Carbon Monoxide Analysis Summary for the Nashua				
Year CO tons/day (winter) CO Budget (tons/da				
2012	28.73	60.13		
2017	26.11	60.13		
2026	25.51	60.13		
2035	26.64	60.13		

Consistent with Mr. Paisie's and Ms. Arnold's memos, DES will use the Interagency Consultation (IAC) process to inform the New Hampshire Department of Transportation (NHDOT) and MPOs that, upon approval of the limited maintenance plans, CO emissions budgets will no longer be constraining for transportation conformity because of the low levels of emissions, continued CO reductions resulting from 2000 Maintenance Plan reduction measures implementation, and expected growth during the maintenance period.

EPA further discusses the implications of a Limited Maintenance Plan (LMP) on conformity requirements in an August 21, 2001 guidance memorandum to EPA Regional Air Directors (see attachment 3: Lydia Wegman memorandum; *Limited Maintenance Plan Option for Moderate PM*₁₀ *Nonattainment Areas*). That memo reads in part, "Emissions Budgets in LMP areas may be treated as essentially not constraining for the length of the maintenance period because it is unreasonable to expect that an area satisfying the LMP criteria will experience so much growth during that period of time such that a violation of the PM₁₀ NAAQS would result. While this policy does not exempt an area from the need to affirm conformity, it does allow the area to demonstrate conformity without undertaking certain requirements of these rules. For transportation conformity purposes, EPA would be concluding that emissions in these areas need not be capped for the maintenance period, and, therefore, a regional emissions analysis would not be required." As this guidance

suggests, New Hampshire will still be subject to CAA requirements to ensure CO conformity in LMP areas, but MPOs will not be required to provide regional analyses as long as LMP conditions are met. However, this is not to say that MPOs no longer have responsibility for ensuring individual transportation projects do not cause or contribute to any new localized CO violations. As per 40 CFR 93.116, project sponsors will still be required to perform hot-spot analyses for FHWA/FTA projects to demonstrate no new local violations will be created as a result of the projects.

4. Conclusion

CO levels in the Nashua and Manchester maintenance areas have remained under the CO standard as a result of national and local control strategies implemented. In fact, the current design value for both areas is less than half the standard. The current design values in the areas have remained below the standard since both areas were designated and are expected to continue to maintain compliance with the standard. New Hampshire has verified that the emission controls adopted to maintain the standard continue to be permanent and enforceable, that there are no new significant sources of carbon monoxide or increases in background emissions and that the state has in place a program to identify sources of exceedance and address any violation through enforcement and implementation of a contingency plan.

This plan satisfies New Hampshire's obligation under Section 175A(b) of the CAA to submit a plan for maintaining the national primary ambient air quality standard for CO for the next ten years beyond the current maintenance plan.

5. Public Record & Comment

In accordance with 40 CFR 51.102, public participation in this request was provided as follows:

Notice of availability of the complete document and a notice of opportunity for the public to submit written comments and request a public hearing were published on June 22, 2012, in the UNION LEADER and posted on the DES website at http://des.nh.gov/organization/divisions/air/tsb/tps/msp/categories/hot.htm.

The comment period closed at 4:00 PM on July 23, 2012. During that period, a public hearing on the proposed plan was not requested. The only comments received on the proposed plan were from EPA by letter dated July 19, 2012. EPA stated that, in the unlikely event monitors should ever measure a violation or concentrations such that the design value exceeds 85% of the CO NAAQS, a full maintenance plan must be developed. In addition, EPA noted that the effective date of the CO redesignation was January 29, 2001, thereby establishing January 29, 2021 as the end of the 20-year maintenance period. The plan was revised to reflect this date.

A copy of the legal public notice can be found as Attachment 4 and a copy of proof of publication can be found as Attachment 5.

ATTACHMENT 1

October 6, 1995

<u>MEMORANDUM</u>

SUBJECT: Limited Maintenance Plan Option for Nonclassifiable CO Nonattainment Areas

FROM: Joseph W. Paisie, Group Leader

Integrated Policy and Strategies Group (MD-15)

TO: Air Branch Chiefs, Regions I-X

On November 16, 1994, EPA issued guidance regarding a limited maintenance plan option for nonclassifiable ozone nonattainment areas in a memorandum from Sally L. Shaver, Director, Air Quality Strategies and Standards Division, to Regional Air Division Directors. EPA believes that such an option is also appropriate for nonclassifiable CO nonattainment areas and the following questions and answers set forth EPA's guidance regarding the availability of this option for such areas. As this is guidance, final and binding determinations regarding the eligibility of areas for the limited maintenance plan option will only be made in the context of notice and comment rulemaking actions regarding specific redesignation requests.

If there are any questions concerning the limited maintenance plan option for nonclassifiable CO areas, please contact me at (919) 541-5556 or Larry Wallace at (919) 541-0906.

Attachment

cc: E. Cummings, OMS

K. McLean, OGC

C. Oldham

L. Wallace

AQSSD:IPSG:LWALLACE:vwyatt:x5628:MD-12:10-6-95 WALLACE: A:VOE.ABC

10/6/95

Limited Maintenance Plan Option for Nonclassifiable CO Nonattainment areas

1. Question:

What requirements must CO nonclassifiable areas, which are attaining the CO NAAQS with a design value that is significantly below the NAAQS, meet in order to have an approvable maintenance plan under section 175A of the Act?

Answer:

Nonclassifiable CO nonattainment areas seeking redesignation to attainment whose design values are at or below 7.65ppm (85 percent of exceedance levels of the CO NAAQS) at the time of redesignation may choose to submit a less rigorous maintenance plan than was formerly required. This new option is being termed a limited maintenance plan. Nonclassifiable CO areas with design values greater than 7.65ppm will continue to be subject to full maintenance plan requirements described in the September 4, 1992 memorandum, "Procedures for Processing Requests to Redesignate Areas to Attainment," from John Calcagni, former Director of the OAQPS Air Quality Management Division to the Regional Air Division Directors.

The EPA now believes that it is justifiable and appropriate to apply a different set of maintenance plan requirements to a nonclassifiable CO nonattainment areas whose monitored air quality is equal to or less than 85 percent of exceedance levels of the ozone NAAQS. The EPA does not believe that the full maintenance plan requirements need be applied to these areas because they have achieved air quality levels well below the standard without the application of control measures required by the Act for moderate and serious nonattainment areas. Also, these areas do not have either a recent history of monitored violation of the CO NAAQS or a long prior history of monitored air quality problems. The EPA believes that the continued applicability of prevention of significant deterioration (PSD) requirements, any control measures already in the SIP, and Federal measures (such as the Federal motor vehicle control program) should provide adequate assurance of maintenance for these areas.

2. Question:

Besides having a design value that is equal to or less than 85% of the CO NAAQS what other requirements are necessary for a nonclassifiable CO nonattainment area to qualify for the limited maintenance plan option?

Answer:

To qualify for the limited maintenance plan option, the CO design value for the area, based on the 8 consecutive quarters (2 years of data) used to demonstrate attainment, must be at or below 7.65ppm (85 percent of exceedance levels of the ozone NAAQS). Additionally, the design value for the area must continue to be at or below 7.65ppm until the time of final EPA action on the redesignation. The method for calculating design values is presented in the June 18, 1990 memorandum, "Ozone and Carbon Monoxide Design Value Calculations," from William G. Laxton, former Director of the OAQPS Technical Support Division to Regional Air Directors. The memorandum focuses primarily on determining design values for nonattainment areas in order to classify the areas as moderate or serious for CO. Therefore, the document discusses determining the design value for an area based on the monitors which are exceeding the standard. In the case of a nonattainment area seeking redesignation to attainment, all monitors must be meeting the standard. To assess whether a nonclassifiable area meets the applicability cutoff for the limited maintenance plan, a separate design value must be developed for every monitoring site. The highest of these design values is the design value for the whole area. If the area design value is at or below 7.65ppm, the State may select the limited maintenance plan option for the first 10-year maintenance period under section 175A. If the design value for the area exceeds 7.65ppm prior to final EPA action on the redesignation, the area no longer qualifies for the limited maintenance plan and must instead submit a full maintenance plan, as indicated in the September 4, 1992 memorandum.

period because it is unreasonable to expect that such an area will experience so much growth in that period that a violation of the CO NAAQS would result.

c. Monitoring Network/Verification of Continued Attainment

To verify the attainment status of the area over the maintenance period, the maintenance plan should contain provisions for continued operation of an appropriate, EPA-approved air quality monitoring network, in accordance with 40 CFR part 58. This is particularly important for areas using a limited maintenance plan because there will be no cap on emissions.

d. Contingency Plan

Section 175A of the Act requires that a maintenance plan include contingency provisions, as necessary, to promptly correct any violation of the NAAQS that occurs after redesignation of the area. These contingency measures do not have to be fully adopted at the time of redesignation. However, the contingency plan is considered to be an enforceable part of the SIP and should ensure that the contingency measures are adopted expeditiously once they are triggered by a specified event. The contingency plan should identify the measures to be promptly adopted and provide a schedule and procedure for adoption and implementation of the measures. The State should also identify specific indicators, or triggers, which will be used to determine when the contingency measures need to be implemented. While a violation of the NAAQS is an acceptable trigger, States may wish to choose a pre-violation action level as a trigger, such as an exceedance of the NAAQS. By taking early action, a State may be able to prevent any actual violation of the NAAQS and, therefore, eliminate any need on the part of EPA to redesignate an area back to nonattainment.

e. Conformity Determinations Under Limited Maintenance Plans

The transportation conformity rule (58 FR 62188; November 24, 1993) and the general conformity rule (58 FR 63214; November 30, 1993) apply to nonattainment areas and maintenance areas operating under maintenance plans. Under either rule, one means of demonstrating conformity of Federal actions is to indicate that expected emissions from planned actions are consistent with the emissions budget for the area. Emissions budgets in limited maintenance plan areas may be treated as essentially not constraining for the length of the initial maintenance period because it is unreasonable to expect that such an area will experience so much growth in that period that a violation of the CO NAAQS would result. In other words, EPA would be concluding that emissions need not be capped for the maintenance period. Therefore, in areas with approved limited maintenance plans. Federal actions requiring conformity determinations under the transportation conformity rule could be considered to satisfy the "budget test" required in sections 93.118, 93.119, and 93.120 of the rule. Similarly, in these areas, Federal actions subject to the general conformity rule could be considered to satisfy the "budget test"

3. Question:

What elements must be contained in a section 175A maintenance plan for nonclassifiable CO areas which qualify for the limited maintenance plan option?

Answer:

Following is a list of core provisions which should be included in the limited maintenance plan for CO nonclassifiable areas. Any final EPA determination regarding the adequacy of a limited maintenance plan will be made following review of the plan submittal in light of the particular circumstances facing the area proposed for redesignation and based on all relevant available information.

a. Attainment Inventory

The State should develop an attainment emissions inventory to identify a level of emissions in the area which is sufficient to attain the NAAQS. This inventory should be consistent with EPA's most recent guidance! on emissions inventories for nonattainment areas available at the time and should represent emissions during the time period associated with the monitoring data showing attainment. The inventory should be based on actual "typical winter day" emissions of CO.

b. Maintenance Demonstration

The maintenance demonstration requirement is considered to be satisfied for nonclassifiable areas if the monitoring data show that the area is meeting the air quality criteria for limited maintenance areas (7.65ppm or 85% of the CO NAAQS). There is no requirement to project emissions over the maintenance period. The EPA believes if the area begins the maintenance period at or below 85 percent of exceedance levels, the air quality along with the continued applicability of PSD requirements, any control measures already in the SIP, and Federal measures, should provide adequate assurance of maintenance over the initial 10-year maintenance period.

When EPA approves a limited maintenance plan, EPA is concluding that an emissions budget may be treated as essentially not constraining for the length of the maintenance

The EPA's current guidance on the preparation of emissions inventories for ozone areas is contained in the following documents: "Procedures for the Preparation of Emission Inventories for Carbon Monoxide and Precursors of Ozone: Volume I" (EPA-450/4-91-016), "Emission Inventory Requirements for Ozone State Implementation Plans" (EPA-450/4-91-010), and "Procedures for Emission Inventory Preparation: Volume IV, Mobile Sources" (EPA-450/4-81-026d).

specified in section 93.158(a)(5)(i)(A) of the rule.

ATTACHMENT 2



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 1 5 Post Office Square, Suite 100 Boston, MA 02109-3912

May 4, 2011

Ms. Kathleen O. Laffey, Division Administrator Federal Highway Administration 19 Chenell Drive, Suite One Concord, NH 03301

Re: New Hampshire Air Quality Conformity: Statewide Transportation Improvement Program Amendment Number 1 (2011-2014 STIP).

Dear Ms. Laffey:

On April 22, 2011, EPA-New England received "Amendment Number 1 — 2011-2014 Statewide Transportation Improvement Program (STIP)," from the New Hampshire Department of Transportation. Interagency consultation had previously determined that changes to non-exempt projects in Amendment Number 1 would trigger a new air quality transportation conformity determination for the Boston-Manchester-Portsmouth (Southeast) New Hampshire 8-hour ozone nonattainment area in accordance with section 93.104(c)(2) of the Transportation Conformity Rule.

Through interagency consultation, New Hampshire Department of Transportation, New Hampshire Department of Environmental Services, FHWA, FTA, EPA and the four Metropolitan Planning Organizations (MPOs), agreed that the projects identified in Statewide Transportation Improvement Program Amendment Number 1 while triggering the need for a new air quality conformity determination would not affect the current air quality analysis. Therefore, the existing Air Quality Conformity Analyses prepared for the 2011 – 2014 Transportation Improvement Programs remain valid for determining air quality conformity in accordance with section 93.122(g) of the Transportation Conformity Rule.

EPA New England believes that the current air quality conformity analyses prepared by the Nashua Regional Planning Commission, Southern New Hampshire Planning Commission, Rockingham Planning Commission and the Strafford Regional Planning Commission continue to support U.S. DOT making a positive transportation improvement program conformity determination for the Boston-Manchester-Portsmouth (Southeast) New Hampshire 8-hour ozone nonattainment area, as well as the Manchester carbon monoxide attainment area with a maintenance plan and the Nashua carbon

monoxide attainment area with a maintenance plan. Specifically, the air quality conformity analyses demonstrate that:

• Transportation conformity is met for the Boston-Manchester-Portsmouth (Southeast) New Hampshire 8-hour ozone nonattainment area. The motor vehicle emissions for future years are less than the 2009 motor vehicle emissions budgets of 15.31 tons per summer day of volatile organic compounds (VOC) and 28.53 tons per summer day of nitrogen oxides (NOx) established within New Hampshire's SIP Revision, "2009 Motor Vehicle Emissions Budget for the Southeast New Hampshire Moderate 8-hour Ozone Non-Attainment Area," as seen on the table below.

Boston-N	Aanchester-Portsmou	th (Southeast), New Hamps (Emissions in tons per sum		Nonattainment Area
Year	VOC Build Emissions	2009 VOC Motor Vehicle Emission Budget	NOx Build Emissions	2009 NOx Motor Vehicle Emission Budget
2012	12.34	15.31	20.46	28.53
2017	9.31	15.31	12.09	28.53
2026	6.81	15.31	6.67	28.53
2035	7.24	15.31	5.79	28.53

• Transportation conformity is met for the Manchester carbon monoxide attainment area with a maintenance plan. The motor vehicle emissions for future years are consistent with the 2010 motor vehicle emission budget of 55.83 tons of carbon monoxide per winter day established by the EPA-approved maintenance plan for the area, as seen on the table below.

Carbon Monoxide Analysis Summary for the City of Manchester				
Year	CO tons/day (winter)	CO Budget tons/day		
2012	28.80	55.83		
2017	26.65	55.83		
2026	26.38	55.83		
2035	27.66	55.83		

Transportation conformity is met for the Nashua carbon monoxide attainment area with a maintenance plan. The motor vehicle emissions for future years are consistent with the 2010 motor vehicle emission budget of 60.13 tons of carbon monoxide per winter day established by the EPA-approved maintenance plan for the area, as seen on the table below.

Carbon Monoxide Analysis Summary for the City of Nashua				
Year	CO tons/day (winter)	CO Budget tons/day		
2012	28.73	60.13		
2017	26.11	60.13		
2026	25.51	60.13		
2035	26.64	60.13		

 The Transportation Improvement Programs as amended are consistent with the current Transportation Plan for the corresponding area. The Transportation Improvement Programs utilize the latest planning assumptions; the MOBILE6.2 emission factor model; and the relevant Federal, State, and MPO Agencies have conducted the consultation process in accordance with the conformity rule.

If you or your staff has any questions regarding our comments, please feel free to call Donald Cooke of my staff at (617) 918-1668.

Sincerely,

Anne E. Arnold, Manager Air Quality Planning Unit

cc: Mary Beth Mello, Administrator, FTA - Region 1, Cambridge, MA

Peter Butler, FTA - Region 1, Cambridge, MA

William Gordon, FTA - Region 1, Cambridge, MA

Leigh Levine, FHWA - New Hampshire Division, Concord NH

Tom Fargo, NH DES, Concord, NH

Rebecca Ohler, NH DES, Concord, NH

Chris Skoglund, NH DES, Concord, NH

Eric Abrams, NH DES, Concord, NH

William Watson, NH DOT, Concord, NH

Nicholas Alexander, NH DOT, Concord, NH



MEMORANDUM

SUBJECT: Limited Maintenance Plan Option for Moderate PM₁₀ Nonattainment Areas

FROM: Lydia Wegman, Director

AQSSD (MD-15)

TO: Director, Office of Ecosystem Protection, Region I

Director, Division of Environmental Planning & Protection, Region II

Director, Air Protection Division, Region III

Director, Air, Pesticides & Toxics Management Division, Region IV

Director, Air and Radiation Division, Region V Director, Air Pesticides & Toxics, Region VI Director, Air and Toxics Division, Regions VII, IX

Director, Air Program, Region VIII

Director, Office of Air Quality, Region X

I. What is a Limited Maintenance Plan?

This memorandum sets forth new guidance¹ on maintenance plan submissions for certain moderate particulate matter (PM_{10}) nonattainment areas seeking redesignation to attainment (see section IV for further details on qualifying for the policy). If the area meets the criteria listed in this policy the State may submit a maintenance plan at the time it is requesting redesignation that is more streamlined than would ordinarily be permitted. This new option is being termed a limited maintenance plan (LMP)².

II. Why is there a need for a limited maintenance plan policy?

¹This memorandum is intended to provide EPA's preliminary views on how certain moderate PM10 nonattainment areas may qualify to submit a maintenance plan that meets certain limited requirements. Since it represents only the Agency's preliminary thinking that is subject to modification, this guidance is not binding on States, Tribes, the public, or EPA. Issues concerning the applicability of the limited maintenance plan policy will be addressed in actions to redesignate moderate PM10 nonattainment areas under § 107 of the CAA. It is only when EPA promulgates redesignations applying this policy that those determinations will become binding on States, Tribes, the public, and EPA as a matter of law.

²Moderate PM₁₀ areas that do not meet the applicability criteria of this policy, and all serious PM₁₀ nonattainment areas, should submit maintenance plans that meet our guidance for submission of a full maintenance plan as described in the September 4, 1992 memorandum, "Procedures for Processing Requests to Redesignate Areas to Attainment," from John Calcagni, former Director of the Office of Air Quality Planning and Standards (OAQPS) Air Quality management Division to the Regional Air Division Directors (hereafter known as the Calcagni Memo).

Before the U.S. Court of Appeals for the District of Columbia handed down its decision vacating the 1997 PM₁₀ national ambient air quality standards (NAAQS)(see American Trucking Associations, et al. v. Environmental Protection Agency (EPA), 175 F.3d 1027 (D.C. Cir. 1999), we were prepared to make case-by-case determinations that would make the 1987 PM₁₀ NAAQS no longer applicable in any area meeting the standards. In taking actions to remove the applicability of the 1987 NAAQS, we would have removed, as well, the nonattainment designation and Clean Air Act (CAA) part D requirements from qualifying areas. As a result of the D.C. Circuit's decision, for areas subject to the 1987 NAAQS, the only route to recognized attainment of the NAAQS and removal of nonattainment status and requirements is formal redesignation to attainment, including submittal of a maintenance plan. Since many areas have been meeting the PM₁₀ NAAQS for 5 years or more and have a low risk of future exceedances, we believe a policy that would allow both the States and EPA to redesignate speedily areas that are at little risk of PM₁₀ violations would be useful.

III. How did EPA develop the approach used in the LMP option?

The EPA has studied PM₁₀ air quality data information for the entire country over the past eleven years (1989-1999) and has determined that some moderate PM₁₀ nonattainment areas have had a history of low PM10 design values with very little inter-annual variation. When we looked at all the monitoring sites reporting data for those years, the data indicate that most of the average design values fall below 2 levels, 98 μg/m³ for the 24-hr PM₁₀ NAAQS and 40 μg/m³ for the annual PM₁₀ NAAQS. For most monitoring sites these levels are also below their individual site-specific critical design values (CDV). The CDV is an indicator of the likelihood of future violations of the NAAQS given the current average design value and its variability. The CDV is the highest average design value an area could have before it may experience a future exceedance of the NAAQS with a certain probability. A detailed explanation of the CDV is found in Attachment A³ to this policy which, because of its length, is a separate document accompanying this memorandum.

We believe that the very small amount of variation between the peaks and means in most of the data indicates a very stable relationship that can be reasonably expected to continue in the future absent any significant changes in emissions. The period we assessed provides a fairly long historical record and the data could therefore be expected to have been affected by a full range of meteorological conditions over the period. Therefore, the amount of emissions should be the only variable that could affect the stability in the air quality data. We believe we can reliably make estimates about the future variability of PM_{10} concentrations across the country based on our statistical analysis of this data record, especially in areas where the amount of emissions is not expected to change.

IV. How do I qualify for the LMP option?

³ Dr. Shao-Hang Chu's paper entitled "Critical Design Value and Its Applications" explains the CDV approach and is included in its entirety in Attachment A. This paper has been accepted for publication and presentation at the 94th Air and Waste Management Association (A&WMA) Annual Conference in June 2001 in Orlando, Florida.

To qualify for the limited maintenance plan option, an area should meet the following applicability criteria. The area should be attaining the NAAQS and the average PM_{10} design value⁴ for the area, based upon the most recent 5 years of air quality data at all monitors in the area, should be at or below 40 μ g/m³ for the annual and 98 μ g/m³ for the 24-hr PM_{10} NAAQS with no violations at any monitor in the nonattainment area⁵. If an area cannot meet this test it may still be able to qualify for the LMP option if the average design values of the site are less than their respective site-specific CDV.

We believe it is appropriate to offer this second method of qualifying for the LMP because, based on the air quality data we have studied, we believe there are some monitoring sites with average design values above $40~\mu g/m^3$ or $98~\mu g/m^3$, depending on the NAAQS in question, that have experienced little variability in the data over the years. When the CDV calculation was performed for these sites we discovered that their average design values are less than their CDVs, indicating that the areas have a very low probability (1 in 10) of exceeding the NAAQS in the future. We believe it is appropriate to provide these areas the opportunity to qualify for the LMP in this circumstance since the $40~\mu g/m^3$ or $98~\mu g/m^3$ criteria are based on a national analysis and don't take into account each local situation.

The final criterion is related to mobile source emissions. The area should expect only limited growth in on-road motor vehicle PM₁₀ emissions (including fugitive dust) and should have passed a motor vehicle regional emissions analysis test. It is important to consider the impact of future transportation growth in the LMP, since the level of PM-10 emissions (especially from fugitive dust) is related to the level of growth in vehicle miles traveled (VMT). Attachment B (below) should be used for making the motor vehicle regional emissions analysis demonstration.

If the State determines that the area in question meets the above criteria, it may select the LMP option for the first 10 year maintenance period. Any area that does not meet these criteria should plan to submit a full maintenance plan that is consistent with our guidance in the Calcagni Memo in order to be redesignated to attainment. If the LMP option is selected, the State should continue to meet the qualifying criteria until EPA has redesignated the area to attainment. If an area no longer qualifies for the LMP option because a change in air quality affects the average design values before the redesignation takes effect, the area will be expected to submit a full maintenance plan.

Once an area selects the LMP option and it is in effect, the State will be expected to recalculate the average design value for the area annually and determine if the criteria used to qualify for the LMP

 $^{^4}$ The methods for calculating design values for PM $_{10}$ are presented in a document entitled the "PM $_{10}$ SIP Development Guideline", EPA-450/2-86-001, June 1987. The State should determine the most appropriate method to use from this Guideline in consultation with the appropriate EPA Regional office staff.

⁵If the EPA determines that the meteorology was not representative during the most recent five-year period, we may reject the State's request to use the LMP option and request, instead, submission of a full maintenance demonstration.

will still be met. If, after performing the annual recalculation of the area's average design value in a given year, the State determines that the area no longer qualifies for the LMP, the State should take action to attempt to reduce PM₁₀ concentrations enough to requalify for the LMP. One possible approach the State could take is to implement a contingency measure or measures found in its SIP. If, in the next annual recalculation the State is able to re-qualify for the LMP, then the LMP will go back into effect. If the attempt to reduce PM₁₀ concentrations fails, or if it succeeds but in future years it becomes necessary again to address increasing PM₁₀ concentrations in the area, that area no longer qualifies for the LMP. We believe that repeated increases in PM₁₀ concentrations indicate that the initial conditions that govern air quality and that were relied on to determine the area's qualification for the LMP have changed, and that maintenance of the NAAQS can no longer be assumed. Therefore, the LMP cannot be reinstated by further recalculations of the design values at this point. Once the LMP is determined to no longer be in effect, a full maintenance plan should be developed and submitted within 18 months of the determination.

Treatment of data used to calculate the design values.

Flagged Particulate Matter Data:

Three policies allow PM-10 data to be flagged for special consideration:

- Exceptional Events Policy (1986) for data affected by infrequent events such as industrial accidents or structural fires near a monitoring site;
- Natural Events Policy (1996) for data affected by wildfires, high winds, and volcanic and seismic activities, and;
- Interim Air Quality Policy on Wildland and Prescribed Fires for data affected by wildland fires that are managed to achieve resource benefits.

We will treat data affected by these events consistently with these previously-issued policies. We expect States to consider all data (unflagged and flagged) when determining the design value. The EPA Regional offices will work with the State to determine the validity of flagged data. Flagged data may be excluded on a case-by-case basis depending on State documentation of the circumstances justifying flags. Data flagged as affected by exceptional or natural events will generally not be used when determining the design value. However, in order for data affected by a natural event to be excluded, an adequate Natural Events Action Plan is required as described in the Natural Events policy.

Data flagged as affected by wildland and prescribed fires will be used in determining the design value. If the State is addressing wildland and prescribed fire use with the application of smoke management programs, the State may

submit an LMP if the design value is too high only as a result of the fire-affected data.

We are in the process of developing a policy to address agricultural burning. When it is finalized we will amend the LMP option to account for the new policy.

V. What should an LMP consist of?

Under the LMP, we will continue to satisfy the requirements of Section 107(d)(3)(E) of the Act which provides that a nonattainment area can be redesignated to attainment only if the following criteria are met:

- 1. The EPA has determined that the NAAQS for the applicable pollutant has been attained.
- 2. The EPA has fully approved the applicable implementation plan under section 110(k).
- 3. The EPA has determined that the improvement in air quality is due to permanent and enforceable reductions in emissions.
- 4. The State has met all applicable requirements for the area under section 110 and part D.
- 5. The EPA has fully approved a maintenance plan, including a contingency plan, for the area under section 175A.

However, there are some differences between what our previous guidance (the Calcagni memo) recommends that States include in a maintenance plan submission and what we are recommending under this policy for areas that qualify for the LMP. The most important difference is that under the LMP the demonstration of maintenance is presumed to be satisfied. The following is a list of core provisions which should be included in an LMP submission. Note that any final EPA determination regarding the adequacy of an LMP will be made following review of the plan submitted in light of the particular circumstances facing the area proposed for redesignation and based upon all available information.

a. Attainment Plan

The State's approved attainment plan should include an emissions inventory (attainment inventory) which can be used to demonstrate attainment of the NAAQS. The inventory should represent emissions during the same five-year period associated with the air quality data used to determine whether the area meets the applicability requirements of this policy (i.e., the most recent five years of air quality data). If the attainment inventory year is not one of the most recent five years, but the State can show that the attainment inventory did not change significantly during that five-year period, it may still be used to satisfy the policy. If the attainment inventory is determined to not be representative of the most recent 5 years, a new inventory must be developed. The State should

review its inventory every three years to ensure emissions growth is incorporated in the attainment inventory if necessary.

b. Maintenance Demonstration

The maintenance demonstration requirement of the Act will be considered to be satisfied for the moderate PM_{10} nonattainment areas meeting the air quality criteria discussed above. If the tests described in Section IV are met, we will treat that as a demonstration that the area will maintain the NAAQS. Consequently, there is no need to project emissions over the maintenance period.

c. Important elements that should be contained within the redesignation request

1. Monitoring Network Verification of Continued Attainment

To verify the attainment status of the area over the maintenance period, the maintenance plan should contain a provision to assure continued operation of an appropriate, EPA-approved air quality monitoring network, in accordance with 40 CFR part 58. This is particularly important for areas using an LMP because there will be no cap on emissions.

2. Contingency Plan

Section 175A of the Act states that a maintenance plan must include contingency provisions, as necessary, to promptly correct any violation of the NAAQS which may occur after redesignation of the area to attainment. These contingency measures do not have to be fully adopted at the time of redesignation. However, the contingency plan is considered to be an enforceable part of the SIP and the State should ensure that the contingency measures are adopted as soon as possible once they are triggered by a specific event. The contingency plan should identify the measures to be adopted, and provide a schedule and procedure for adoption and implementation of the measures if they are required.

Normally, the implementation of contingency measures is triggered by a violation of the NAAQS but the State may wish to establish other triggers to prevent a violation of the NAAQS, such as an exceedance of the NAAQS.

3. Approved attainment plan and section 110 and part D CAA requirements:

In accordance with the CAA, areas seeking to be redesignated to attainment under the LMP policy must have an attainment plan that has been approved by EPA, pursuant to section 107(d)(3)(E). The plan must include all control measures that were relied on by the State to demonstrate attainment of the NAAQS. The State must also ensure that the CAA requirements for PM₁₀ pursuant to section 110 and part D of the Act have been satisfied. To comply with the statute, the LMP should clearly indicate that all controls that were relied on to demonstrate attainment will remain in place. If a State wishes to roll back or eliminate controls, the area can no longer qualify for the LMP and the area will become subject to full maintenance plan requirements within 18 months of the determination that the LMP is no longer in effect.

V. How is Conformity treated under the LMP option?

The transportation conformity rule (40 CFR parts 51 and 93) and the general conformity rule (58 FR 63214; November 30, 1993) apply to nonattainment areas and maintenance areas operating under maintenance plans. Under either conformity rule one means of demonstrating conformity of Federal actions is to indicate that expected emissions from planned actions are consistent with the emissions budget for the area. Emissions budgets in LMP areas may be treated as essentially not constraining for the length of the maintenance period because it is unreasonable to expect that an area satisfying the LMP criteria will experience so much growth during that period of time such that a violation of the PM₁₀ NAAQS would result. While this policy does not exempt an area from the need to affirm conformity, it does allow the area to demonstrate conformity without undertaking certain requirements of these rules. For transportation conformity purposes, EPA would be concluding that emissions in these areas need not be capped for the maintenance period, and, therefore, a regional emissions analysis would not be required. Similarly, Federal actions subject to the general conformity rule could be considered to satisfy the "budget test" specified in section 93.158 (a)(5)(i)(A) of the rule, for the same reasons that the budgets are essentially considered to be unlimited.

EPA approval of an LMP will provide that if the LMP criteria are no longer satisfied and a full maintenance plan must be developed to meet CAA requirements (see Calcagni Memo referenced in footnote #2 for full maintenance plan guidance), the approval of the LMP would remain applicable for conformity purposes only until the full maintenance plan is submitted and EPA has found its motor vehicle emissions budgets adequate for conformity purposes under 40 CFR parts 51 and 93. EPA will condition its approval of all LMPs in this fashion because in the case where the LMP criteria are not met and a full maintenance plan is required EPA believes that LMPs would no longer be an appropriate mechanism for assuring maintenance of the standards.

For further information concerning the LMP option for moderate PM₁₀ areas please contact

Gary Blais at (919) 541-3223, or for questions about the CDV approach contact Dr. Shao-Hang Chu at (919) 541-5382. For information concerning transportation conformity requirements, please contact Meg Patulski of the Office of Transportation and Air Quality at (734) 214-4842.

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ATTACHMENT 4

STATE OF NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES AIR RESOURCES DIVISION CONCORD, NH

NOTICE OF PROPOSED REVISIONS TO THE STATE IMPLEMENTATION PLAN

In accordance with N.H. Administrative Rule Env-A 204.01 and 40 CFR § 51.102, notice is hereby given that the New Hampshire Department of Environmental Services, Air Resources Division (DES), intends to submit for the approval of the U.S. Environmental Protection Agency (EPA) the following proposed revisions to the New Hampshire State Implementation Plan (SIP) required by the federal Clean Air Act:

- Replace New Hampshire's existing Carbon Monoxide Maintenance Plan with the proposed Carbon Monoxide Limited Maintenance Plan for the City of Manchester and the City of Nashua Carbon Monoxide Maintenance Areas.
- Discontinue monitoring Carbon Monoxide (CO) at the Manchester site and rely instead on data from the Londonderry Moose Hill monitoring station and NH emissions inventory.

When an area (in this case Manchester and Nashua) that was previously designated as nonattainment for any of the pollutants for which EPA has established National Ambient Air Quality Standards (NAAQS) applies for redesignation to attainment status, the federal Clean Air Act requires DES to submit a maintenance plan as part of the redesignation request. This plan shows how the area will stay in attainment for the subsequent 10 years, and what steps DES will take if it does not. DES filed a maintenance plan for CO with EPA on December 3, 1998, and revised it in 2007.

Over time, the CO levels in downtown Manchester and Nashua have decreased to the point that a future exceedance of the federal standards for CO is highly unlikely. In addition to the downward CO trend shown by monitoring data, the state has performed mobile source modeling and conformity analyses indicating low CO levels in Manchester and Nashua as far into the future as 2035, beyond the end of the maintenance plan. Therefore, DES is submitting a CO Limited Maintenance Plan that will discontinue CO monitoring in Manchester, instead relying on a CO monitoring station in Londonderry, mid-way between Manchester and Nashua, with contingency plans to reinstate monitoring in Manchester if CO concentrations rise to 50 percent of the NAAQS.

Copies of all documentation pertaining to the proposed SIP revision are available for inspection online at: http://des.nh.gov/ under "Hot Topics". The documents are also available for review at the DES offices at 29 Hazen Drive, Concord, N.H. Questions regarding the proposed SIP Revision or requests to view the documents should be directed to Paul Lockwood at (603) 271-5552 or paul.lockwood@des.nh.gov.

The public is invited to submit written comments on the proposal, and DES will hold a public hearing if one is requested by July 23, 2012. Written comments and/or any

requests for a public hearing filed and received no later than 4 p.m. on July 23, 2012, shall be considered by DES in making a final decision. Please submit comments or a request for hearing to Paul Lockwood, Transportation Analyst, PO Box 95, Concord, NH 03302-0095, Fax (603) 271-7053, or to paul.lockwood@des.nh.gov.

Thomas S. Burack
Commissioner
NH Department of Environmental Services
Dated: June 23, 2012



Legal Notice 🐭

STATE OF NEW HAMPSHIRE
DEPARTMENT OF
ENVIRONMENTAL SERVICES
AIR RESOURCES DIVISION
CONCORD, NH
NOTICE OF PROPOSED REVISIONS
TO THE STATE
IMPLEMENTATION PLAN

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Over time, the CO levels in downtown Manchester and Nashua have decreased to the point that a future exceedance of the federal standards for CO is highly unlikely. In addition to the downward CO trend shown by monitoring data, the state has performed mobile source modeling and conformity analyses, indicating low CO levels in Manchester, and Nashua as far into the future as 2035, beyond the end of the maintenance plan. Therefore, DES is submitting a CO Limited Maintenance Plan that will discontinue CO monitoring in Manchester, instead relying on a CO monitoring station in Londonderry, mid-way between Manchester and Nashua, with, contingency plans, to reinstate monitoring in Manchester If CO concentrations use to 50 percent of the NAAQS.

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Thomas S. Burack Commissioner NH Department of Environmental Services Dated June 23, 2012

(UL - June 22)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 1 5 Post Office Square, Suite 100 Boston, MA 02109-3912

July 19, 2012

Paul Lockwood Transportation Analyst NH Dept of Environmental Services P.O. Box 95 Concord, NH 03302-0095

Dear Mr. Lockwood:

The New Hampshire Department of Environmental Services (NH DES) is currently proposing its "Carbon Monoxide Limited Maintenance Plan (LMP) for the City of Manchester and the City of Nashua Carbon Monoxide Maintenance Areas," dated June 22, 2012.

EPA previously provided comments to the NH DES on an earlier draft of the LMP in a letter dated March 23, 2012. EPA staff have reviewed New Hampshire's proposal and have found that our previous comments have been addressed. You will find the Agency's comments on the proposal in the Enclosure.

NH DES should submit the LMP to EPA as a State Implementation Plan revision once it is adopted by the State.

If you have any further questions on this issue, please contact Donald Cooke at (617) 918-1668, cooke.donald@epa.gov.

Sincerely,

Anne E. Arnold, Manager Air Quality Planning Unit

are Ellewell

Enclosure

cc:

Mike Fitzgerald, NH DES Barbara Hoffman, NH DES

Enclosure

EPA Comments on New Hampshire's June 2012 Proposed Carbon Monoxide (CO) Limited Maintenance Plans For Manchester and Nashua

- 1) The New Hampshire Department of Environmental Services (NH DES) commits to implement its contingency program if monitors measure a violation of the 1-hour or 8-hour National Ambient Air Quality (NAAQS) for CO. In addition, although unlikely based on historical trends, if monitors do measure a violation or concentrations such that the design value exceeds 85% of the CO NAAQS, the limited maintenance plan criteria would no longer be satisfied and a full maintenance plan must be developed. A full maintenance plan would trigger regional CO emission analyses for transportation conformity, as well as maintain the current requirement for CO hot spot analysis for project level conformity determinations.
- 2) In the proposal, NH DES identifies the second ten-year maintenance period, as November 29, 2010 through November 28, 2020, as previously recommended by EPA. These dates stem from the November 29, 2000 Federal Register (77 FR 71060) approving New Hampshire's Carbon Monoxide Attainment Redesignation and Maintenance Plan. However, EPA wishes to clarify that the effective date of the redesignation is January 29, 2001, thereby establishing January 29, 2021 as the end of the twenty year maintenance period. Defining the end of the maintenance plan is important in establishing when transportation conformity no longer applies in the area.

 $^{^{1}}$ See page 7 of the August 21, 2001 EPA memorandum from Lydia Wegman to EPA Regional Offices, titled "Limited Maintenance Plan Option for Moderate PM₁₀ Nonattainment Areas."

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AIR RESOURCES DIVISION

0000059625 STATE OF NH/ AIR RESOURCES COM VALERIE DAVID PO BOX 95 CONCORD NH 03302-0095

I hereby certify that the legal notice: (0000088480) STATE IMPLEMENTATION PLAN was published in the New Hampshire Union Leader printed at Manchester, NH by the Union Leader Corp. On: 06/22/2012.

Hillsborough Subscrib da		to before me this	
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		COMMISSION EXPIRES MAR. 10, 2015	

Legal Notice -

STATE OF NEW HAMPSHIRE
DEPARTMENT OF
ENVIRONMENTAL SERVICES
AIR RESOURCES DIVISION
CONCORD, NH
NOTICE OF PROPOSED REVISIONS
TO THE STATE

IMPLEMENTATION PLAN
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Thomas S. Burack

Thomas S. Burack Commissioner MH Department of Environmental Services Dated: June 23, 2012

(UL-June 22)

STATE OF NEW HAMPSHIRE

Draft for Public Review

STATE IMPLEMENTATION PLAN REVISION

CARBON MONOXIDE LIMITED MAINTENANCE PLAN for the THE CITY OF MANCHESTER AND THE CITY OF NASHUA CARBON MONOXIDE MAINTENANCE AREAS

June 22, 2012



29 Hazen Drive P.O Box 95 Concord, NH 03302-0095 www.des.nh.gov (Page intentionally left blank)

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1. Introduction

The City of Manchester (Manchester) and the City of Nashua (Nashua) were designated nonattainment by the U.S. Environmental Protection Agency (EPA) for carbon monoxide (CO) in 1980 (45 FR 24869 and 48 FR 29479, respectively). The National Ambient Air Quality Standard (NAAQS) for CO is 9.0 parts per million (ppm) for an 8-hour average concentration and 35 ppm for a 1-hour concentration, not to be exceeded more than once per calendar year. In 1991, following passage of the Clean Air Act Amendments of 1990 (CAA), both cities were classified "nonattainment" and "not classified" (56 FR 56694) although ambient monitoring showed NAAQS attainment had been achieved by that time. In February 1999, the State of New Hampshire submitted a formal CO redesignation request as part of a CO Maintenance Plan for Manchester and Nashua and in November 2000, EPA redesignated Manchester (65 FR 71078) and Nashua (65 FR 71078) from CO nonattainment, to CO attainment and approved New Hampshire's CO Maintenance Plan.

Significant progress continues to be made in reducing CO levels across the northeast including the Manchester and Nashua areas. Dramatic reductions in CO levels from more fuel-efficient and cleaner operating vehicles, improved (OBD II) vehicle diagnostic equipment and cleaner burning fuels have cut CO emissions despite growth. No violations of the CO NAAQS have been recorded in the Manchester or Nashua areas since 1986 and the highest level of CO in either town in the last three years has been less than one half of the CO NAAQS. In addition to the downward trend shown by the monitoring data, the state has performed mobile source modeling and conformity analyses that indicate winter CO emissions in Manchester and Nashua will not reach even half of the CO Conformity Budget as far into the future as 2035, well beyond the end of the maintenance plan.

Section 175A of the CAA requires a demonstration of continued attainment for at least ten years following EPA's redesignation to attainment. Eight years after the redesignation, a state must submit a revised maintenance plan demonstrating attainment for the ten years following the initial ten-year period. Although New Hampshire's 1999 redesignation submittal was developed as a 20-year maintenance plan starting November 29, 2000, the New Hampshire Department of Environmental Services (DES) is submitting this State Implementation Plan (SIP) revision under the limited maintenance plan option as described in an October 6, 1995, U.S. EPA guidance memorandum ("Option Memo") (Attachment 1). This maintenance plan is being submitted to cover the second 10-year maintenance period starting November 29, 2010 and running through November 28, 2020.

2. Background

The cities of Manchester and Nashua were designated CO nonattainment areas on April 11, 1980. Pursuant to Section 107(d)(1)(C) of the CAA, the cities retained their designation of nonattainment for CO under the law even though that at the same time, the cities were

¹ Memorandum: "Limited Maintenance Plan Option for Nonclassifiable CO Nonattainment Areas"; Joseph W. Paisie, Group Leader; Integrated Policy and Strategies Group; October 6, 1995

classified as "not classified" since ambient monitoring data for the areas showed attainment of the CO NAAQS. In 1987, the State of New Hampshire initiated a basic CO Inspection/Maintenance (I/M) program in Nashua and 11 surrounding towns. That program was designed to cease operating on January 1, 1995, at which time the State legislature allowed it to end. On February 1, 1999, DES submitted a revision to the SIP to remove the Nashua I/M program. That program was replaced with controls consisting of the existing federal Tier 1 emission standards for new vehicles and the federal reformulated gasoline program. Because the Manchester and Nashua areas were "not classified" under Section 172, the CAA set forth the applicable requirements for nonattainment areas. The CAA required such an area to achieve the standard by November 15, 1995, and both cities have fulfilled this requirement.

On February 2, 1999, DES submitted a request to redesignate the cities of Manchester and Nashua from CO nonattainment areas to CO attainment areas. EPA approved the redesignation in November, 2000 (65 FR 71060). As part of the redesignation request, the State submitted a maintenance plan as required by 175A of the Clean Air Act, as amended in 1990. Elements of the Section 175A maintenance plan included a base year (1990 attainment year) emission inventory for CO, a demonstration of NAAQS maintenance, a plan to verify continued attainment, a contingency plan and an obligation to submit additional information acknowledging that the maintenance plan would remain in effect through the year 2020, as required by the CAA. The redesignation request established a Manchester motor vehicle emissions budget of 55.83 tons per day and a Nashua motor vehicles CO emission budget of 60.13 tons per day to be used in determining transportation conformity in the Manchester and Nashua areas.

On May 30, 2007, DES submitted a modification of the approved Nashua maintenance plan, discontinuing CO monitoring in Nashua, which was approved by EPA on September 10, 2007 (72 FR 51564). Under that modification, DES agreed to continue to collect and review CO monitoring data from nearby Manchester. In the event monitoring data showed CO levels in Manchester reached 75% of the federal 1-hour or 8-hour NAAQS CO limit, an operating monitoring site in Nashua would be re-established and DES would resume analyzing and reporting monitoring data. New Hampshire is now proposing to discontinue CO monitoring in Manchester and to rely instead on the monitoring station in nearby Londonderry.

3. Limited Maintenance Plan Option

On October 6, 1995, EPA published the Joseph W. Paisie Limited Maintenance Plan Option Memo. Based on that guidance, the core elements of a Limited Maintenance Plan are:

- Attainment inventory identifying the levels of emissions in an area;
- Maintenance Demonstration showing that design values do not exceed 85% of the NAAQS;
- Monitoring to verify continued eligibility;

- Contingency Plan identifying measures to be adopted in the event of a NAAQS violation; and
- Conformity Determination discussion.

3.1 Attainment Inventory

Regarding the attainment inventory, the Option Memo notes that "[t]he State should develop an attainment emissions inventory to identify a level of emissions in the area which is sufficient to attain the NAAQS. This inventory should be consistent with EPA's most recent guidance on emissions inventories for nonattainment areas available at the time and should represent emissions during the time period associated with the monitoring data showing attainment. The inventory should be based on actual 'typical winter day' emissions of CO." To this end, DES has prepared an attainment inventory for year 2008 for Hillsborough County which encompasses the cities of Manchester and Nashua.

The 2008 attainment inventory is subdivided into the following general emissions categories:

- Point Sources, which represent discrete facilities. These sources usually must meet certain emission criteria to be included as point sources and generally represent larger facilities.
- Area Sources, which represent facilities and activities too numerous and widespread to be inventoried individually but which collectively may account for significant emissions.
- Non-Road Mobile Sources, including aircraft, locomotives, commercial marine vessels, construction vehicles, lawn & garden equipment, and other mobile vehicles and equipment that are not meant to be operated on roadways.
- On-Road Mobile Sources, including cars, trucks, buses, motorcycles, and other vehicles that operate on public roadways.

The methodologies used in preparing the 2008 emissions estimates are summarized in the following paragraphs.

For **point sources**, affected facilities in New Hampshire are required to report their emissions on an annual basis. The reporting requirements for these facilities are provided under New Hampshire's air regulations, its state air permitting program, and the Air Emissions Reporting Requirement. Data submitted by these facilities are extensively cross-checked and quality assured by DES staff before eventual submittal to EPA. The point source data contained in New Hampshire's 2008 attainment inventory originated from the quality-assured 2008 data from all reporting point sources in Hillsborough County.

The methodologies used to estimate emissions for **area source** categories come primarily from EPA's Emissions Inventory Improvement Program (EIIP). Calculations for many area source categories are based on variables such as population, employment, and fuel consumption data. Descriptions of the methodologies for specific area source categories can be found in EIIP Volume 3, *Area Sources*, which is available at EPA's Clearinghouse for Inventories and Emissions Factors website at http://www.epa.gov/ttn/chief/eiip/techreport/volume03/index.html. Seasonal adjustment factors from Table 1.4-3 of EIIP Volume III were used to derive winter season day estimates for the applicable source categories (e.g. residential heating).

For the **non-road mobile** category, DES used EPA's NONROAD2008a model to estimate 2008 emissions for those equipment types that are included in the model. The NONROAD model was run for a winter season day. For commercial aircraft and airport ground service equipment, the Federal Aviation Agency's (FAA's) Emissions & Dispersion Modeling System (EDMS) was used. Standardized methodologies and references were employed for equipment types not included in the EDMS or NONROAD models (e.g., locomotives and commercial marine vessels).

For **on-road mobile** sources, DES used MOVES2010a with VMT and other road related data provided by the relevant metropolitan planning organizations (MPOs) as well as vehicle population data obtained from the New Hampshire Department of Safety, Division of Motor Vehicles.

Estimated winter day CO emissions for the 2008 attainment inventory are shown in Table 1.

Table 1 - Winter Day CO Emissions for Hillsborough County, 2008

Category	CO emissions (tons per winter day)
Point	0.6*
Area	37.1
Non-Road Mobile	40.0
On-Road Mobile	165
Total	242.7

^{*}Estimated tons per average day

On-Road Mobile emissions generated using MOVES2010a

Tables 2 and 3 illustrate annual CO emissions in the Manchester and Nashua area (Hillsborough County) and statewide. As Table 2 demonstrates, the total 2008 Hillsborough County emissions from all sources are estimated to be 77,311 tons with all mobile sources estimated to contribute 40,576 tons or 52% of the total.

Table 2 - CO Emissions for Hillsborough County, 1999 - 2008

3	CO emissions (tons per year)					
Category	1999	2002	2005	2008		
Point	184	143	191	92		
Area	12,822	12,864	13,210	13,384		
Non-Road Mobile	32,162	29,216	26,776	23,259		
On-Road Mobile	92,831	58,379	58,666	40,576		
Total	137,999	100,602	98,841	77,311		

Sources of Data

1999 and 2002: National Emissions Inventory data from EPA's Air Data website.

2005: 2005 National Emissions Inventory, Version 2 downloaded from EPA's CHIEF website.

2008: 2008 National Emissions Inventory, Version 1.5 downloaded from EPA's EIS Gateway.

Table 3 - CO Emissions for New Hampshire, 1999 - 2008

	CO emissions (tons per year)					
Category	1999	2002	2005	2008		
Point	4,923	2,724	4,754	3,357		
Area	78,133	74,099	73,706	47,798		
Non-Road Mobile	123,530	124,801	119,322	104,887		
On-Road Mobile	345,413	294,533	236,990	174,154		
Total	552,000	496,157	434,772	330,196		

Sources of Data

1999 and 2002: National Emissions Inventory data from EPA's Air Data website.

2005: 2005 National Emissions Inventory, Version 2 downloaded from EPA's CHIEF website.

2008: 2008 National Emissions Inventory, Version 1.5 downloaded from EPA's EIS Gateway.

From 1999 to 2008, CO mobile source emissions declined by 49% in Hillsborough County and by 22%, statewide. Monitored levels of CO have continued to decrease over the last decade and the modeled emissions of CO from on-road sources mirror this downward trend. The availability of cleaner cars through the Federal Motor Vehicle Control Program, together with the addition of local transportation controls such as New Hampshire's Inspection & Maintenance Program, including an annual On-Board Diagnostics inspection, have resulted in decreased emissions and, hence, lower CO concentrations.

3.2. Demonstration of Continued Attainment

According to the Option Memo, "[t]he maintenance demonstration requirement is considered to be satisfied if the monitoring data show that the area is meeting the air quality criteria for limited maintenance areas (7.65 ppm or 85% of the CO NAAQS). There is no requirement to project emissions over the maintenance period. EPA believes if the area

begins the maintenance period at or below 85 percent of exceedance levels, the air quality along with the continued applicability of PSD requirements, any control measures already in the SIP, and Federal measures, should provide adequate assurance of maintenance over the initial 10-year maintenance period.

When EPA approves a limited maintenance plan, EPA is concluding that an emissions budget may be treated as essentially not constraining for the length of the maintenance period because it is unreasonable to expect that such an area will experience so much growth in that period that a violation of the CO NAAQS would result." DES interprets this to mean that such an area is no longer required to demonstrate conformity to a CO motor vehicle emissions budget.

To qualify for the limited maintenance plan option, the CO Design Value for the area must be at or below 7.65 ppm (85% of the NAAQS 8-hour level of 9 ppm), based on at least 8 consecutive quarters (2 years) of data used to demonstrate attainment. Observation of the second highest 8-hour concentration is also an indicator of the area's proximity to violating the standard.

2000 to 2010 1-hour and 8-hour Design Values and 1-hour and 8-hour second highest CO concentrations for Manchester and Nashua are summarized in Tables 4 and 5. The annual 1-hour and 8-hour second highest concentrations are represented graphically in Figures 1 and 2. In all cases, the design values and second highest concentrations are significantly less than the 7.65 ppm threshold specified in EPA guidance, thus making each area eligible for the limited maintenance plan option.

Table 4 - 1-hour and 8-hour Design Values by year (Manchester and Nashua)*

	Manchester				Nashua	
in.	Bridge St		Pearl St		Main St	
Year	1-hr	8-hr	1-hr	8-hr	1-hr	8-hr
2000						
2001	7.1	3.6			8	4.1
2002			3.7	2	6.5	4
2003			4.8	3.4	6.2	4
2004		}	4.8	3.4	6.2	4
2005			2.8	1.8	6.1	3.2
2006			8.1	3	9.1	3.2
2007			8.1	3	9.1	2.4
2008			6	3.5		
2009			6	3.5		
2010			3.2	2.4		

^{*} Note: Because CO Design Values are based on the higher value between one year and the previous year, there is no design value for 2000, the first year in which data was recorded.

Table 5 – 1-hour and 8-hour 2nd high concentrations by year (Manchester and Nashua)

		Manchester			Nashua Main St	
Year	Bridge St		Pearl St			
	1-hr	8-hr	1-hr	8-hr	1-hr	8-hr
2000	7.1	3.6			8	4.1
2001	4.6	3.1			6.5	4
2002	E. S. Lines		3.7	2	5.9	3.7
2003			4.8	3.4	6.2	4
2004			2.2	1.4	4.3	2.8
2005			2.8	1.8	6.1	3.2
2006			8.1	3	9.1	2.4
2007			2.6	1.8	3.7	2.2
2008	AND THE RESERVE		6	3.5		
2009			3.2	2		
2010			3.1	2.4		

Figure 1 - Annual 1-Hour 2nd Highest Concentrations - 2000 - 2010

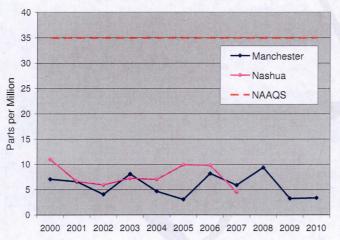
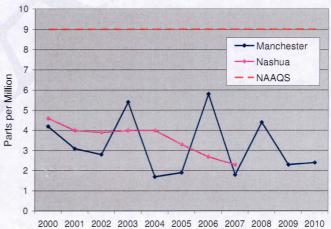


Figure 2 - Annual 8-Hour 2nd Highest Concentrations - 2000 - 2010



3.3. Monitoring Network/Verification of Continued Attainment

With respect to monitoring, the Option Memo reads: "To verify the attainment status of the area over the maintenance period, the maintenance plan should contain provisions for continued operation of an appropriate, EPA-approved air quality monitoring network, in accordance with 40 CFR 58. This is particularly important for areas using a limited maintenance plan, because there will be no cap on emissions."

As part of this Limited CO Maintenance Plan, New Hampshire is proposing to discontinue monitoring CO at its Manchester site. In lieu of operating that site, DES plans to track CO using data collected from the following sources:

- 1. CO monitoring will continue year-round at the Londonderry Moose Hill station in Londonderry. The Londonderry Moose Hill Station came online on January 1, 2011 as an NCore² superstation measuring a wide variety of pollutants. DES worked closely with EPA to carefully select this site due to its central proximity to Manchester and Nashua. The Londonderry station measures PM 2.5 (continuous and filter-based) Nitrogen Oxides, Ozone, Sulfur Dioxide (trace) and Carbon Monoxide (trace) as well as wind speed, wind direction and relative humidity.
- 2. New Hampshire's emissions inventory tabulates CO emissions from point, area and mobile sources. As demonstrated earlier (see Table 1), New Hampshire has been in attainment for CO since 1999 and the vast preponderance of NH CO emissions are from mobile sources. New Hampshire will continue to provide a multi-source inventory every 3 years that will be used for identifying CO mobile source emissions trends within the state.

A review of over 8,600 hourly samples taken since the Londonderry station came online shows 1-hour CO levels varying from 0.0 ppm to a high of 2.65 ppm at 2:00 AM on January 11, 2011. Because design values are based on two years of data, and the Londonderry station has been operating for only 15 months, it is not yet possible to calculate the maximum and second maximum 8-hour design values over two years as protocol requires. Using 15 months of values averaged over 8-hour non-overlappping periods, the maximum 8-hour highest and 2nd highest CO Design Values, are 1.77 and 1.23 ppm, respectively. Similar to the Nashua and Manchester station results, these levels are well below the CO NAAQS. The relatively short period of Londonderry station operation, however, makes it impossible to determine if there is a general downward trend in CO levels, as demonstrated by 10 years of data from the Nashua and Manchester stations.

Should the present downward trend of mobile source CO emissions reverse, and in the event the second-highest CO concentration in any calendar year monitored in Londonderry reaches 50 percent of either the federal 1-hour or 8-hour NAAQS for CO, New Hampshire will, within six months, reestablish a CO monitoring site in Manchester consistent with EPA siting criteria and resume analyzing and reporting those data. In the event the second highest CO concentration in any calendar year monitored in Manchester reaches 75 percent of the federal 1-hour or 8-hour national ambient air quality standard for CO, New

² One of the most significant changes in the EPA air monitoring regulations was the requirement to establish National Core (NCore) multi-pollutant monitoring stations. These stations will provide data on several pollutants at lower detection limits and replace the National Air Monitoring Station (NAMS) networks that have existed for several years.

Hampshire will, within 6 months of recording such concentrations, re-establish a CO monitoring site in Nashua consistent with EPA siting criteria, and resume analyzing and reporting those data. New Hampshire commits to implement its contingency program in Nashua in the event that a CO violation is monitored at the re-established Nashua monitoring site at any time during the maintenance period. If the Manchester CO monitor measures a violation of the either the federal 1-hour or 8-hour NAAQS for CO, contingency measures will be implemented in Nashua as well, until a re-established CO monitor in Nashua shows that the area is in attainment of the CO standard.

3.4. Contingency Plan

According to the Option Memo, "Section 175A of the CAA requires that a maintenance plan include contingency provisions, as necessary, to promptly correct any violation of the NAAQS that occurs after redesignation of the area. These contingency measures do not have to be fully adopted at the time of redesignation. However, the contingency plan is considered to be an enforceable part of the SIP and should ensure that the contingency measures are adopted expeditiously once they are triggered by a specified event. The contingency plan should identify the measures to be promptly adopted and provide a schedule and procedure for adoption and implementation of the measures. The State should also identify specific indicators, or triggers, that will be used to determine when the contingency measures need to be implemented. While an exceedance of the NAAQS is an acceptable trigger, States may wish to choose a pre-exceedance action level as a trigger. By taking early action, a State may be able to prevent any actual violation of the NAAQS and, therefore, eliminate any need on the part of EPA to redesignate an area back to nonattainment."

DES believes that specific contingency measures are not needed at the present time, since the current CO levels are so far below the NAAQS, and since emissions from mobile sources, the dominant source of CO in the State and Manchester and Nashua regions, are decreasing in spite of increasing population. As mentioned, previously implemented contingency measures and emissions reductions strategies have proven successful, and these will be continued through the maintenance period. These include:

- Vehicle Inspection/Maintenance (I/M) Although federal regulations (40 CFR 51.350) required New Hampshire to implement an I/M program with tailpipe emissions testing, New Hampshire's program of anti-tampering inspections for pre-1996 vehicles less than 20 years old and an OBD II inspection on all model years 1996 and newer has provided superior environmental benefits to expensive and onerous tailpipe testing. New Hampshire will continue its EPA-approved OBD II program as a SIP strengthening measure.
- Vehicle Miles Traveled reductions Reducing vehicle use and traffic congestion, and their associated emissions, are key state and local transportation objectives.
 DES will continue to work with DOT and regional MPOs to identify effective congestion and emission reduction project and programs such as such as traffic

- signal coordination, increased mass transit, RideShare, anti-idling and other traffic management strategies.
- Emissions reductions New Hampshire continues to enjoy the benefits of the Federal Clean Fuel Programs that resulted in reduced CO emissions. In keeping with President Obama's 2009 national fuel economy and emissions policy, DES and local MPOs are actively promoting low emissions vehicles and emissions reductions strategies such as anti-idling programs and park & ride lot construction as part of their long range transportation plans.

Because New Hampshire proposes to discontinue monitoring CO in Manchester, it will adopt a more stringent contingency threshold or "trigger" than indicated in the 2007 SIP revision. As indicated in Section 3.3 above, New Hampshire will monitor CO levels using the Londonderry Moose Hill station and emissions inventories. In the event the secondhighest CO concentration in any calendar year monitored in Londonderry reaches 50 percent of the federal 1-hour or 8-hour NAAQS for CO, New Hampshire will, within six months of recording such concentrations, reestablish the CO monitoring site in Manchester consistent with EPA siting criteria, and resume analyzing and reporting those data. In the event the second highest CO concentration in any calendar year monitored in Manchester reaches 75 percent of the federal 1-hour or 8-hour national ambient air quality standard for CO, New Hampshire will, within 6 months of recording such concentrations, re-establish a CO monitoring site in Nashua consistent with EPA siting criteria, and resume analyzing and reporting those data. New Hampshire commits to implement a contingency program in Nashua in the event that a CO violation is monitored at the re-established Nashua monitoring site at any time during the maintenance period. If the Manchester CO monitor measures a violation of the either the federal 1-hour or 8-hour NAAQS for CO, contingency measures will be implemented in Nashua as well, until a re-established CO monitor in Nashua shows that the area is in attainment of the CO standard.

3.5. Conformity Determination under Limited Maintenance Plans

In discussing conformity, the Option Memo reads: "The transportation conformity rule (Determining Conformity of Federal Actions to State or Federal Implementation Plans; 40 CFR 93; amended 1998) and the general conformity rule (Requirements for Preparation, Adoption, and Submittal of Implementation Plans; 40 CFR 51; adopted 1994) apply to nonattainment areas and maintenance areas operating under maintenance plans. Under either rule, one means of demonstrating conformity of Federal actions is to indicate that expected emissions from planned actions are consistent with the emissions budgets for the area. Emissions budgets in limited maintenance plan areas may be treated as essentially not constraining for the length of the initial maintenance period because it is unreasonable to expect that such an area will experience so much growth in that period that a violation of the CO NAAQS would result. In other words, EPA would be concluding that emissions need not be capped for the maintenance period. Therefore, in areas with approved limited maintenance plans, Federal actions requiring conformity determinations under the transportation conformity rule could be considered to satisfy the 'budget test' required in 40

CFR 93.118, 93.119, and 93.120 of the rule. Similarly, in these areas, Federal actions subject to the general conformity rule could be considered to satisfy the 'budget test' specified in section 93.158 (a) (5) (i) (A) of the rule." As this is guidance, final and binding determinations regarding the eligibility of areas for the limited maintenance plan option will only be made in the context of notice and comment rulemaking actions regarding specific redesignation requests.

In recent conformity determinations (see attachment 2: May 4, 2011 letter to FHWA Administrator Ms. Kathleen O. Laffey from EPA Air Quality Planning Unit Manager Anne E. Arnold) the Southern NH MPO and the Nashua MPO have demonstrated that transportation conformity for the Manchester and Nashua CO attainment areas and the motor vehicle emissions for future years are consistent with the 2010 motor vehicles emissions budgets of 55.83 tons of CO per winter day in Manchester and 60.13 tons of CO per day in Nashua (Tables 6 and 7). In fact, the projected CO emissions are less than half of the budgets in both areas.

Table 6 - Manchester CO Conformity Determination Projection

Carbon Monoxide Analysis Summary for the City of Manchester				
Year	CO tons/day (winter)	CO Budget (tons/day)		
2012	28.80	55.83		
2017	26.65	55.83		
2026	26.38	55.83		
2035	27.66	55.83		

Table 7 – Nashua CO Conformity Determination Projection

Carbon Monoxide Analysis Summary for the Nashua				
Year	CO tons/day (winter)	CO Budget (tons/day)		
2012	28.73	60.13		
2017	26.11	60.13		
2026	25.51	60.13		
2035	26.64	60.13		

Consistent with Mr. Paisie's and Ms. Arnold's memos, DES will use the Interagency Consultation (IAC) process to inform the New Hampshire Department of Transportation (NHDOT) and MPOs that, upon approval of the limited maintenance plans, CO emissions budgets will no longer be constraining for transportation conformity because of the low levels of emissions, continued CO reductions resulting from 2000 Maintenance Plan reduction measures implementation, and expected growth during the maintenance period.

EPA further discusses the implications of a Limited Maintenance Plan (LMP) on conformity requirements in an August 21, 2001 guidance memorandum to EPA Regional Air Directors (see attachment 3: Lydia Wegman memorandum; Limited Maintenance Plan Option for Moderate PM_{10} Nonattainment Areas). That memo reads in part, "Emissions Budgets in LMP areas may be treated as essentially not constraining for the length of the

maintenance period because it is unreasonable to expect that an area satisfying the LMP criteria will experience so much growth during that period of time such that a violation of the PM₁₀ NAAQS would result. While this policy does not exempt an area from the need to affirm conformity, it does allow the area to demonstrate conformity without undertaking certain requirements of these rules. For transportation conformity purposes, EPA would be concluding that emissions in these areas need not be capped for the maintenance period, and, therefore, a regional emissions analysis would not be required." As this guidance suggests, New Hampshire will still be subject to CAA requirements to ensure CO conformity in LMP areas, but MPOs will not be required to provide regional analyses as long as LMP conditions are met. However, this is not to say that MPOs no longer have responsibility for ensuring individual transportation projects do not cause or contribute to any new localized CO violations. As per 40 CFR 93.116, project sponsors will still be required to perform hot-spot analyses for FHWA/FTA projects to demonstrate no new local violations will be created as a result of the projects.

4. Conclusion

CO levels in the Nashua and Manchester maintenance areas have remained under the CO standard as a result of national and local control strategies implemented. In fact, the current design value for both areas is less than half the standard. The current design values in the areas have remained below the standard since both areas were designated and are expected to continue to maintain compliance with the standard. New Hampshire has verified that the emission controls adopted to maintain the standard continue to be permanent and enforceable, that there are no new significant sources of carbon monoxide or increases in background emissions and that the state has in place a program to identify sources of exceedance and address any violation through enforcement and implementation of a contingency plan.

This plan satisfies New Hampshire's obligation under Section 175A(b) of the CAA to submit a plan for maintaining the national primary ambient air quality standard for CO for the next ten years beyond the current maintenance plan.

5. Public Record & Comment

In accordance with 40 CFR 51.102, public participation in this request was provided as follows:

Notice of availability of the complete document and a notice of opportunity for the public to submit written comments and request a public hearing were published on XX/XX/XXXX in the Manchester Union Leader.

[Summary of public comments received and what changes, if any, were made to the document.]

A copy of the legal public notice can be found as Attachment 4 and a copy of proof of publication can be found as Attachment 5.

Attachment 1 - Memorandum: Limited Maintenance Plan Option for Nonclassifiable CO Nonattainment Areas; Joseph W. Paisie, Group Leader; October 6, 1995

Attachment 2 - Letter from Anne Arnold, EPA Air Quality Planning Unit; Air Quality Conformity: Statewide Transportation Improvement Program Amendment Number 1 (2011 – 2014 STIP); May 4, 2011

Attachment 3 - Memorandum: Limited Maintenance Plan Option for Moderate PM_{10} Nonattainment Areas; Lydia Wegman, Director; August 21, 2001

Attachment 4 – Public Notice

Attachment 5 - Proof of Publication

Attachment 1

October 6, 1995

MEMORANDUM

SUBJECT: Limited Maintenance Plan Option for Nonclassifiable CO Nonattainment Areas

FROM: Joseph W. Paisie, Group Leader

Integrated Policy and Strategies Group (MD-15)

TO: Air Branch Chiefs, Regions I-X

On November 16, 1994, EPA issued guidance regarding a limited maintenance plan option for nonclassifiable ozone nonattainment areas in a memorandum from Sally L. Shaver, Director, Air Quality Strategies and Standards Division, to Regional Air Division Directors. EPA believes that such an option is also appropriate for nonclassifiable CO nonattainment areas and the following questions and answers set forth EPA's guidance regarding the availability of this option for such areas. As this is guidance, final and binding determinations regarding the eligibility of areas for the limited maintenance plan option will only be made in the context of notice and comment rulemaking actions regarding specific redesignation requests.

If there are any questions concerning the limited maintenance plan option for nonclassifiable CO areas, please contact me at (919) 541-5556 or Larry Wallace at (919) 541-0906.

Attachment

cc: E. Cummings, OMS

K. McLean, OGC

C. Oldham

L. Wallace

AQSSD:IPSG:LWALLACE:vwyatt:x5628:MD-12:10-6-95 WALLACE: A:UOE.ABC

10/6/95

Limited Maintenance Plan Option for Nonclassifiable CO Nonattainment areas

1. Question:

What requirements must CO nonclassifiable areas, which are attaining the CO NAAQS with a design value that is significantly below the NAAQS, meet in order to have an approvable maintenance plan under section 175A of the Act?

Answer:

Nonclassifiable CO nonattainment areas seeking redesignation to attainment whose design values are at or below 7.65ppm (85 percent of exceedance levels of the CO NAAQS) at the time of redesignation may choose to submit a less rigorous maintenance plan than was formerly required. This new option is being termed a limited maintenance plan. Nonclassifiable CO areas with design values greater than 7.65ppm will continue to be subject to full maintenance plan requirements described in the September 4, 1992 memorandum, "Procedures for Processing Requests to Redesignate Areas to Attainment," from John Calcagni, former Director of the OAQPS Air Quality Management Division to the Regional Air Division Directors.

The EPA now believes that it is justifiable and appropriate to apply a different set of maintenance plan requirements to a nonclassifiable CO nonattainment areas whose monitored air quality is equal to or less than 85 percent of exceedance levels of the ozone NAAQS. The EPA does not believe that the full maintenance plan requirements need be applied to these areas because they have achieved air quality levels well below the standard without the application of control measures required by the Act for moderate and serious nonattainment areas. Also, these areas do not have either a recent history of monitored violation of the CO NAAQS or a long prior history of monitored air quality problems. The EPA believes that the continued applicability of prevention of significant deterioration (PSD) requirements, any control measures already in the SIP, and Federal measures (such as the Federal motor vehicle control program) should provide adequate assurance of maintenance for these areas.

2. Question:

Besides having a design value that is equal to or less than 85% of the CO NAAQS what other requirements are necessary for a nonclassifiable CO nonattainment area to qualify for the limited maintenance plan option?

Answer:

To qualify for the limited maintenance plan option, the CO design value for the area, based on the 8 consecutive quarters (2 years of data) used to demonstrate attainment, must be at or below 7.65ppm (85 percent of exceedance levels of the ozone NAAQS). Additionally, the design value for the area must continue to be at or below 7.65ppm until the time of final EPA action on the redesignation. The method for calculating design values is presented in the June 18, 1990 memorandum, "Ozone and Carbon Monoxide Design Value Calculations," from William G. Laxton, former Director of the OAQPS Technical Support Division to Regional Air Directors. The memorandum focuses primarily on determining design values for nonattainment areas in order to classify the areas as moderate or serious for CO. Therefore, the document discusses determining the design value for an area based on the monitors which are exceeding the standard. In the case of a nonattainment area seeking redesignation to attainment, all monitors must be meeting the standard. To assess whether a nonclassifiable area meets the applicability cutoff for the limited maintenance plan, a separate design value must be developed for every monitoring site. The highest of these design values is the design value for the whole area. If the area design value is at or below 7.65ppm, the State may select the limited maintenance plan option for the first 10-year maintenance period under section 175A. If the design value for the area exceeds 7.65ppm prior to final EPA action on the redesignation, the area no longer qualifies for the limited maintenance plan and must instead submit a full maintenance plan, as indicated in the September 4, 1992 memorandum.

3. Question:

What elements must be contained in a section 175A maintenance plan for nonclassifiable CO areas which qualify for the limited maintenance plan option?

Answer:

Following is a list of core provisions which should be included in the limited maintenance plan for CO nonclassifiable areas. Any final EPA determination regarding the adequacy of a limited maintenance plan will be made following review of the plan submittal in light of the particular circumstances facing the area proposed for redesignation and based on all relevant available information.

a. Attainment Inventory

The State should develop an attainment emissions inventory to identify a level of emissions in the area which is sufficient to attain the NAAQS. This inventory should be consistent with EPA's most recent guidance¹ on emissions inventories for nonattainment areas available at the time and should represent emissions during the time period associated with the monitoring data showing attainment. The inventory should be based on actual "typical winter day" emissions of CO.

b. Maintenance Demonstration

The maintenance demonstration requirement is considered to be satisfied for nonclassifiable areas if the monitoring data show that the area is meeting the air quality criteria for limited maintenance areas (7.65ppm or 85% of the CO NAAQS). There is no requirement to project emissions over the maintenance period. The EPA believes if the area begins the maintenance period at or below 85 percent of exceedance levels, the air quality along with the continued applicability of PSD requirements, any control measures already in the SIP, and Federal measures, should provide adequate assurance of maintenance over the initial 10-year maintenance period.

When EPA approves a limited maintenance plan, EPA is concluding that an emissions budget may be treated as essentially not constraining for the length of the maintenance

^{&#}x27;The EPA's current guidance on the preparation of emissions inventories for ozone areas is contained in the following documents: "Procedures for the Preparation of Emission Inventories for Carbon Monoxide and Precursors of Ozone: Volume I" (EPA-450/4-91-016), "Emission Inventory Requirements for Ozone State Implementation Plans" (EPA-450/4-91-010), and "Procedures for Emission Inventory Preparation: Volume IV, Mobile Sources" (EPA-450/4-81-026d).

period because it is unreasonable to expect that such an area will experience so much growth in that period that a violation of the CO NAAQS would result.

c. Monitoring Network/Verification of Continued Attainment

To verify the attainment status of the area over the maintenance period, the maintenance plan should contain provisions for continued operation of an appropriate, EPA-approved air quality monitoring network, in accordance with 40 CFR part 58. This is particularly important for areas using a limited maintenance plan because there will be no cap on emissions.

d. Contingency Plan

Section 175A of the Act requires that a maintenance plan include contingency provisions, as necessary, to promptly correct any violation of the NAAQS that occurs after redesignation of the area. These contingency measures do not have to be fully adopted at the time of redesignation. However, the contingency plan is considered to be an enforceable part of the SIP and should ensure that the contingency measures are adopted expeditiously once they are triggered by a specified event. The contingency plan should identify the measures to be promptly adopted and provide a schedule and procedure for adoption and implementation of the measures. The State should also identify specific indicators, or triggers, which will be used to determine when the contingency measures need to be implemented. While a violation of the NAAQS is an acceptable trigger, States may wish to choose a pre-violation action level as a trigger, such as an exceedance of the NAAQS. By taking early action, a State may be able to prevent any actual violation of the NAAQS and, therefore, eliminate any need on the part of EPA to redesignate an area back to nonattainment.

e. Conformity Determinations Under Limited Maintenance Plans

The transportation conformity rule (58 FR 62188; November 24, 1993) and the general conformity rule (58 FR 63214; November 30, 1993) apply to nonattainment areas and maintenance areas operating under maintenance plans. Under either rule, one means of demonstrating conformity of Federal actions is to indicate that expected emissions from planned actions are consistent with the emissions budget for the area. Emissions budgets in limited maintenance plan areas may be treated as essentially not constraining for the length of the initial maintenance period because it is unreasonable to expect that such an area will experience so much growth in that period that a violation of the CO NAAQS would result. In other words, EPA would be concluding that emissions need not be capped for the maintenance period. Therefore, in areas with approved limited maintenance plans, Federal actions requiring conformity determinations under the transportation conformity rule could be considered to satisfy the "budget test" required in sections 93.118, 93.119, and 93.120 of the rule. Similarly, in these areas, Federal actions subject to the general conformity rule could be considered to satisfy the "budget test"

specified in section 93.158(a)(5)(i)(A) of the rule.

Attachment 2



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 1 5 Post Office Square, Suite 100 Boston, MA 02109-3912

May 4, 2011

Ms. Kathleen O. Laffey, Division Administrator Federal Highway Administration 19 Chenell Drive, Suite One Concord, NH 03301

Re: New Hampshire Air Quality Conformity: Statewide Transportation Improvement Program Amendment Number 1 (2011-2014 STIP).

Dear Ms. Laffey:

On April 22, 2011, EPA-New England received "Amendment Number 1 — 2011-2014 Statewide Transportation Improvement Program (STIP)," from the New Hampshire Department of Transportation. Interagency consultation had previously determined that changes to non-exempt projects in Amendment Number 1 would trigger a new air quality transportation conformity determination for the Boston-Manchester-Portsmouth (Southeast) New Hampshire 8-hour ozone nonattainment area in accordance with section 93.104(c)(2) of the Transportation Conformity Rule.

Through interagency consultation, New Hampshire Department of Transportation, New Hampshire Department of Environmental Services, FHWA, FTA, EPA and the four Metropolitan Planning Organizations (MPOs), agreed that the projects identified in Statewide Transportation Improvement Program Amendment Number 1 while triggering the need for a new air quality conformity determination would not affect the current air quality analysis. Therefore, the existing Air Quality Conformity Analyses prepared for the 2011 – 2014 Transportation Improvement Programs remain valid for determining air quality conformity in accordance with section 93.122(g) of the Transportation Conformity Rule.

EPA New England believes that the current air quality conformity analyses prepared by the Nashua Regional Planning Commission, Southern New Hampshire Planning Commission, Rockingham Planning Commission and the Strafford Regional Planning Commission continue to support U.S. DOT making a positive transportation improvement program conformity determination for the Boston-Manchester-Portsmouth (Southeast) New Hampshire 8-hour ozone nonattainment area, as well as the Manchester carbon monoxide attainment area with a maintenance plan and the Nashua carbon

monoxide attainment area with a maintenance plan. Specifically, the air quality conformity analyses demonstrate that:

 Transportation conformity is met for the Boston-Manchester-Portsmouth (Southeast) New Hampshire 8-hour ozone nonattainment area. The motor vehicle emissions for future years are less than the 2009 motor vehicle emissions budgets of 15.31 tons per summer day of volatile organic compounds (VOC) and 28.53 tons per summer day of nitrogen oxides (NOx) established within New Hampshire's SIP Revision, "2009 Motor Vehicle Emissions Budget for the Southeast New Hampshire Moderate 8-hour Ozone Non-Attainment Area," as seen on the table below.

Boston-Manchester-Portsmouth (Southeast), New Hampshire 8-Hour Ozone Nonattainment Area (Emissions in tons per summer day)					
Year	VOC Build Emissions	2009 VOC Motor Vehicle Emission Budget	NOx Build Emissions	2009 NOx Motor Vehicle Emission Budget	
2012	12.34	15.31	20.46	28.53	
2017	9.31	15.31	12.09	28.53	
2026	6.81	15.31	6.67	28.53	
2035	7.24	15.31	5.79	28.53	

 Transportation conformity is met for the Manchester carbon monoxide attainment area with a maintenance plan. The motor vehicle emissions for future years are consistent with the 2010 motor vehicle emission budget of 55.83 tons of carbon monoxide per winter day established by the EPA-approved maintenance plan for the area, as seen on the table below.

Carbon Monoxide Analysis Summary for the City of Manchester				
Year	CO tons/day (winter)	CO Budget tons/day		
2012	28.80	55.83		
2017	26.65	55.83		
2026	26.38	55.83		
2035	27.66	55.83		

• Transportation conformity is met for the Nashua carbon monoxide attainment area with a maintenance plan. The motor vehicle emissions for future years are consistent with the 2010 motor vehicle emission budget of 60.13 tons of carbon monoxide per winter day established by the EPA-approved maintenance plan for the area, as seen on the table below.

Carbon Monoxide Analysis Summary for the City of Nashua				
Year	CO tons/day (winter)	CO Budget tons/day		
2012	28.73	60.13		
2017	26.11	60.13		
2026	25.51	60.13		
2035	26.64	60.13		

 The Transportation Improvement Programs as amended are consistent with the current Transportation Plan for the corresponding area. The Transportation Improvement Programs utilize the latest planning assumptions; the MOBILE6.2 emission factor model; and the relevant Federal, State, and MPO Agencies have conducted the consultation process in accordance with the conformity rule.

If you or your staff has any questions regarding our comments, please feel free to call Donald Cooke of my staff at (617) 918-1668.

Sincerely,

Anne E. Arnold, Manager Air Quality Planning Unit

ann aroll

cc: Mary Beth Mello, Administrator, FTA - Region 1, Cambridge, MA
Peter Butler, FTA - Region 1, Cambridge, MA
William Gordon, FTA - Region 1, Cambridge, MA
Leigh Levine, FHWA - New Hampshire Division, Concord NH
Tom Fargo, NH DES, Concord, NH
Rebecca Ohler, NH DES, Concord, NH
Chris Skoglund, NH DES, Concord, NH
Eric Abrams, NH DES, Concord, NH
William Watson, NH DOT, Concord, NH
Nicholas Alexander, NH DOT, Concord, NH

Attachment 3

MEMORANDUM

SUBJECT: Limited Maintenance Plan Option for Moderate PM₁₀ Nonattainment Areas

FROM: Lydia Wegman, Director

AQSSD (MD-15)

TO: Director, Office of Ecosystem Protection, Region I

Director, Division of Environmental Planning & Protection, Region II

Director, Air Protection Division, Region III

Director, Air, Pesticides & Toxics Management Division, Region IV

Director, Air and Radiation Division, Region V Director, Air Pesticides & Toxics, Region VI Director, Air and Toxics Division, Regions VII, IX

Director, Air Program, Region VIII

Director, Office of Air Quality, Region X

I. What is a Limited Maintenance Plan?

This memorandum sets forth new guidance¹ on maintenance plan submissions for certain moderate particulate matter (PM_{10}) nonattainment areas seeking redesignation to attainment (see section IV for further details on qualifying for the policy). If the area meets the criteria listed in this policy the State may submit a maintenance plan at the time it is requesting redesignation that is more streamlined than would ordinarily be permitted. This new option is being termed a limited maintenance plan (LMP)².

II. Why is there a need for a limited maintenance plan policy?

¹This memorandum is intended to provide EPA's preliminary views on how certain moderate PM10 nonattainment areas may qualify to submit a maintenance plan that meets certain limited requirements. Since it represents only the Agency's preliminary thinking that is subject to modification, this guidance is not binding on States, Tribes, the public, or EPA. Issues concerning the applicability of the limited maintenance plan policy will be addressed in actions to redesignate moderate PM10 nonattainment areas under § 107 of the CAA. It is only when EPA promulgates redesignations applying this policy that those determinations will become binding on States, Tribes, the public, and EPA as a matter of law.

²Moderate PM₁₀ areas that do not meet the applicability criteria of this policy, and all serious PM₁₀ nonattainment areas, should submit maintenance plans that meet our guidance for submission of a full maintenance plan as described in the September 4, 1992 memorandum, "Procedures for Processing Requests to Redesignate Areas to Attainment," from John Calcagni, former Director of the Office of Air Quality Planning and Standards (OAQPS) Air Quality management Division to the Regional Air Division Directors (hereafter known as the Calcagni Memo).

Before the U.S. Court of Appeals for the District of Columbia handed down its decision vacating the 1997 PM₁₀ national ambient air quality standards (NAAQS)(see American Trucking Associations, et al. v. Environmental Protection Agency (EPA), 175 F.3d 1027 (D.C. Cir. 1999), we were prepared to make case-by-case determinations that would make the 1987 PM₁₀ NAAQS no longer applicable in any area meeting the standards. In taking actions to remove the applicability of the 1987 NAAQS, we would have removed, as well, the nonattainment designation and Clean Air Act (CAA) part D requirements from qualifying areas. As a result of the D.C. Circuit's decision, for areas subject to the 1987 NAAQS, the only route to recognized attainment of the NAAQS and removal of nonattainment status and requirements is formal redesignation to attainment, including submittal of a maintenance plan. Since many areas have been meeting the PM₁₀ NAAQS for 5 years or more and have a low risk of future exceedances, we believe a policy that would allow both the States and EPA to redesignate speedily areas that are at little risk of PM₁₀ violations would be useful.

III. How did EPA develop the approach used in the LMP option?

The EPA has studied PM_{10} air quality data information for the entire country over the past eleven years (1989-1999) and has determined that some moderate PM_{10} nonattainment areas have had a history of low PM10 design values with very little inter-annual variation. When we looked at all the monitoring sites reporting data for those years, the data indicate that most of the average design values fall below 2 levels, 98 μ g/m³ for the 24-hr PM_{10} NAAQS and 40 μ g/m³ for the annual PM_{10} NAAQS. For most monitoring sites these levels are also below their individual site-specific critical design values (CDV). The CDV is an indicator of the likelihood of future violations of the NAAQS given the current average design value and its variability. The CDV is the highest average design value an area could have before it may experience a future exceedance of the NAAQS with a certain probability. A detailed explanation of the CDV is found in Attachment A³ to this policy which, because of its length, is a separate document accompanying this memorandum.

We believe that the very small amount of variation between the peaks and means in most of the data indicates a very stable relationship that can be reasonably expected to continue in the future absent any significant changes in emissions. The period we assessed provides a fairly long historical record and the data could therefore be expected to have been affected by a full range of meteorological conditions over the period. Therefore, the amount of emissions should be the only variable that could affect the stability in the air quality data. We believe we can reliably make estimates about the future variability of PM_{10} concentrations across the country based on our statistical analysis of this data record, especially in areas where the amount of emissions is not expected to change.

IV. How do I qualify for the LMP option?

³ Dr. Shao-Hang Chu's paper entitled "Critical Design Value and Its Applications" explains the CDV approach and is included in its entirety in Attachment A. This paper has been accepted for publication and presentation at the 94th Air and Waste Management Association (A&WMA) Annual Conference in June 2001 in Orlando, Florida.

To qualify for the limited maintenance plan option, an area should meet the following applicability criteria. The area should be attaining the NAAQS and the average PM_{10} design value⁴ for the area, based upon the most recent 5 years of air quality data at all monitors in the area, should be at or below 40 μ g/m³ for the annual and 98 μ g/m³ for the 24-hr PM_{10} NAAQS with no violations at any monitor in the nonattainment area⁵. If an area cannot meet this test it may still be able to qualify for the LMP option if the average design values of the site are less than their respective site-specific CDV.

We believe it is appropriate to offer this second method of qualifying for the LMP because, based on the air quality data we have studied, we believe there are some monitoring sites with average design values above $40~\mu\text{g/m}^3$ or $98~\mu\text{g/m}^3$, depending on the NAAQS in question, that have experienced little variability in the data over the years. When the CDV calculation was performed for these sites we discovered that their average design values are less than their CDVs, indicating that the areas have a very low probability (1 in 10) of exceeding the NAAQS in the future. We believe it is appropriate to provide these areas the opportunity to qualify for the LMP in this circumstance since the $40~\mu\text{g/m}^3$ or $98~\mu\text{g/m}^3$ criteria are based on a national analysis and don't take into account each local situation.

The final criterion is related to mobile source emissions. The area should expect only limited growth in on-road motor vehicle PM_{10} emissions (including fugitive dust) and should have passed a motor vehicle regional emissions analysis test. It is important to consider the impact of future transportation growth in the LMP, since the level of PM-10 emissions (especially from fugitive dust) is related to the level of growth in vehicle miles traveled (VMT). Attachment B (below) should be used for making the motor vehicle regional emissions analysis demonstration.

If the State determines that the area in question meets the above criteria, it may select the LMP option for the first 10 year maintenance period. Any area that does not meet these criteria should plan to submit a full maintenance plan that is consistent with our guidance in the Calcagni Memo in order to be redesignated to attainment. If the LMP option is selected, the State should continue to meet the qualifying criteria until EPA has redesignated the area to attainment. If an area no longer qualifies for the LMP option because a change in air quality affects the average design values before the redesignation takes effect, the area will be expected to submit a full maintenance plan.

Once an area selects the LMP option and it is in effect, the State will be expected to recalculate the average design value for the area annually and determine if the criteria used to qualify for the LMP

 $^{^4}$ The methods for calculating design values for PM $_{10}$ are presented in a document entitled the "PM $_{10}$ SIP Development Guideline", EPA-450/2-86-001, June 1987. The State should determine the most appropriate method to use from this Guideline in consultation with the appropriate EPA Regional office staff.

⁵If the EPA determines that the meteorology was not representative during the most recent five-year period, we may reject the State's request to use the LMP option and request, instead, submission of a full maintenance demonstration.

will still be met. If, after performing the annual recalculation of the area's average design value in a given year, the State determines that the area no longer qualifies for the LMP, the State should take action to attempt to reduce PM_{10} concentrations enough to requalify for the LMP. One possible approach the State could take is to implement a contingency measure or measures found in its SIP. If, in the next annual recalculation the State is able to re-qualify for the LMP, then the LMP will go back into effect. If the attempt to reduce PM_{10} concentrations fails, or if it succeeds but in future years it becomes necessary again to address increasing PM_{10} concentrations in the area, that area no longer qualifies for the LMP. We believe that repeated increases in PM_{10} concentrations indicate that the initial conditions that govern air quality and that were relied on to determine the area's qualification for the LMP have changed, and that maintenance of the NAAQS can no longer be assumed. Therefore, the LMP cannot be reinstated by further recalculations of the design values at this point. Once the LMP is determined to no longer be in effect, a full maintenance plan should be developed and submitted within 18 months of the determination.

Treatment of data used to calculate the design values.

Flagged Particulate Matter Data:

Three policies allow PM-10 data to be flagged for special consideration:

- Exceptional Events Policy (1986) for data affected by infrequent events such as industrial accidents or structural fires near a monitoring site;
- Natural Events Policy (1996) for data affected by wildfires, high winds, and volcanic and seismic activities, and;
- Interim Air Quality Policy on Wildland and Prescribed Fires for data affected by wildland fires that are managed to achieve resource benefits.

We will treat data affected by these events consistently with these previously-issued policies. We expect States to consider all data (unflagged and flagged) when determining the design value. The EPA Regional offices will work with the State to determine the validity of flagged data. Flagged data may be excluded on a case-by-case basis depending on State documentation of the circumstances justifying flags. Data flagged as affected by exceptional or natural events will generally not be used when determining the design value. However, in order for data affected by a natural event to be excluded, an adequate Natural Events Action Plan is required as described in the Natural Events policy.

Data flagged as affected by wildland and prescribed fires will be used in determining the design value. If the State is addressing wildland and prescribed fire use with the application of smoke management programs, the State may submit an LMP if the design value is too high only as a result of the fire-affected data.

We are in the process of developing a policy to address agricultural burning. When it is finalized we will amend the LMP option to account for the new policy.

V. What should an LMP consist of?

Under the LMP, we will continue to satisfy the requirements of Section 107(d)(3)(E) of the Act which provides that a nonattainment area can be redesignated to attainment only if the following criteria are met:

- 1. The EPA has determined that the NAAQS for the applicable pollutant has been attained.
- 2. The EPA has fully approved the applicable implementation plan under section 110(k).
- 3. The EPA has determined that the improvement in air quality is due to permanent and enforceable reductions in emissions.
- 4. The State has met all applicable requirements for the area under section 110 and part D.
- 5. The EPA has fully approved a maintenance plan, including a contingency plan, for the area under section 175A.

However, there are some differences between what our previous guidance (the Calcagni memo) recommends that States include in a maintenance plan submission and what we are recommending under this policy for areas that qualify for the LMP. The most important difference is that under the LMP the demonstration of maintenance is presumed to be satisfied. The following is a list of core provisions which should be included in an LMP submission. Note that any final EPA determination regarding the adequacy of an LMP will be made following review of the plan submitted in light of the particular circumstances facing the area proposed for redesignation and based upon all available information.

a. Attainment Plan

The State's approved attainment plan should include an emissions inventory (attainment inventory) which can be used to demonstrate attainment of the NAAQS. The inventory should represent emissions during the same five-year period associated with the air quality data used to determine whether the area meets the applicability requirements of this policy (i.e., the most recent five years of air quality data). If the attainment inventory year is not one of the most recent five years, but the State can show that the attainment inventory did not change significantly during that five-year period, it may still be used to satisfy the policy. If the attainment inventory is determined to not be representative of the most recent 5 years, a new inventory must be developed. The State should

review its inventory every three years to ensure emissions growth is incorporated in the attainment inventory if necessary.

b. <u>Maintenance Demonstration</u>

The maintenance demonstration requirement of the Act will be considered to be satisfied for the moderate PM_{10} nonattainment areas meeting the air quality criteria discussed above. If the tests described in Section IV are met, we will treat that as a demonstration that the area will maintain the NAAQS. Consequently, there is no need to project emissions over the maintenance period.

c. Important elements that should be contained within the redesignation request

1. Monitoring Network Verification of Continued Attainment

To verify the attainment status of the area over the maintenance period, the maintenance plan should contain a provision to assure continued operation of an appropriate, EPA-approved air quality monitoring network, in accordance with 40 CFR part 58. This is particularly important for areas using an LMP because there will be no cap on emissions.

2. <u>Contingency Plan</u>

Section 175A of the Act states that a maintenance plan must include contingency provisions, as necessary, to promptly correct any violation of the NAAQS which may occur after redesignation of the area to attainment. These contingency measures do not have to be fully adopted at the time of redesignation. However, the contingency plan is considered to be an enforceable part of the SIP and the State should ensure that the contingency measures are adopted as soon as possible once they are triggered by a specific event. The contingency plan should identify the measures to be adopted, and provide a schedule and procedure for adoption and implementation of the measures if they are required.

Normally, the implementation of contingency measures is triggered by a violation of the NAAQS but the State may wish to establish other triggers to prevent a violation of the NAAQS, such as an exceedance of the NAAQS.

3. Approved attainment plan and section 110 and part D CAA requirements:

In accordance with the CAA, areas seeking to be redesignated to attainment under the LMP policy must have an attainment plan that has been approved by EPA, pursuant to section 107(d)(3)(E). The plan must include all control measures that were relied on by the State to demonstrate attainment of the NAAQS. The State must also ensure that the CAA requirements for PM_{10} pursuant to section 110 and part D of the Act have been satisfied. To comply with the statute, the LMP should clearly indicate that all controls that were relied on to demonstrate attainment will remain in place. If a State wishes to roll back or eliminate controls, the area can no longer qualify for the LMP and the area will become subject to full maintenance plan requirements within 18 months of the determination that the LMP is no longer in effect.

V. How is Conformity treated under the LMP option?

The transportation conformity rule (40 CFR parts 51 and 93) and the general conformity rule (58 FR 63214; November 30, 1993) apply to nonattainment areas and maintenance areas operating under maintenance plans. Under either conformity rule one means of demonstrating conformity of Federal actions is to indicate that expected emissions from planned actions are consistent with the emissions budget for the area. Emissions budgets in LMP areas may be treated as essentially not constraining for the length of the maintenance period because it is unreasonable to expect that an area satisfying the LMP criteria will experience so much growth during that period of time such that a violation of the PM₁₀ NAAQS would result. While this policy does not exempt an area from the need to affirm conformity, it does allow the area to demonstrate conformity without undertaking certain requirements of these rules. For transportation conformity purposes, EPA would be concluding that emissions in these areas need not be capped for the maintenance period, and, therefore, a regional emissions analysis would not be required. Similarly, Federal actions subject to the general conformity rule could be considered to satisfy the "budget test" specified in section 93.158 (a)(5)(i)(A) of the rule, for the same reasons that the budgets are essentially considered to be unlimited.

EPA approval of an LMP will provide that if the LMP criteria are no longer satisfied and a full maintenance plan must be developed to meet CAA requirements (see Calcagni Memo referenced in footnote #2 for full maintenance plan guidance), the approval of the LMP would remain applicable for conformity purposes only until the full maintenance plan is submitted and EPA has found its motor vehicle emissions budgets adequate for conformity purposes under 40 CFR parts 51 and 93. EPA will condition its approval of all LMPs in this fashion because in the case where the LMP criteria are not met and a full maintenance plan is required EPA believes that LMPs would no longer be an appropriate mechanism for assuring maintenance of the standards.

For further information concerning the LMP option for moderate PM₁₀ areas please contact

Gary Blais at (919) 541-3223, or for questions about the CDV approach contact Dr. Shao-Hang Chu at (919) 541-5382. For information concerning transportation conformity requirements, please contact Meg Patulski of the Office of Transportation and Air Quality at (734) 214-4842.

OAQPS/AQSSD/IPSG:GBlais:NPerry,x5628 G:\user\share\nrpfiles\wpfiles\beal\LMP.wpd

ATTACHMENT B: MOTOR VEHICLE REGIONAL ANALYSIS METHODOLOGY

The following methodology is used to determine whether increased emissions from on-road mobile sources could, in the next 10 years, increase concentrations in the area and threaten the assumption of maintenance that underlies the LMP policy. This analysis must be submitted and approved in order to be eligible for the LMP option.

The following equation should be used:

$$DV + (VMT_{pi} \times DV_{mv}) \cdot MOS$$

Where:

DV = the area's design value based on the most recent 5 years of quality

assured data in μg/m³

 VMT_{pi} = the projected % increase in vehicle miles traveled (VMT) over the next

10 years

 DV_{mv} = motor vehicle design value based on on-road mobile portion of the

attainment year inventory in µg/m³

MOS = margin of safety for the relevant PM-10 standard for a given area: 40

μg/m³ for the annual standard or 98 μg/m³ for the 24-hour standard

Please note that DV_{mv} is derived by multiplying DV by the percentage of the attainment year inventory represented by on-road mobile sources. This variable should be based on both primary and secondary PM_{10} emissions of the on-road mobile portion of the attainment year inventory, including re-entrained road dust.

States should consult with EPA regarding the three inputs used in the above calculation, and all EPA comments and concerns regarding inputs and results should be addressed prior to submitting a limited maintenance plan and redesignation request.

The VMT growth rate (VMT_{pi}) should be calculated through the following methods:

- 1) an extrapolation of the most recent 10 years of Highway Performance Monitoring System (HPMS) data over the 10-year period to be addressed by the limited maintenance plan; and
- 2) a projection of VMT over the 10-year period that would be covered by the limited maintenance plan, using whatever method is in practice in the area (if different than #1).

Areas where method #1 is the current practice for calculating VMT do not also have to do calculation #2, although this is encouraged. All other areas should use methods #1 and #2, and VMT_{pi} is

whichever growth rate produced by methods #1 and #2 is highest. Areas will be expected to use transportation models for method #2, if transportation models are available. Areas without transportation models should use reasonable professional practice.

Examples

1. $DV = 80 \mu g/m^3$ $VMT_{pi} = 36\%$ $DV_{mv} = 30 \mu g/m^3$ $MOS = 98 \mu g/m^3$

MOS = $98 \mu g/m^3$ for 24-hour PM-10 standard

$$80 + (.36 * 30) = 91$$

Less than 98 – Area passes regional analysis criterion.

2. $DV = 35 \mu g/m^3$ $VMT_{pi} = 25\%$

 $DV_{mv} = 6 \mu g/m^3$

MOS = $40 \mu g/m^3$ for annual PM-10 standard

$$35 + (.25 * 6) = 37$$

Less than 40 – Area passes regional analysis criterion.

3. DV = $115 \,\mu g/m^3$

 $VMT_{pi} = 25\%$

 $DV_{mv} = 60 \,\mu\text{g/m}^3$

MOS = $98 \mu g/m^3$ for 24-hour PM-10 standard

$$115 + (.25 * 60) = 130$$

More than 98 – Area does not pass criterion. Full section 175A maintenance plan required.

Lockwood, Paul

Fr m: Anne Arnold [Arnold.Anne@epamail.epa.gov]

Sent: Wednesday, May 23, 2012 10:55 AM

T: Fitzgerald, Mike

Cc: Hoffman, Barbara; Underhill, Jeff; Lockwood, Paul; Robert Judge

Subject: RE: New Hampshire CO Design Values

Mike,

Your approach of monitoring in Manchester first, then Nashua later if necessary is OK. However, we need to have specified times frames for action, rather than stating "within a reasonable timeframe."

I have revised Paul's language. My suggested language is shown below.

In the first paragraph my edits are shown in CAPs and underline. Also, I replaced the Paul's last sentence with the second paragraph based on what was previously approved regarding once monitoring at Manchester, when would you also need to start monitoring at Nashua.

Because New Hampshire proposes to discontinue monitoring CO in Manchester, it will adopt a more stringent contingency threshold or "trigger" than indicated in the 2007 SIP revision. As indicated in Section 3.3 above, New Hampshire will monitor CO levels using the Londonderry Moose Hill station and emissions inventories. In the event the second-highest CO concentration in any calendar year monitored in Londonderry reaches 50 percent of the federal 1-hour or 8-hour NAAQS for CO, New Hampshire will, **WITHIN SIX MONTHS** of recording such concentrations, reestablish the CO monitoring site in Manchester consistent with EPA siting criteria, and resume analyzing and reporting those data.

In the event the second highest CO concentration in any calendar year monitored in Manchester reaches 75 percent of the federal 1-hour or 8-hour national ambient air quality standard for CO, New Hampshire will, within 6 months of recording such concentrations, re-establish a CO monitoring site in Nashua consistent with EPA siting criteria, and resume analyzing and reporting those data. New Hampshire commits to implement its contingency program in Nashua in the event that a CO violation is monitored at the re-established Nashua monitoring site at any time during the maintenance period. If the Manchester CO monitor measures a violation of the either the federal 1-hour or 8-hour NAAQS for CO, contingency measures will be implemented in Nashua as well, until a re-established CO monitor in Nashua shows that the area is in attainment of the CO standard.

Also, I have a note into HQ with your questions about the design values.

Anne Arnold, Manager Air Quality Planning Unit EPA New England 617-918-1047

********New Mailing Address*********
EPA Region I
5 Post Office Square - Suite 100
Mail Code OEP05-02
Boston, MA 02109-3912

From: "Fitzgerald, Mike" < Michael. Fitzgerald@des.nh.gov>

To: Anne Arnold/R1/USEPA/US@EPA

Cc: "Lockwood, Paul" <Paul.Lockwood@des.nh.gov>, Robert Judge/R1/USEPA/US@EPA, "Underhill, Jeff" <Jeffrey.Underhill@des.nh.gov>, "Hoffman,

Barbara" <Barbara.Hoffman@des.nh.gov>

Date: 05/21/2012 02:15 PM

Subject: RE: New Hampshire CO Design Values

Anne - also w/ respect to the comment that DES reestablish sites in both Manchester and Nashua in response to exceeding the 50% standard threshold in Londonderry, I would prefer to commit to reestablishing the Manchester site first, then confirming that Manchester is exceeding the old 75% threshold before proceeding w/ reestablishing Nashua. Please let me know if this approach would be acceptable.

Thanks,

Mike

Michael Fitzgerald

Administrator, Technical Services Bureau
NH DES Air Resources Division
-----Original Message----Fr m: Lockwood, Paul

Sent: Friday, May 18, 2012 3:13 PM **To:** 'Arnold.Anne@epamail.epa.gov'

Cc: Fitzgerald, Mike

Subject: New Hampshire CO Design Values

Dear Ms. Arnold -

Thank you for taking the time to discuss this with me, today. If it's any help, I attached a spreadsheet showing:

- New Hampshire CO 8-hr 2nd high concentrations in Manchester and Nashua
- EPA listed NH CO Design Values from http://www.epa.gov/airtrends/values.html
- New Hampshire calculated CO 8-hr Design Values for Manchester and Nashua

The shaded numbers in the NH 8-hr 2nd high table match those listed in EPA's web site as CO Design Values. Unless we read the William Laxton guidance memo wrong we believe our table of design values is correct because each value is the higher of one year's value compared to the previous year's value. We believe EPA chose each year's highest 8-hr 2nd high value from either Manchester or Nashua, listed them as Design Values and probably listed them all as "Nashua" values to simplify EPA's table.

At your suggestion, in Sections 3.3 and 3.4 of our draft Limited CO Maintenance Plan we have reduced the previously-approved contingency "trigger" of 75% of the federal 1-hour or 8-hour NAAQS, to a 50% trigger. Those sections now state:

Because New Hampshire proposes to discontinue monitoring CO in Manchester, it will adopt a more stringent contingency threshold or "trigger" than indicated in the 2007 SIP revision. As indicated in Section 3.3 above,

New Hampshire will monitor CO levels using the Londonderry Moose Hill station and emissions inventories. In the event the second-highest CO concentration in any calendar year monitored in Londonderry reaches 50 percent of the federal 1-hour or 8-hour NAAQS for CO, New Hampshire will, within a reasonable timeframe of recording such concentrations, reestablish the CO monitoring site in Manchester consistent with EPA siting criteria, and resume analyzing and reporting those data. If the elevated level in Londonderry is confirmed by the Manchester station, and determined to be a result of mobile sources that would reasonably be expected to also be observed in Nashua, New Hampshire will reestablish the Nashua monitoring facility and resume reporting those data as well as review and implement contingency measures such as transportation control measures (TCM) or other vehicle or fuel controls to reduce vehicle emissions.

If our information and draft Limited CO Maintenance Plan changes are acceptable to you, we will finalize our internal re-draft and continue the SIP revision process offering a public notice of SIP revision to stakeholders, seeking their comments.

Thank you again for helping me in this endeavor.

Sincerely,

Paul

Paul Lockwood

NH Department of Environmental Services Air Division - Mobile Source Section P. O. Box 95 Concord, NH 03302-0095 (603) 271-5552



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 1 5 Post Office Square, Suite 100 Boston, MA 02109-3912

March 23, 2012

RECEIVED NEW HAMPSHIRE

MAR 29 2012

AIR RESOURCES DIVISION

Michael Fitzgerald Administrator, Technical Services Bureau Air Resources Division Department of Environmental Services 6 Hazen Drive, P. O. Box 95 Concord, NH 03302-0095

Mike Dear Mr. Fitzgerald:

EPA has reviewed the New Hampshire Department of Environmental Services (DES) draft "Carbon Monoxide Limited Maintenance Plan for the City of Manchester and the City of Nashua Carbon Monoxide Maintenance Areas," dated February 2012.

EPA is providing comments on this draft in the Enclosure in order to assist the DES with further development of this State Implementation Plan (SIP) revision.

If you have any questions on the enclosed comments, please contact Donald Cooke at (617) 918-1668 or cooke.donald@epa.gov.

Sincerely,

Anne E. Arnold, Manager Air Quality Planning Unit

Enclosure

cc:

Barbara Hoffman, NH DES Felice Janelle, NH DES

9 anold

Paul Lockwood, NH DES

Enclosure

EPA Comments on New Hampshire's February 2012 Carbon Monoxide Limited Maintenance Plans For Manchester and Nashua

Carbon Monoxide Emission Inventory

1. As noted in the draft Limited Maintenance Plan for Manchester and Nashua (LMP), EPA guidance indicates that attainment emission inventories are one component that should be included in a limited maintenance plan. New Hampshire's draft LMP includes a table of carbon monoxide (CO) emissions for Hillsborough County for 1999 through 2008, with a citation to the National Emissions Inventory (NEI). This table demonstrates the reduction in CO emissions that has occurred in the county over this time period. Although one can rely on the NEI data to show trends, to fulfill the emission inventory component of the maintenance plan, New Hampshire DES should provide documentation noting how these estimates were derived. We suggest that DES consider using the year 2008 for its maintenance plan inventory since this year is towards the end of the first 10 year maintenance plan period for Manchester and Nashua and DES has recently documented emission estimates for this year in its ozone redesignation request. For example, DES could supplement the existing documentation with CO emission factors and convert estimates to tons per winter day. Alternatively, DES may be able to use the results of some national EPA modeling efforts that should be available later this spring. Region I will discuss this issue further with DES.

Carbon Monoxide Monitoring

- 2. The draft LMP proposes to discontinue carbon monoxide monitoring at NH DES's Manchester site and track carbon monoxide levels at (1) the Londonderry Moose Hill Station, and (2) the Lowell Old Town Hall, Lowell MA. The Massachusetts Department of Environmental Protection has, however, discontinued carbon monoxide air quality monitoring in Lowell Massachusetts following EPA's approval of Massachusetts' revised CO Maintenance Plan for Lowell (76 FR 27908; May 13, 2011). Therefore, using monitoring at Lowell as a surrogate for the New Hampshire cities is not a feasible option.
- 3. The draft LMP notes that the Londonderry, NH monitoring site is located approximately half way (geographically) between Manchester and Nashua. We recommend that some additional discussion be included about the Londonderry site (e.g., when it began operating and the CO levels that have been recorded.)
- 4. Page 11 of the draft LMP states, "In the event the second-highest CO concentration in any calendar year monitored in Londonderry or Lowell reaches 75 percent of the federal 1-hour and 8-hour NAAQS for CO, New Hampshire will, within 9 months of recording such

concentrations, reestablish the CO monitoring site in Manchester, consistent with EPA siting criteria. . . " We recommend that this commitment be revised as discussed below.

EPA previously approved the use of monitoring at Manchester to be an acceptable surrogate for Nashua. (See 72 FR 51564; September 10, 2007.) In that action, we pointed to the similarities of the two cities (based on population and historical CO levels) and DES committed to re-establishing monitoring at Nashua if levels at Manchester reached 75 percent of the standard. Although the Londonderry site differs from Manchester and Nashua, given the current logistical issues with the Manchester site and the extremely low CO concentrations that have been recorded in both Manchester and Nashua for many years, we find New Hampshire's proposal to use the data being collected at Londonderry acceptable. However, given these differences, we recommend that DES include a more conservative trigger for re-establishing CO monitoring. For example, DES could include a trigger of 50 (rather than 75) percent of the standard or include an additional trigger of a certain percentage increase in CO emissions in Hillsborough County. In addition, the "percent of the standard" trigger should require action when concentrations exceed the threshold with respect to the 1-hour or the 8-hour CO standard. Finally, New Hampshire should commit to re-establishing carbon monoxide monitoring in both Manchester and Nashua in a reasonable timeframe, if the trigger criteria is met.

Transportation Conformity

5. We concur with the draft LMP discussion that <u>regional</u> air quality conformity analysis for transportation plans and transportation improvement programs are satisfied. However, project level conformity determinations are still needed. Therefore, we recommend that the LMP acknowledge that project level carbon monoxide hot-spot conformity requirements continue to apply. (See 40 CFR 93.116, and 93.123.)

Time frame of the Limited Maintenance Plan

6. The LMPs should explicitly identify the time period of the second ten-year maintenance period to define the end of the maintenance period as well as the end of transportation and general conformity applicability. The first ten year maintenance period was from November 29, 2000 through November 29, 2010. The second ten year maintenance period is from November 29, 2010 through November 29, 2020. (See 65 FR 71060; November 29, 2000.)

UNION LEADER CORPORATION

P O BOX 9513 MANCHESTER, NH 03108

> 0000059625 STATE OF NH/ AIR RESOURCES COM VALERIE DAVID PO BOX 95 CONCORD NH 03302-0095

RECEIVED NEW HAMPSHIRE

JUN 27 2012

AIR RESOURCES DIVISION

I hereby certify that the legal notice: (0000088480) STATE IMPLEMENTATION PLAN was published in the New Hampshire Union Leader printed at Manchester, NH by the Union Leader Corp. On: 06/22/2012.

State of New Hampshire Hillsborough County

Subscrib d and sworn to before me this

day of

Notary Mublic

Legal Notice

STATE OF NEW HAMPSHIRE
DEPARTMENT OF
ENVIRONMENTAL SERVICES
AIR RESOURCES DIVISION
CONCORD, NH
NOTICE OF PROPOSED REVISIONS
TO THE STATE

IMPLEMENTATION PLAN
In accordance with N.H. Administrative Rule Env-A 204.01 and 40 CFR §
51.102, notice is hereby given that the New Hampshire Department of Environmental Services; Air Resources Division (DES); intends to submit for the approval of the U.S. Environmental Protection Agency (EPA) the following proposed revisions to the New Hampshire State Implementation Plan (SIP) required by the federal Clean Air Act:

 Replace New Hampshire's existing Carbon Monoxide Maintenance Plan with the proposed Carbon Monoxide Limited Maintenance Plan for the City of Manchester and the City of Nashua Carbon Monoxide Maintenance Areas.

 Discontinue monitoring Carbon Monoxide (CO) at the Manchester site and rely instead on data from the Londonderry Moose Hill monitoring station and NH

emissions inventory.

When an area (in this case Manchester and Nashua) that was previously designated as nonattainment for any of the pollutants for which EPA has established National Ambient Air Quality Standards (NAAQS) applies for redesignation to attainment status, the federal Clean Air Act requires DES to submit a maintenance plan as part of the redesignation request. This plan shows how the area will stay in attainment for the subsequent 10 years, and what steps DES will take if it does not. DES filed a maintenance plan for CO with EPA on December 3, 1998, and revised it in 2007.

Over time, the CO levels in downtown Manchester and Nashua have decreased to the point that a future exceedance of the federal standards for CO is highly unlikely. In addition to the downward CO trend shown by monitoring data, the state has performed mobile source modeling and conformity analyses indicating low CO levels in Manchester and Nashua as far into the future as 2035, beyond the end of the maintenance plan. Therefore, DES is submitting a CO Limited Maintenance Plan that will discontinue CO monitoring in Manchester, instead relying on a CO monitoring station in Londonderry, mid-way between Manchester and Nashua, with contingency plans to reinstate monitoring in Manchester if CO concentrations rise to 50 percent of the NAAQS.

Copies of all documentation pertaining to the proposed SIP revision are available for inspection online at: http://des.nh.gov/ under "Hot Topics". The documents are also available for review at the DES offices at 29 Hazen Drive, Concord, N.H. Questions regarding the proposed SIP Revision or requests to view the documents should be directed to Paul Lockwood at (603) 271-5552 or paul.lock-

wood@des.nh.gov .

The public is invited to submit written comments on the proposal, and DES will hold a public hearing if one is requested by July 23, 2012. Written comments and/or any requests for a public hearing filed and received no later than 4 p.m. on July 23, 2012, shall be considered by DES in making a final decision. Please submit comments or a request for hearing to Paul Lockwood, Transportation Analyst, PO Box 95, Concord, NH 03302-095, Fax (603) 271-7053, or to paul lockwood@des.nh.gov.

Thomas S. Burack Commissioner NH Department of Environmental Services Dated: June 23, 2012 in execution of said power, for mortgage conditions broken, will sell on the mortgaged premises (street address: 163 Beaver Street) in Manchester, Hillsborough County, New Hampshire, at

PUBLIC AUCTION on July 20, 2012 at 12:00 PM., local time, all of said holder's right, title and interest in and to the real estate described in said mortgage deed.

This foreclosure sale will be made for the purpose of foreclosure of all rights of redemption of the said mortgagor(s) therein possessed by them and any and all persons, firms, corporations or agencles claiming by, from, or under them.

Said premises will be sold subject to any unpaid taxes, liens, or enforceable encumbrances entitled to precedence over the said mortgage.

Said premises will be sold "as is" in all respects, including but not limited to, the physical condition of the premises and the rights, if any, of any occupants of the premises.

To the mortgagor(s) and any and all persons, firms, corporations, or others claiming by, from or under them: YOU ARE HEREBY NOTIFIED THAT YOU HAVE THE RIGHT TO PETITION THE SUPERIOR COURT FOR THE COUNTY IN WHICH THE MORTGAGED PREMISES ARE SITUATED, WITH SERVICE UPON THE MORTGAGEE, AND UPON SUCH BOND AS THE COURT MAY REQUIRE, TO ENJOIN THE SCHEDULED FORE-CLOSURE SALE.

Terms of sale will be Five Thousand and 00/100 Dollars (\$5,000.00) cash or certified check satisfactory to the sale holder, to be paid at the time of the sale, and the balance to be paid on delivery of foreclosure deed within thirty (30) days thereafter. The said holder reserves the right to waive any of the above terms at its discretion. The said holder reserves the right to cancel or postpone the sale to such subsequent date or dates as the holder may deem necessary or desirable.

FEDERAL NATIONAL
MORTGAGE ASSOCIATION
By Its Attorneys,
HAUGHEY, PHILPOT
& LAURENT, P.A.
By: Mark H. Lamper, Esquire
Haughey, Philpot & Laurent, P.A.
816 North Main Street
Laconia, NH 03246
(603) 524-4101
June 20, 2012

(UL - June 22, 29; July 6)

Legal Notice

MORTGAGEE'S NOTICE OF SALE OF REAL PROPERTY

By virtue and in execution of the Power of Sale contained in a certain mortgage given by Jenna L. Lee and Jin W. Lee (the "Mortgagors") to Mortgage Electronic Registrations Systems, Inc. and now held by FNBN I, LLC (the "Mortgagee"), said mortgage dated March 30, 2007, and recorded with the Hillsborough County Registry of Deeds in Book 7828 at Page 1946 (the "Mortgage"), pursuant to and for breach of the conditions in said Mortgage and for the purpose of foreclosing the same will be sold at: Public Auction on Friday, July 13, 2012 at 1:00PM. Said sale to be held directly on the mortgaged premises having a present address of 130 Kinsley Street, Nashua, Hillsborough County, New Hampshire. The premises are more particularly described in the mortgage: For Mortgagors Title see deed dated January 30, 2004 and recorded in Book 7162 at Page 2285 with the Hillsborough County Registry of Deeds. NO-TICE PURSUANT TO NEW HAMSPHIRE RSA 479:25, YOU ARE HEREBY NOTI-FIED THAT YOU HAVE A RIGHT TO PETI-TION THE SUPERIOR COURT FOR THE COUNTY IN WHICH THE MORTGAGED PREMISES ARE SITUATED, WITH SER-VICE UPON THE MORTGAGEE, AND

Legal Notice

MORTGAGEE'S NOTICE OF SALE OF REAL PROPERTY

By virtue of a Power of Sale contained in a certain mortgage given by Klaus G. Lutter a/k/a Klaus Lutter ("the Mortgagor(s)") to Mortgage Electronic Registration Systems, Inc., dated November 2, 2006 and recorded with the Merrimack County Registry of Deeds at Book 2943, Page 1702 as affected by Scrivener's Affidavit in Book 3121; Page 65 and Final Decree of Judgment in Book 3303, Page 1562, (the "Mortgage"), which mortgage is held by Nationstar Mortgage LLC the present holder of said Mortgage, pursuant to and in execution of said power and for breach of conditions of said Mortgage and for the purposes of foreclosing the same will sell at:

Public Auction on Monday, July 9, 2012

2:00 p.m.

Said sale being located on the mortgaged premises and having a present
address of 72 Modena Drive, Unit 73,
Building 10, Island Shores Estates Condominium, Penacook (Concord), Merrimack County, New Hampshire. The
premises are more particularly described

in the Mortgage.

For mortgagor's(s') title see deed recorded with the Merrimack County Registry of Deeds in Book 2122, Page 1513.

NOTICE.

PURSUANT TO NEW HAMPSHIRE RSA 479:25, YOU ARE HEREBY NOTIFIED THAT YOU HAVE A RIGHT TO PETITION THE SUPERIOR COURT FOR THE COUNTY IN WHICH THE MORTGAGED PREMISES ARE SITUATED, WITH SERVICE UPON THE MORTGAGEE, AND UPON SUCH BOND AS THE COURT MAY REQUIRE TO ENJOIN THE SCHEDULED FORECLOSURE SALE.

The Property will be sold subject to all unpaid real estate taxes and all other liens and encumbrances which may be entitled to precedence over the Mortgage. Notwithstanding any title information contained in this notice, the Mortgage expressly disclaims any representations as to the state of the title to the Property involved as of the date of the notice of the date of sale. The property to be sold at the sale is "AS IS WHERE IS".

TERMS OF SALE A deposit of Five Thousand (\$5,000.00) Dollars in the form of a certified check or bank treasurer's check or other check satisfactory to Mortgagee's attorney will be required to be delivered at or before the time a bid is offered. The successful bidder(s) will be required to execute a purchase and sale agreement immediately after the close of the bidding. The balance of the purchase price shall be paid within thirty (30) days from the sale date in the form of a certified check, bank treasurer's check or other check satisfactory to Mortgagee's attorney. The Mortgagee reserves the right to bid at the sale, to reject any and all bids, to continue the sale and to amend the terms of the sale by written or oral announcement made before or during the foreclosure sale. The description of the premises contained in said mortgage shall control in the event of an error in this publication.

Dated at Newton, Massachusetts, on June 7, 2012.

NATIONSTAR MORTGAGE LLC By its Attorneys, Tyna M Butka, Esquire HARMON LAW OFFICES, P.C. 150 California Street Newton, MA 02458 (603) 669-7963 201103-1045 - ORE

(UL - June 15, 22, 29)

Public Notices

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 1 5 Post Office Square, Suite 100 Boston, MA 02109-3912

March 23, 2012

Michael Fitzgerald Administrator, Technical Services Bureau Air Resources Division Department of Environmental Services 6 Hazen Drive, P. O. Box 95 Concord, NH 03302-0095

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AIR RESOURCES DIVISION

Mike

Dear Mr. Fitzgerald:

EPA has reviewed the New Hampshire Department of Environmental Services (DES) draft "Carbon Monoxide Limited Maintenance Plan for the City of Manchester and the City of Nashua Carbon Monoxide Maintenance Areas," dated February 2012.

EPA is providing comments on this draft in the Enclosure in order to assist the DES with further development of this State Implementation Plan (SIP) revision.

If you have any questions on the enclosed comments, please contact Donald Cooke at (617) 918-1668 or cooke.donald@epa.gov.

Sincerely,

Anne E. Arnold, Manager Air Quality Planning Unit

Enclosure

cc:

Barbara Hoffman, NH DES Felice Janelle, NH DES Paul Lockwood, NH DES

9 anold

Enclosure

EPA Comments on New Hampshire's February 2012 Carbon Monoxide Limited Maintenance Plans For Manchester and Nashua

Carbon Monoxide Emission Inventory

1. As noted in the draft Limited Maintenance Plan for Manchester and Nashua (LMP), EPA guidance indicates that attainment emission inventories are one component that should be included in a limited maintenance plan. New Hampshire's draft LMP includes a table of carbon monoxide (CO) emissions for Hillsborough County for 1999 through 2008, with a citation to the National Emissions Inventory (NEI). This table demonstrates the reduction in CO emissions that has occurred in the county over this time period. Although one can rely on the NEI data to show trends, to fulfill the emission inventory component of the maintenance plan, New Hampshire DES should provide documentation noting how these estimates were derived. We suggest that DES consider using the year 2008 for its maintenance plan inventory since this year is towards the end of the first 10 year maintenance plan period for Manchester and Nashua and DES has recently documented emission estimates for this year in its ozone redesignation request. For example, DES could supplement the existing documentation with CO emission factors and convert estimates to tons per winter day. Alternatively, DES may be able to use the results of some national EPA modeling efforts that should be available later this spring. Region I will discuss this issue further with DES.

Carbon Monoxide Monitoring

- 2. The draft LMP proposes to discontinue carbon monoxide monitoring at NH DES's Manchester site and track carbon monoxide levels at (1) the Londonderry Moose Hill Station, and (2) the Lowell Old Town Hall, Lowell MA. The Massachusetts Department of Environmental Protection has, however, discontinued carbon monoxide air quality monitoring in Lowell Massachusetts following EPA's approval of Massachusetts' revised CO Maintenance Plan for Lowell (76 FR 27908; May 13, 2011). Therefore, using monitoring at Lowell as a surrogate for the New Hampshire cities is not a feasible option.
- 3. The draft LMP notes that the Londonderry, NH monitoring site is located approximately half way (geographically) between Manchester and Nashua. We recommend that some additional discussion be included about the Londonderry site (e.g., when it began operating and the CO levels that have been recorded.)
- 4. Page 11 of the draft LMP states, "In the event the second-highest CO concentration in any calendar year monitored in Londonderry or Lowell reaches 75 percent of the federal 1-hour and 8-hour NAAQS for CO, New Hampshire will, within 9 months of recording such

concentrations, reestablish the CO monitoring site in Manchester, consistent with EPA siting criteria. . ." We recommend that this commitment be revised as discussed below.

EPA previously approved the use of monitoring at Manchester to be an acceptable surrogate for Nashua. (See 72 FR 51564; September 10, 2007.) In that action, we pointed to the similarities of the two cities (based on population and historical CO levels) and DES committed to re-establishing monitoring at Nashua if levels at Manchester reached 75 percent of the standard. Although the Londonderry site differs from Manchester and Nashua, given the current logistical issues with the Manchester site and the extremely low CO concentrations that have been recorded in both Manchester and Nashua for many years, we find New Hampshire's proposal to use the data being collected at Londonderry acceptable. However, given these differences, we recommend that DES include a more conservative trigger for re-establishing CO monitoring. For example, DES could include a trigger of 50 (rather than 75) percent of the standard or include an additional trigger of a certain percentage increase in CO emissions in Hillsborough County. In addition, the "percent of the standard" trigger should require action when concentrations exceed the threshold with respect to the 1-hour or the 8-hour CO standard. Finally, New Hampshire should commit to re-establishing carbon monoxide monitoring in both Manchester and Nashua in a reasonable timeframe, if the trigger criteria is met.

Transportation Conformity

5. We concur with the draft LMP discussion that <u>regional</u> air quality conformity analysis for transportation plans and transportation improvement programs are satisfied. However, project level conformity determinations are still needed. Therefore, we recommend that the LMP acknowledge that project level carbon monoxide hot-spot conformity requirements continue to apply. (See 40 CFR 93.116, and 93.123.)

Time frame of the Limited Maintenance Plan

6. The LMPs should explicitly identify the time period of the second ten-year maintenance period to define the end of the maintenance period as well as the end of transportation and general conformity applicability. The first ten year maintenance period was from November 29, 2000 through November 29, 2010. The second ten year maintenance period is from November 29, 2010 through November 29, 2020. (See 65 FR 71060; November 29, 2000.)