Volatile Organic Compounds (VOC) Reasonably Available Control Technology (RACT)
Env-A 1200

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Definitions/Abbreviations

- Volatile Organic Compound (VOC)
  - Any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions.
  - Does not include any compound designated in 40 CFR 51.100(s).
Why?

- Section 184 of the Clean Air Act
- States located within the Ozone Transport Region shall implement RACT for all sources covered by a control technique guideline (CTG) issued by EPA.
- CTG’s for various source categories were updated in 2006, 2007 and 2008
- Effective date of “new” rule 6/1/11.
- “Existing source” means a source that was operational prior to 6/1/11.
Definitions/Abbreviations

☐ TPE = Theoretical Potential to Emit
   = emissions that would occur prior to the application of add-on controls based on either (a) continuous operation (8760 hr/yr) under maximum production capacity using coating or ink with highest VOC content used in practice by the source; or (b) hours of operation and/or process conditions that are limited by federally enforceable permit conditions.

☐ Actuals = Actual emissions, **before** controls
Definitions/Abbreviations

- tpy = tons per consecutive 12-month period
- lb VOC/gal = pounds of VOC per gallon of coating, as applied, excluding water and exempt compounds
New Source Categories

With one exception – requirements not applicable until January 1, 2016
Env-A 1214 – Flat Wood Paneling Coating

- Applicability Threshold
  - Actuals ≥ 3 tpy

- Work Practice Standards (applicable 6/1/11)

- Compliance Standards
  - Control efficiency of 90%;
  - Emission limit of 2.9 lb VOC/gal of solids; or
  - Emission limit of 2.1 lb VOC/gal of material
Env- A 1219 – Fiberglass Boat Manufacturing

- Applicability Threshold
  - Actuals $\geq$ 3 tpy from use of gel coats, resins and materials used to clean application equipment

- Requirements: various options are available. See the rule for details.
Env-A 1220 – Miscellaneous Industrial Adhesives

- **Applicability Threshold**
  - Actuals ≥ 3 tpy

- **Compliance Standards**
  - VOC Content Limits – Table 1220-1; or
  - Control efficiency of 85%

- **Application Methods**

- **Work Practice Standards**
Categories that were Modified

Existing source that was previously not subject to rule – have until January 1, 2016 to comply.
Env-A 1207 – Paper, Fabric, Film and Foil Substrates Coating

- **Old Rule Applicability**
  - TPE ≥ 10 tpy

- **New Rule**
  - Actuals ≥ 3 tpy – work practice standards
  - TPE ≥ 10 tpy and < 25 tpy
    - limit = 2.9 lb VOC/gal
  - TPE ≥ 25 tpy
    - Prior to 1/1/16 limit = 2.9 lb VOC/gal
    - After 1/1/16 limits in Table 1207-1
Env-A 1209 – Metal Furniture Coating

- Old Rule Applicability
  - TPE \( \geq 10 \text{ tpy} \)

- New Rule Applicability
  - Actuals \( \geq 3 \text{ tpy} \)

- Work Practice Standards and Application Techniques

- Compliance Limits
  - Emission limits – Table 1209-1; or
  - Control efficiency of 90%
Env-A 1212 – Miscellaneous Metal and Plastic Parts Coating

- **Old Rule Applicability**
  - TPE ≥ 10 tpy for metal parts; TPE ≥ 50 tpy for plastic

- **New Rule Applicability**
  - Actuals ≥ 3 tpy

- **Work Practice Standards and Application Techniques**

- **Compliance Limits**
  - Emission limits – Tables 1212-1, 1212-3, 1212-5, 1212-7 or 1212-9; or
  - Control efficiency of 90%
Env-A 1215 – Rotogravure and Flexographic Printing

- Most of rule Unchanged
  - Applicability threshold TPE ≥ 50 tpy
  - VOC Content Standards; or
  - Control Equipment Standards

- Except for Flexible-Packaging Printing
  - Applicability threshold Actuals ≥ 3 tpy then work practice standards apply
  - If TPE ≥ 25 tpy, then emission standards or control requirements apply
Env-A 1216 – Offset Lithographic Printing

- Old Rule Applicability
  - TPE ≥ 50 tpy

- New Rule
  - Actuals ≥ 3 tpy
    - Cleaning material control requirements
  - TPE ≥ 25 tpy for each dryer
    - Dryer installed before 6/1/11 – control by 90%
    - Dryer installed after 6/1/11 – control by 95%
  - Fountain solution limits
Env-A 1221 – Industrial Cleaning Solvents

- No changes to solvent metal cleaning
- Added 1221.05 – Use of Industrial Cleaning Solvents
  - Applicability Actuals $\geq$ 3 tpy
  - Many exemptions – for example
    - Cleaning of medical devices or pharmaceuticals
    - Cleaning of electrical and electronic components
Unchanged Source Categories
Env-A 1206 – Metal Can Coating

- Applicability Threshold
  - TPE $\geq$ 10 tpy
- Emission limits stated in Env-A 1206.02
Env-A 1208 – Vinyl and Urethane Substrate Coating

- Applicability Threshold
  - TPE ≥ 10 tpy

- Emission Limit
  - 3.8 lb VOC/gal
Env-A 1210 – Magnetic Wire Insulation Coating

- **Applicability Threshold**
  - TPE $\geq 10$ tpy

- **Emission Limit**
  - 1.7 lb VOC/gal
Env-A 1211 – Metal Coils Coating

- Applicability Threshold
  - TPE ≥ 10 tpy

- Emission Limit
  - 2.6 lb VOC/gal
Env-A 1213 – Wood Furniture, Burial Caskets, and Gunstock Coating

- Applicability Thresholds
  - Wood furniture coating – TPE $\geq 25$ tpy
  - Burial Caskets and Gunstock Coating – TPE $\geq 50$ tpy

- Various compliance standards
  - Emission limits
  - Application techniques
  - Operational requirements
Env-A 1217 – VOL Storage and Transfer

- **Storage Tanks**
  - Applicability based on type and size of tank
  - Tanks must be equipped with devices or seals to minimize emissions

- **Bulk Gasoline Loading Terminals**
  - Applicability - Daily throughput of at least 20,000 gallons in any consecutive 30-day period
Env-A 1218 – Cutback and Emulsified Asphalt

- Applies to sources using cut-back or emulsified asphalt in the paving of public roads or highways
Env-A 1222 – Miscellaneous and Multicategory Sources

- Applicability threshold
  - TPE ≥ 50 tpy or
  - For multicategory sources, where the individual source category thresholds are met – may need to comply with individual category rules

- Five Control Options
Env-A 1222 – Miscellaneous and Multicategory Sources

Control Options

1. Install capture/control system that reduces facility-wide emissions by 81%
2. Reduce VOC use and emissions by 20% of 1990 levels
3. For unclassifiable coatings limit to 3.5 lb VOC/gal
4. Comply with the provisions of the individual source categories for classifiable processes
5. Obtain a source-specific RACT Order
Other sections of Rule
Alternative Compliance Procedures

- Can comply with a “modified control technique,” including the use of emission credits, in accordance with RACT order provisions.

- Can comply with emission limits by implementing add-on controls or a bubble and complying with the solids-based emission rate limit calculated using Env-A 1205.01(d).
Minor Core Activities

- Any core activity at a source for which the aggregate VOC emissions do not exceed:
  - The RACT applicability emissions threshold for a relevant category; and
  - A total of 5 tpy

- Minor core activities are exempt from RACT requirements
Once-In, Always-In

- Env-A 1201.03(c) - Once a source becomes subject to the requirements of a source category, the source will remain subject to those requirements even if its emissions later fall below the relevant RACT applicability threshold.
Applications Due for Existing Sources?

- To opt out of any new requirements – Application due 5/31/13.
- Permitted source able to comply with new rule – Application due at time of renewal of existing permit.
- Permitted source needing to make changes prior to 2016 or currently not permitted – Application should be submitted prior to making changes and preferably no later than 7/1/15.