2005 Air Toxics Workshop

Plastic Parts and Products MACT Training

Presented By
David Hendricks
EC/R Inc.

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This presentation will cover:

Part 1: Scope of Subpart PPPP
Part 2: MACT Requirements & Compliance Options
Part 3: Initial Compliance Dates
Part 4: Continuous Compliance Requirements
Part 5: Monitoring, Recordkeeping & Reporting
Part 6: Important Dates
Part 7: Applicability Case Studies

Part One:

Scope of Subpart PPPP

How do I tell if my facility is covered by the Plastic Parts MACT?

Scope of Subpart PPPP

This section will cover:

- Industry overview
- Primary Products
- Applicability
- Exemptions
- Affected source
- Alternative Emission Limitations

Scope of Subpart PPPP

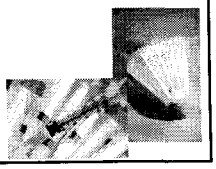
Industry Overview

- Covers many industry sectors
- Plastic components of many products or products themselves formed of synthetic polymers

Scope of Subpart PPPP

Primary Products Include:

- Sporting and recreational goods
- Toys
- Business Machines
- Parts and accessories for automobiles, trucks, and RVs
- Lab and medical equipment
- Household and other consumer products



Scope of Subpart PPPP

To be subject to Subpart PPPP your facility must:

- Apply surface coating to **plastic parts & products**
- Be a **Major Source**
  - Potential to Emit ≥10 tpy of any one HAP or ≥25 tpy of multiple HAP
- Use **≥ 100 gal/year** of coatings that contain HAP
- Include **Affected Sources**

Scope of Subpart PPPP

What is surface coating?

- The application of coating to a substrate
- Includes associated activities directly related to coating application:
  - Surface preparation
  - Cleaning
  - Mixing
  - Storage

Scope of Subpart PPPP

What is surface coating? (continued)

- The following are not considered coating operations:
  - Handheld non-refillable aerosol containers
  - Touchup markers
  - Marking pens
  - Application of paper or plastic film which may be coated with an adhesive

Scope of Subpart PPPP

Exemptions

- Facilities that use < 100 gal/yr of HAP-containing coatings
  - Do not include non-HAP coatings to determine coating usage
  - Non-HAP coating:
    - No more than 0.1% by weight of any individual organic HAP considered an OSHA-defined carcinogen OR
    - No more than 1.0% by weight for any other individual HAP

Scope of Subpart PPPP

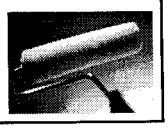
Exemptions (continued)

- Facilities that use only non-HAP coatings, thinners and other additives, and cleaning materials
- Coating operations that occur at research or laboratory facilities, janitorial, buildings & facility maintenance operations, or noncommercial hobby shops
- Coating operations performed at US Armed Forces Installations or NASA

Scope of Subpart PPPP

Exemptions (continued)

- Surface coating of military munitions manufactured by or for the US Armed Forces
- Operations where plastic is extruded onto plastic parts or products to form a coating
- Coating of magnet wire



Scope of Subpart PPPP

Exemptions (continued)

- In-mold or gel coating operations in the manufacture of reinforced plastic composite parts that meet the applicability criteria of Reinforced Plastics Composite NESHAP (subpart WWWW)
- Plastic parts intended for use in an aerospace vehicle using specialty coatings (defined in Appendix A of subpart GG)

Scope of Subpart PPPP

Exemptions (continued)

Coating operations which meet the applicability criteria for the following MACT standards:

- Wood Furniture Mfg (Subpart JJ)
- Large Appliances (Subpart NNNN)
- Metal Furniture (Subpart RRRR)
- Boat Mfg (Subpart VVVV)
  - except post-mold coating on all or parts of personal watercraft
- Aerospace Mfg and Rework (Subpart GG)
- Shipbuilding and ship repair (Subpart II)
- Wood Building Products (Subpart QQQQ)
- POWC (Subpart JJJJ)

Scope of Subpart PPPP

Affected Source

The **collection** of all of the following:

- All coating operations
- All storage containers and mixing vessels used for coatings, thinners and/or other additives, and cleaning materials
- All manual and automated conveying equipment and containers used for coatings, thinners and/or other additives, and cleaning materials
- All waste storage containers and all manual and automated waste conveying equipment

Scope of Subpart PPPP

- Different limits for new and existing sources
  - New Sources: construction commenced after December 4, 2002
  - Existing Sources: not a new source
- Different Limits for four subcategories
  - Automotive lamp coating
  - Thermoplastic olefin (TPO) coating
  - Assembled on-road vehicle coating
  - General use coating

Scope of Subpart PPPP

Alternatives for affected sources that meet applicability criteria of more than one MACT standard

- Auto and Light-Duty Trucks (subpart IIII)
- Other coating NESHAP

Scope of Subpart PPPP

Auto and Light-duty Trucks (subpart IIII)

- Include plastic parts coating operations as part of the affected source under subpart IIII for all plastic parts used in auto or light-duty truck mfg instead of complying with each subpart separately
- Coating operations on plastic parts or products not intended for auto or light-duty trucks cannot be made part of the affected source under subpart IIII

Scope of Subpart PPPP

Other Coating NESHAP

Affected sources that meet the applicability criteria of other coating NESHAP (excluding Subpart IIII)

- Comply with criteria of each NESHAP separately for each coating operation
- Comply with emission limitation that represents the **predominant activity** at a facility
- Comply with a **facility-specific emission limit**

Scope of Subpart PPPP

Predominant Activity:

- Coating operation that accounts for $\geq$ 90% the coating activities at a facility
- Cannot be assembled on-road vehicle or automotive lamp coating operations
- If you are in compliance with the emission limit represented by the predominant activity you are in compliance with Subpart PPPP

Scope of Subpart PPPP

Predominant Activity (continued):

- Predominant activity is determined by:
  - Including coating activities that meet the applicability criteria of other coating NESHAP and comprise $\geq$ 1% of total coating activities at a facility
  - Coating activities that comprise <1% of coating activities still have to be included in compliance calculations
  - Use kg solids as a measure of relative coating activity over a representative period of operation (at least one year)
  - Include coating activities that reflect current and projected coating operations (must be verifiable)
- Submit determination with the initial notification and reevaluate annually

Scope of Subpart PPPP

CAUTION!

- Subpart PPPP allows coating operations subject to other NESHAP to be considered the predominant activity
  - Compliance with the emission limits related to the predominant activity means you are in compliance with Subpart PPPP
- Other rules must contain "import" language to allow coating operations subject to Subpart PPPP to be considered the predominant activity.
  - Compliance with Subpart PPPP does not always mean you are in compliance with other NESHAP

Scope of Subpart PPPP

Rules that contain "import" language

If you are in compliance with subpart PPPP, you are in compliance with:

- Miscellaneous Metal Parts (Subpart MMMM) IF:
  - Plastic parts is your predominant activity
- Wood Building Products (Subpart QQQQ) IF:
  - Surface coating of plastic parts and products must result in > 95% of total annual coating usage
- Large Appliances (Subpart NNNN) IF:
  - The total HAP emissions determined using Subpart PPPP emission limits are < total HAP emissions that result from compliance with each rule separately

Scope of Subpart PPPP

Rules that do not contain "import" language:

- Aerospace (Subpart GG)
- Ship Building and Repair (Subpart II)
- Wood Furniture (Subpart JJ)
- Automobile and Light Duty Trucks (Subpart IIII)
- POWC (Subpart JJJJ)
- Metal can (Subpart KKKK)
- Fabric (Subpart OOOO)
- Metal Furniture (Subpart RRRR)
- Metal Coil (Subpart SSSS)
- Boat Manufacturing (Subpart VVVV)
- Reinforced Plastic Composites (Subpart WWWW)

Scope of Subpart PPPP

Facility-specific Emission Limit

- Calculated from relative amount of coating activity subject to each emission limit
- Include coating activities that meet the applicability criteria of other NESHAP and constitute > 1% of total coating activities
- Coating activities that comprise < 1% of total coating activities still need to be included in compliance calculations

Scope of Subpart PPPP

Facility-Specific Emission Limit (continued)

- If you comply with the facility-specific emission limit and the emission ~~limits~~ in Subpart PPPP for all surface coating operations then you are in compliance with Subpart PPPP and other applicable surface coating NESHAP

Part Two:

MACT Requirements & Compliance Options

Now that I know my facility has emission sources subject to the rule, what does the rule require?

MACT Requirements & Compliance Options

This section will cover:

- Emission limits
- Operating limits
- Other standards
- Compliance options

MACT Requirements & Compliance Options

Emission Limits

- Expressed as the mass of organic HAP per mass of coating solids used during each 12-month compliance period
- Subcategory-specific

MACT Requirements & Compliance Options

Automotive Lamp Coating

- Coating of plastic components of the body of exterior automotive lamps:
  - Headlamps
  - Tail lamps
  - Turn Signals
  - Marker (clearance) lamps
- Emission Limits:
  - New Sources: 0.26 kg organic HAP/kg solids
  - Existing Sources: 0.45 kg organic HAP/kg solids
- Does not include coating of interior automotive lamps (e.g., dome lamps, instrument panel lamps)

MACT Requirements & Compliance Options

Thermoplastic Olefin (TPO) Coating

- Coating of polyolefins
  - Blends of polypropylene, polyethylene, and its copolymers
  - Includes blends of TPO with polypropylene and polypropylene alloys
- Emission Limits:
  - New Sources: 0.22 kg organic HAP/kg solids
  - Existing Sources: 0.26 kg organic HAP/kg solids
- Does not include coating of TPO substrates on fully assembled on-road vehicles

MACT Requirements & Compliance Options

Assembled On-road Vehicle Coating

Coating applied to the surface of fully assembled motor vehicles and trailers intended for on-road use

- Automobiles & Light-duty trucks (that have been repaired after a collision and otherwise repainted)
- Fleet delivery trucks
- Motor homes & Other recreational vehicles (including camping vehicles and fifth wheels)

MACT Requirements & Compliance Options

Assembled On-road Vehicle Coating (cont.)

- Emission Limits:
  - New Sources: 1.34 kg organic HAP/kg solids
  - Existing Sources: 1.34 kg organic HAP/kg solids

MACT Requirements & Compliance Options

Assembled On-road Vehicle Coating (cont.)

- Includes incidental coating of parts that are removed from a fully assembled vehicle
- Does not include
  - coating of parts prior to attachment to an on-road vehicle on an OEM assembly line
  - the use of adhesives, sealants, caulks, body fillers (to correct small surface defects) and rubbing compounds (to remove surface scratches)
  - operations that meet the applicability of the Automobile and Light Duty Truck NESHAP (Subpart IIII)

MACT Requirements & Compliance Options

General Use Coatings

- All coating operations that are NOT:
  - Automotive lamp coating;
  - TPO coating; or
  - Assembled on-road vehicle coating
- Emission Limits:
  - New Sources: 0.16 kg organic HAP/kg solids
  - Existing Sources: 0.16 kg organic HAP/kg solids

MACT Requirements & Compliance Options

Alternative Emission Limits

- If you have more than one subcategory you may:
  - Comply with limits for each subcategory separately
  - Comply with emission limits of the predominant activity (general use and TPO only)
  - Comply with a facility-specific emission limit

MACT Requirements & Compliance Options

Operating Limits

- Required for capture systems & add-on control devices
  - Except solvent recovery system for which a liquid-liquid material balance is performed

MACT Requirements & Compliance Options

Operating Limits (continued)

Site-specific parameters determined during performance test

- Each capture system (not permanent total enclosures)
  - Average volumetric flow rate or duct static pressure limit
- Each capture system (permanent total enclosures)
  - Average facial velocity or pressure drop across openings
  - Air direction must be into the enclosure

MACT Requirements & Compliance Options

Operating Limits (continued)

More site-specific parameters for add-on controls:

- Thermal oxidizers
  - Combustion temperature
- Catalytic oxidizers
  - Catalyst bed inlet and outlet temperature
  - Catalyst bed inlet or outlet temperature and inspection and maintenance plan
- Regenerative carbon adsorber
  - Carbon bed temperature
  - Amount of steam or nitrogen used to desorb bed

MACT Requirements & Compliance Options

Operating Limits (continued)

More site-specific parameters

- Condensers
  - Outlet gas temperature
- Concentrators
  - Temperature of desorption concentrate stream
  - Pressure drop of the dilute stream across concentrator

MACT Requirements & Compliance Options

Other Standards

- Work practice standards
- Startup, shutdown, and malfunction plan

MACT Requirements & Compliance Options

Work Practice Standards

- Only required for capture system and add-on control devices
- Existing documented plans may be used to satisfy this requirement

MACT Requirements & Compliance Options

Work Practice Standards (continued)

- Minimize organic HAP emissions from
  - Mixing
  - Storage tanks or other containers
  - Handling operations for coatings, thinners and/or additives, cleaning and waste materials

MACT Requirements & Compliance Options

Startup, Shutdown, and Malfunction Plan

- Capture system and add-on control devices
- Operate under plan during periods of startup, shutdown and malfunction
- Address startup, shutdown, and corrective actions for capture and control device malfunctions
- Address coating equipment that would increase emissions or decrease capture efficiency if equipment malfunctions

MACT Requirements & Compliance Options

Compliance Options

- Three compliance options:
  - Compliant material
  - Emission rate without add-on controls
  - Emission rate with add-on controls

Can switch monthly
* permits should include everything possible
can use combination of options

MACT Requirements & Compliance Options

Compliant material option

- Each coating used must meet the emission limit associated with the appropriate subcategory
- Thinners and/or other additives, cleaning materials used must contain no organic HAP
- Not required to meet operating limits and work practice standards

MACT Requirements & Compliance Options

Emission rate without add-on controls

- Organic HAP emission rate must meet the organic HAP emission limit for the applicable source category
  - Based on coatings, thinners and/or other additives, and cleaning materials used
  - Calculate as a 12-month rolling average, determined monthly
- Not required to meet operating limits and work practice standards

MACT Requirements & Compliance Options

Emission rate with add-on controls

- Organic HAP emission rate must meet the organic HAP emission limit for the applicable source category
  - Based on coatings, thinners and/or other additives, and cleaning materials used AND emission reduction achieved by capture and add-on controls
  - Calculate as a 12-month rolling average, determined monthly

MACT Requirements & Compliance Options

Emission rate with add-on controls (cont.)

- All capture systems and add-on controls must meet operating limits
  - Except for solvent recovery systems for which liquid-liquid material balance is conducted
- Must meet work practice standards

Part Three:

Initial Compliance Requirements

What must I do to show initial compliance with the requirements?

Initial Compliance Requirements

This section will cover:

- Initial compliance period
- Initial compliance demonstrations for each compliance option
  - Compliant material
  - Emission rate without add-on controls
  - Emission rate with add-on controls

Initial Compliance Requirements

Initial compliance period

- Existing sources
  - Begins: April 19, 2007
  - Ends: April 30, 2008
- New Sources
  - Begins: April 19, 2004 or startup (whichever is later)
  - Ends: Last day of the 12th full month after the compliance date (as early as April 30, 2005)
    - If **compliance date** occurs on any day other than the first day of the month, the compliance period extends through that month & the next 12 months

Initial Compliance Requirements

Initial compliance requirements

- Demonstrate you are meeting the emission limits for the initial compliance period
- Demonstrations differ for each compliance option

Initial Compliance Requirements

Compliant Material Option

- Calculations and supporting documentation:
  - Showing that organic HAP content of coatings met the emission limit
  - Showing that thinners and/or other additives or cleaning materials contained no organic HAP

Initial Compliance Requirements

Compliant Material Option (continued)

- Separate compliance demonstration required for each coating subcategory or source category OR
- Demonstrate compliance with predominant activity emission limit OR
- Demonstrate compliance with facility-specific emission limit

Initial Compliance Requirements

Compliant Material Option (continued)

- Perform demonstration on each material in condition received prior to any alteration
- Perform the following:
  - Determine mass fraction of organic HAP for each material used
  - Determine mass fraction of coating solids for each coating
  - Calculate the organic HAP content of each coating

Initial Compliance Requirements

Compliant Material Option (continued)

- You do not have to redetermine the organic HAP content of reclaimed or reused coatings, thinners and other additives, and cleaning materials if:
  - You have documentation that materials reclaimed offsite are the same that were sent offsite
  - The reclaimed and reused materials in the condition they were received were in compliance

Initial Compliance Requirements

Compliant Material Option (continued)

- Determine the organic HAP mass fraction for each material:
  - EPA test methods
  - Information from the supplier or manufacturer
  - Solvent Blend method using default values
  - Alternative methods require approval

Initial Compliance Requirements

Compliant Material Option (continued)

- Determine mass fraction of coating solids:
  - EPA Test methods
  - Information from material supplier or manufacturer
  - Alternative method (approval required)

Initial Compliance Requirements

Compliant Material Option (continued)

- Calculate organic HAP content of each coating based on:
  - Organic HAP mass fraction
  - Mass fraction of solids

Initial Compliance Requirements

Compliant Material Option (continued)

You have demonstrated initial compliance if during the initial compliance period:

- The organic HAP content for each coating used is less than the emission limit
- Each thinner and/or other additive, and cleaning material contains no organic HAP
- You have kept records and submitted the appropriate notifications and reports

Initial Compliance Requirements

Emission Rate Without Add-on Controls

- Similar demonstration to Compliant Material Option
  - 12-month initial compliance period
  - Compliance demonstrated for:
    - Each subcategory or source category separately; OR
    - The predominant activity; OR
    - The facility-specific emission limit

Initial Compliance Requirements

Emission Rate Without Add-on Controls (cont.)

- Perform the following using the same methodology as compliant material option:
  - Determine mass fraction of organic HAP of each material used
  - Determine mass fraction of coating solids of each coating

Initial Compliance Requirements
Emission Rate Without Add-on Controls (cont.)

- For each material used:
  - Determine the density each month using
    - ASTM Method D1475-98
    - Information from the supplier or manufacturer
    - Reference sources
  - Determine the volume by:
    - Measurement or usage records
    - Does not need to be determined if materials are purchased or monitored by weight instead of volume

Initial Compliance Requirements
Emission Rate Without Add-on Controls (cont.)

- Calculate the mass of organic HAP emissions
  - Combined mass of organic HAP contained in all coatings, thinners and/or other additives, and cleaning materials
  - Does not include certain waste materials sent to a regulated TSDF
- Calculate the total mass of coating solids for all coating used

Initial Compliance Requirements
Emission Rate Without Add-on Controls (cont.)

- Calculate the organic HAP emission rate for the compliance period based on:
  - Total mass of organic HAP emissions used during the month
  - Mass of coating solids used during the month

Initial Compliance Requirements

Emission Rate Without Add-on Controls (cont.)

You have demonstrated initial compliance if during the initial compliance period:

- The organic HAP emission rate is less than the emission limit
- You have kept records and submitted the appropriate notifications and reports

Initial Compliance Requirements

Emission Rate With Add-on Controls

- Different requirements for new and existing sources
- Compliance with:
  - Emission limits
  - Operating limits
  - Work practice requirements

Initial Compliance Requirements

Emission Rate With Add-on Controls (continued)

- New Sources:
  - Install capture and control systems no later than the **compliance date**
  - Conduct performance test no later than ~~the~~ **compliance date**
    - First material balance must be initiated for solvent recovery system liquid/liquid material balance by the **compliance date**
  - Develop and implement work practice plan no later than the **compliance date**

Initial Compliance Requirements

Emission Rate With Add-on Controls (continued)

- New Sources:
  - Establish operating limits no later than ~~the~~ **compliance date**
    - Operating limits determined during the performance test
    - Do not have to comply with operating limits until after performance test
    - Must maintain logs during the period between the compliance date and the performance test

Initial Compliance Requirements

Emission Rate With Add-on Controls (continued)

- Existing sources
  - Install Capture and add-on control systems no later than **April 19, 2007**
  - Conduct performance test and establish operating limits no later than **April 19, 2007**
  - Develop and implement work practice plan no later than **April 19, 2007**

Initial Compliance Requirements

Emission Rate With Add-on Controls (continued)

- Previously conducted tests can be use in lieu of initial performance test if:
  - Approved by Administrator
  - Used specified methods and conditions
  - No process or equipment changes were made that affect compliance
  - Operating parameters can be established

Initial Compliance Requirements

Emission Rate With Add-on Controls (continued)

- Same procedures for **emission rate without add-on controls option** to determine:
  - Mass fraction of organic HAP
  - Density
  - Volume used
  - Mass fraction of coating solids
  - Total mass of organic HAP emissions before add- on controls

Initial Compliance Requirements

Emission Rate With Add-on Controls (continued)

- Similar demonstration to Emission Rate without Add-on Controls
  - 12-month initial compliance period
  - Compliance demonstrated for:
    - Each subcategory or source category separately; OR
    - The predominant activity; OR
    - The facility-specific emission limit

Initial Compliance Requirements

Emission Rate With Add-on Controls (continued)

- Calculate organic HAP emission reduction for each controlled operation
  - Not using liquid-liquid material balance: Apply emission capture system efficiency and add-on control device efficiency to mass of organic HAP OR
  - Using liquid-liquid material balance: Apply volatile organic matter collection and recovery efficiency to mass of organic HAP

Initial Compliance Requirements

Emission Rate With Add-on Controls (continued)

- Calculate mass of organic HAP emissions for each month
- Calculate HAP emission rate

Initial Compliance Requirements

Emission Rate With Add-on Controls (continued)

You have demonstrated initial compliance if during the initial compliance period:

- The organic HAP emission rate is less than the emission limit
- You have kept records and submitted the appropriate notifications and reports

Part Four:

Continuous Compliance Requirements

What must I do to show continuous compliance with the requirements?

Continuous Compliance Requirements

- Demonstrated by performing compliance calculations each month for subsequent 12-month compliance periods
- Submit semiannual compliance reports
- Keep records
- Monitor operating limits for add-on controls

Part Five:

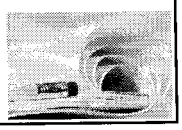
Monitoring, Recordkeeping & Reporting

What other requirements does the facility have to comply with?

Monitoring, Recordkeeping & Reporting

This section will cover:

- Monitoring requirements
- Records
- Content of reports



Monitoring, Recordkeeping & Reporting

Continuous Parameter Monitoring System (CPMS) Requirements

- One reading every 15 minutes
- 4 equally spaced readings per hour
- Average all recorded readings for each successive 3-hour period
- Record inspection, calibration, and validation check results
- Maintain CPMS and have spare parts available

Monitoring, Recordkeeping & Reporting

CPMS for Capture System Bypass Line

- Monitor or secure valve or closure mechanism using one of the following:
  - Flow position indicator
  - Car-seal or lock-and-key valve closure
  - Valve closure monitoring
  - Automatic shutdown system
  - Flow position indicator

Monitoring, Recordkeeping & Reporting

CPMS for Add-on Control Devices

- Thermal Oxidizer
  - Gas temperature monitor
- Catalytic Oxidizer
  - Gas temperature monitor
- Regenerative carbon Adsorber
  - Desorbing gas mass flow monitor

Monitoring, Recordkeeping & Reporting

CPMS for Add-on Control Devices (continued)

- Condensers
  - Condenser outlet gas temperature monitor
- Concentrator
  - Desorption gas temperature monitor
  - Pressure drop monitor across the zeolite wheel or rotary carbon bed

Monitoring, Recordkeeping & Reporting

CPMS for Capture System

- Permanent total enclosure (PTE): direction of air flow and either facial velocity of air through NDOs or pressure drop across enclosure
- Non-PTE: average gas flow rate or duct static pressure in each duct

Monitoring, Recordkeeping & Reporting

Recordkeeping

- All monitoring data
- Copies of notifications and reports
- All data used in compliance calculations
- Keep records for 5 years, last 2 years kept on site

Monitoring, Recordkeeping & Reporting

Reports

- Initial Notification
  - Name, address (facility and owner)
  - Relevant standard
  - Brief description of operations, emission points, emissions
  - Major or area source

Monitoring, Recordkeeping & Reporting

Reports (continued)

- Initial Notification (continued)
  - Include statement if complying with Automobile and Light Duty Truck NESHAP to demonstrate with Subpart PPPP
    - No other notifications are required under Subpart PPPP
  - Include statement if complying with other NESHAP as the predominant activity
    - No other notifications are required under subpart PPPP

Monitoring, Recordkeeping & Reporting

Reports (continued)

- Notification of Performance Test
  - Name, address (facility and owner)
  - Why testing is being performed
  - Type of test and sources to be tested
  - Date of test
  - Whether site-specific test plan completed

Monitoring, Recordkeeping & Reporting

Reports (continued)

- Notification of Compliance Status
  - Name, address (facility and owner)
  - Compliance method and results of performance tests
  - Methods for continuous compliance
  - Type and quantity of HAP emissions
  - Description of control methods, devices
  - Statement of whether in compliance

Monitoring, Recordkeeping & Reporting

Reports (continued)

- Semiannual Compliance Report
  - Covers six-month periods ending on June 30, or December 31
  - Due every January 31 and July 31
  - Name and address (facility and owner)
  - Reporting period
  - Statement that there were no deviations, or
  - Details about each deviation

Can submit as part of TV report

Monitoring, Recordkeeping & Reporting

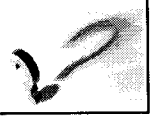
Reports (continued)

- Startup, Shutdown, and Malfunction Report
  - Name, address (facility and owner)
  - Statement that all activities were consistent, or
  - Number, duration, description of each type of malfunction

Part Six:

Important Dates

What are the important dates I need to know for when the rule starts taking effect?



Important Dates

This section will cover:

- Effective Date
- Initial Notification
- Compliance Date
- Performance Tests
- Notification of Compliance Demonstration

Important Dates

Effective Date

April 19, 2004

Initial Notification

- New sources
  - 120 days after initial startup or **August 17, 2004**, whichever is later
- Existing sources
  - No later than **April 19, 2005**

Important Dates

Compliance Date

- New Sources:
  - **April 19, 2004** OR initial startup, whichever is later
- Existing Sources:
  - **April 19, 2007**

Important Dates

Performance Tests

- Capture systems and add-on controls only
- Notification of Performance Test
  - At least 60 days prior to the test
- Conduct Performance Test
  - New Sources: No later than 180 days after the **compliance date**
  - Existing Sources: No later than **April 19, 2007**
- Performance Test Reports:
  - Within 60 days after completing the test

Important Dates

Notification of Compliance Status

- No later than 30 calendar days following the end of the **initial compliance period**

Semiannual Compliance Reports

- First report covers the first semiannual reporting period
  - Begins the day after the end of the initial compliance period
  - Ends on June 30 or December 31, whichever is first after the end of the initial compliance period

Important Dates

Semiannual Compliance Reports (continued)

- Subsequent reports cover the reporting period from January 1 through June 30 or from July 1 through December 31
- Reports must be postmarked no later than July 31 or January 31 whichever is the first date after the reporting period

or as part of Title V reports

Where can I get more information?

EPA's Rules and Implementation Web Site
www.epa.gov/ttn/atw/eparules.html

- National Emission Standards for Hazardous Air Pollutants
- NESHAP Implementation Tools
- Coatings Coordinated Rule Development
- Area Source Standards
- Potential to Emit
- Text of CAA Section 112

Where can I get more information?

- Coatings Coordinated Rule Development
  www.epa.gov/ttn/atw/coat/coat.html
- Plastic Parts
  www.epa.gov/ttn/atw/plastic/plasticpg.html

Part Seven:

Case Study

Case Study

Facility XYZ is a contract coating facility that paints various substrates, including plastic, metal, and wood.

Case Study (continued)

Facility XYZ uses 1,000,000 pounds solids in the following coating operations:

- A wood building products (WBP) coating operation (10,000 lb coating solids or 1.0%);
- A small metal parts (MP) coating operation (75,000 lb coating solids or 7.5%); and
- A plastic parts (PP) coating operation (915,000 lb coating solids or 91.5%)

Report out annually to determine predominant activity

Case Study (continued)

Coating Operation	Emissions (lb)
WBP	100
MP	22,500
PP	135,500
Total	158,100 (79 tpy)

Case Study (continued)

Is this facility subject to the Plastic Parts and Products Rule?

Case Study (continued)

- Facility is a Major Source
  - Emits more than 25 tpy HAP
- The plastic parts coating line would be subject to subpart PPPP.
- The remaining coating lines would also be subject to the wood building products and miscellaneous metal parts rules. Unless....

Case Study (continued)

- Facility XYZ decides to comply with the facility-specific emission limit option
  - Calculated using relative mass of coating solids
  - Not required to include coating operations that comprise less than 1% of coating activities
  - Other operations must meet applicability criteria of other surface coating NESHAP
  - Convert volume solids emission limit to mass solids emission limit using default density of 12.5 lb solids/gallon

Facility-Specific Emission Limit Calculation

Category	A Percent Coating Operations	B Emission Limit (lb HAP/lb solids)	A * B
WBP	1.0%	x 0.0048	0.000048
MP	7.5%	x 0.208	0.0156
PP	91.5%	x 0.160	0.1464
Facility-Specific Emission Limit			0.16205

WBP + MP emission limit volume solids → convert to mass solids

should be 95% to work

Facility XYZ 100,000 Pounds Solids Total Use

Source Category	A Pounds of Solids	B Emission Limit	C Allowable HAP Emissions (lb) A * B	D Actual HAP Emissions	E Actual Emission Rate D ÷ A
WBP	10,000	0.0048	48	100	0.01
MP	75,000	0.208	15,600	22,500	0.300
PP	915,000	0.16	146,400	135,500	0.1480
Total	1,000,000	**0.16205**	166,800	158,100	**0.16**

individual over emission limits

under limit

only have to calculate total monthly

Case Study (continued)

- Facility XYZ complies with the emission limits under subpart PPPP for all coating activities at the facility
  - NOTE: wood building products and metal parts coating lines are out of compliance with individual NESHAP limits