Motor Vehicle or Mobile Equipment Surface Coating Operations

Public Workshops
Feb. 16, 18, and 25, 2010

Blue Skies Delaware; Clean Air for Life
- Handouts

- Key Definitions

- Acronyms
Clean Air Act Amendments of 1990

- Congress identified 189 Hazardous Air Pollutants or HAPs
- Congress directed the EPA
  - To identify emission sources of those 189 HAPs and
  - To issue regulations to reduce HAPs emissions from those sources
Clean Air Act Amendments of 1990

- Congress directed the EPA to
  - Begin with those industrial facilities that typically have large HAPs emissions (major sources)
  - Only later, move on to those facilities that typically have smaller HAPs emissions (area sources)
Clean Air Act Amendments of 1990

- EPA activities on major sources

  - **1992** - EPA published its initial listing of predominately major source categories

  - **1993 – 2004** - EPA issued over 100 regulations addressing HAPs emissions from a wide variety of major sources, including collision repair

  - **2005 and on** - EPA continues, but most resources have moved on to area sources
Clean Air Act Amendments of 1990

EPA’s
Area Source
Air Toxics
Program

As directed by Congress in 1990
EPA’s Area Source Air Toxics Program

- Congress required EPA to
  - Identify 30+ HAPs that present the greatest threat to public health
  - Identify types of sources that emit 90% of these 30+ HAPs
  - Issue regulations to reduce adverse health effects due to the emission of HAPs from these small facilities
EPA’s Area Source Air Toxics Program

- EPA activities on area sources

- 1999 - EPA published its listing of 33 HAPs having the greatest health impact (in handouts)

- By 2002 - EPA had identified 70 area source categories (in handouts)

- 2006 - EPA began to focus more resources on these area sources

33 HAPs
&
Area Source Categories

Acetaldehyde
Acrolein
Acrylonitrile
Arsenic compounds
Benzene
Beryllium compounds
1,3-butadiene
Cadmium compounds
Carbon tetrachloride
Chloroform
Chromium compounds
Which Brings Us to Tonight’s Public Workshop
EPA’s Area Source Air Toxics Program

- On January 9, 2008, EPA issued another area source standard
  - Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources
    - 40 CFR Part 63 Subpart HHHHHHHH (Sub 6Hs)
  - Federal adoptions of Area Source Standards lead to internal Departmental review
Typical Departmental Review

- Review of Federal Area Source Standards
  - Are there any Delaware sources?
  - How do the Federal requirements compare to existing Delaware air regulations?
  - Do the Federal requirements adequately meet the needs of the public, the regulated community, and Departmental?
  - Are additional communications and outreach needed?
Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources

40 CFR Part 63 Subpart HHHHHHH or Sub 6Hs

Methylene Chloride Paint Stripping Operations
Reg. 1138 Section 13

Spray Coating Operations for Miscellaneous Parts or Products
Reg. 1138 Section 14

Spray Coating Operations for Motor Vehicles or Mobile Equipment
Reg. 1138 Section 15

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Results of Departmental Review of Sub 6Hs

- There were Delaware sources
- There were notable differences between the Sub 6Hs requirements and Delaware’s regulations or permits
  - Different pollutants being controlled
  - Different control strategy involved
  - Limited best management practices
- The Department concluded there was a need to adopt Sub 6Hs under DE’s Area Source Air Toxics program
Surface Coating Operations

Potentially

Subject To Section 15
Motor Vehicles

- Golf Carts
- Automobiles
- Motorcycles
- Vans
- Light Duty Trucks
Mobile Equipment

- Heavy Duty Trucks
- Bull Dozers
- Buses
- Agricultural Eqt
- Mobile Cranes
- Delivery Trucks
- Motor Homes

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Parts or Subassemblies

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I already have a Delaware Air Permit. So how is Section 15 different??
Regulation 1138 Section 15

- The pollutants of concern
- The types of coating operations exempted
- The applicable surface coating technique
- The pollutant emission controls
- Some of the best management practices
- The record keeping and reporting requirements
Pollutants Of Concern
Pollutants of Concern

- **Section 15** focuses on the *coating solids* in the overspray; not the volatile components.

- **Section 15** focuses on 5 specific HAPs or “Target HAPs”

- “Target HAPs” are the compounds of:
  - Cadmium
  - Chromium
  - Lead
  - Manganese
  - Nickel

See list of 33 Area Source HAPs
“Target HAPs” - Adverse Health Effects

Carcinogenic Effects

EPA classified some “Target HAPs” as
- Known Carcinogens
- Probable Carcinogens

Chronic Non-carcinogenic Effects

Other “Target HAPs” contribute to disorders in
- Respiratory Systems
- Central Nervous Systems
- Human Development, especially fetus and children
Coating Operations Exempted from Section 15
Exempted from Section 15 – 1

- Coating operations performed on site at installations owned or operated by the US Armed Forces
- Coating operations of mobile equipment used to transport military munitions manufactured by or for the US Armed Forces
- Coating operations associated with space vehicles
- Coating operations associated with facilities maintenance
- Coating operations conducted for QC or R&D purposes
- Coating operations already subject to an area source surface coating standard in 40 CFR Part 63 (excluding Subpart 6Hs) or Regulation 1138
Exempted from Section 15 – 2

- Coating operations conducted by private citizens
- For their personal motor vehicles or mobile equipment
- For other people without compensation
- But limited to 2 “ITEMS” per year

1 or 2 per year
Exempt from Sec. 15

3 or more per year
Subject to Section 15
Exempted from Section 15 – 3

- Coating operations that apply **ONLY** coatings that contain:
  - < 0.1% of any “Target HAPs” carcinogen
  - < 1.0% of any other “Target HAPs”

- Requires EPA approval of exemption
Obtaining EPA Exemption from Sub 6Hs

- Submit written petition to EPA Region 3 requesting exemption from Sub 6Hs and providing
  - A list of all spray applied coatings being used
  - Documentation from the manufacturer or supplier that provides formulation information demonstrating the “Target HAPs” are below the 0.1% and 1.0% thresholds
  - Source must comply until EPA’s approval is received
Obtaining Delaware Exemption

- Send the Department a copy the written petition submitted to EPA Region 3
- Send the Department a copy of the EPA’s approval of exemption
- Source must comply with Section 15 until a copy of EPA’s approval is received by the Department
Surface Coating Techniques
Surface Coating Technique

- **Section 15** is only applicable to surface coating operations that **spray apply** coatings.
Surface Coating Technique

For the purposes of Section 15, the following are not considered spray application:

- Coatings applied from a hand-held device with a paint cup capacity that is \(< 3.0\) fluid ounces
- Thermal spray operations
- Powder coating application
- Use of hand-held, non-refillable aerosol containers
Emission Control

Equipment

Requirements
Pollutant Emission Controls

- For coating **assembled** motor vehicles and mobile equipment
  - **All** spray applications must be applied in an enclosure
  - Enclosures must have a **full roof and 4 complete walls**
  - Enclosures must be **ventilated** to draw air into the enclosure so the overspray is captured and directed to a filter
Pollutant Emission Controls

- For coating motor vehicles or mobile equipment parts and sub-assemblies
  - All spray applications must be applied in an enclosure
  - Enclosures must have a full roof and 3 complete walls
  - Enclosures must be ventilated to draw air into the enclosure so the overspray is captured and directed to a filter
Pollutant Emission Controls

- **Section 15** requires that

- **Mobile ventilated enclosures** be **sealed** against the surface being coated so the overspray is captured and directed to a filter

Minimizing and controlling overspray

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Pollutant Emission Controls

Section 15 requires

- Fitting all enclosures with a filter technology certified by the manufacturer to achieve at least **98% capture** of the particulate entrained in the air.

Minimizing and controlling overspray.
Pollutant Emission Controls

- **Section 15** requires
  - Installing a monitoring device and checking and recording the pressure drop across the installed filter technology at least once daily
  - Limiting spray application to periods when the pressure drop across the filter is within manufacturer’s recommended operating range
Best Management Practices
Best Management Practices

- **Prohibits** spray application by painters that are NOT certified (or recertified) as having completed an “acceptable” training program in the last five years
Best Management Practices

- Requires painters to be certified no later than
  - January 10, 2011 or within 180 days following hiring (EXISTING sources)
  - September 11, 2010 or within 180 days following hiring (NEW sources)

- Requires painters to be re-certified as having completed the refresher course every five (5) years
“Acceptable” Training Program

- Specifies the minimum acceptable content of the painter training program
  - Spray gun selection, its set up and operation
  - Spray technique for different types of coatings to improve transfer efficiency
  - Routine spray booth and filter maintenance
  - Filter selection and proper installation
  - Environmental compliance requirements

Minimizing and controlling overspray
“Acceptable” Training Program – cont.

- “Acceptable” training will likely include
  - Hands-on instruction and experience
  - Classroom instruction
  - Demonstration of learned knowledge and skill
- Owner determines who and how painters are to be trained for his business
Best Management Practices

- Requires the owner
  - To certify that painters have successfully completed an acceptable training program
  - To limit the spray application of coating containing “Target HAPs” to currently certified painters
Best Management Practices

- A Caveat

Training certified under Section 15 may not meet the Reg. 1124 Section 11 training requirements
Best Management Practices

- **Limits** the spray application of coating to
  - HVLP spray guns
  - Electrostatic application
  - Airless spray guns
  - Air-assisted airless guns
  - EPA approved alternative equivalent to HVLP
**Best Management Practices**

- **Prohibits** spray gun cleaning in which an atomized mist or spray is outside the container that collects the solvent
- Allows non-atomized flow through cleaning
- Allows manual disassembly and hand cleaning
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Annual Reports

Paperwork

Record Keeping

Notifications

Requirements
Initial Notification – Existing Sources

- **Submittal** of “Initial Notification” no later than September 11, 2010

- **Submittal** to Department with a copy to EPA Region 3

- **Submittal** must contain the information listed in 15.7.1 of Section 15

- **Submittal is Optional** – If the owner submitted the Federal Sub 6H “Initial Notification” to EPA by January 11, 2010 and sent a copy to the Department

**Initial Notification**

Initial notification. The owner or operator of a motor vehicle or mobile equipment surface coating operation, subject to 15.0 of this regulation, shall submit the initial notification required by 3.9.2 of this regulation. For a new or reconstructed affected source, the owner or operator shall submit the initial notification no later than 180 days after initial startup or September 11, 2010, whichever is later.
Where are the Notifications/Reports Sent?

Delaware DNREC
Administrator, Air Quality Management
156 S. State Street
Dover, DE 19901

With a copy to
U. S. Environmental Protection Agency
Director, Air Protection Division
1650 Arch Street
Philadelphia, PA 19103
Notification of Compliance Status (NOCS) – Existing Sources

- **Submittal** of “Notification of Compliance Status” no later than March 11, 2011

- **Submittal** to Department with a copy to EPA Region 3

- **Submittal** must contain the information listed in 15.7.2 of Section 15

- The owner **may submit** the NOCS on September 11, 2010 in place of the “Initial Notification”
Examples of “Deviations” or “Changes”

- Spray application outside an enclosure
- Use of a non-98% manufacturer certified filter media
- Spray application when the filter pressure drop is outside the manufacturer’s recommended range
- Spray application by non-certified painter
- Application done with an non-HVLP equivalent spray gun
- Incomplete painter certification records
Annual Notification of Changes Report (ANOCR) – Existing Sources

- **Submittal** of “Annual Notification of Changes” report prior to March 1 following each calendar year, if a deviation or change occurred.
- **Submittal** to Department with a copy to EPA Region 3.
- **Submittal** must contain the information listed in 15.8.2 of Section 15.

**ANOC Report**

Annual notification of changes report. The owner or operator of a motor vehicle or mobile equipment surface coating operation, subject to 15.0 of this regulation, shall submit a report for each calendar year in which information previously submitted in either the initial notification, the notification of compliance status, or the previous annual notification of changes report has changed.
Record Keeping – Existing Sources

- **Certification** information for each painter
- **Documentation** of filter’s removal efficiency
- **Log sheets from the** daily recording of filter pressure drop
- **Documentation** on each occurrence of a change or deviation
- **Copies** of all notification or report submittals and the records associated with their completion
- Record must be kept for **at least 5 years**
“Paper work” Requirements – New Sources

- **Submittal** of “Initial Notification” no later than 180 days following initial start up or Sept. 11, 2010, whichever is later

- **Submittal** of “Notification of Compliance Status” no later than 180 days following initial start up or Sept. 11, 2010, whichever is later

- Identical to existing sources –
  - **Submittal** of “Annual Notification of Changes” report
  - Record Keeping
When must a facility be in compliance?

- **Existing** affected sources must be in compliance no later that **January 10, 2011**

- **New** affected sources must be in compliance not later than **September 11, 2010** or upon initial startup, whichever is later
Permitting Requirements

- Motor vehicle or mobile equipment coating operations subject to Section 14 may be SUBJECT to permitting requirements under 7 DE Admin Code 1102

- Motor vehicle or mobile equipment coating operations subject to Section 14 are exempt from Title V permitting requirements, IF the O/O is not otherwise required to obtain a Title V permit under 3.1 of 7 DE Admin Code 1130
Compliance Assistance Tools Available

- Initial notification
- Notification of compliance status
- Notification of changes report
- Certification template

www.awm.delaware.gov/Info/Regs/Pages/Section15.aspx
Projected Path Forward

- Publish proposed regulation in Delaware Register of Regulation – May 1, 2010
- Public hearing – Dover – June 10, 2010
- Publish final regulation in Delaware Register of Regulation – September 1, 2010
- Regulation effective date – September 11, 2010
For More Information on Section 15

- Contact Jim Snead

- (302) 323-4542

- james.snead@state.de.us
For More Assistance

- Contact Kim Chesser
- (302) 739-9909
- kimberly.chesser@state.de.us
For the latest information, follow the ongoing development on Section 15 Regulatory Web Page

www.awm.delaware.gov/Info/Regs/Pages/Section15.aspx