

# National Emission Standards for Hazardous Air Pollutants (NESHAP):

## **EPA's Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources Rule (40 CFR Part 63, Subpart HHHHHH)**

Deborah Craig, EPA Region 2 (NY, NJ, PR & VI)  
craig.deborah@epa.gov  
212.637.3521

<http://www.epa.gov/region2/auto>

On web site, scroll past green banner, see  
Auto Body Shops: Compliance Reminder

# Presentation will cover:

- Background: Why did EPA create this rule?
- Enforcement of rule
- Regulated sources
- Exempted sources
- Opportunity to apply for exemption from rule
- Compliance dates for new and existing sources
- Compliance requirements
- Submittal of Initial Notification, Notification of Compliance and, if applicable, Notification of Annual Changes
- Recordkeeping
- Summary Table of Key Dates
- Contact/Resources

## Background: Why did EPA Create this Rule?

- National Emission Standard for Hazardous Air Pollutants (NESHAP): Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources
- Published January 9, 2008 amended on February 13, 2008
- Found in the Code of Federal Regulations (CFR) at 40 CFR Part 63 Subpart HHHHHH
- Copy of rule, guidance documents and forms available at:

<http://www.epa.gov/region2/outa>

## Background Cont'd

- Under the Clean Air Act, EPA has identified 70 small industrial “area sources” that emit most of the hazardous air pollutants known as “HAPs” or air toxics in urban areas.
- An area source has the potential to emit less than 10 tons per year of any single HAP and less than 25 tons per year of any combination of HAPs

# Background Cont'd

- Many coatings used in motor vehicle and mobile equipment refinishing contain HAPs: Chromium, Lead, Cadmium, Manganese and Nickel compounds (“target HAPs” under the rule)
- The Clean Air Act requires EPA to reduce exposure to HAPs because these chemicals are known, or suspected, to cause cancer, respiratory problems, eye and skin irritations, and other serious health effects.

## Enforcement of Rule in EPA Region 2 (NY, NJ, PR and VI)

- Currently, EPA Region 2 is the agency responsible for enforcing the Federal rule in New York and New Jersey
- State environmental agencies may elect to accept enforcement authority - Puerto Rico and Virgin Islands have been delegated the authority for this rule

# Regulated Sources

40 CFR § 63.11170 and definitions under 63.11180

- Paint stripping using **any amount** of Methylene Chloride (also known as Dichloromethane).
- Spray-apply surface coating using a **hand held** device such as HVLP gun to create atomized mist of coating onto **assembled**:
  - **motor vehicles**: cars, light duty trucks, golf carts, vans and motorcycles
  - **mobile equipment**: heavy duty trucks, truck trailers, fleet delivery trucks, buses, mobile cranes, bulldozers, street cleaner, agricultural equipment, motor homes and other recreational vehicles
  - includes fixed locations at shops and mobile refinishing operations
  - includes hobbyists that coat **more than** two motor vehicles or pieces of mobile equipment per year regardless of whether payment is received

# Regulated Sources

40 CFR § 63.11170 and definitions under 63.11180

- “Miscellaneous” spray-apply surface coating use a hand held device such as HVLP gun to create atomized mist of coating onto:
  - any metal or plastic or combination of metal and plastic **parts** or products that **are not** motor vehicles or mobile equipment (e.g., car bumpers or mirrors not attached to cars)
  - **if** coatings contain target HAPs: compounds of Chromium, Lead, Manganese, Nickel or Cadmium
  - if no target HAPs, automatically exempted from rule unless you use Methylene Chloride (also known as Dichloromethane) for paint stripping

# Exempted Sources

40 CFR § 63.11169(d)(3)

Surface coating or paint stripping operations:

- Performed by individuals on personal vehicles, possessions, or property as a hobby or for maintenance, or **done by individuals for others without compensation are exempted.** “Hobby exemption”
  - However, if you spray-apply coatings to **more than** two motor vehicles or pieces of mobile equipment per year, **you are subject to rule regardless of whether compensation is received**

# Exempted Sources Cont'd

(Definition of spray applied coating operations - 40 CFR § 63.11180)

- **Spray-applied applications:**
  - using hand-held device with a cup capacity of 3.0 fluid ounces (89 cc) or less
  - powder coating
  - hand-held, non-refillable aerosol containers
  - non-atomizing technology
    - brushes, rollers, hand wiping
    - coating techniques – flow, dip, electrodeposition, web, coil
    - touch up markers or marking pens
  - thermal spray operations using solid metallic or non-metallic materials

# Exempted Sources Cont'd

Coating Definition - 40 CFR § 63.11180

- affected coatings do not include:
  - decorative, protective, or functional materials that consist only of protective oils for metal, acids, bases, or any combination
  - paper film or plastic film that may be pre-coated with adhesive
  - adhesives, sealants, maskants, or caulking materials
  - temporary protective coatings, lubricants, or surface preparation materials
  - in-mold coatings that are spray-applied in the manufacture of reinforced plastic composite parts

# Exempted Sources Cont'd

40 CFR § § 63.11169 (d) and 63.11170(a)(2)

Surface coating or paint stripping:

- Facility Maintenance
- Research and laboratory activities
- Quality control activities
- Certain military activities
- Activities covered under any other area source NESHAP

# Opportunity to Apply for Exemption

40 CFR § 63.11170(a)(2 )

- Owner or operator of motor vehicle or mobile equipment surface coating operation may request from EPA Regional Office an exemption from rule. See “EPA Region 2 Example Petition for Exemption Form” at: <http://www.epa.gov/region2/auto>
- Exemption not automatic, request must be approved by EPA. No exemption available for paint stripping.
- Owner or operator must certify that they do not spray apply any coatings that contain compounds of the target HAPs
  - coatings containing compounds of Hexavalent Chromium (Cr+6), Lead (Pb), Nickel (Ni) and Cadmium (Cd) that are carcinogens and are present at more than 0.1% of the coating by mass are target HAP containing coatings
  - coatings containing compounds of Trivalent Chromium (Cr+3) or Manganese (Mn) that are not carcinogens and are present at more than 1.0% of the coating by mass are also target HAP containing coatings

# Opportunity to Apply for Exemption Cont'd

- Petition by the owner or operator must also include a description of the coatings that are spray applied (e.g., specify manufacturer and product line).
- Refer to coating Material safety data sheets (MSDSs) or obtain documentation from supplier. MSDSs are not required to be submitted with petition.
- Consider switching to alternative coatings w/out target metal HAPs.
- Still must submit Initial Notification form of coating activities – EPA must approve exemption, not automatic.

# When Are New and Existing Sources Required to Be In Compliance With Rule?

40 CFR § 63.11172



- New source is a source that commenced construction after September 17, 2007 by installing new paint stripping or miscellaneous surface coating equipment **and** it had no paint stripping or miscellaneous surface coating activity prior to that date.
- Existing source is a source that conducted paint stripping and/or miscellaneous surface coating operations on or before September 17, 2007.
- Purchase and installation of new equipment (e.g., spray booth, HVLP guns, etc.) in order to comply with rule will not make it a new source

# When Are New and Existing Sources Required to Be In Compliance With Rule Cont'd?

40 CFR § 63.11172

- New source must comply by January 9, 2011 if initial start-up of operations was after this date, then comply by initial start-up date.
- Existing sources must comply by January 10, 2011
- See following requirements for paint stripping and surface coating operations



# Requirements for Paint Stripping

(40 CFR § 63.11173 (a)(1)-(5))

- Minimize emissions of Methylene Chloride using the following management practices
  - Evaluate each application for need to remove paint (e.g. can part be re-coated)
  - Evaluate each application for alternative to Methylene Chloride
  - Reduce exposure of Methylene Chloride strippers to air
  - Optimize conditions when using Methylene Chloride to reduce evaporation (e.g., if heating, use lowest possible temperature)
  - Use proper storage and disposal techniques (e.g., store stripper in closed, airtight containers)

# Requirements for Paint Stripping Cont'd

(40 CFR § 63.11173 (b) – (d))

- If operation uses more than one ton of Methylene Chloride in a year
  - Develop and implement a written Methylene Chloride minimization plan
  - Post the plan in areas where activity occurs
- If operation uses one ton of Methylene Chloride or less
  - No written plan is required, but must comply with minimization management practices

## Requirements for Surface Coating Cont'd (40 CFR § 63.11173 (e)(2)(i))

- Spray-applied coatings must be applied in spray booth, preparation station, or mobile enclosure that is:
  - Fitted with filter system demonstrated to have at least 98% collection efficiency of capturing paint overspray.
  - Keep record of manufacturer data for 98% or better filter efficiency (American Society of Heating, Refrigerating and Air-Conditioning Engineers "ASHRAE" Method 52.1)
  - Filter requirement does not apply to waterwash spray booths operated and maintained to manufacturer's specs

# Requirements for Surface Coating Cont'd

(40 CFR § 63.11173 (e)(2)(ii))

- Spray booths and prep stations used to refinish complete motor vehicles or mobile equipment must:
  - Be fully enclosed with a full roof and four complete walls or complete side curtains, and ventilated at negative pressure so that air is drawn into any openings in the booth walls or prep station curtains;  
OR
  - Spray booth must be fully enclosed with seals on all openings and have an automatic pressure balancing system operated at  $\leq 0.05$  inches water gauge positive pressure

# Requirements for Surface Coating Cont'd

(40 CFR § 63.11173 (e)(2)(iii))

- Spray booths and prep stations used to coat miscellaneous parts or products or vehicle subassemblies must:
  - Have full roof, at least 3 complete walls or side curtains, and ventilated so air is drawn into the booth
  - Roof and walls may have openings for conveyors and parts to enter booth during coating process

# Requirements for Surface Coating Cont'd

(40 CFR § 63.11173 (e)(2)(iv))

- Mobile ventilated enclosures for spot repairs must:
  - Enclose and seal against the surface around the area being coated
  - Retain paint overspray within the enclosure and direct it to a filter with at least 98% collection efficiency to capture paint overspray

# Requirements for Surface Coating Cont'd

(40 CFR § 63.11173 (e)(3))

- Spray-applied coatings must be applied with one of the following gun technologies:
  - High volume, low pressure (HVLP)
  - Electrostatic
  - Airless
  - Air-assisted airless
  - With written approval from EPA, other spray technology demonstrated by gun manufacturer to achieve equivalent transfer efficiency (California South Coast Air Quality Management District's Test Procedure). Confirm if State approval is needed also.

# Requirements for Surface Coating Cont'd

(40 CFR § 63.11173 (e)(3))

- Listed spray technologies are not required if:
  - Painting is performed by students and instructors at paint training centers
  - Coating certain aerospace vehicle coating applications

# Requirements for Surface Coating Cont'd

(40 CFR § 63.11173 (e)(4))

- Spray gun cleaning must prevent atomized (sprayed) mist of cleaning solvent and paint residue directly into the air outside the container used to collect waste solvent
  - Acceptable options include:
    - Hand cleaning of parts of disassembled gun
    - Flush gun with solvent, without atomizing (i.e., spraying) the solvent & paint residue
    - Combination of non-atomizing methods
    - Use fully enclosed spray gun cleaner

# Painter Training Requirements for Surface Coating (40 CFR § 63.11173 (g))

- Train all painters, including contractors, who spray apply coatings. Except students of accredited surface coating training program who are under the direct supervision of an instructor who is certified
- See “EPA Region 2 Example Owner/Operator Certification for Painter Training Form” at: <http://www.epa.gov/region2/auto>
- Initial training
  - New sources must train workers by July 7, 2008 or 180 days after hire, whichever is later.
  - Existing sources must train new workers 180 days after hire or by January 10, 2011
  - New and existing sources can use training completed up to five years prior to date training is required (see above dates). Painter work experience or combo of experience and training can be used.
- Refresher training
  - Once every five years – painter work experience may not be used

# Painter Training Requirements for Surface Coating Cont'd

(40 CFR § 63.11173(f))(1)-(3))

- Training program must include:
  - List of names and job description of painters requiring training
  - Description of owner/operator methods to demonstrate, document and certify successful completion of training **(Training certificate alone is not sufficient.)**
  - Hands on and classroom instruction covering initial and refresher training program topics

# Painter Training Requirements for Surface Coating Cont'd

(40 CFR § 63.11173 (f)(2)(i)-(iv))

- Hands on and classroom instruction including:
  - Spray gun equipment selection, set up, and operation, including measuring coating viscosity, selecting the proper fluid tip or nozzle, and achieving the proper spray pattern, air pressure and volume, and fluid delivery rate
  - Spray techniques for different types of coatings to improve transfer efficiency and minimize coating usage and overspray, including maintaining the correct spray gun distance and angle to the part, using proper banding and overlap, and reducing lead and lag spraying at the beginning and end of each stroke.
  - Routine booth and filter maintenance, filter selection and installation
  - Compliance with environmental requirements of the rule (e.g., classroom training using this presentation)

# Initial Notification

40 CFR § 63.11175(a)(1) – (8)

## ■ Initial Notification

- New sources - due 180 days after start up, or July 7, 2008, whichever is later. Must include compliance certification with initial notification.
- Existing sources – due by January 11, 2010. May include Notice of Compliance Status certification with Initial Notification or submit later.
- “EPA Region 2 Example Initial Notification Form” (includes Notice of Compliance Status certification on same form) is available at:

<http://www.epa.gov/region2/auto>

# Notification of Compliance Status

## 40 CFR § 63.11175

- Notification of Compliance Status
  - Existing sources not able to certify compliance in the Initial Notification under 40 CFR 63.11175(a) (8) must submit the Notification of Compliance Status under 40 CFR § 63.11175(b) by March 11, 2011
  - Include same contact information as Initial Notification
  - Certify compliance with all relevant requirements, see “EPA Region 2 Example Notification of Compliance Status Form” at:  
<http://www.epa.gov/region2/auto>
  - Paint stripping sources using more than one ton of Methylene Chloride in a year must certify they have written and are implementing their minimization plan

# Annual Notification of Changes

40 CFR § 63.11176 (a)

- Annual Notification of Changes Report
  - Sources must submit report each year prior to March 1<sup>st</sup> **if** any previously reported information changed during the previous year
  - Deviations from requirements are considered changes
  - Send letter, no EPA Example Form

# Where to Send Notifications

- Send Initial Notifications, Notifications of Compliance Status and Notifications of Annual Changes to EPA Region 2 with a copy to the State. If State is delegated, send original to State and a copy to EPA. PR and VI are delegated, NY and NJ are not .

EPA Region 2

Director, Division of Enforcement and Compliance Assistance

290 Broadway

New York, N.Y. 10007-1866

See EPA Region 2 Example Forms for EPA Region 2 and State addresses at: <http://www.epa.gov/region2/auto>

# Recordkeeping

(40 CFR § 63.11177 (a) – (h))

- Paint stripping
  - Records of paint strippers containing Methylene Chloride, including the Methylene Chloride content sufficient to verify annual usage
  - Copy of minimization plan kept on site, only if Methylene Chloride usage is over 1 ton
    - including annual review and updates to plan
  - Records of any deviations (failures to meet a requirement in the rule), including date and time period it occurred, a description of deviation, and corrective actions taken
  - Records of any assessments of compliance performed in support of Initial Notification, Notification of Compliance Status or Annual Notification of Changes Report

# Recordkeeping

(40 CFR § 63.11177 (a) – (h))

- Surface coating
  - Initial/refresher training documentation and certification by owner or operator for each painter.
  - Manufacturer's documentation of 98% or better filter efficiency
  - If spray gun does not meet definition of acceptable technologies, documentation from spray gun manufacturer that EPA has determined equivalent transfer efficiency to HVLP gun
  - Copies of Initial Notification, Notification of Compliance Status, and if applicable, Annual Notice of Changes Report.

# Recordkeeping

(40 CFR § 63.11177 (a) – (h))

- Surface coating cont'd:
  - Records of any deviations from requirements in the rule, including date and time period it occurred, a description of deviation, and corrective actions taken
  - Records of any compliance assessments performed in support of the Initial Notification, Notification of Compliance Status or Annual Notification of Changes Report

# How Long Must Records Be Kept?

(40 CFR § 63.11178)

- Maintain records for 5 years after date of each record
- Copies must be kept on-site in print or electronic form for first 2 years
- Copies may be kept off-site after the first 2 years

# Summary of Key Dates

<b>Requirement</b>	<b>Existing Source – Initial start-up of operation <b>on or before</b> Sept. 17, 2007</b>	<b>New Source - Initial start-up of operation <b>after</b> Sept. 17, 2007</b>
Initial Notification (see form) Submit & keep record	January 11, 2010	July 7, 2008 or 180 days after initial startup (whichever is later)
Painter Training/owner certification (see form) Keep record (don't submit)	January 10, 2011 or 180 days after hiring (whichever is later) plus refresher every 5 years	July 7, 2008 or 180 days after hiring (whichever is later)
booth, prep station, mobile enclosure, spray gun, gun cleaning & filter. Keep record (don't submit) of 98% filter &, if applicable, EPA approval of "compliant non-HVLP gun" from manufacturer	January 10, 2011	January 9, 2008 or date of initial startup thereafter
Notification of Compliance Status (compliance certification). See form. Submit & keep record	March 11, 2011	July 7, 2008 or 180 days after start up (whichever is later)

# Summary of Key Dates

## Requirement

## Existing Source –

## New Source - Initial

start-up of operation **on or before** Sept. 17, 2007

start-up of operation **after** Sept. 17, 2007

Annual Notification of Changes – send only if there were changes & non-compliance. No form, send letter.

March 1 of every year for prior calendar year

March 1 of every year

Submit & keep record

Deviations from rule (record date, time & description of deviation) and corrective actions taken. No form.

January 10, 2011

January 9, 2008 or date of initial startup thereafter

Keep record (don't submit)

Assessments of compliance to support Initial Notification, Notification of Compliance Status & Annual Notification of Changes Report. No form. Keep record (don't submit)

January 10, 2011

January 9, 2008 or date of initial startup thereafter

# Summary of Key Dates

## Requirement

**Existing Source –**  
Initial start-up of  
operation **on or before**  
Sept. 17, 2007

**New Source -** Initial  
start-up of operation  
**after** Sept. 17, 2007

Keep record (don't submit) of  
paint strippers containing  
Methylene Chloride, including  
Methylene Chloride content  
sufficient to verify annual usage.  
No form.

January 10, 2011

January 9, 2008 or date  
of initial startup  
thereafter

# Additional Resources

## EPA Region 2 (NY, NJ, PR, & VI)

<http://www.epa.gov/region2/auto>

To download forms for EPA Region 2 area, guidance and rule, see “Auto Body Shops – Compliance Reminder” (scroll down the web page, past the green banner). Forms contain EPA Region 2 and State mailing addresses. Region 2 Web site has links to EPA HQs national Web sites below.

## EPA HQs Collision Repair - DVD/poster (see next slide)

<http://www.epa.gov/collisionrepair>

Download forms, guidance and rule for other EPA Regions across the U.S. Scroll down the web page to “Auto Body Rule.” See also “State Delegations” link for EPA/State mailing addresses for forms.

## EPA HQs Design for Environment

<http://www.epa.gov/dfe/pubs/projects/auto>

Download fact sheets on benefits of waterborne basecoats and vacuum sanders plus a checklist that covers voluntary best practices along with some EPA and OSHA requirements.

## Order Free Copy of EPA DVD and Poster Featuring Jeff Gordon

- Copy of EPA's Collision Repair Campaign Training DVD - Spanish and English on same DVD. Includes some information on rule and interviews with shop personnel. Not required viewing, 19 minutes (#456V09001)
- Copy of Collision Repair Campaign Poster (#456H09001)
- National Service Center for Environmental Publications (NSCEP), NSCEP Toll Free Number: 1-800-490-9198
- Online Ordering: <http://www.epa.gov/ncepi/>

# Additional Resources Cont'd

For more information call the EPA/State contacts below :

Deborah Craig

EPA Region 2 (NY, NJ, PR and VI)

212.637.3521

[craig.deborah@epa.gov](mailto:craig.deborah@epa.gov)

<http://www.epa.gov/region2/auto>

Ky Asral or Ed Bakos

NJ Department of

Environmental Protection

Small Business Assistance Program

609.292.3600

<http://www.nj.gov/dep/opppc/small.html>

NY Small Business Assistance Program

Environmental Facilities Corporation

1-800-780-7227

<http://www.nysefc.org/home/index.asp?page=855>

# Additional Resources Cont'd

Nancy Garcia  
Small Business Assistance Program  
Puerto Rico Environmental Quality Board  
787.767.8181 x 3275  
nancygarcia@jca.gobierno.pr

Marylyn Stapleton  
Ombudsman/Small Business Environmental  
Assistance Program Coordinator  
Virgin Islands Department Planning & Natural Resources  
340.714.9529  
marylyn.stapleton@dpr.gov.vi

## Additional Resources Cont'd



[kennedy.cathleen@epa.gov](mailto:kennedy.cathleen@epa.gov)



<http://www.epa.gov/collisionrepair>



[www.epa.gov/reg3artd/airquality/autobody.html](http://www.epa.gov/reg3artd/airquality/autobody.html)