

EPA's New Air Quality Rule for Auto Body Shops: Paint Stripping and Miscellaneous Surface Coating at Area Sources

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Overview

- Background: Why did EPA create this regulation?
- Affected sources and activities
- Compliance dates
- General requirements
 - Paint Stripping
 - Motor Vehicle, Mobile Equipment and Miscellaneous Surface Coating
- Notification and reporting
- Recordkeeping

Background: Why did EPA create this regulation?

- The Clean Air Act (CAA) requires EPA to develop air emission standards for a list of 187 hazardous air pollutants (HAPs). EPA developed standards for HAPs for "major sources."
- The CAA also requires EPA to identify and regulate the sources that pose the greatest potential health threat from these pollutants in urban areas. In urban areas, these are generally sources that are individually small, but large in number and collectively may pose health risks ("area sources").
- EPA has identified 70 different area source categories for these air toxics that need to be regulated. Autobody refinishing has been identified as one of the source categories that needs to be regulated.

Background: Why did EPA create this regulation? (cont'd.)

- The CAA requires EPA to reduce exposure to HAPs because these chemicals are known, or suspected, to cause cancer or other serious health effects, such as birth defects. Data from paint suppliers has shown that coatings used in automobile and mobile equipment refinishing contain HAPs, such as chromium (Cr), lead (Pb), cadmium (Cd), manganese (Mn) and nickel (Ni) compounds ("target HAPs").

Background cont'd.

- New National Emission Standard for Hazardous Air Pollutants (NESHAP): Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources published 1/9/08 (73 FR 1738)
- Area Sources - federal **potential** HAP emissions less than 10 tons per year (TPY) of any one, and less than 25 TPY of all combined

Why We are Here – EPA's Assistance and Enforcement

- One of EPA's roles is to see that environmental laws are carried out (that pollution is reduced or eliminated)
- EPA provides compliance assistance but also monitors compliance through inspections, inquiries, data review, etc.
- With new regulations there is generally an initial period of assistance and training before they take effect (three years for existing shops for this new air pollution rule)
- These workshops are designed to help you understand what you have to do to comply with the regulations well in advance of the compliance deadline

EPA's Civil and Criminal Enforcement Programs

- EPA may assess penalties for violations of federal environmental laws
- EPA can enforce environmental laws under both civil and criminal authorities
- It's your affirmative duty to find out about, and comply with, all federal environmental compliance requirements
- You are still subject to civil enforcement even if you don't know about a law or regulation
- Criminal enforcement is taken for knowing violations of environmental laws and regulations
- You can report any suspected violations to EPA at <http://www.epa.gov/compliance/complaints> in English or Spanish

State and Local Enforcement

- In addition to federal regulations and enforcement, you should be aware that states and municipalities also create laws and regulations and carry out enforcement. You are urged to find out about state and municipal requirements that pertain to your operations.
- For this new air regulation, state environmental agencies may elect to accept enforcement authority.

Three Affected Source Categories

- Paint stripping operations
 - using Methylene Chloride (MeCl) to remove dried paint from wood, plastic, metal or other
- Motor vehicle and mobile equipment spray-applied surface coating operations
- Miscellaneous surface coating
 - spray application of coatings containing Cr, Pb, Mn, Ni, or Cd (target HAPs) to any metal or plastic parts or products that are not motor vehicles or mobile equipment

Sources NOT affected

- Armed Forces, NASA, or National Nuclear Security Administration operations performing affected activities
- Affected activities performed on military munitions or equipment for use by Armed Forces
- Affected activities performed by individuals on personal vehicles, possessions, or property as a hobby or maintenance, or done by individuals for others without compensation (pay). However, if you spray-apply coatings to more than two motor vehicles per year, you are subject regardless of whether compensation is received

Sources NOT affected contd.

- Research and laboratory activities
- Quality control activities
- Activities covered under any other area source NESHAP
- Motor vehicle and mobile equipment spray-applied surface coating operations who successfully petition EPA for exemption, demonstrating that no target HAPs used in any coatings

Activities NOT included

- Spray-applied applications:
 - using hand-held device with a cup capacity no more than 3.0 fluid ounces (89 cc)
 - 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

Activities NOT included contd.

- 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

How Can My Shop Become Exempt from this Rule?

- You must send a request for an exemption (“petition”) to EPA Region 1
- Your “petition” must include a description of all the coatings that you spray-apply
- You must certify that you do not spray-apply any coatings that contain any of the five key metals called “target HAPs” – compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni) or cadmium (Cd)

Advantages of Switching to Coatings that Don't Contain Toxic Metals

- Understanding what you and your employees are breathing
- Protecting health – you, your employees, your customers, your neighbors
- Save time and money - cost of complying with new EPA air rule
- Manufacturers have been reducing metals content so alternative coatings not containing metals may be available

How to Show that Your Coatings Don't Contain Target HAPs

- A coating contains the target HAP if it contains any “individual target HAP” that is a carcinogen as defined by OSHA at more than 0.1% by mass, or more than 1% for any other individual target HAP
- You need to determine what metal HAPs are in your coatings – review available information and contact your manufacturer or paint distributor
- You can check the manufacturers' website, or rely on material safety data sheets (MSDSs) from the manufacturer, as long as they represent each target HAP compound in the material; or conduct testing (expensive)
- Water-based coatings may not be free of target HAP; you need to check

Submitting a Petition for Exemption

- Sources in New England must submit the request to U.S. EPA New England
- Petition must include a description of the coatings you spray-apply, including product lines, manufacturers and types of coatings used; and your certification that you do not spray-apply any coatings containing the target HAP (signed by responsible official)
- Additional information will be requested as needed (e.g., the documentation you relied upon, copies of MSDS sheets)
- EPA regions and individual facilities may vary in information needed and requested
- Sources in New England may contact Susan Lancey with questions at 617-918-1656, Lancey.Susan@epa.gov

New Sources

- A source is new if
 - Source commenced construction after September 17, 2007 by installing new equipment; and
 - The new equipment is used at a source not actively engaged in paint stripping and/or surface coating prior to September 17, 2007
 - construction of new paint booths, enclosed spray gun cleaners, paint stripping equipment to reduce MeCl emissions, or spray guns to comply with the rule do not make an existing source new

Compliance Dates

- New sources must comply by January 9, 2008 or start-up of operations
- Existing sources must comply by January 10, 2011

Requirements for Paint Stripping

- **Minimize emissions of MeCl** 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 MeCl
 - Reduce exposure of MeCl strippers to air
 - Optimize conditions when using MeCl to reduce evaporation (e.g., if heating, use lowest possible temperature)
 - Use proper storage and disposal techniques

Requirements for Paint Stripping

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

Motor Vehicle, Mobile Equipment and Misc. Surface Coating Compliance

- Painters must be certified as completing training in proper spray application of surface coatings, setup and maintenance of spray equipment
 - Except students of accredited surface coating training program who are under the direct supervision of an instructor who is certified

Motor Vehicle, Mobile Equipment and Misc Surface Coating Compliance

- Spray-applied coatings must be applied in spray booth, preparation station, or mobile enclosure that is:
 - Fitted with filter system demonstrated to have 98% collection efficiency, using vendor provided test data, or using waterwash spray booths operated to manufacturer's specs

Motor Vehicle, Mobile Equipment and Misc Surface Coating Compliance

- Booths and prep stations for complete motor vehicles or mobile equipment must:
 - Have full roof and four walls or side curtains, and operate at negative pressure; OR
 - Be fully enclosed with seals on all openings, automatic pressure balancing system, operated at ≤ 0.05 inches water gauge positive pressure

Motor Vehicle, Mobile Equipment and Misc. Surface Coating Compliance

- Booths or prep stations for miscellaneous coating 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

Motor Vehicle, Mobile Equipment and Misc Surface Coating Compliance

- 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

Motor Vehicle, Mobile Equipment and Misc. Surface Coating Compliance

- 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 to achieve equivalent transfer efficiency

Requirements for Motor Vehicle, Mobile Equipment and Misc. Surface Coating

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

Motor Vehicle, Mobile Equipment and Misc. Surface Coating Compliance

- Spray gun cleaning operation should prevent atomized mist or avoid spraying cleaning solvent and paint residue outside container used to collect waste solvent
 - Acceptable options include:
 - Hand cleaning of disassembled gun
 - Flush gun with solvent, without spraying
 - Use fully enclosed gun cleaner
 - Combination of non-atomizing methods

General Requirements

Surface Coating

- Train all workers, including contractors, who spray apply coatings
 - Initial training
 - New sources must train workers by January 9, 2008 or 180 days after hire, whichever is later
 - Existing sources must train new workers 180 days after hire or by January 10, 2011 (can use training completed up to five years prior to date training is required, if it met elements of training program required in the rule)
 - Refresher training, at least once every five years following first training date

General Requirements Surface Coating

- Training program must include:
 - List of workers requiring training
 - Hands on and classroom instruction including:
 - Spray gun equipment selection, set up, and operation
 - Best spray technique for different types of coatings to improve transfer efficiency and minimize overspray
 - Routine booth and filter maintenance, filter selection and installation
 - Compliance with requirements of the NESHAP
 - Description of methods to document and certify training

Notification and Reporting

■ Initial Notification

- New sources - due 180 days after start up, or January 9, 2008, whichever is later
- **If you are a new source and have not sent this in yet, do so immediately**
- Existing sources – due by January 11, 2010
- New sources – must include compliance certification
- Existing sources – may include compliance certification with initial notification
- Notification example

http://www.epa.gov/ttn/atw/area/paint_strip_example.doc

Notification and Reporting

- Notification of Compliance Status
 - Existing sources not able to demonstrate compliance in the initial notification must submit this notification by March 10, 2011
 - Include same basic information as initial notification
 - Indicate date of compliance with all relevant requirements
 - Paint stripping sources using more than one ton of MeCl in a year must certify they have written and are implementing their minimization plan

Notification and Reporting

- Annual Notification of Changes Report
 - Sources must submit report each year prior to March 1st if any previously reported information changed during the previous year
 - Changes include paint stripping sources that increase usage of MeCl to more than one ton in a calendar year
 - Submit changes report by March 1st following year usage went over one ton of MeCl
 - Develop & implement a written minimization plan by December 31st
 - Submit a notification of compliance status by March 1st the following year

Where to Send Notifications

- Sources in New England send notifications to:

U.S. EPA – New England

Air Compliance Clerk

1 Congress Street

Suite 1100 (SEA)

Boston MA 02114

Where to Send Petitions for Exemption

- Sources in New England send petitions for exemption to:

U.S. EPA - New England

Air Programs Branch

One Congress Street

Suite 1100 (CAP)

Boston, MA 02114

Recordkeeping

■ Paint stripping

- Records of paint strippers containing MeCl, including the MeCl content sufficient to verify annual usage
- Copy of minimization plan kept on site, if required
 - 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

Recordkeeping

- Surface coating
 - Painter training certification
 - Documentation of filter efficiency
 - If spray gun does not meet definition of acceptable technologies and has cup capacity at least 3.0 oz, documentation from spray gun manufacturer that EPA has determined equivalent transfer efficiency
 - Copies of all notifications and reports required
 - Records of any deviations from requirements in the rule, including date and time period it occurred, a description of deviation, and corrective actions taken

Additional Resources

Visit any of the following sites for more information:

<http://www.epa.gov/ttn/atw/area/arearules.html>

<http://www.epa.gov/air/toxicair/community/collision.html>

<http://www.epa.gov/region1/assistance/auto/index.html>

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