

**Paint Stripping and
Miscellaneous Surface Coating
Operations at Area Sources**
NESHAP Subpart HHHHHH

Barb Johnson
Kansas Small Business Environmental Assistance Program
January 22, 2009

Paid for, in part, by the Kansas Department of Health and Environment

Webinar Logistics

- You will not be able to speak during the Webinar.
- Trouble hearing? If it's not your computer volume, please use your phone. Click on the phone icon and dial the number/pin number. Mute your line.
- Questions? Call the help desk at 785-532-7722.
- Ask presentation-related questions by typing them into the long text box at the bottom left of the screen and pressing enter. Questions will be answered at the end, time permitting.
- The presentation and questions will be archived. Access instructions and survey will be sent via e-mail.
- Certificates of attendance available for PDHs.

Overview

- Who's SBEAP?
- Affected sources and activities
- Who's new, who's existing
- Compliance due dates
- Operation requirements
- Recordkeeping requirements
- Notification and reporting requirements
- Resources

Small Business Environmental Assistance Program

- Environmental compliance assistance
- Multimedia [air (mostly), waste, water, energy, GHG inventory and reporting, and EMS]
- Free to small- and medium-sized businesses (KDHE funded)
- Confidential
- Staff located throughout the state



Contact Information

Web site: www.sbeap.org
Hotline: 1-800-578-8898
Email: sbeap@ksu.edu

Small Business Environmental Assistance Program

- SBEAP services are provided via
 - Environmental hotline (800-578-8898)
 - On-site visits
 - Targeted regulatory or industry-specific workshops
 - Publications (hard copy or electronic)
 - Fact sheets, manuals
 - E-tips (sign up at www.sbeap.org/newsletters.php)
 - Web-based resources and training
 - www.sbeap.org



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How it all fits...

Kansas State University

- College of Engineering
 - Engineering Extension
 - Pollution Prevention Institute (PPI)
 - Small Business Environmental Assistance Program (SBEAP)



SBEAP Webinars and Workshops

- MACT Webinars
 - Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources (Subpart HHHHHH) – Feb. 18, 2009, 10:00 a.m.
 - Gasoline Dispensing Facilities at Area Sources (Subpart CCCCCC) – Feb. 18, 2009, 2:00 p.m.
- Workshops
 - Constructing Clean Air – Feb. 5, 2009, Olathe
 - Reducing Solvent Emissions – Green Practices to Improve Air Quality – March 10, 2009, Wichita

Area Source Rules Background

- CAA requires EPA to ID 30 most toxic HAPs in urban areas
- CAA requires EPA to ID area source categories representing 90% of emitters of these “Urban Dirty Thirty”
 - Definition **area** source – not a major source
 - Definition **major** source – facility emits or has PTE at least 10 tons per year single HAP or 25 tons per year combination of HAPs
- www.epa.gov/ttn/atw/area/arearules.html
- 6H Rule combines three area source categories

Affected Area Sources

1. Paint stripping operations using methylene chloride (MeCl) to remove dried paint
 - wood, metal, plastic or other substrates
2. *Motor vehicle** and *mobile equipment** surface coating operations (spray-applied)
 - includes mobile refinishing operations
 - includes individuals coating more than 2 vehicles in a year
3. 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

* Definition in next slide

Important Definitions

- ***Motor vehicle**— any self-propelled vehicle, including automobiles, light duty trucks, golf carts, vans, and motorcycles.
- ***Mobile equipment**— any device that may be drawn and/or driven on a roadway including, but not limited to, heavy-duty trucks, truck trailers, fleet delivery trucks, buses, mobile cranes, bulldozers, street cleaners, agriculture equipment, motor homes, and other recreational vehicles (including camping trailers and fifth wheels).

Target HAPs

- Compounds of Cr, Pb, Mn, Ni, or Cd
- Present at 0.1 % by mass or more for OSHA-defined carcinogens (Cr+6, Pb, Ni, and Cd)
- Present at 1.0 % by mass or more for other target HAP compounds (Cr+3 and Mn)

How to Get Excluded

- Owner or operator of motor vehicle or mobile equipment spray-applied surface coating operation may:
 - Petition EPA for exemption
 - Certify no target HAPs used in spray coatings
 - Provide description of coatings used
 - If use target HAP later, submit initial notification and comply with subpart requirements
- Exemption template... coming soon!

Sources NOT Affected

- Surface coating or paint stripping
 - performed at installations owned or operated by Armed Forces, NASA, or National Nuclear Security Administration
 - of military munitions manufactured by or for the Armed Forces or equipment used to transport military munitions
 - performed by individuals on personal vehicles, possessions, or property as a hobby or maintenance, or done by individuals for others without compensation (2 or less/yr)
- Any major source

Sources NOT Affected (cont.)

- Research and laboratory activities
- Quality control activities
- Activities specifically covered under any other area source NESHAP
- *Facility maintenance** activities

* Definition in next slide

Important Definitions

***Facility maintenance** also includes the refinishing of mobile equipment in the field or at the site where they are used in service and at which they are intended to remain indefinitely after refinishing. Such mobile equipment includes, but is not limited to, farm equipment and mining equipment for which it is not practical or feasible to move to a dedicated mobile equipment refinishing facility. Such mobile equipment also includes items, such as fork trucks, that are used in a manufacturing facility and which are refinished in that same facility.

Activities Included

- Affected sources might have one or more:
 - Mixing rooms and equipment
 - Spray booths, ventilated prep stations, curing ovens and associated equipment
 - Spray guns and associated equipment
 - Spray gun cleaning equipment
 - Equipment used for storage, handling, recovery, or recycling of cleaning solvent or waste paint
 - Equipment used for paint stripping at paint stripping facilities using strippers that contain MeCl

Activities NOT Included

- Not considered spray-applied applications:
 - Using hand-held device with a cup capacity = or < 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

- 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

New or Existing Source?

- New Sources
 - Began construction of source after September 17, 2007
(Existing source that purchased and installed paint booths, enclosed spray gun cleaners, paint stripping equipment to reduce MeCl emissions, or purchase spray guns to comply with the rule is not NEW)
 - Includes any new affected equipment where the source was not previously engaged in the activity
 - Reconstructed (defn 40 CFR 63.2)
- Existing Sources = not new

Compliance Date

- New sources — January 9, 2008
or date of initial startup of affected source, whichever is later
- Existing sources — January 10, 2011

Requirements for Paint Stripping

- Must 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 alternatives to MeCl
 - Non- or low-MeCl-containing chem strippers
 - Mechanical stripping
 - Blasting (including dry or wet media)
 - Thermal and cryogenic decomposition

Requirements for Paint Stripping

- Must minimize emissions of MeCl using the following management practices (cont.):
 - 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 (e.g., closed airtight containers)

Requirements for Paint Stripping

- Maintain copies on site of annual usage of MeCl strippers
- If operation uses more than one ton of MeCl in a year
 - Develop and implement a written MeCl minimization plan
 - Post outline of plan in areas where activity occurs
 - Maintain copy of current plan on site
- If operation uses one ton of MeCl or less
 - No written plan is required, but must comply with minimization management practices

Requirements for Motor Vehicle, Mobile Equipment and Misc Surface Coating

- Coatings must be applied in spray booth, preparation station, or mobile enclosure that is fitted with filter system demonstrated to have 98% collection efficiency

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

- Booths and prep stations for complete motor vehicles or mobile equipment must have
 - Full roof
 - Four walls or side curtains
 - Ventilated at negative pressure (cross-draft)
- OR
- if fully enclosed and completely sealed, then downdraft booth operated at up to, but no more than, 0.05 inches water gauge positive pressure

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

- Booths and prep stations for miscellaneous coating or vehicle subassemblies must have
 - Full roof
 - Three walls or side curtains
 - Roof and walls may have openings for conveyors
 - Ventilated so air is drawn into booth

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

- Mobile enclosures for spot repairs must enclose and seal against the surface being coated such that paint overspray is retained in enclosure and directed to the filter

Requirements for Motor Vehicle, Mobile Equipment and Misc Surface Coating

- Spray-applied coatings must be applied with one of the following gun technologies:
 - High volume, low pressure (HVLP)
 - Electrostatic
 - Airless
 - Air-assisted airless
 - Other spray technology with written approval from EPA, 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 aerospace vehicle
 - For components that normally require use of airbrush or extensions to reach limited access areas
 - With coatings that contain fillers that adversely affect atomization with HVLP
 - With coatings that have dried film thickness of less than 0.0013 cm (0.0005 in)

Requirements for Motor Vehicle, Mobile Equipment and Misc Surface Coating

- 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 washer
 - combination of non-atomizing methods

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

- Painters must be certified as completing training in proper spray application of surface coatings, setup, and maintenance of spray equipment
 - Certified by owner or operator
 - No designated body to certify or approve training
 - In-house training allowed
 - States could have more stringent requirements

(Except students of accredited surface coating training program who are under the direct supervision of an instructor who is certified)

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

- All personnel who spray apply coatings (including contractors) must be trained
 - initial training
 - NEW facility - within 180 days of hire date or January 9, 2008, whichever is later
 - EXISTING facility - within 180 days of hire date or January 10, 2011, whichever is later
 - existing personnel can use training that took place up to five years prior to the "180 days" date, if it met elements of training program required in the rule
 - refresher training, at least once every five years following initial training date

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

- Training program must include:
 - Spray gun equipment selection, set up, and operation (measuring viscosity, selecting tip or nozzle, spray pattern, air pressure & volume, fluid delivery rate)
 - Best spray technique for different types of coatings to improve transfer efficiency and minimize overspray (spray gun distance & angle, banding & overlap, reducing lead & lag spraying)
 - Routine spray booth & filter maintenance, filter selection and installation
 - Compliance with requirements of the NESHAP

Requirements for Motor Vehicle, Mobile Equipment and Misc Surface Coating

- Owner or operator must certify training of each person was completed
- Certification must include:
 - List of personnel who are required to be trained, with name and job description
 - Hands-on and classroom instruction, covering elements of training program
 - Description of methods used at completion of initial or refresher training to demonstrate successful completion

Recordkeeping

- Paint stripping
 - List of the materials used that contain MeCl, their MeCl content (from MSDS or other supplier documentation sufficient), and annual usage of MeCl (purchase receipts, supplier data, calculations, etc.)
 - Copy of minimization plan kept on site, if using more than one ton of MeCl in calendar year
 - including annual review and updates to plan
 - Records of any deviations from requirements in the rule
 - date and time period it occurred
 - description of deviation
 - 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 Administrator has determined equivalent transfer efficiency
 - Copies of all notifications and reports required
 - Records of any deviations from requirements in the rule
 - date and time period it occurred
 - description of deviation
 - corrective actions taken

Notification and Reporting

- Initial Notification
 - New sources must submit by July 7, 2008 or no more than 180 days after start up, whichever is later
 - Existing sources must submit no later than January 11, 2010
 - Form available on Web:
www.epa.gov/ttn/atw/area/paint_strip_example.doc

Notification and Reporting

- Initial Notification includes:
 - Company name
 - Owner/operator name, title, street address, phone, email (if available), and signature
 - Street address for location of compliance records, if different from source
 - Identify NESHAP: 40 CFR part 63, subpart HHHHHH
 - Description of operations
 - Motor vehicle or mobile equipment, or miscellaneous surface coating; number of prep stations and paint booths; number of painters employed
 - Paint stripping operation; methods of paint stripping employed; substrates stripped

Notification and Reporting

- Initial Notification (cont.)
 - paint strippers must indicate whether more than one ton of MeCl will be used after compliance due date
 - statement of whether source is in compliance or will be brought into compliance by compliance due date
 - for new sources, initial notification is the notification of compliance status
 - for existing sources, initial notification MAY be used as notification of compliance status if already in compliance and avoid the second notification

Notification and Reporting

- Notification of Compliance Status
 - Existing sources not able to demonstrate compliance in the initial notification must submit this notification by March 11, 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 a report if compliance status 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 the changes report by March 1 following the year usage went over one ton of MeCl
 - Develop and implement a written minimization plan by December 31
 - Submit a notification of compliance status by March 1 of the following year

Resources

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

U.S. ENVIRONMENTAL PROTECTION AGENCY

Community-Based Air Toxics Projects

Collision Repair Campaign

EPA developed the Collision Repair Campaign to focus on meaningful risk reduction in the Collision Repair sector to complement our ongoing community air toxics work and attain reductions at a faster rate. The Campaign will also serve as an opportunity for shops to work towards early compliance with the auto body rule.

- **What is the Collision Repair Campaign?**
 - Goals
 - Health Impacts
 - Potential Benefits
 - Equipment Compliance
 - Tools and Resources

What is the Collision Repair Campaign?

The Collision Repair Campaign is an effort to address health threats through a two-year campaign to drastically reduce auto body emissions at the national level. Each EPA regional office involved in the Campaign will work with their respective partners (i.e. community, industry, small businesses, etc.) to significantly reduce human and environmental exposure to air toxics from auto body shops. While similar work has been done in the past in pockets around the country, the Campaign represents a unique, unprecedented nationwide effort to accomplish bold goals in toxic reductions. The community campaign aimed at reducing toxic exposures from collision repair shops is voluntary.

The Collision Repair Industry was identified for a number of reasons:

- A number of communities have identified these shops as an environmental and health concern, hence the number of efforts across the US to address the issue.
- These shops are underserved in nature and tend to be clustered in minority, immigrant, and low income neighborhoods.
- Many of these shops are not in compliance with existing occupational and environmental regulations.
- Many of these shops are small businesses and don't often use standard methods for auto body repair and painting, and they do not comply with accepted industry practices or current control technologies.

Goals:

- To reduce the negative environmental and health impacts on employees and surrounding communities by reducing Hazardous Air Pollutants (HAP, also known as air toxics), Volatile Organic Compounds (VOC), and Particulate Matter (PM) emissions.
- To provide training, technical assistance, and outreach to local communities and shop owners about established best management and pollution prevention practices.
- To provide information about the National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources Rule and encourage early compliance.

Auto Body Rule

- Final rule - Federal Register, January 9, 2009
- Brochure summarizing rule (PDF) (200.26)
- Example Small Business Questionnaire (PDF) (200.26)
- Info sheet on the Paint Stripping and Misc. Surface Coating Rule and Collision Repair Campaign. Contact Deborah Miller for more information (202) 547-3552

Cool Tools

- A free 15-20 minute training DVD starring NASCAR driver Jeff Gordon and featuring small shop owners, which will include:
 - Paint Strip Rule
 - Best practices
 - Saving money
 - Worker protection
 - Outreach resources
- DPE Emission Reduction Calculator - Calculate your cost savings for coating and your emission reductions. Improving Air Quality in your Community - Ideas on what communities can do to improve local air quality and quantify results.



(Continuation of previous slide – note "Cool Tools")

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

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Health Impacts from Collision Repair Activities:

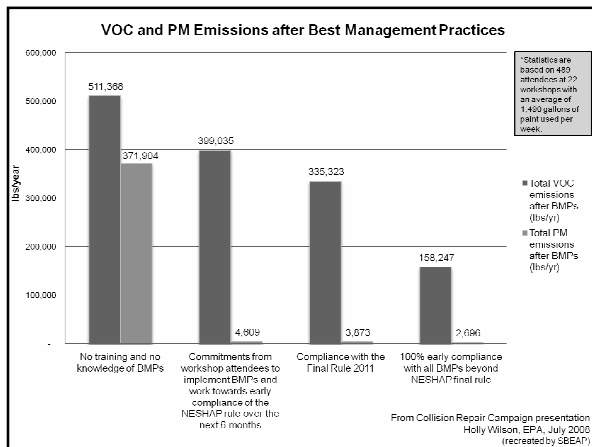
- Particulate Matter (PM)
 - Asthma, heart attacks, bronchitis, premature mortality
- Volatile Organic Compounds (VOCs)
 - Asthma and Bronchitis
- Hazardous Air Pollutants (HAP, also known as air toxics), including Lead, Chromium and Cadmium
 - Neurotoxicity, lung cancer
 - Discomforts
 - Leading cause of occupational asthma; skin and lung sensitization
 - Solvents
 - Irritation, headache, nausea, liver, kidney, nervous system damage

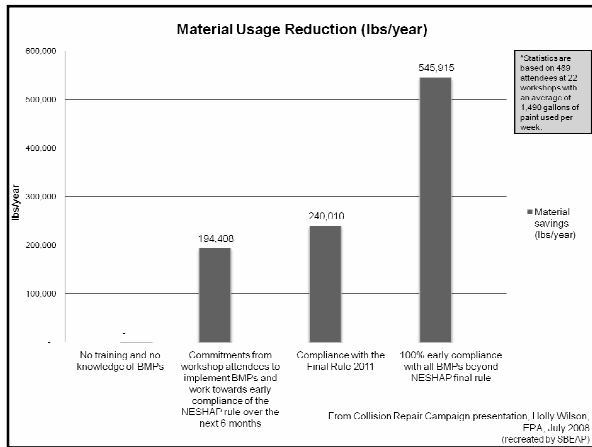
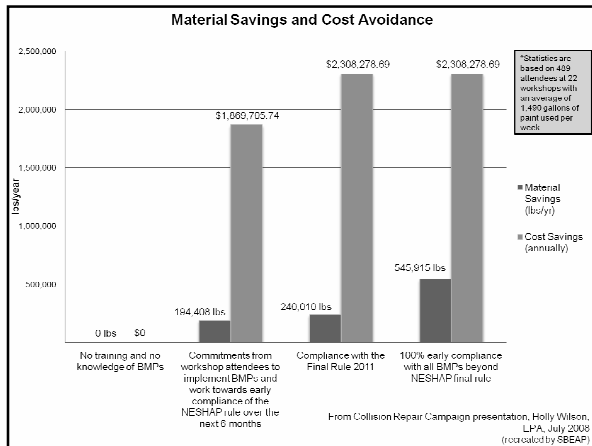
Potential Benefits:

- Through implementing best practices, which include installing and maintaining control equipment and using safer paints and solvents, toxic exposures are expected to be reduced by 90%.
- It is estimated that utilizing best practices in 1,000 shops will reduce HAP and VOC emissions by 3.5 million pounds annually.
- Shop owners also will reduce paint and solvent costs, as well as related hazardous waste disposal costs through this program.
- The Campaign creates better environmental stewards, happier and healthier community neighbors and improves worker safety and health.
- The Campaign will also better prepare the industry to comply with an upcoming area source federal rule designed to reduce auto body emissions.

Cool Tools

- DPE Emission Reduction Calculator - Calculate your cost savings for coating and your emission reductions.
- Improving Air Quality in your Community - Ideas on what communities can do to improve local air quality and quantify results.
- Best Practices Link - Compiled from real-life shop experience, this document serves as a model for pollution prevention and pollution prevention goals for the small shop.
- How am I doing? (PDF) (200.26) Rate yourself using the self-evaluation checklist. Evaluate current practices and technologies in your facility and identify areas where you should make improvements.
- Using Waterborne Resinators in Collision Repair Shops: A Case Study (PDF) (200.26) (EPA 744-P-08-003)
- Spray Booth Filters: The Key to Quality Jobs and Clean Emissions (PDF) (200.221) (EPA 744-P-08-001) Factsheet





What is the Compliance Date?

- Existing Sources: January 10, 2011
- New Sources: Upon startup after January 9, 2008.
- An affected source is a new source if you commenced construction of the source after September 17, 2007 by installing new paint stripping or surface coating equipment at a source not actively engaged in paint stripping and/or miscellaneous surface coating prior to September 17, 2007.
- An affected source is an existing source if it is not a new source or a reconstructed source (An affected source is reconstructed if it meets the definition of reconstruction in section 63.2.)

What are the Permitting Requirements?

- Affected facilities are exempt from Title V permit requirements provided they are not required to obtain a permit for another reason.

What Reporting/Recordkeeping is Required?

Reporting:

- Initial Notification (informs EPA that the facility is subject to the standards and when the source will be in compliance)
- New Sources: July 7, 2008 or 180 days after startup
- Existing Sources: January 11, 2010
- Notification of Compliance (certifies that the source is in compliance with the applicable requirements)
- New Sources: As part of the initial notification
- Existing Sources: March 11, 2011
- Annual notification of changes report—required each calendar year any reportable changes occur.

Recordkeeping (keep these records on file):

- Records to include copies of notifications submitted to EPA.
- Painting training certification.
- Spray booth fire efficiency documentation.
- Spray gun transfer efficiency.
- Mech content information such as MSDS.
- Annual usage of MeC for paint stripping and when MeC minimization plan if annual usage > 1 ton per year.
- Deviation and corrective action documentation.

Records to be maintained in a form suitable and readily available for expeditious review.

You can also contact your Regional EPA air toxics office at the following numbers:

Region	Address	State	Telephone	Fax
Region 1	100 North Street	CT, MA	(860) 418-7200	(860) 418-7201
Region 2	1600 Ave of the Americas	NY, NJ	(212) 312-2000	(212) 312-2001
Region 3	100 North Street	DE, MD, VA, PA, VA	(301) 315-7000	(301) 315-7001
Region 4	100 North Street	AL, GA, SC, TN, MS, KY, OH	(404) 362-9100	(404) 362-9101
Region 5	100 North Street	IL, IN, MI, MN, WI, IA, MO, OK, NE	(312) 353-8000	(312) 353-8001
Region 6	100 North Street	AR, LA, MS, AL, GA, SC, TN, KY, OH	(504) 386-2300	(504) 386-2301
Region 7	100 North Street	AK, VT, NH, ME, NY, PA, VA, NC, SC, TN, KY, OH, WV, MD, DE, DC	(603) 224-6000	(603) 224-6001
Region 8	100 North Street	CA, AZ, NV, HI, UT, CO, NM, WY, MT, ND, SD, NE, OK	(916) 224-6000	(916) 224-6001
Region 9	100 North Street	AK, ID, MT, WY, UT, CO, NM, WY, MT, ND, SD, NE, OK	(208) 224-6000	(208) 224-6001

*For sources within the territories.

United States Environmental Protection Agency
April 2008
www.epa.gov/339a/neshap/339a.html

Office of Air Quality Planning & Standards (E-43-02)

EPA

Summary of Regulations Controlling Air Emissions from PAINT STRIPPING AND MISCELLANEOUS SURFACE COATING OPERATIONS

NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS NESHAP (SUBPART HHHHHH) FINAL RULE

Copies of the rule and other materials are located at: <http://www.epa.gov/ttn/airquality/neshap.html>

For more information on state requirements, please contact your state representative(s) at: http://www.epa.gov/ttn/airquality/neshap_state_contacts.doc

HHHHHH Affected Sources

1. Paint stripping operations using methylene chloride (MeCl) to remove dried paint from wood, plastic, metal or other substrates
2. Spray-applied surface coating operations on motor vehicles and mobile equipment
 - including both stationary operations at fixed locations, and mobile repair and refinishing operations
3. Spray-applied surface coating operations on other metal or plastic parts or products with coatings containing target HAPs
 - i.e. Cr, Pb, Mn, Ni, or Cd

New Sources

- A source is only new if it commenced construction after September 17, 2007 by installing new paint stripping or surface coating equipment, and it had no paint stripping or miscellaneous surface coating activity prior to that date

Compliance Dates

- New sources must be in compliance by January 9, 2008 or by initial startup thereafter
 - New sources submit initial notification by July 7, 2008 or 180 days after initial startup thereafter
- Existing sources must be in compliance by January 9, 2011
 - Existing sources submit initial notification by January 11, 2010

Most Important Exemptions

- Hobby exemption
- Exemption by petition
- Use of 3 oz cup or less
- Facility maintenance exemption

Basic HHHHHH Compliance

- Paint stripping
 1. Minimize MeCl emissions
 2. Written plan for > 1 ton MeCl annual usage
- Spray-applied surface coating
 1. Apply in filtered enclosure
 2. HVLP guns or equivalent
 3. Limit spray gun cleaning overspray
 4. Painter training

Questions or Comments?

Contact Information

Kansas SBEAP
Barb Johnson
barblj@ksu.edu
800-578-8898

U.S. EPA Region 7
Michael Bronoski
bronoski.michael@epa.gov
913-551-7291

Joe McCullough
mccullough.hugh@epa.gov
913-551-7191

Leslye Werner
werner.leslye@epa.gov
913-551-7858

KDHE Bureau of Air and Radiation
Mary Mahaffey
mmahaffey@kdheks.gov
785-296-1548

David Peter
dpeter@kdheks.gov
785-296-1104

Rasha Allen
rallen@kdheks.gov
785-296-1693
