



Overview of requirements for surface coating and paint stripping operations



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Agenda

- Why are there new requirements?
- Affected sources and activities
- What is required?
- Classroom training
- How will DEQ administer the requirements?



Why are there new requirements?

EPA regulates sources of hazardous air pollutants

- These are pollutants harmful to human health
- Auto refinishing and similar operations are sources of these pollutants
- EPA adopted requirements for these operations to protect air quality and reduce human exposure

40 CFR Part 63 Subpart HHHHHH (2008)

- Oregon DEQ administers the federal requirements



Hazardous air pollutants from U.S. industries (tons/year)

| | |
|--|--------|
| Agricultural Chemicals & Pesticide Mfg | 312 |
| Pharmaceutical Production | 523 |
| Paint & Allied Products | 2,393 |
| Industrial Boilers | 2,582 |
| Flexible Polyurethane Foam Operations | 5,289 |
| Autobody Refinishing | 45,456 |



Affected sources, activities and coatings

- **Paint stripping operations**

Chemical strippers that contain methylene chloride (MeCl) to remove dried paint from wood, plastic, metal or other materials

- **Motor vehicle and mobile equipment surface coating operations**

- Spray application of coatings for the purposes of finishing or refinishing
- Protective materials (e.g. under coatings and bed liners)



Affected sources, activities and coatings

- **Miscellaneous surface coating operations**

Spray application of affected coatings to plastic or metal parts and other products

- **Coatings include any material spray-applied to a substrate for decorative, protective or functional purposes**

- **Affected coatings are those that contain**

Chromium (Cr) , Lead (Pb), Nickel (Ni), Manganese (Mn) or Cadmium (Cd)



Exceptions

- Facility maintenance where equipment stays on site indefinitely or is a permanent fixture
 - Includes stationary objects too large for dedicated booths (i.e.: agricultural and mining equipment)
- Hobbyists who spray paint any portion of two vehicles or pieces of mobile equipment per year
- Motor vehicle and mobile equipment surface coating operations who do not use coatings with the metal HAPs and petition for exemption



Exceptions

- Facilities using only air brushes or spray guns with paint cups < 3 oz. capacity
- Hand-held, non-refillable aerosol containers
 - Rattle cans
- Non-atomizing technology
 - Powder coating
 - Brushes, rollers, hand wiping
 - Other coating techniques (e.g. flow, dip, electrodeposition)
- Thermal spray operations



What is required?

- Practices to minimize evaporative emissions of MeCl from paint strippers
- Practices to minimize paint overspray and other sources of paint emissions
- Training
- Compliance documentation



Paint stripping requirements

Practices to minimize emissions of MeCl

- Evaluate each job on the need for paint stripping
- Avoid using MeCl-containing strippers when an alternative paint stripping technology is available
 - Non- or low-MeCl-containing chemical strippers
 - Mechanical stripping
 - Blasting (dry or wet media)
 - Thermal
 - Cryogenic decomposition



Paint stripping requirements

- Optimize work conditions to reduce emissions of MeCl
 - Use lower temperatures when possible
 - Proper storage and disposal
- If using > 1 ton of MeCl-containing stripper per year
 - Develop minimization plan
 - Post plan where activity occurs
 - Review plan annually and update as necessary



Surface coating requirements

- Surface coating enclosures (general)
 - Coatings must be applied in a prep station, spray booth or mobile enclosure
 - Sidewalls may be solid or curtains as long as other requirements are met
- Enclosure must include filter technology with 98% capture efficiency





Surface coating enclosures

- Enclosures large enough to hold a complete vehicle
 - Fully enclosed with 4 walls, roof
 - Ventilate at negative pressure (pressure gauge, etc.)
 - If sealed, may operate at ≤ 0.05 in water gauge positive pressure
- Enclosures used to coat miscellaneous parts and products or vehicle subassemblies
 - 3 walls, roof
 - Ventilate so that air is drawn into the enclosure and out through the filters



Spray gun requirements

- *HVLP, electrostatic application or other EPA approved equivalent
- Enclosed gun cleaner OR clean without atomizing solvent
 - Disassemble gun and clean by hand
 - Flush solvent through gun without atomizing the solvent
 - Never spray cleaning solvent through the gun

*HVLP: Permanently labeled. Designed and operated between 0.1 and 10 lbs/square inch gauge (psig) air atomizing pressure measured dynamically at the center of the air cap and at air horns.



Training requirements

- Owner or operator must certify that all spray painting technicians have completed trainings
 - Classroom (provided today)
 - Covers compliance with regulations
 - Hands on
 - Technique
- Training may be performed by facility operator
- Refresher course required every five years



Training requirements

- **Hands on painter training (must cover)**
 - Spray application techniques... How to:
 - Improve transfer efficiency, minimize overspray and reduce coating usage by...
 - Maintaining correct spray distance and angle
 - Using proper banding and overlap
 - Reducing lead and lag time



Training requirements

- **Hands on painter training (must cover)**

- Spray equipment...How to:

- Set up and perform routine maintenance of spray booth and filters. Consider a schedule.
 - Spray gun equipment selection, set up and operation
 - Selecting proper fluid tip or nozzle
 - Proper spray pattern
 - Proper air pressure and volume
 - Proper fluid delivery rate
 - Measurement of coating viscosity



Reporting

All affected sources

- Initial Notification
- Notification of Compliance Status
- Annual Notification of Changes

Paint strippers using > 1 ton MeCl per year

- Certify implementation of MeCl minimization plan



Record keeping

All affected sources

- Copies of notifications and reports submitted to EPA and DEQ
- Records of deviations from requirements in the rule
- Keep records for five years



Record keeping

Paint stripping

- Records of paint strippers containing MeCl, including the MeCl content sufficient to verify annual usage
- Minimization plan (for sources using > 1 ton/yr MeCl)
 - Keep plan on site
 - Annual review and updates



Record keeping

Surface coating

- Filter efficiency documentation (98%)
- Documentation of equivalent transfer efficiency (for guns not listed as acceptable technology)
 - Manufacturer information
 - Equivalency determination from DEQ
- Certification of painter training (description of methods to document and certify completion of training)
 - List of personnel requiring training
 - List of personnel completing training
 - Where completed and who conducted training
 - Elements covered
 - Copy of completed quiz



Compliance deadlines

| Requirement | Existing source <i>Operating on or before Sept. 17, 2007</i> | New or reconstructed source <i>Commenced construction after Sept. 17, 2007</i> |
|-----------------------------------|---|---|
| Comply with rule | January 10, 2011 | January 9, 2008 or date of initial start up |
| Complete painter training | 180 days after hiring or July 10, 2011 <i>(whichever is later)</i> | 180 days after hiring or July 7, 2008 <i>(whichever is later)</i> |
| Initial Notification | January 11, 2010 | 180 days after start up or July 7, 2008 <i>(whichever is later)</i> |
| Notification of Compliance Status | March 11, 2011 | |
| Annual Notification of Changes | March 1 st annually if previously reported information has changed | |



How will DEQ administer the requirements in Oregon?

- Propose rulemaking
- Permitting program
- Ecological business (Eco-biz) registration as an alternative to permitting
- Assist businesses with the opt-out petition process
- Charge fees to fund the program
- Perform inspections, enforcement and technical assistance
 - Includes random audit inspections of businesses that claim exemption from the rule



Compliance options

- **Permit**
 - General permit
 - Covers the industry, not a specific business
 - Simple permit
 - Individual permit
- **Registration for Eco-biz certified shops**
- **Exemption and petition**



Permitting

- **General Air Contaminant Discharge Permit (ACDP)**
 - Prescriptive compliance methods required
 - Mandatory DEQ inspections
 - Annual fee \$720
 - Lowest of General ACDPs for fee funded programs
- **Simple ACDP**
 - Chronic non-compliers
 - Annual fee \$2,300



Eco-biz registration

- **Alternative to permitting**
 - Choose beyond-compliance options
 - Obtain environmental certification
 - Annual registration with DEQ
- Focus on technical assistance and practical compliance methods
 - With assistance from DEQ regional staff
- Annual fee \$240 (alternative to permit)



Petitioning for exemption

- **Submit petition for DEQ review and approval**
 1. Fill out petition form
 2. Attach all applicable MSDSs
 3. Attach statement from supplier, manufacturer or both
 - #3 above **is not** required for your petition to be approved
- **Approval of petition**
 - Exempt from rule and requirements
 - Keep documentation and approval on file
 - If change to HAP coatings or petition not approved : must comply with all elements of rule



DEQ Rulemaking proposal

- Adopt in December 2009
 - Federal requirements into state law
 - Permit and registration requirements
 - Fees
- Public comment period
7/15/09 to 8/26/09
- Public hearings
Bend (8/17), Medford (8/18), Portland (8/20)



Next steps

- **Quiz to obtain certification for classroom training**
- **Sign up for E-mail announcements on rule**
- **Assistance with required forms**
 - Initial Notification
 - Notification of Compliance Status
 - Hands on training checklist and form



Questions?

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