Department of Environmental Quality

Overview of requirements for surface coating and paint stripping operations

Oregon DEQ
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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

- Oregon DEQ administers the federal requirements

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

<table>
<thead>
<tr>
<th>Industry</th>
<th>Tons/year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural Chemicals &amp; Pesticide Mfg</td>
<td>312</td>
</tr>
<tr>
<td>Pharmaceutical Production</td>
<td>523</td>
</tr>
<tr>
<td>Paint &amp; Allied Products</td>
<td>2,393</td>
</tr>
<tr>
<td>Industrial Boilers</td>
<td>2,582</td>
</tr>
<tr>
<td>Flexible Polyurethane Foam Operations</td>
<td>5,289</td>
</tr>
<tr>
<td>Autobody Refinishing</td>
<td>45,456</td>
</tr>
</tbody>
</table>
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. undercoatings and bedliners)

- **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)
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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

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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 $\leq 0.05$ 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

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

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