

# Stepping Through New EPA Regulations for Auto Body Painting

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The U.S. Environmental Protection Agency's (EPA) new NESHAP 6H rule will impact automotive body shops using paint that contains Hazardous Air Pollutants (HAPs), commonly found in most automotive paints, primers and clear coats.

The actual rule is 40CFR63 Subpart HHHHHH of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for [Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources](#). In most cases, state environmental regulatory agencies are administering the rule for the EPA.

**Initial notification forms are due by January 11, 2010 and a notification of full compliance status is due by March 11, 2011.** The rule is one of many industry specific regulations for the control of hazardous air pollutant. The 6H rule – which has come to be known in the collision repair industry as the “Paint Rule” - is specific to metal and plastic surface coating operations at area sources including manufacturing and auto body. Auto body shops are not being selectively targeted but are included in a group of rules within a broad spectrum of industries.

The rule only applies if coatings contain *targeted HAPs*:

- Lead (Pb), ( $\geq 0.1$  percent)
- Manganese (Mn), ( $\geq 1.0$  percent)
- Nickel (Ni), ( $\geq 0.1$  percent)
- Cadmium (Cd), ( $\geq 0.1$  percent)
- Chromium (Cr), ( $\geq 0.1$  percent)

The purpose of this rule is to reduce emissions of lead, nickel, cadmium, chromium and manganese. These chemicals are designated hazardous air pollutants known or suspected to cause cancer and other adverse health effects and can be found in paint used in the automotive refinishing industry.

The NESHAP 6H Rule requirements, include:

- Notification Form → by January 2010
- Paint booth exhaust systems implementation of 98% efficient booth filters
- Spray booths/prep stations must be used
- Spray guns must be efficient types, such as HVLP
- Spray gun cleaning does not allow atomization of thinner through gun for cleaning and recommends an automated enclosed gun wash
- Painter training requires gun set-up and spray techniques training material be presented along with a hands-on requirement → by January 2011
- Final Notification of full compliance → by March 2011
- Five-year continuing education

### **Step 1: Preparation**

The important preparatory step to making the initial notification (to the governing state agency) that the NESHAP 6H Rule applies to your shop is to verify that your auto body shop has the appropriate state air quality permit in place. This permit is generally required to conduct a paint operation and emit air pollution in any given state. It is usually obtained at the start of operation or at such time that the shop becomes aware an air permit is required in their state.

#### **Action Item:**

**Verify or obtain the appropriate state air permit for auto body painting in your state.**

#### **Additional Preparation (Optional)**

The HAPs are listed on the Material Safety Data Sheet (MSDS) for paint used at the facility. Some paint systems are designed to be HAP-free, such as a waterborne paint system. Most auto body paints, however, contain HAPs and, having just one paint, primer or clear coat with HAPs in the shop means that the new NESHAP 6H Rule applies to the shop. The best way to verify that paint contains HAPs is to review the MSDS for all paint. If the HAP is listed on the MSDS, the paint contains HAPS above the regulatory threshold and, therefore, the rule applies to the shop.

An MSDS System is required by the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA) for facilities with products that may pose a risk to employees. Setting up an MSDS system is not complicated: use a three-ring binder (**red binder** is the industry norm) to hold an inventory of all products and the corresponding MSDS for each product. Make the MSDS system available to all employees and keep it up-to-date with new product data.

**Action Item: Update or develop an MSDS System in hard copy, such as a three-ring binder, or electronic format and make it available to employees.**

### **Step 2: Initial Notification Form to Governing Agency → by January 2010**

Shops subject to the requirements of the new NESHAP 6H Rule must make Initial Notification to the local governing agency by **January 10, 2010**. *Initial Notification Forms* are available by state and are to be completed and submitted to the applicable agency or agencies by the deadline. (Some states require the form to be submitted to the state Air Quality Division **and** the Regional EPA Office.)

The information on locations and resources such as compliance workshops and state-specific fact sheets are developing quickly. The [CCAR-GreenLink "Paint Rule" page](#) is being updated frequently, so continue to check back throughout the process of becoming compliant. This process culminates with the Final Notification due March 11, 2011, after having met all requirements.

**Action Item: Make Initial Notification to the applicable agency or agencies by January 11, 2010.**

## **Auto Body Shops are Subject to the Requirements of the 6H Rule**

Metal/plastic surface coating operations at area sources, such as manufacturers and auto body shops, are subject to the requirements of the new 6H Rule. There is no "grandfather clause" in the rule.

Both new and existing sources that paint vehicles or vehicles parts are subject to the rule. "New and Existing Sources" are defined terms with the EPA with regard to the NESHAP standards.

### *Definitions: New and Existing Sources*

New Source = Began construction of source after September 17, 2007 or equipped facility was not previously engaged in surface coating or Facility is reconstructed.

Existing Source = Not a New Source

There are some exceptions for spray activity, and these activities are not governed by the 6H Rule. (Smaller shops may not be subject to the rule if only the exempt activity is performed at the shop.) Activities **NOT** subject to the rule:

- ✓ Spray applied applications using a hand-held device with a cup capacity of no more than 3.0 fluid ounces
- ✓ Powder coating
- ✓ Hand-held, non-refillable aerosol containers
- ✓ Non-atomizing technology
  - Brushes, rollers, hand wiping
  - Coating techniques – flow, dip, electrode position, web, coil
  - Touch up markers or marking pens
- ✓ Thermal spray operations using solid metallic or non-metallic materials
- ✓ Painting performed for facility maintenance

Even if the shop is not exempt from the rule, these activities may be performed outside of the paint booth.

This may be important information for shops that do prep work outside of a three- or four-walled spray booth. Shops with limited resources or small volume may want to preferentially choose an exempt practice in lieu of adding another paint booth for prep work.

## Paint booth exhaust systems must use 98% efficient booth filters

Filter system must have a 98% collection efficiency, using vendor provided test data

or

Water wash spray booths must be operated to manufacturer's specs.



## Spray Booths and/or Prep Stations **MUST BE USED** and Meet Set Standards

*Spray booths or 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
- Have an automatic pressure balancing system operated at or up to 0.05 inches water gauge positive pressure.

*Spray booths or prep stations for vehicle subassemblies (that means parts):*

- Must have full roof, at least three complete walls or side curtains, and ventilated so air is drawn into the booth; and
- May have openings in the roof and walls for conveyors.

## Spray Gun Requirements for Reduced Air Emissions

Inventory and verify all paint guns used at the facility meet the transfer efficiency standards. 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 for other spray technology demonstrated to achieve equivalent transfer efficiency



## **Spray Gun Cleaning Operations**

- No atomization of solvent through spray gun for cleaning purposes**
- Implement healthy gun cleaning practices**

Atomization of cleaning solvent through the paint gun (even in the paint booth) is not allowed for cleaning purposes. Invest in a fully enclosed automatic gun wash system as the best management practice to protect employee health. Acceptable options include:



- Hand cleaning of disassembled gun
- Flush gun with solvent, with gun configured so solvent is not atomized
- Use fully enclosed gun cleaner
- Combination of non-atomizing methods

## **Painter Training Required**

Train all personnel who spray coatings, including contractors, on the efficient spray techniques and proper gun set up to minimize paint usage and corresponding air emissions of HAPs. This step is proven to be the best money saving technique by reducing paint usage or more specifically increasing the transfer efficiency. Trained painters use less paint and acquire the skill to mix the appropriate amount of paint by being more consistent painters, thus reducing over-mixing waste.

Initial training for new facilities must be conducted within 180 days of hire date. Existing facilities must complete training within 180 days of hire date or January 10, 2011, whichever is later. (This compliance date is three month prior to the final notification deadline.)

Training opportunities are expected to become widely available through community colleges, paint or equipment suppliers, consultants and technical assistance groups. All personnel, including contractors, who spray apply coatings must be certified as completing training in:

- Spray gun equipment selection, set up, and operation
- Best spray technique for different types of coatings to improve transfer efficiency and minimize overspray and must include hands-on experiential training
- Routine booth and filter maintenance, filter selection and installation
- Compliance with requirements of the NESHAP

## **Final Notification of Full Compliance → by March 2011**

Shops subject to the requirements of the NESHAP 6H Rule must make Final Notification to the local governing agency by March 11, 2011. *Final Notification Forms* are available by state and are to be completed and submitted to the same agency or agencies that received the Initial Notification Form by the deadline. The process of becoming compliant culminates in the Final Notification after having met all requirements.

## **Five-Year Continuing Education**

Refresher training, at least once every five years, is required for all employees conducting spray application. The training is specific to the painter and will stay with the painter, as each individual professional is required to be trained on proper gun set-up and spray techniques to reduce paint usage.

## **For More Information**

Go to:

[\*\*EPA Collision Repair Campaign web site\*\*](#)

[\*\*CCAR-GreenLink "Paint Rule" page\*\*](#)

E-mail your questions to:

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