

Federal Hazardous Air Pollutant Standard: Surface Coating of Motor Vehicles and Mobile Equipment at Area Sources



Picture courtesy of AkzoNobel

This fact sheet is designed to help Michigan facilities that **spray apply coatings on motor vehicles and/or mobile equipment** comply with the requirements found in the *NESHAP for Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources (Rule)*. This fact sheet does not contain a review of the entire Rule, but provides an overview of who is subject to the new Rule, the requirements, compliance dates, information about related MIOSHA standards, and where to go for additional help. It is to be used only as a guide and is not a substitute for reading and understanding the final Rule.

OVERVIEW OF THE RULE

One of the goals of the Federal Clean Air Act is to reduce the emission of hazardous air pollutants (HAPs). The reduction of HAPs is achieved through the promulgation of emission standards for categories of sources that emit HAPs. The U.S. Environmental Protection Agency (U.S. EPA) identified 30 HAPs that pose the greatest threat to public health in urban areas. U.S. EPA has identified categories of area sources (small emitters of HAPs) that account for 90% of the releases of the 30 urban HAPs and are now promulgating standards to reduce the emissions of the urban HAPs. These federal standards are referred to as the National Emission Standards for Hazardous Air Pollutants (NESHAP).

The *NESHAP for Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources (Rule)* was proposed in the Federal Register on September 17, 2007 and the final Rule was promulgated on January 9, 2008. The Rule regulates three activities:

- 1) Paint stripping using methylene chloride.
- 2) Surface coating of motor vehicles and mobile equipment.
- 3) Surface coating of miscellaneous metal and/or plastic parts.

The final Rule is found in the Federal Register notice published January 9, 2008 (pages 1760-1768). The Rule can be found at <http://www.epa.gov/fedrgstr/EPA-AIR/2008/January/Day-09/a24718.pdf>. The notice will be published in Title 40, Part 63, Subpart HHHHHH of the Code of Federal Regulation (40 CFR 63). To assist you in cross referencing the Federal Register notice, sections of the Subpart are identified throughout the fact sheet (e.g. §63.11180).

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APPLICABILITY

The Rule applies to **area sources**. An area source has the potential to emit less than 10 tons per year of a single hazardous air pollutant (HAP) and less than 25 tons per year of any combination of HAPs. If a facility emits more than these amounts, they are **major sources** and not subject to this Rule. However, they may be subject to (40 CFR 63) Subparts M, MM, MM, or PPP. If you need assistance in determining whether or not your facility is an area source, please contact the Environmental Assistance Program at (800) 662-9278.

Your facility is subject to the Rule if it is an **area source** and you **spray-apply coatings** on assembled **motor vehicles** and/or **mobile equipment**. It may sound simple, but understanding the definitions of the bolded terms is critical to determining what is and is not subject to the Rule.

Spray application means coatings are applied using a hand-held device that atomizes the coating. The following applications, however, are not included in the definition of spray application:

Hand-held devices with a paint cup capacity equal to or less than 3 fluid ounces. Mobile automotive refinishers that perform spot repairs at customer locations are subject to the Rule only if they use a spray gun with a cup size greater than 3.0 fluid ounces. Mobile refinishers still need to comply with all other applicable environmental regulations such as those pertaining to hazardous waste management and disposal.

Powder coating.

Hand held non-refillable aerosol containers.

Non-atomizing applications such as paint brushes, rollers, and flow and dip coatings.

Coating means a material spray-applied for decorative, protective or functional purposes. It does not include adhesives, sealants, maskants, or temporary protective coatings or surface preparation materials, such as solvents used to remove dirt and grease.

Motor vehicles means any self-propelled vehicle including but not limited to automobiles, light duty trucks, golf carts, vans and motorcycles.

Mobile equipment means 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.

In addition, the Rule **does not apply** to:

Refinishing of mobile equipment in the field or at the site they are used in service at which they are intended to remain indefinitely after refinishing. This includes:

- Farm and mining equipment for which it is not practical or feasible to move to a dedicated mobile refinishing facility.
- Fork trucks used in a manufacturing facility and which are refinished in that same facility.

Individuals that surface coat no more than two motor vehicles or pieces of mobile equipment per year without compensation.

Installations owned or operated by the Armed Forces of the United States (including the Coast Guard and the National Guard).

Military munitions (ammunition products and components) manufactured by or for the Armed Forces of the United States or equipment used for the purposes of transporting military munitions.

Research and laboratory activities as defined in §63.11180.

Quality Control activities as defined in §63.11180.

There is an option for owners or operators of motor vehicle or mobile equipment spray coating operations to petition the U.S. EPA for an exemption from the Rule if they can demonstrate that they don't spray apply coatings that contain the following targeted HAPs: chromium, lead, manganese, nickel and cadmium. The demonstration must include a description of the coatings that you apply and certifications that you do not spray any coatings containing the targeted HAPs. A Petition for Exemption form is located on our Web site along with other outreach tools. See "Where to Go for Help" on page 8 of this publication. If you need assistance in pursuing the petition, please contact the Environmental Assistance Program at (800) 662-9278.

DEFINITIONS OF NEW AND EXISTING SOURCES

The date by which you should be in compliance with the requirements depends on whether your surface coating operation is considered "new" or "existing."

A **new source** means the facility was not actively engaged in surface coating on or prior to September 17, 2007, and started installing the surface coating equipment after September 17, 2007.

An **existing source** means that the facility was engaged in surface coating on or before September 17, 2007, or the facility began the installation of the surface coating equipment on or before this date.

GENERAL REQUIREMENTS

The general requirements can be divided into three parts: enclosures, cleaning, and training. Below is a summary of each.

Enclosures

Spray-applied coatings must be applied in a preparation station or spray booth and meet the following requirements:

The stations and booths must be fitted with a filter technology that can achieve at least 98% capture of paint overspray. See §63.11173(e)(2)(i) for information on demonstrating filter efficiency.

For refinishing complete motor vehicles and mobile equipment, the preparation stations and spray booths must be fully enclosed with a full roof and four complete walls or side curtains and must be ventilated at negative pressure so that air is drawn into any openings in the station curtains or booth walls. [§63.11173(e)(2)(ii)]

If a spray booth is fully enclosed and has seals on all doors and openings and has an automatic pressure balancing system, it may be operated up to, but not more than, 0.05 inches of water gauge positive pressure. [§63.11173(e)(2)(ii)]

For refinishing vehicle subassemblies (i.e., fenders, bumper fascias, trim, etc.), the preparation station or spray booth must have a full roof, at least three complete walls or complete side curtains, and must be ventilated so that air is drawn into the station or booth. [§63.11173(e)(2)(iii)]

Portable or mobile ventilated enclosures are acceptable alternatives to a full-size preparation station or spray booth for small repairs. The enclosure does need to be ventilated so that the air is drawn into and paint overspray is captured by the enclosure. **IMPORTANT:** The enclosure is subject to the same filter technology required for full-size stations and booths.

Compliance Dates

For existing sources, compliance with the enclosure requirements must be achieved by January 10, 2011. For new sources, the compliance date is January 9, 2008. If you are starting up a new source after January 9, 2008, your compliance date is the date on which you start up the surface coating operation.

Type and Cleaning of Application Equipment

All spray-applied coatings must be applied with a high-volume low-pressure (HVLV), electrostatic, air-assisted airless application, or an equivalent technology. See §63.1173(e)(3) for the procedure to demonstrate equivalent technology.

Paint spray guns must be cleaned so that an atomized mist or spray of gun cleaning solvent and paint residue is not created outside of a container that collects the used gun cleaning solvent. Acceptable options include hand cleaning of gun parts in a solvent container by flushing solvent through the gun without atomizing the solvent and paint residue, or using a fully enclosed spray gun washer.

Compliance Dates

For existing sources, compliance with the cleaning requirements must be achieved by January 10, 2011. For new sources, the compliance date is January 9, 2008. If you are starting up a new source after January 9, 2008, your compliance date is the date on which you start up the surface coating operation.

Training and Certification

Train and certify all spray equipment operators in the proper application of surface coatings, and the proper setup and maintenance of spray equipment. [§63.11173(f)]

Initial and refresher training must, at a minimum, meet the following requirements:

A list must be maintained of current personnel (by name and job description) who are required to be trained. [§63.11173(f)(1)]

Hands-on and classroom instruction that addresses, at a minimum, the following [§63.11173(f)(2)]:

- Spray gun equipment selection, setup, and operation; including measuring coating viscosity, selecting the proper fluid tip or nozzle, and achieving the proper spray pattern, air pressure and volume, and fluid delivery rate.

- Spray technique for different types of coatings to improve transfer efficiency and minimize coating usage and overspray, including maintaining the correct spray gun distance and angle to the part, using proper banding and overlap, and reducing lead and lag spraying at the beginning and end of each stroke.
- Routine spray booth and filter maintenance, including filter selection and installation.
- Environmental compliance with the requirements of this Rule.

A description of methods to be used at the completion of initial or refresher training to demonstrate, document, and provide certification of successful completion of training. Initial training will not be required if it can be demonstrated that a spray equipment operator's work experience and/or previous training meets the requirements in the Rule and is within five (5) years of the date the training is required. [§63.11173(f)(3)]

Spray equipment operators must be re-certified every five (5) years.

TIP: Consult with your vendor, as many programs are already available that meet or exceed these criteria.

Compliance Dates

Existing sources must train and certify operators no later than 180 days after hiring or by January 10, 2011, whichever is later. New sources must train and certify operators no later than 180 days after hiring or by July 7, 2008, whichever is later.

INITIAL NOTIFICATION/COMPLIANCE STATUS

The Rule requires: 1) an initial notification identifying basic information about the facility and 2) notification of compliance status with the general requirements of the Rule. For forms you can use to comply with the requirements, go to www.michigan.gov/deqenvassistance. Select "Clean Air Assistance" under "Related Links" and then select "Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources" under "Federal Regulations."

Compliance Dates

If your facility is a new source, you can satisfy both notifications at once. New sources must submit the initial notification and certification of compliance status no later than 180 days after initial startup or July 7, 2008, whichever is later.

Existing sources must submit the initial notification by January 11, 2010 and the certification of compliance status by March 11, 2011. If your facility is in compliance with the general requirements at the time you submit the initial notification, you can satisfy both notifications at the same time. If not, you will need to submit a separate certification of compliance status by March 11, 2011.

RECORDKEEPING REQUIREMENTS

The following records must be maintained:

Training certifications for each painter with the date of the initial training and the most recent refresher training completed. [§63.11177(a)]

Documentation of the efficiency of the exhaust filter material. [§63.11177(b)]

Documentation from the spray gun manufacturer that each spray gun with a cup capacity equal to or greater than 3.0 fluid ounces that does not meet the definition of an HVLP, electrostatic, airless, or air-assisted airless spray gun, has been determined to achieve equivalent transfer efficiency to that of an HVLP spray gun. [§63.11177(c)]

Copies of your Initial Notification and Notification of Compliance Status, and all submitted copies of the Annual Notification of Changes report. [§63.11177(d)]

Records of any deviations from the general, notification and reporting requirements of this Rule. Include the date and time period of the deviation and a description of the deviations and actions taken to correct the deviation). [§63.11177(g)]

Any documents supporting the claims made in your Initial Notification, Notification of Compliance Status, and annual notification of changes report. [§63.11177(h)]

Records (either in a printed or electronic format) must be maintained for at least five years after the date of each record. Copies of records must be kept at the facility conducting the surface coating operations and made available for inspection for at least 2 years after their date and may be kept offsite after that 2 year period.

Compliance Dates

For existing sources, compliance with the recordkeeping requirements must begin by January 10, 2011. For new sources, records must be kept beginning on January 9, 2008. If you are starting up a new source after January 9, 2008, your compliance date is the date on which you start up the surface coating operation.

REPORTING REQUIREMENTS

You must submit an Annual Notification of Changes Report in which information previously submitted in the Initial Notification, Certification of Compliance Status, and/or Annual Notification of Changes Report has changed. Non compliance with the general requirements of the Rule is considered a reportable change. The report must be submitted no later than March 1 of the following calendar year that the changes occurred.

The Annual Notification of Changes Report must contain information listed in §63.11176 (a)(1) and (2) of Subpart HHHHHH. The report shall be sent to:

U.S. EPA Region 5
Compliance Tracker (AE-17J)
77 West Jackson Blvd.
Chicago, IL 60604

SUMMARY OF COMPLIANCE DATES

REQUIREMENTS	SOURCE TYPE	
	NEW	EXISTING
General - Enclosures	January 9, 2008 or upon initial startup, whichever is later	January 10, 2011
General - Cleaning	January 9, 2008 or upon initial startup, whichever is later	January 10, 2011
General – Training	No later than 180 days after hiring or by July 7, 2008, whichever is later.	No later than 180 days after hiring or by January 10, 2011, whichever is later.
Initial Notification	July 7, 2008 or 180 days after initial startup, whichever is later.	January 11, 2010
Compliance Certification	July 7, 2008 or 180 days after initial startup, whichever is later.	March 11, 2011
Recordkeeping	January 9, 2008 or upon initial startup, whichever is later	January 10, 2011
Reporting	March 1 of the following calendar year that the changes occurred.	March 1 of the following calendar year that the changes occurred.

ENFORCEMENT OF THE RULE

The state of Michigan does not have delegation of the Rule. The U.S. EPA will be the agency enforcing the Rule and accepting the petitions, notifications and reports.

COMPARISON OF RULE WITH EXISTING STATE AIR RULES

For most commercial automotive collision repair facilities, compliance with the new Rule requirements should not be difficult because existing state rules essentially require facilities to employ many of the same good business practices. Facilities that don't paint in a spray booth or preparation station with adequate filter control can be cited in violation of Rule 901 of the Michigan Air Pollution Control Rules. Rule 901 states that "a person shall not cause or permit the emission of an air contaminant...that cause...injurious effects to human health...or property or unreasonable interference with the comfortable enjoyment of life and property." To comply with Rule 901, facilities have been required to install enclosures with overspray control which is one of the major requirements contained in the new Rule.

Even though state rules do not require HVLP or equivalent spray gun technology, nor do they require the training of paint operators, most facilities are already doing this because it is not only good for the environment, but also reduces paint waste and saves them money. When a common Ready-to-Spray pint of coating can range from \$25 to \$45, achieving the best transfer efficiency should be every facility's goal.

MIOSHA STANDARDS

The Michigan Occupational Safety and Health Act (MIOSHA) established commissions to set standards to protect the health and safety of Michigan's employees. The MIOSHA standards that may apply to the surface coating of motor vehicles and mobile equipment are as follows.

MIOSHA Part 76, Spray Finishing Using Flammable and Combustible Liquids
MIOSHA Part 301, Air Contaminants
MIOSHA Part 309, Cadmium
MIOSHA Part 310, Lead
MIOSHA Part 315, Chromium VI
MIOSHA Part 430, Hazard Communication
MIOSHA Part 451, Respiratory Protection
MIOSHA Part 75, Flammable and Combustible Liquids

The standards are located at www.michigan.gov/miosha. Select "Standards & Legislation" and then "General Industry." For more information on the MIOSHA standards, contact the MIOSHA Consultation Education and Training Division (CETD) at (517) 322-1809.

LOCAL CODES

Contact your local municipality before constructing new spray paint booths. The installation of new booths will need to be in compliance with Michigan's building, electrical, and mechanical codes that are enforced by local building departments. In addition, the subsequent operation and maintenance of the booths need to comply with either a national fire prevention code adopted by the local municipality or the State Rules for Fire Prevention that are promulgated under the authority of the Michigan Fire Prevention Code in the event the local municipality doesn't adopt a code.

WHERE TO GO FOR HELP

The DNRE's Environmental Assistance Program offers free assistance to small businesses with environmental questions. Call us at (800) 662-9278 from 8:00 am to 4:00 pm Monday through Friday.

The EAP can help companies understand and comply with federal and state regulations that protect our air, water, and land. This document, along with fact sheets describing this Rule's requirements pertaining to paint strippers containing methylene chloride and the surface coating of miscellaneous metal and plastic parts are located at www.michigan.gov/deqenvassistance. Select "Clean Air Assistance" under "Related Links" and then select "Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources" under "Federal Regulations."