GUIDE

National Emissions Standard for Hazardous Air Pollutants (NESHAP)

MISCELLANEOUS SURFACE COATING OPERATIONS AT AREA SOURCES IN IOWA

Prepared by:







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WHY THIS RULE IS NEEDED

The U.S. Environmental Protection Agency (EPA) and the Iowa Department of Natural Resources (DNR) are required by law to reduce exposure to hazardous air pollutants (HAP), also known as "air toxics." HAP are known or suspected to cause cancer or other serious health effects such as birth defects. Coatings used in automobile and mobile equipment refinishing contain HAP and therefore may pose a risk to public health in the vicinity of the operations, especially in urban areas.

Area Sources. An "Area Source," sometimes called a "minor source" or a "small source," is defined as a facility that emits or has the potential to emit less than 10 tons of any single HAP and less than 25 tons of any combination of HAP per year.

Source Categories. Types of operations identified by EPA as needing regulation are referred to as "source categories." There are 70 area source categories that EPA has identified as needing regulation. Three of these are included in the *National Emission Standards for Hazardous Air Pollutants (NESHAP): Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources* [40 Code of Federal Regulations (CFR) Part 63, Subpart HHHHHHH], sometimes called "6H" or "6H NESHAP". For brevity, the term "6H NESHAP" is used to refer to this regulation throughout the rest of this document.

- Paint stripping operations that use methylene chloride (MeCl) to remove dried paint from wood, plastic, metal or other substrates. NOTE: This source category is not covered in this guide. A separate fact sheet summarizing the paint stripping regulations is available from the DNR upon request.
- Motor vehicle and mobile equipment spray-applied surface coating operations
- Miscellaneous surface coating of plastic and metal parts using spray application of coatings containing compounds of chromium (Cr); lead (Pb), manganese (Mn), Nickel (Ni) and Cadmium (Cd).

WHO IS INCLUDED

The 6H NESHAP regulations apply to any operation that does the following:

- Applies surface coatings to motor vehicles and/or roadway use equipment; or
- Sprays liquid coatings on plastic and/or metal substrates (underlying material) which contain
 the Target HAP. For the 6H NESHAP, the Target HAP are compounds of chromium (Cr),
 lead (Pb), manganese (Mn), nickel (Ni) and cadmium (Cd). Coatings are considered to
 contain the Target HAP if:
 - The coating contains any individual Target HAP that is an OSHA-defined carcinogen and the concentration is equal to or greater than 0.1 percent by mass; or
 - The coating contains any individual Target HAP that is not an OSHA-defined carcinogen and the concentration is equal to or greater than 1.0 percent by mass. As of May 2009, manganese is the only Target HAP that is not an OSHA-defined carcinogen.

The information on the concentration of a Target HAP in a coating material can be found on the most recent Material Safety Data Sheet (MSDS) or by contacting the coating material manufacturer.

WHO MAY BE EXEMPTED

- Motor vehicle and mobile equipment surface coating operations may petition for exemption if
 they demonstrate that the coatings sprayed at the facility do **not** contain the Target HAP. An
 exemption petition form is included in this guide and is also available at
 http://www.iowadnr.gov/air/prof/NESHAP/.
- Miscellaneous surface coating operations that spray liquid coatings on plastic or metal substrates which do **not** contain Target HAP are automatically exempt. No petition for exemption is required. Surface coating operations that coat substrates other than plastic or metal are not subject to this rule.

WHAT IS EXEMPTED

Exempted Coating Operations

- Surface coating performed on site at installations owned or operated by the U.S. Armed Forces, NASA or the National Nuclear Security Administration.
- Surface coating of military munitions manufactured by or for the U.S. Armed Forces or equipment directly and exclusively used for the purposes of transporting military munitions.
- Coating performed by an individual on personal vehicles, possessions, or property, either for hobby/maintenance, provided that no more than two motor vehicles or pieces of mobile equipment are coated per year. This exemption also applies when these operations are performed by individuals for others without compensation.
- Surface coating that meets the definition of "research and laboratory activities" in the 6H NESHAP.
- Surface coating that meets the definition of "quality control activities" in the 6H NESHAP.
- Surface coating activities that are covered under a different NESHAP, such as the area source NESHAP for metal fabrication and finishing (40 CFR Part 63, Subpart XXXXXX).

Exempted Applications

- Spray applied protective oils for metal, bases, or acids (or a combination of these substances)
- Adhesives, sealants, maskants, or caulking materials
- Temporary protective coatings, lubricants, or surface preparation materials
- In-mold coatings spray applied in the manufacture of reinforced plastic composite parts.
- Coatings applied from a hand-held device with a paint cup capacity that is equal to or less than 3.0 fluid ounces.
- Surface coating application using powder coating, hand-held, nonrefillable aerosol containers, or nonatomizing application technology, including, but not limited to, paint brushes, rollers, hand wiping, flow coating, dip coating, electrodeposition coating, web coating, coil coating, touch-up markers, or marking pens.
- Thermal spray operations (also known as metalizing, flame spray, plasma arc spray, and electric arc spray, among other names).

WHAT IS EXEMPTED cont.

Facility Maintenance

Spray coating applications defined as facility maintenance are **not** subject to this rule. Examples of facility maintenance are:

- Surface coating performed as part of the routine repair or renovation of the tools, equipment, machinery, and structures that comprise the infrastructure of the affected facility and that are necessary for the facility to function in its intended capacity.
- Surface coating associated with the installation of new equipment or structures, and the application of any surface coating as part of janitorial activities.
- Application of coatings to stationary structures or their additions at the site of installation, to portable buildings at the site of installation, to pavements, or to curbs.
- 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.

Not Included as Facility Maintenance

Surface coating of motor vehicles, mobile equipment, or items that routinely leave and return to the facility, such as delivery trucks, rental equipment, or containers used to transport, deliver, distribute, or dispense commercial products to customers, such as compressed gas canisters. **These** activities must be considered for possible 6H NESHAP applicability.

If your facility or operation does <u>not</u> meet any of the exemptions listed above, please read the rest of this document to learn what is required to comply with the 6H NESHAP.

REQUIREMENTS

This guide is designed to help facilities understand and comply with the requirements in 40 CFR Part 63, Subpart HHHHHH. For specific requirements including the complete federal regulation, refer to: http://www.epa.gov/ttn/atw/area/compilation.html.

Spray Applied Coatings

 All spray-applied coatings must use high-volume low-pressure (HVLP), air-assisted airless, airless, or electrostatic spray guns. An alternative may be used if the spray gun manufacturer demonstrates that it has a transfer efficiency (TE) comparable to the spray guns listed above and written approval has been obtained from the DNR.

REQUIREMENTS cont.

- Painters must be certified once every five years that they have received training on proper spray application, equipment setup and equipment maintenance. Minimal training includes:
 - Hands-on and classroom instruction on spray gun; equipment selection, set up and operation;
 - Training on spray techniques designed to improve transfer efficiency;
 - Training on routine spray booth maintenance and filter selection, installation and maintenance; and
 - Environmental compliance with respect to the 6H NESHAP.
- Facilities may develop their own in-house training program which can be certified by the facility owner. All painting personnel must receive refresher training for recertification every five years.
- All spray areas must be fitted with a filter technology demonstrated to achieve a 98 percent capture efficiency of paint overspray. This requirement does not apply to waterwash spray booths that are operated and maintained according to the manufacturer's specifications.
- All spray-applied coatings must be applied in a spray booth, preparation station, or mobile enclosure.
- Spray booths and preparation stations used to refinish complete motor vehicles or mobile equipment must be fully enclosed with a full roof, four complete walls or complete side curtains, and be ventilated under negative pressure. However, fully enclosed spray booths equipped with door/opening seals and an automatic pressure balancing system may operate up to 0.05 inches water gauge positive pressure.
- Spray booths and preparation stations used for coating miscellaneous parts or vehicle subassemblies must have a full roof, at least three complete walls or complete side curtains, and must be ventilated so air is drawn into the booth. Booths may have opening for conveyors and parts that pass through the booth for finishing.
- Mobile ventilated enclosures used to perform spot repairs must enclose the surface around the area being coated so overspray is retained in the enclosure and directed to a filter (for overspray capture).
- All spray-gun cleaning must be done so that an atomized mist or spray of cleaning solvent/residual paint is not created outside the container used for collecting the cleaning solvent/residual paint. Spray gun cleaning may be accomplished by hand cleaning, use of an enclosed gun wash unit, or by flushing equipment with solvent (provided the solvent is not atomized outside the container used for solvent collection).

Compliance Dates

Existing Sources:

If your facility has been performing surface coating operations on or before September 17, 2007, your facility is considered an existing source and the compliance date is **January 10, 2011**.

Painter training/certification must be completed within 180 days after hiring or no later than January 10, 2011, whichever is later.

New Sources:

If your facility began surface coating operations after September 17, 2007, it is considered a new source and the compliance date is **January 8, 2008,** or the facility's **initial start-up date,** whichever is later.

Painters must be trained and certified within 180 days after hiring or no later than July 7, 2008, whichever is later.

RECORDKEEPING

Records should be maintained in a form suitable and readily available for expeditious review. Affected facilities must keep the following records to document compliance:

 Training certification records for painters. These records must include the initial training

Compliance Summary

- Use high efficiency spray guns
- Train and certify operators
- Enclose spraying areas
- Capture at least 98 percent of overspray
- Capture paint and solvent when cleaning

date and the most recent refresher training date for each painter, as well as the hire date of any painter hired after the source's compliance date.

- Filter efficiency documentation demonstrating that filters meet or exceed the 98 percent capture efficiency requirement.
- When the facility uses something other than HVLP, air-assisted airless, airless, or electrostatic application equipment, documentation stating the spray gun has been determined by the DNR to achieve a TE equivalent to an HVLP spray gun.
- Copies of all notifications and reports submitted to the DNR.
- Documentation of any deviations from the requirements and the corrective action taken.

AIR CONSTRUCTION PERMITS

The DNR issues air construction permits to ensure that facilities are meeting air quality requirements. Prior to initiating construction, installation, reconstruction or alteration of equipment, a permit is required unless a specific exemption applies [567 lowa Administrative Code (IAC) 22.1].

- Facilities that spray less than 3 gallons per day facility-wide may use the DNR Permit by Rule (PBR) Notification for all booths at the facility. See the attached PBR Notification form for eligibility requirements (the form is also available at http://www.epa.gov/ttn/atw/area/compilation.html).
- Facilities that spray 3 gallons per day or more facility-wide are required to either obtain a construction permit for each booth or show that the facility qualifies for an exemption.
- Facilities located within Polk or Linn counties must obtain the applicable air permits from their local air pollution control agency.

Polk County Public Works - Air Quality Division 5885 NE 14th Street; Des Moines, IA 50313

Phone: 515-286-3351

Internet: www.airquality.co.polk.ia.us

Linn County Public Health - Air Quality Division 501 13th Street NW; Cedar Rapids, IA 52405

Phone 319 892-6000 Internet: <u>www.air.linn.ia.us</u>

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The following DNR forms are attached:

- Initial Notification-Notification of Compliance Status-Petition for Exemption
- Notification for Permit by Rule for Spray Booths

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IOWA DEPARTMENT OF NATURAL RESOURCES AIR QUALITY BUREAU

Initial Notification-Notification of Compliance Status-Petition for Exemption

Miscellaneous Surface Coating Area Source Rule

40 Code of Federal Regulations (CFR) 63.11169 – 63.11180 (Subpart HHHHHHH)

This is a multi-purpose notification form that may be used to fulfill the requirements for 1) Initial Notification; 2) Notification of Compliance Status; or 3) Petition for Exemption. The questions below indicate the information that is required for each type of notification.

Facility Information (required for all notifications): Facility Name: Facility Number (if known): Facility Street Address: City: State: Zip: Owner's Name and Title: Owner's phone number: Owner's email (if available): Owner's Mailing Address (if different from facility street address): City: State: Zip: If the Operator information is different from above, please provide the following: Operator's phone number: Operator's Name and Title: Operator's email (if available): Operator's Street Address (if different from facility street address): City: State: Zip: Is the facility a motor vehicle or mobile equipment surface coating operation that repairs vehicles at the customer's location, rather than at a fixed location? Yes No 2. **Identification of Standard (required for all notifications):** Yes, this facility is subject to 40 CFR Part 63, Subpart HHHHHHH, National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources (6H NESHAP), because this facility fits one of the following descriptions: An area source surface coating operation that coats metal and/or plastic products, motor vehicles, or

- mobile equipment is subject to the 6H NESHAP if the operation uses coatings that contain the Target
- HAP (lead, chromium, nickel, cadmium, manganese).
- An area source motor vehicle or mobile equipment surface coating operation that does **not** use the Target HAP is considered subject to the 6H NESHAP until an exemption request has been approved by the DNR. This notification form may be used as an exemption request. If your source is in this category, you may skip ahead to the "Responsible Official Certification" section.
- An area source metal and/or plastic products surface coating operation that does not use the Target HAP is exempt from the 6H NESHAP. If your source is in this category, you do not need to complete this notification.

3.	a. This facility has a (check all that a	required for Initial Notification <u>and</u> Notifical	tion of Compliance Status):
		e Equipment Surface Coating Operation	
	Miscellaneous Surface C		
	b. Number of spray booths:		
	c. Number of preparation stations:		
	d. Number of painters usually emplo	yed:	
4.	For surface coating operations, the rethrough (g). The main compliance electrons that the surface is through (g). The main compliance electrons that the surface is the surface in the surface in the surface is the surface in the sur	ee (required for Initial Notification): levant requirements are specified in the 6H NEsternation for this standards are: operator training (cosed spray area, 98% efficient filters, and non-activate with each of the relevant requirements. See with each of the relevant requirements by the rate 17, 2007, but before January 9, 2008): compliance date is date of startup ember 17, 2007): compliance date is January 10, 2011, to avoid be a Initial Notification within 180 days of startup. Charry 11, 2010.	repeated every five years), atomized spray gun cleaning. e compliance date. ance date is January 9, 2008 10, 2011 eing subject to this rule.
5.	 Certification of Compliance Status, please check one (required for Notification of Compliance Status): This facility is a new source (initial startup was on or after September 17, 2007). Startup Date: If the source is a new source, a responsible official must certify below that the source is in compliance with each of the relevant requirements of the 6H NESHAP. NOTE: New facilities must submit the Notification of Compliance Status within 180 days of start-up. This facility is an existing source (initial startup was before September 17, 2007). Startup Date: If the source is an existing source, a responsible official may certify below that the source is already in compliance with each of the relevant requirements of the 6H NESHAP, or submit a separate certification no later than March 11, 2011, as specified in 40 CFR Section 63.11175(b). Please check one:		
	R	esponsible Official Certification (check <u>all</u> that apply)	
	I certify the truth, accuracy, and co		
	The source is a motor vehicle and mobile equipment surface coating operation, but does <u>not</u> use the Target HAP. With this certification, the facility is requesting <u>an exemption</u> from the 6H NESHAP.		
	The source has complied with <u>all</u> the relevant standards of the 6H NESHAP. This notification also serves as		
Recnon	the Notification of Compliance Statesible Official Name	Responsible Official Signature	Date
xespon	Sibile Official Name	Responsible Official Signature	Date

Submit this notification to the following agency(ies):

- Iowa Department of Natural Resources, NESHAP Coordinator, 7900 Hickman, Suite 1; Windsor Heights, IA, 50324
- If the facility is located in either Linn County or Polk County, this notification shall <u>also</u> be submitted to the appropriate county office:

Polk County Public Works – Air Quality Division 5885 NE 14th Street; Des Moines, IA 50313

Linn County Public Health - Air Quality Division 501 13th Street NW; Cedar Rapids, IA 52405



IOWA DEPARTMENT OF NATURAL RESOURCES AIR QUALITY BUREAU

NOTIFICATION LETTER FOR PERMIT BY RULE FOR SPRAY BOOTHS

To be eligible for a permit by rule for spray booths, a facility must meet all applicable requirements established in 567 Iowa Administrative Code (IAC) subrule 22.8(1) **and** must certify that the facility is in compliance with or otherwise exempt from the requirements of National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Miscellaneous Surface Coating Operations at Area Sources (40 CFR Part 63, Subpart HHHHHH). The owner or operator shall complete this form and submit **1 original** to: Iowa DNR, Air Quality Bureau, 7900 Hickman Road Suite 1, Urbandale, IA 50322.

Retain a copy of the completed form for your records.

The permit becomes effective upon the DNR's receipt of this notification letter.

Section 1 – Facility Information

Plastic or metal parts and products

Print in ink or type		Field Office	For DNR Use Only Field Office Facility ID	
Name of Firm/Company	Facility Name (if differe	nt)		
Mailing Address -Street/PO Box	City	State	Zip	
Equipment Location - Street	City	State	Zip	
Person to Contact	Phone Number	Fax Numb	Fax Number	
Section 2 - Applicability Please complete the five applicability question to use this form must apply for a construint unless otherwise exempt from the requirement.	ruction permit as specified under	567 IAC subrules 2	•	
 I. What is the facility-wide spray mate One Gallon per day or less (recordk More than one gallon per day but le are required per 22.8(1)"c") Three gallons or more per day (not expressed) 	eeping is required per 22.8(1)"b" ss than three gallons per day (rec	cordkeeping & spray	y booth stack height	
2. The spray booths at the facility will Motor vehicles or mobile equipmen				

Wood or other substrates not metal or plastic (Skip to Section 3 if no other no other materials are checked)

Section 2 – Applicability (continued)

categories? If you answer y spray in your booth, you ma	your facility in one of the following nine metal fabrication and finishing sources to this question and the following question about the types of coatings you ay be subject to 40 CFR Part 63, Subpart XXXXXX. Please contact the Air	
Quality Bureau to determin	e which rule applies to your facility and if additional information is needed pr	ior
to submitting this notification	on letter. Autobody shops are currently not included in any of the nine listed	
metal fabrication and finish	ing source categories.	
Yes (Check all that apply.)		
	tronic Equipment Finishing Operations (including motor and generator lectrical machinery, equipment, and supplies, not elsewhere classified);	
Fabricated Plate W	,	
	ral Metal Manufacturing;	
_		
Heating Equipment	<u> </u>	
	ry and Equipment Finishing Operations (including construction machinery and gas field machinery manufacturing; and pumps and pumping equipment	
Iron and Steel Forg	rino·	
	ducts Manufacturing;	
Valves and Pipe Fit	•	
No	ttings.	
<u> </u>		
"primarily engaged" in operation crosscheck your SIC/NAICS con http://www.epa.gov/ttn/atw/area	etal fabrication and finishing processes but are not subject to Subpart XXXXXX unless they are subject are classified in one of the listed nine source categories. To check if you are subject des with the SIC/NAICS codes that are subject to this rule and listed at this web link: \(\frac{1}{2} \) \(t,
	facility specifically exempt from NESHAP Subpart HHHHHH - Miscellaneous	<u>1S</u>
	s at Area Sources? A complete list of exemptions is included in 40 CFR Part	
63.1169(d)		
Surface coating per	s that apply <i>and</i> Skip to Section 3 if all operations at the facility are exempt) rformed on site at installations owned or operated by the US Armed Forces, and Nuclear Security Administration.	
	military munitions, as defined in §63.11180, manufactured by or for the US	
	quipment directly and exclusively used for the purposes of transporting military	ry
	by an individual on their possessions (not including motor vehicles or mobile	<u>د</u>
<u> </u>	for hobby or maintenance.	
* * *	by an individual on others' possessions (not including motor vehicles or mob	ile
	for hobby or maintenance for which no compensation is received.	,11C
	by an individual on personal or others' motor vehicles or mobile equipment a	
		15
	an two vehicles or pieces of mobile equipment are coated per year.	
	at meets the definition of "research and laboratory activities" in §63.11180.	
	at meets the definition of "quality control activities" in §63.11180.	
	tivities that are covered under another area source NESHAP.	
No		

Э.	Do the coatings spray applied in your booth(s) contain Cadmium, Chromium, Lead, Manganese or Nickel?
	Yes. The facility is subject to the requirements of 40 CFR Part 63, Subpart HHHHHH and must submit
	notification of compliance status with this notification letter.
	No. The facility is not subject to the requirements of 40 CFR Part 63, Subpart HHHHHH.
2	In order for a coating to contain the target HAP as defined under the NESHAP, the target HAPs must be present in concentrations greater than 0.1 percent by mass for Cadmium, Chromium, Lead and Nickel or be present in concentrations greater than 1.0 percent by mass for Manganese. Refer to product MSDS, manufacturer's Product Specification Sheet or contact the coating manufacturer directly to determine if the coating contains any of the target HAP at the defined concentrations

Section 3 – Spray Booth Description

Please provide the following details for each of the paint booths at your facility. If additional space is needed, please attach a separate sheet.

LIST ALL SPRAY BOOTHS AT THE FACILITY:

	Spray Booth ID#	Booth Type	Location
Ex.	Spray booth 1	Cross-draft automotive	N.E. Corner of building A
1			
2			
3			
4			
5			
6			
7			
8			

Continue on Page 4 ⇒

Section 4 – Certifications (PLEASE READ CAREFULLY)

All facilities using this notification form must complete the **SPRAY BOOTH CERTIFICATION** below. Only facilities that are spray applying coatings to motor vehicle, mobile equipment or plastic or metal parts and products must complete the **SPRAY MATERIAL CERTIFICATION**, unless they have determined they are exempt from requirements of 40 CFR Part 63, Subpart HHHHHH. Facilities that *do not* spray apply coatings to motor vehicle, mobile equipment or plastic or metal parts and products are only required to completed the **SPRAY BOOTH CERTIFICATION** and *do not* need to complete either of the **SPRAY MATERIAL CERTIFICATIONS** listed below.

SPRAY	Y BOOTH CERTIFICATION: "I certify that all spray booths at the facility and lis applicable requirements of rule 567 IAC 22.8(1)(45 deemed permitted under the terms of 567 IAC 22.8(IAC 22.8(1)(455B)) are met. This certification is bar reasonable inquiry, the statements and information	55B). I understand that this equal (1)(455B) only if all applicable ased on information and belief f	uipment shall be requirements of 567 ormed after
SPRAY	MATERIAL CERTIFICATION (only check one box if applicable): "I certify that none of the coatings used in my motor vehicle or mobile equipment spray booth contain Cadmium, Chromium, Lead, Manganese or Nickel. I understand that if circumstances change, such that I intend to spray apply coatings containing these materials, I shall comply with the requirements of the NESHAP for Miscellaneous surface Coating (40 CFR Part 63, Subpart HHHHHH) and submit the initial notification required by §63.11175."		
OR	I intend to use the following types of coatings in my (For example: polyurethane coatings)	motor vehicle or mobile equip	ment spray booth:
"I certify that I am subject to and in compliance with the requirements of 40 CFR Part 63, Subport HHHHHH. I have attached my notification of compliance status demonstrating how I will operate compliance with the NESHAP. I understand that I must submit all subsequent notifications and reports as required by §63.11175 and §63.11176 and complete on recordkeeping as required by §63.11177"			ow I will operate in otifications and
Signatu	ure	Title	Date
Print Na	Jame		