Minnesota Pollution Control Agency

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Facts about NESHAP for Wood Furniture Finishing

On December 7, 1995, the U.S. Environmental Protection Agency (EPA) finalized a rule covering air emissions of Hazardous Air Pollutants (HAPs) from wood furniture finishing operations. HAPs are regulated because they have the potential to cause health problems and environmental contamination at very low concentrations. This rule, known as a National Emission Standard for Hazardous Air Pollutants (NESHAP), affects wood furniture finishing, gluing, cleaning and washoff operations.

Who is affected by the rule?

The rule applies to new and existing wood furniture manufacturers that are classified as major sources of HAPs. To be classified as a major source, a manufacturer would have to have the "potential to emit" (PTE) 10 tons per year or more of more than one HAP. PTE is a calculation of a facility's capability to emit air pollution if it were operated at full capacity, 24 hours per day.

Of course, for most facilities, actual air emissions are much less than the calculated PTE. But using PTE as a basis gives the MPCA and the EPA a uniform way of comparing all types of facilities that produce air pollution.

Facilities that become major sources for this NESHAP must submit an air quality permit application to the MPCA. Before the operations can be changed or sources constructed the permit must be issued.

The following are the Standard Industrial Classification (SIC) codes of facilities with operations that may be affected by this rule: 2434, 2511, 2512, 2517, 2519, 2521, 2531, 2541, 2599, and 5712. These codes include manufacturers of cabinets, furniture and fixtures, among other things. If you need help determine your SIC, call one of the help numbers listed at the end of this fact sheet.

Pollution Prevention Can Pay

An alternative to complying with this NESHAP is to switch to products or processes that are less hazardous to human health and the environment. Or, you may be able to modify your manufacturing processes to reduce the use of cleaning and washoff products. Reducing your use of hazardous substances can cut costs and liability for your process while protecting the health of your employees and the environment.

Information on alternative manufacturing processes and products can be found through trade associations, trade journals, vendors and the Minnesota Technical Assistance Program (MnTAP). MnTAP staff can evaluate a facility's operations and suggest pollution prevention techniques and improved maintenance practices. For more information about the services available through MnTAP, call (612) 624-1300.

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(651)296-6300, toll-free 800-657-3864, TDD/TTY (651)282-5332

Who may be exempt from this rule?

The rule does not apply to facilities that have PTEs below the major levels mentioned on the first page, or to shops with low actual material usage. The rule exempts facilities that use less than 250 gallons per month or 3,000 gallons per 12 months of any coating, gluing, cleaning, and washoff materials.

You will have to keep monthly usage records of these materials and maintain records for two years to show that you qualify for this exemption.

The rule also does not apply to "incidental" furniture manufacturers. You are an incidental furniture manufacturer if you are a major source that is primarily engaged in the manufacture of products other than wood furniture or wood furniture components and that uses no more than 100 gallons per month of finishing materials or adhesives in the manufacture of wood furniture or wood furniture components.

What does the rule require?

The rule requires monitoring, recordkeeping and reporting. It also offers several compliance methods to choose from, including HAP content requirements, pollution control devices, or a combination of control and HAP content. Depending on what option you choose for complying with the rule, you may also have to conduct a performance test.

Standardized material content limitations and work procedures are also required. For example, your materials must meet HAP-content limits. You will have to keep records of your materials and usage, and file a report every six months.

HAP Content Limit

A summary of the HAP-content limit is listed on page four. These limits give the amount of HAP allowed in your materials by the rule. In this case, the term "VHAP" is used to denote that some HAPs are volatile compounds.

Work Practices

In addition to the HAP-content limits, you will have to start using the work practices given in the rule. These common-sense work practices include things such as operator training, inspection, maintenance, storage/transfer procedures and eliminating the use of air spray guns in most situations. A summary of the work practice standards is given on page five.

Existing sources subject to the rule were required to submit a notification to the MPCA by Sept. 2, 1996. New sources also must submit a notification. This notification must include the following information:

- The name and address of the owner or operator;
- The address of the affected source;
- An identification of the relevant standard or other requirement that is the basis of the notification;
- The source's compliance date;
- Classification of the affected source (major or area); and
- A brief description of the nature, size, design, and method of operation of the source, including its operating design capacity and an identification of each point of preliminary or definitive emission for each hazardous air pollutant.

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When will you have to comply with this rule?

The date by which you will have to comply with this NESHAP depends on the actual emissions from the operation and whether the source is new or existing. The chart below lists the compliance dates.

Compliance Dates

Type of Source	Actual Emissions	Compliance Date
Existing Source (installed and operating prior to December 6, 1994	Less than 50 tons of HAP per year	December 7, 1998
	More than 50 tons of HAP per year	November 21, 1997
	Area sources that become major HAP sources	One year after becoming a major source
New Source (installed and operational after December 6, 1994)	Major source	Upon start-up or December 7, 1995, whichever is later.
	New non-major sources that become major sources	Immediately, once the operation becomes a major source.

Need more Information?

For a copy of the rule, call (651) 282-5843.
For general questions about air quality rules or permits, call the MPCA's Permit Technical Advisor at (800) 646-6247 or (651) 282-5844.

(Fact sheet continues on next page)

Summary of Emission Limits

For Emissions during:	Existing Sources in - kg/kg solids or - lb/lb solids	New Sources in - kg/kg solids or - lb/lb solids
Finishing Operations		
(a) Achieve a weighted average HAP content across all coatings (maximum kg VHAP/kg solids [lb VHAP/lb solids] as applied);	1.0	0.8
(b) Use compliant finishing materials (maximum kg VHAP/kg solids [lb VHAP/lb solids] as applied);		
• stains • washcoats • sealers • topcoats • basecoats • enamels • thinners (max. % allowable)	1.0 1.0 1.0 1.0 1.0 1.0 10.0	1.0 0.8 0.8 0.8 0.8 0.8 10.0
(c) Use a control device (maximum kg VHAP/kg solids [lb VHAP/lb solids] as applied);	1.0	0.8
(d) Use a combination of (b) and (c)	1.0	0.8
Cleaning Operations		
Strippable spray booth material (maximum VOC content, kg VOC /kg solids [lb VOC/lb solids	0.8	0.8
Gluing Operations - Contact Adhesives		
(a) Use compliant contact adhesives (maximum kg VHAP/kg solids [lb VHAP/lb solids] as applied) based on the following criteria: 1. For foam adhesives used in products that meet flammability requirements 2. For all other contact adhesives, including foam adhesives used in products that do not meet flammability requirements	 1.8 1.0	 0.2 0.2
(b) Use a control device	1.0	0.2

Summary of Work Practice Requirements

For emissions during:	Work Practices Required
Finishing Operation	
Transfer equipment leaks	• Develop written inspection and maintenance plan to address and prevent leaks. Inspect equipment at least once a month
Storage containers and mixing equipment	• When these types of containers are used for HAP-containing materials, they must be kept covered when not in use.
Application Equipment	• Conventional air-spray guns may be used (1) when compliant coating are used, (2) for touch-up work, (3) when control equipment is in place or (4) when alternative application technologies are not feasible.
Finishing Materials	• Demonstrate that usage of certain HAPs defined in the rule has not increased except as allowed by proposed standard, document in the formulation assessment plan.
Cleaning Operations	
Gun and Line Cleaning	• Collect and store all cleaning solvent in covered containers. Cover all containers used for cleaning when not in use.
Spray booth cleaning	• follow solvent content requirements for cleaning spray booth components (e.g. less than 8% by weight VOC content).
Washoff and general cleaning	• Do not use cleaning solvents containing known or probable carcinogens in concentrations subject to MSDS reporting as required by OSHA. • Keep washoff tank covered when not in use. • Minimize dripping by tilting or rating parts to drain as much solvent as possible. Allow sufficient time for drying. • Keep a monthly log of the quantity and type of washoff solvent used; the quantity of waste solvent shipped offsite; and whether the waste was disposed of or recycled.
Other	
Operator Training	• Develop and give operator training covering application techniques, cleaning and washoff procedures, equipment setup, and waste management.
Leak inspection and maintenance plan	• Prepare and implement an inspection schedule and repair procedures.
Work practice implementation plan	• Prepare a written plan that describes the work practices your facility will follow.
Establish baseline usage level and tracking	• Identify HAPs present at your facility and establish baseline usage level. Track the annual usage and, if the baseline level is exceeded, provide written notification.

Recordkeeping Provisions

Records Required	Applicability	Applicable Sections of Subpart JJ
Certified product data sheets for each regulated finishing material, booth coating, thinner, and adhesive.	All affected sources.	63.806 (b)
The VHAP content, in lb VHAP/lb solids (or kg VHAP/kg solids), as applied for each finishing material, adhesive subject and strippable booth material subject to 63.802	All affected sources	63.806 (b)
Quantity of finishing materials and thinners to support calculations for Equation 1 and copies of the averaging calculation.	Sources using an averaging approach to comply with emission limitations for finishing.	63.806 (c)
Solvent and coating additions, viscosity measurements, and data demonstrating the relationship between viscosity and VHAP content	Sources using a compliant coatings approach and applying coating with a continuous coater.	63.806 (d)
Copy of the work practice implementation plan and records associated with fulfilling the requirements of the plan	All affected sources	63.806 (e)
Calculations demonstrating that the overall control efficiency of the control system is sufficient to control emissions from the finishing or gluing operations to the required levels.	Affected sources using a control system to comply with the emission limitations for finishing or gluing.	63.806 (f) & (g)
Copy of the compliance certifications and any information submitted with the semi-annual reports.	All affected sources.	63.806 (h) & (i)