

New Clean Air Act Regulations Affecting Small Businesses - National Emission Standards for Hazardous Air Pollutants

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Refer to pages 1-19 to 1-22 of the Michigan Guide to Environmental, Health, and Safety Regulations.

Overview - National Emission Standards for hazardous Air Pollutants

- Federal rules to regulate emissions of toxic air pollutants from a list of industrial sources referred to as "source categories"
- EPA has developed a list of source categories that must meet control technology requirements for these toxic air pollutants.
- Sometimes referred to as MACT Standards (MACT = maximum achievable control Technology)
- Toxic Air Contaminants are also known as Hazardous Air Pollutants (HAPs).
- There are 187 compounds listed as HAPs. See page 1-26 of MI Guide to EHS Regulations.

Who's Subject to NESHAPs?

- Businesses that fall into the regulated source category and meet the applicability requirements.
- US EPA Air Toxics Website = www.epa.gov/ttn/atw/eparules.html
 - List of HAPs (toxic air pollutants)
 - Link to All NESHAPs
 - Link to Area Source NESHAPs
- NESHAPs can apply to "Major Sources" or "Area Sources"

Major Sources

- >10 tons of single HAP
- >25 tons of combination of HAPs
- i.e., iron and steel foundries

Area Sources

- <10 tons of single HAP
- <25 tons of combination of HAPs
- i.e., auto body shops, gasoline stations, dry cleaners

Potential to Emit = Maximum amount of air contaminants that your source could emit if:

- Operate at 100% of design capacity;
- Operated 24hrs/day, 365 days/yr
- Worse-case materials used or processed 100% of the time
- No air pollution control equipment
- Potential to Emit website www.michigan.gov/air ("Clean Air Assistance" then "Potential to Emit")

Area Source NESHAPs

- The Clean Air Act (CAA) requires EPA to identify a list of at least 30 air toxics that pose the greatest potential health threat in urban areas.

HAPs that pose the greatest potential health threat in urban areas		
<ul style="list-style-type: none"> • acetaldehyde • acrolein • acrylonitrile • arsenic compounds* • benzene • beryllium compounds • 1,3-butadiene • cadmium compounds • carbon tetrachloride • chloroform • chromium compounds 	<ul style="list-style-type: none"> • coke oven emissions 1,2-dibromomethane • 1,2-dichloropropane (propylene dichloride) • 1,3-dichloropropene • ethylene dichloride (1,2-dichloroethane) • ethylene oxide • formaldehyde • hexachlorobenzene • hydrazine • lead compounds* • manganese compounds* 	<ul style="list-style-type: none"> • mercury compounds* • dichloromethane (methylene chloride) • nickel compounds* • polychlorinated biphenyls(PCBs) • polycyclic organic matter(POM)* • quinoline • 2,3,7,8-tetrachlorodibenzo-p-dioxin • 1,1,2,2-tetrachloroethane • tetrachloroethylene(perchloroethylene) • trichloroethylene • vinyl chloride

- The CAA also requires EPA to identify and list the area source categories that represent 90% of the emissions of the 30 urban air toxics associated with area sources and subject them to standards under the CAA (section 112(d)).
- EPA has identified 70 area source categories which represent 90% of the emissions of the 30 listed air toxics (see page 6 of handout)

EXAMPLES OF AREA SOURCE NESHAPs

NESHAP For Paint Stripping and Miscellaneous Surface Coating Operations [40 CFR 63, Subpart HHHHHH (NESHAP - 6Hs)]

- 5 Targeted HAPs - Cadmium, Chromium, Lead, Manganese, and Nickel
- Applicable to:
 - Paint stripping using methylene chloride
 - Surface coating of motor vehicles and mobile equipment (Auto Body Shops)
 - Surface coating of miscellaneous metal and plastic parts
- Requirements
 - Enclosures
 - Filters
 - Type of spray guns
 - Cleaning of spray guns
 - Training
 - Notifications
 - Recordkeeping
- The State is not taking delegation of this NESHAP. The enforcing agency is EPA and all forms need to be sent to EPA.
- More information – www.michigan.gov/air (click on “Clean Air Assistance” then scroll down to “Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources”)

NESHAP for Gasoline Dispensing Facilities [40 CFR 63, Subpart CCCCCC (NESHAP - 6Cs)]

- Targeted HAPs – Benzene, Ethylene Dichloride, as well as Ethyl benzene, hexane, toluene, xylenes, isooctane, naphthalene, cumene, methyl tert-butyl ether
- 36% of all benzene emissions nationally are from the loading of gasoline into storage tanks.

- Requirements
 - **All** gasoline dispensing facilities to follow simple best management practices including minimizing and cleaning up spills expeditiously; having gasketed seals on tanks and vent pipes; minimizing gas and water sent to open collection systems.
 - Gasoline stations with a monthly gas throughput of 10,000 to 100,000 gal are required to submerge fill gasoline into their storage tanks.
 - Gasoline stations with a monthly gas throughput of 100,000 or more gallons are required to install and utilize vapor balance equipment, also known as Stage I.
- Vapor balance
 - Equipment that reduces the amount of gasoline vapors released when the underground storage tanks are filled.
 - Consists of hoses and special fittings that direct the vapors being displaced from the tank being filled back into the tanker.
 - The drivers of the tanker trucks take the vapors to the terminal where they can be recovered as gasoline.
 - Without the properly installed vapor balance equipment, the vapors escape through a vent pipe and into the atmosphere.
- Compliance with the requirements should be met by January 10, 2011, and the notification of compliance status form needs to be mailed in by September 7, 2011.
- The State is not taking delegation of this NESHAP. The enforcing agency is EPA and all forms need to be sent to EPA.

NESHAP for Metal Fabrication and Finishing [40 CFR 63, Subpart XXXXXX (NESHAP – 6Xs)]

- Targeted HAPs include compounds of: Cadmium; Chromium; Lead; Manganese; Nickel
- Applies only to area sources, where primary activity is one of the following nine:
 1. Electrical & Electronic Equipment Finishing;
 2. Fabricated Metals Products;
 3. Fabricated Plate Work (Boiler Shops);
 4. Fabricated Structural Metal Manufacturing;
 5. Heating Equipment (except electric);
 6. Industrial Machinery & Equipment Finishing;
 7. Iron & Steel Forging;
 8. Primary Metal Products Manufacturing;
 9. Valves and Pipe Fittings
- Requirements (see fact sheet):
 - Dry abrasive blasting
 - Dry grinding and dry polishing with machines
 - Dry machining
 - Spray painting
 - Welding
- Rule only applies to operations that use or emit these metals.
- Processes using low HAP metals may not be regulated (refer to rule for low HAP levels)

NESHAP for Reciprocating Internal Combustion Engines [40 CFR 63, Subpart ZZZZ (NESHAP - 4Zs)]

- A.K.A. RICE MACT
- Targeted HAPs – Formaldehyde, Acetaldehyde, Acrolein, Methanol

- The 4Zs NESHAP affects both major and area sources (e.g., emergency generators, generators, and compressors at various industries and institutions)
- Originally promulgated on June 15, 2004. However there have been amendments – with the most recent ones proposed on March 5, 2009. The deadline to finalize the amendment is August 10, 2010.
- Requirements vary based on the engine size, the construction date, and where it is located – at a major source or an area source location.

NESHAP for Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks [40 CFR 63, Subpart N(Chrome NESHAP)]

- Applicability
 - Facilities that use chromium electroplating tanks, regardless of size.
 - Requirements depend upon the size of the operation and the type of process (hard, decorative, or anodizing).
- Requirements - Emission limits, Work practice standards, Performance testing, Monitoring, Recordkeeping, and Reporting
- www.michigan.gov/air (“Clean Air Assistance” scroll down to “Chromium Electroplaters”)
 - Guidance Documents
 - Recordkeeping Forms
 - Reporting Forms

NESHAP for Asbestos [40 CFR 61, Subpart M]

- Who Regulates? - DNRE, Asbestos Program and MIOSHA
- Requirements
 - Conduct thorough asbestos inspection for all renovations and all demolitions.
 - Work practice standards, training, disposal
- Notification of Intent to Renovate/Demolish Form
- DNRE, Asbestos Program
 - Receive and review notifications.
 - Conduct inspections of asbestos removal projects and demolition projects to determine compliance with the NESHAP regulations.
 - www.michigan.gov/air (click on “compliance” then “asbestos NESHAP”)

NESHAP for Dry Cleaners [40 CFR 63, Subpart M]

- Targeted HAP – Perchloroethylene (perc)
- All perc dry cleaner subject
- Requirements - Control equipment, Maintenance, Recordkeeping, Work practice standards
- DNRE, Dry Cleaning Program - www.michigan.gov/air (click on “compliance” then “Dry Cleaning Program”)

Other NESHAPs

- Area Source NESHAPs
 - Iron and Steel Foundries
 - Electric Arc Furnace Steelmaking Facilities
 - Paints and Allied Products Manufacturing
 - Ethylene Oxide Sterilizers
- Future NESHAPs - 12/16/2010
 - Boilers – Industrial & Institutional/Commercial
 - Sewage Sludge Incineration

Does a NESHAP Apply to You?

1. Review list of Source Categories subject to NESHAP www.epa.gov/ttn/atw/eparules.html
2. Determine if NESHAP applies to area sources or major sources
 - Area sources = everyone
 - Major sources = determine if you are a major HAP source
3. Review applicability requirements

Basic NESHAP Information to Know:

- Who is subject
- When you are subject
- What you need to do
 - Initial notification
 - Notification of compliance
 - Recordkeeping and reporting
 - Work practice standards
 - Control equipment

Enforcement

- Federal (EPA)
- State (DNRE, Air Quality Division)
- Local

Requirements incorporated into your permit...eventually.

- PTI – incorporation depends
- ROP – incorporation upon renewal
- Still subject to requirements regardless of whether in permit or not.

Why Comply?

- Healthier work environment
- Reduce raw material purchases
- Reduce waste disposal
- Improved quality of product
- Keep your property clean which reduces liabilities and risk
- Reduce complaints
- Reduce fear of inspections

Questions?

Contact: Environmental Assistance Program - 800-662-9278

Go to www.michigan.gov/air (click on “Clean Air Assistance” then scroll down to “Federal Regulations”)

Areas Source NESHAPs

EPA has identified a total of 70 area source categories which represent 90 percent of the emissions of the 30 listed air toxics. Of these 70 area source categories, 28 had been regulated by June 2007 and the remaining area source standards are under development.

List of 70 Area Source Categories

- | | |
|--|--|
| <input type="checkbox"/> Acrylic and Modacrylic Fibers Production | <input type="checkbox"/> Hospital Sterilizers |
| <input type="checkbox"/> Ag Chemicals & Pesticides Manufacturing | <input type="checkbox"/> Industrial Boilers |
| <input type="checkbox"/> Aluminum Foundries | <input type="checkbox"/> Industrial Inorganic Chemical Manufacturing |
| <input type="checkbox"/> Asphalt Processing & Asphalt Roofing Manufacturing | <input type="checkbox"/> Industrial Organic Chemical Manufacturing |
| <input type="checkbox"/> Auto body Refinishing | <input type="checkbox"/> Inorganic Pigments Manufacturing |
| <input type="checkbox"/> Brick & Structural Clay | <input type="checkbox"/> Institutional/Commercial Boilers |
| <input type="checkbox"/> Carbon Black Production | <input type="checkbox"/> Iron Foundries |
| <input type="checkbox"/> Chemical Manufacturing: Chromium Compounds | <input type="checkbox"/> Lead Acid Battery Manufacturing |
| <input type="checkbox"/> Chemical Preparations | <input type="checkbox"/> Medical Waste Incinerators |
| <input type="checkbox"/> Chromic Acid Anodizing | <input type="checkbox"/> Mercury Cell Chlor-Alkali Plants |
| <input type="checkbox"/> Clay Ceramics | <input type="checkbox"/> Miscellaneous Coatings |
| <input type="checkbox"/> Commercial Sterilization Facilities | <input type="checkbox"/> Misc. Organic Chemical Manufacturing (MON) |
| <input type="checkbox"/> Copper Foundries | <input type="checkbox"/> Municipal Landfills |
| <input type="checkbox"/> Cyclic Crude & Intermediate Production | <input type="checkbox"/> Municipal Waste Combustors |
| <input type="checkbox"/> Decorative Chromium Electroplating | <input type="checkbox"/> Nonferrous Foundries |
| <input type="checkbox"/> Dry Cleaning Facilities | <input type="checkbox"/> Oil and Natural Gas Production |
| <input type="checkbox"/> Fabricated Metal Products, Electrical and Electronic Equipment - Finishing Operations | <input type="checkbox"/> Other Solid Waste Incineration |
| <input type="checkbox"/> Fabricated Metal Products, Fabricated Metal Products, not elsewhere classified | <input type="checkbox"/> Paint Stripping |
| <input type="checkbox"/> Fabricated Metal Products, Fabricated Plate Work (Boiler Shops) | <input type="checkbox"/> Paints & Allied Products Manufacturing |
| <input type="checkbox"/> Fabricated Metal Products, Fabricated Structural Metal Manufacturing | <input type="checkbox"/> Pharmaceutical Production |
| <input type="checkbox"/> Fabricated Metal Products, Heating Equipment, Except Electric | <input type="checkbox"/> Plastic Materials and Resins Manufacturing |
| <input type="checkbox"/> Fabricated Metal Products, Industrial Machinery and Equipment - Finishing Operations | <input type="checkbox"/> Plating & Polishing |
| <input type="checkbox"/> Fabricated Metal Products, Iron and Steel Forging | <input type="checkbox"/> Polyvinyl Chloride and Copolymers Production |
| <input type="checkbox"/> Fabricated Metal Products, Primary Metal Products Manufacturing | <input type="checkbox"/> Portland Cement Manufacturing |
| <input type="checkbox"/> Fabricated Metal Products, Valves and Pipe Fittings | <input type="checkbox"/> Prepared Feeds Manufacturing |
| <input type="checkbox"/> Ferroalloys Production: Ferromanganese & Silicomanganese | <input type="checkbox"/> Pressed & Blown Glass & Glassware Manufacturing |
| <input type="checkbox"/> Flexible Polyurethane Foam Production | <input type="checkbox"/> Primary Copper Smelting |
| <input type="checkbox"/> Flexible Polyurethane Foam Fabrication | <input type="checkbox"/> Primary Nonferrous Metals-- Zinc, Cadmium, and Beryllium |
| <input type="checkbox"/> Gasoline Distribution Stage I | <input type="checkbox"/> Publicly Owned Treatment Works |
| <input type="checkbox"/> Halogenated Solvent Cleaners | <input type="checkbox"/> Secondary Copper Smelting |
| <input type="checkbox"/> Hard Chromium Electroplating | <input type="checkbox"/> Secondary Lead Smelting |
| <input type="checkbox"/> Hazardous Waste Incineration | <input type="checkbox"/> Secondary Nonferrous Metals |
| | <input type="checkbox"/> Sewage Sludge Incineration |
| | <input type="checkbox"/> Stainless & Non-stainless Steel Manufacturing: Electric Arc |
| | <input type="checkbox"/> Furnaces (EAF) |
| | <input type="checkbox"/> Stationary Internal Combustion Engines |
| | <input type="checkbox"/> Steel Foundries |
| | <input type="checkbox"/> Synthetic Rubber Manufacturing |
| | <input type="checkbox"/> Wood Preserving |