

Part 3: Major or Minor Source

Once you have calculated your facility's potential to emit (PTE) you can determine whether you are a "major" or "minor" source of air pollution. This distinction is important because major sources are subject to more regulations than minor sources. Compare your facility's PTE to the thresholds listed in Table 3-1 below:

Table 3-1: Major Source Thresholds

Type of Pollutant	Title V Major Source tons/year	NESHAP Major Source tons/year	PSD Major ^{1,2} tons/year	Major Non-attainment ³ tons/year	
Particulate Matter (PM)			100/250		
Particulate Matter ≤ 10 microns in diameter (PM10)	100		100/250	Moderate	100
				Serious	70
Particulate Matter ≤ 2.5 microns in diameter (PM2.5)	100		100/250		
Volatile Organic Compounds (VOCs)	100		100/250	Marginal	100
				Moderate	100
				Serious	50
				Severe	25
				Extreme	10
Carbon Monoxide (CO)	100		100/250	Moderate	100
				Serious	50
Nitrogen Oxides (NOx)	100		100/250	Marginal	100
				Moderate	100
				Serious	50
				Severe	25
				Extreme	10
Sulfur Dioxide (SO ₂)	100		100/250	100	
Lead (Pb)*	100		100/250	100	
Hazardous Air Pollutants (HAPs) <ul style="list-style-type: none"> Any single HAP Any combination of HAPs 		10 25 *Lead compounds are HAPs			
Greenhouse Gases (GHG)	100,000 on a CO ₂ e basis, and 100 GHGs mass basis		100,000 on a CO ₂ e basis		
Any other regulated air contaminant	100				

¹100 tpy for 28 specific categories (see Table 2-1), 250 tpy for all other source categories. Requirements associated with PSD Major sources will not be discussed in detail in this workbook. Call the Office of Environmental Assistance for further help with these source categories.

² A PSD permit is required before a "major" new source constructs, or before changes or modifications that are "major" or "significant" are made at an existing "major" source of air pollution. PSD sources are large sources of air contaminants.

³ Lower major source thresholds for non-attainment areas only apply to the pollutant for which an area is in non-attainment.

If your facility's PTE is below all the emission thresholds in Table 3-1, you may be considered to be a true minor source not subject to the Renewable Operating Permit Program or any of the other major source requirements. You should keep records showing your calculations and all assumptions.



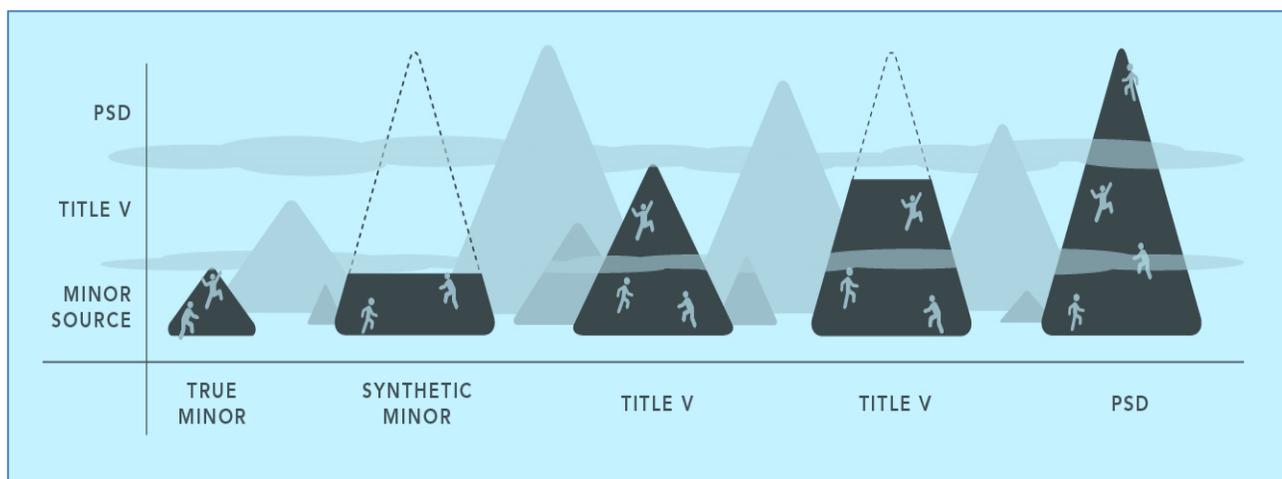
Be sure to recalculate your PTE whenever new processes are added or changes are made that may increase your PTE

If your facility's PTE exceeds any of the thresholds in Table 3-1, you are considered a major source. If you feel you have determined that you are a major PSD or major source non-attainment, call the Office of Environmental Assistance, 800-662-9278 for further guidance.

If you are a Title V Major source or a NESHAP Major source, you have two options:

1. Comply with the major source requirements discussed on the following page.
- or**
2. Limit your PTE using one of the mechanisms described in Part 4 to avoid being a major source. Smaller companies that have actual emissions well below the major source thresholds should consider this option.

Small Business, Inc.'s PTE calculations in Part 2 of this workbook indicate that the major source threshold for VOC, individual HAPs (Xylene and Toluene), and total HAPs (see pages 2-32 and 2-33) have been exceeded. However, **Small Business Inc.**'s actual emissions are well below any of the major source thresholds. It would be a good idea for this company to limit PTE rather than apply for a Renewable Operating Permit and become subject to other major source requirements, such as National Emission Standards for Hazardous Air Pollutants (NESHAPs). Part 4 discusses how **Small Business Inc.** will limit their PTE.



MAJOR SOURCE REQUIREMENTS

If your facility is considered a Title V Major source, you may be subject of the following requirements.

Renewable Operating Permit (ROP) Program

All major sources of air pollution are subject to the ROP Program. You must apply for an ROP within 12 months of becoming a major source under Title V. To apply for an ROP you will need to complete an ROP application packet.

The ROP must be renewed every five years. In addition, sources subject to the ROP Program must submit annual and semi-annual certification reports indicating that the facility is complying with each permit condition of the ROP.

You can find more information about the ROP Program on the Internet at www.michigan.gov/air (select "Permits" then "Renewable Operating Permit Program") or by contacting the Clean Air Assistance Program at (800) 662-9278.

MAERS Reporting

All major sources under Title V and sources that opt-out of the ROP Program are subject to the Michigan Air Emissions Reporting System (MAERS). Under this system, major sources must submit a MAERS report to the AQD annually. Subject facilities will receive a MAERS notification every January that will outline their reporting requirements. Additional information about MAERS can be found on the Internet at www.michigan.gov/air (select "Emissions").

Annual Air Emissions Fees

Major sources are subject to annual emissions fees. The fee amount is assessed based upon the emissions reported in MAERS. A fee invoice is mailed to the subject facility in January and the payment is due within 90 days. More information about annual air emissions fees can be found on the Internet at www.michigan.gov/air (select "Emissions" then "Annual Emission Fees").

National Emission Standards for Hazardous Air Pollutants NESHAPs (also known as MACT Standards)

Certain industrial categories that exceed the major source thresholds for HAPs may be subject to a federal NESHAP. The NESHAP will usually be incorporated into a ROP. A listing of the source categories that may be subject to a NESHAP are provided in Table 3-2. You can learn more about specific NESHAPs on the internet at www.epa.gov/ttn/atw/mactfnlalp.html.

Table 3-2: NESHAP - Source Categories Affected

<ul style="list-style-type: none"> • Aerospace • Acrylic/Modacrylic Fiber(area sources) • Asbestos • Asphalt Processing and • Asphalt Roofing Manufacturing • Auto & Light Duty Truck • (surface coating) • Auto Body Refinishing (area sources) • Benzene Waste Operations • Boat Manufacturing • Brick and Structural Clay Products Manufacturing • Clay Ceramics Manufacturing • Carbon Black Production (area sources) • Cellulose Products Manufacturing Miscellaneous Viscose Processes <ul style="list-style-type: none"> • Cellulose Food Casing • Rayon • Cellulosic Sponge • Cellophane Cellulose Ethers Production <ul style="list-style-type: none"> • Caroxymethyl Cellulose • Methyl Cellulose • Cellulose Ethers • Chemical Manufacturing Industry (area sources):CMAS • Chemical Preparations Industry (area sources) • Chromium Electroplating <ul style="list-style-type: none"> • Chromic Acid Anodizing • Decorative Chromium Electroplating • Hard Chromium Electroplating • Chromium Compounds (area sources) • Clay Ceramics Manufacturing (area sources) • Coke Ovens: Pushing, Quenching,& Battery Stacks • Coke Ovens (Charging, Top Side, and Door Leaks) • Combustion Sources at Kraft, Soda,and Sulfite Pulp & Paper Mills (Pulp and Paper MACT II) • Commercial Sterilizers <ul style="list-style-type: none"> • Commercial Sterilization Facilities • Degreasing Organic Cleaners <ul style="list-style-type: none"> • Halogenated Solvent Cleaners • Dry Cleaning <ul style="list-style-type: none"> • Commercial drycleaning dry-to-dry • Commercial drycleaning transfer machines • Industrial drycleaning dry-to-dry • Industrial drycleaning transfer machines • Electric Arc Furnace Steelmaking Facilities(Area Sources) • Engine Test Cells/Stand (Combined with Rocket Testing Facilities) • Fabric Printing, Coating & Dyeing • Ferroalloys Production (Major Sources) 	<ul style="list-style-type: none"> • Misc. Organic Chemical Production and Processes (MON) cont. <ul style="list-style-type: none"> • Chlorinated Paraffins Production • Ethyllidene Norbomene Production • Explosives Production • Hydrazine Production • Maleic Anhydride Copolymers Production • Manufacture of Paints, Coatings, & Adhesives • OBPA/1, 3-diisocyanate Production • Photographic Chemicals Production • Phthalate Plasticizers Production • Polyester Resins Production • Polymerized Vinylidene Chloride Prod. • Polymethyl Methacrylate Resins Prod. • Polyvinyl Acetate Emulsions Prod. • Polyvinyl Alcohol Production • Polyvinyl Butyral Production • Quaternary Ammonium Comp. Prod. • Rubber Chemicals Production • Symmetrical Tetrachloropyridine Production • Municipal Solid Waste Landfills • Natural Gas Transmission and Storage • Nonferrous Foundries: Aluminum, Copper, and Other (area sources) • Off-Site Waste Recovery Operations • Oil & Natural Gas Production includes Area Sources • Organic Liquids Distribution (non-gasoline) • Paint Stripping and Miscellaneous Surface Coating Operations - (Area Sources) • Paper and Other Web (surface coating) • Pesticide Active Ingredient Production <ul style="list-style-type: none"> • 4-Chloror-2-Methyl Acid Production • 2,4 Salts & Esters Production • 4,6-dinitro-o-cresol Production • Butadiene Furfural Cotrimer • Captafol Production • Captan Production • Chloroneb Production • Chlorothalonil Production • Dacthal (tm) production • Sodium Pentachlorophenate Production • Tordon (tm) Acid Production • Petroleum Refineries <ul style="list-style-type: none"> • Catalytic Cracking • Catalytic Reforming • Sulfur Plant Units • Associated Bypass Lines • Pharmaceuticals Production • Phosphoric Acid • Phosphate Fertilizers • Plastic Parts (surface coating)
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Table 3-2: NESHAP - Source Categories Affected (continued)

<ul style="list-style-type: none"> • Ferroalloys Production (Area Sources) • Flexible Polyurethane Foam Fabrication Operation • Flexible Polyurethane Foam Production and Fabrication (area sources) • Flexible Polyurethane Foam Production • Friction Products Manufacturing • Gasoline Dispensing Facilities (Area Sources) • Gasoline Distribution (Stage 1) • Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities (Area Sources) • Generic MACT I-Acetal Resins • Generic MACT I-Hydrogen Fluoride • Generic MACT I-Polycarbonates Production • Generic MACT I-Acrylic/Modacrylic Fibers • Generic MACT II-Spandex Production • Generic MACT II-Carbon Black Production • Generic MACT II-Ethylene Processes • Glass Manufacturing (area sources) • Glass Manufacturing Plants -Inorganic Arsenic Emissions • Gold Mine Ore Processing and Production (area sources) • Hazardous Waste Combustion <ul style="list-style-type: none"> • Hazardous Waste Incinerators (A) • Hazardous Waste Incinerators (M) • Hazardous Organic NESHAP (Synthetic Organic Chemical Manufacturing Industry) • Hospitals: Ethylene Oxide Sterilizers (area sources) • Hydrochloric Acid Production • Fumed Silica Production • Industrial, Commercial and Institutional Boilers and Process Heaters - Major Sources • Industrial, Commercial and Institutional -Boilers - Area Sources • Industrial Cooling Towers • Integrated Iron and Steel • Iron and Steel Foundries (Major Sources) • Iron and Steel Foundries (area sources) • Large Appliances (surface coating) • Lead Acid Battery Mfg.(area sources) • Leather Finishing Operations • Lime Manufacturing • Magnetic Tape (surface coating) • Manufacturing Nutritional Yeast (formerly Bakers Yeast) • Marine Vessel Loading Operations • Mercury Cell Chlor-Alkali Plants • Metal Can (surface coating) • Metal Coil (surface coating) • Metal Fabrication and Finishing • Source Nine Categories(area sources) 	<ul style="list-style-type: none"> • Plating and Polishing Operations (area sources) • Plywood and Composite Wood Products (formerly Plywood and Particle Board Manufacturing) • Polyether Polyols Production • Polymers & Resins I <ul style="list-style-type: none"> • Butyl Rubber • Epichlorohydrin Elastomers • Ethylene Propylene Rubber • Hypalon (TM) Production • Neoprene Production • Nitrile Butadiene Rubber • Polybutadiene Rubber • Polysulfide Rubber • Styrene-Butadiene Rubber & Latex • Polymers & Resins II <ul style="list-style-type: none"> • Epoxy Resins Production • Non-Nylon Polyamides Production • Polymers & Resins III <ul style="list-style-type: none"> • Amino Resins • Phenolic Resins • Polymers & Resins IV <ul style="list-style-type: none"> • Acrylonitrile-Butadiene-Styrene • Methyl Methacrylate-Acrylonitrile+ • Methyl Methacrylate-Butadiene++ • Polymers & Resins IV (cont.) <ul style="list-style-type: none"> • Polystyrene • Styrene Acrylonitrile • Polyethylene Terephthalate • Nitrile Resins • Polyvinyl Chloride and Copolymers Production • Polyvinyl Chloride and Copolymers Production (area sources) • Portland Cement Manufacturing • Primary Aluminum • Primary Copper • Primary Copper Smelting (area sources) • Primary Lead Smelting • Primary Magnesium Refining • Primary Nonferrous Metals-Zinc, Cadmium, and Beryllium (area sources) • Printing and Publishing (surface coating) • Publicly Owned Treatment Works (POTW) • Pulp & Paper (non-combust)MACT • Reciprocating Internal Combustion Engines (RICE) includes area sources • Refractory Products Manufacturing • Reinforced Plastic Composites Production • Rubber Tire Manufacturing • Secondary Aluminum • Secondary Copper Smelting (area sources) • Secondary Lead Smelters • Secondary Nonferrous Metals Processing
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Table 3-2: NESHAP - Source Categories Affected (continued)

<ul style="list-style-type: none"> • Metal Furniture (surface coating) • Mineral Wool Production • Misc. Coating Manufacturing • Misc. Metal Parts and Products (surface coating) <ul style="list-style-type: none"> • Asphalt/Coal Tar Application to Metal Pipes • Misc. Organic Chemical Production and Processes (MON) <ul style="list-style-type: none"> • Alkyd Resins Production • Ammonium Sulfate Production • Benzyltrimethylammonium Chloride Prod. • Carbonyl Sulfide Production • Chelating Agents Production 	<p>(Brass, Bronze, Magnesium and Zinc)(Area Sources)</p> <ul style="list-style-type: none"> • Semiconductor Manufacturing • Shipbuilding & Ship Repair (surface coating) • Site Remediation • Solvent Extraction for Vegetable Oil Production • Stationary Combustion Turbines • Steel Pickling-HCL Process • Taconite Iron Ore Processing • Tetrahydrobenzaldehyde Manufacture (Formerly Butadiene Dimers Production) • Utility NESHAP • Wet Formed Fiberglass Mat Production • Wood Building Products (surface coating) • Wood Furniture(surface coating) • Wood Preserving (area sources) • Wool Fiberglass Manufacturing
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