

## Air Pollution Control

Air pollution sources in Missouri are regulated by the Missouri Department of Natural Resources, Division of Environmental Quality, Air Pollution Control Program, and the U.S. Environmental Protection Agency (EPA). These agencies administer programs created by the federal Clean Air Act (CAA), Clean Air Act Amendments (CAAA), and Missouri Air Conservation Law.

The department's Air Pollution Control Program (APCP) administers the federal program and enforces state-only regulations and operates under the authority of the Missouri Air Conservation Law found in Chapter 643 (RSMo). The portion of the Code of State Regulations (CSR) that governs and outlines the Program's responsibilities is recorded in 10 CSR 10. There are three local government agencies that also implement their authority to regulate air emissions under portions of state and federal air law: Kansas City, Springfield and St. Louis County.

CAA requirements administered by the APCP include (but are not limited to):

*National Ambient Air Quality Standards (NAAQS):* Health-based standards that apply to six criteria pollutants: carbon monoxide, lead, nitrogen oxides, ozone (measured as volatile organic compounds), particulates, and sulfur oxides.

*National Emission Standards for Hazardous Air Pollutants (NESHAP) and Maximum Achievable Control Technology (MACT) standards:* Health-based standards that apply to hazardous air pollutants including, but not limited to, asbestos, benzene, beryllium, inorganic arsenic, mercury, radionuclides, and vinyl chloride.

*New Source Performance Standards (NSPS):* Technology-based minimum standards that limit emissions of regulated pollutants from newly built facilities and some existing facilities that undergo modification.

Regulations that phased-out of stratospheric ozone depleting chemicals: CFC, halons, carbon tetrachloride, methyl chloroform and hydrofluorocarbons.

Urban smog decreases by reducing emissions from small businesses as well as large factories and vehicles.

## Notifications

The APCP regulates asbestos abatement and demolition projects through the review of **Asbestos Project Notifications** and **Asbestos NESHAP Notification of Demolition and Renovation notifications** as required under state and federal asbestos regulations. An asbestos abatement project is an activity undertaken to encapsulate, enclose or remove 160 square feet or 260 linear feet or more of regulated asbestos- containing material from buildings and other air contaminant sources, or to demolish regulated buildings and other air contaminant sources.

Friable asbestos containing material is any material that contains more than one percent asbestos which is applied to ceilings, walls, structural members, piping, ductwork or any other part of a building or facility and that, when dry, may be crumbled, pulverized or reduced to powder by hand pressure. Nonfriable asbestos-containing materials may be rendered friable by certain activities and are, therefore regulated in certain circumstances. Please contact the APCP regarding any questions concerning the applicability of state and federal asbestos regulations.

Any regulated asbestos project must be performed by a contractor registered with the APCP utilizing individuals that have been certified by the APCP. Contact the APCP regarding any questions concerning asbestos.

## **Permits**

**Construction Permits also called New Source Review (NSR) Permits**, are issued by the APCP. Construction permits allow an installation to construct and operate an air emission source and are required prior to commencing construction of an air emission source. All new installations built after May 13, 1982 with the potential to emit (PTE) a regulated air pollutant in an amount equal to or greater than the de minimis (threshold) level are required to obtain a construction permit. Construction permits are also required for existing installations when the construction or modification has the potential to emit a regulated air contaminant at or above the insignificance levels. No construction permit is required if potential emissions of the entire installation are less than regulatory de minimis levels or potential emissions of the proposed project are below the insignificance levels. All incinerators must have a construction permit, regardless of emission levels. In addition, there are specific exemptions to the requirement of a construction permit.

These exemptions are detailed in 10 CSR 10-6.061, *Construction Permit Exemptions*. The regulated air pollutants, the de minimis emissions levels and insignificance levels are listed in Table 1 and Table 2 of this document.

**Table 1**  
**De minimis emission levels**  
**Table 1 of 10 CSR 10-6.020(3)(A)**

AIR CONTAMINANT	EMISSION RATE (tons per year)
Carbon monoxide (CO)	100.0
Nitrogen dioxide (NO <sub>2</sub> )	40.0
Particulate Matter (PM)	25.0
Particulate Matter – 10 micron (PM <sub>10</sub> )	15.0
Sulfur dioxide (SO <sub>2</sub> )	40.0
Ozone (to be measured as Volatile Organic Compounds, VOC)	40.0
Lead	0.6
Mercury	0.1
Beryllium	0.0004
Asbestos	0.007
Fluorides	3.0
Sulfur acid mist	7.0
Vinyl chloride	1.0
Hydrogen sulfide	10.0
Total reduced sulfur (including hydrogen sulfide)	10.0
Reduced Sulfur Compounds (including hydrogen sulfide)	10.0
Municipal waste combustor organics -- (measured as total tetra- through octa-chlorinated dibenzoturans and dibenzofurans)	$3.5 \times 10^{-6}$
Municipal Waste Combustor Metals -- (measured as particulate matter)	15.0
Municipal Waste Combustor Acid Gases -- (measured as sulfur dioxide and hydrogen chloride)	40.0
Municipal solid waste landfill emissions -- (measured as nonmethane organic compounds)	50.0
Hazardous Air Pollutant (each)	10.0
Sum of Hazardous Air Pollutants	25.0

**Table 2  
Emission levels of common air pollutants**

Pollutant	Insignificant Levels (lbs/hour)	Regulatory De Minimis Levels (tons per year)	Major Source Thresholds – Operating Permits/ NSR named sources (tons per year)	Major Source Thresholds – NSR Non-named sources (tons per year)
PM <sub>10</sub>	1.0	15	100	250
SO <sub>x</sub>	2.75	40	100	250
NO <sub>x</sub>	2.75	40	100	250
VOC	2.75	40	100	250
CO	6.88	100	100	250
HAPs	0.5 (Note 1)	10/25	10/25	10/25

Note 1: or the hazardous emission threshold as established in subsection (12)(J) of 10 CSR 10-6.060, whichever is less.

The PTE of a proposed project is calculated based on the maximum design capacity of the equipment, assuming continuous operation (24 hours a day, 365 days per year). In the construction permit application, the installation may request an emission limit. This limit, if accepted by the APCP would become part of the constraints in the construction permit. The proposed limit could change the type of construction permit issued and the operating permit status of the installation. Operating permits are discussed in the next section.

After determining if a permit is required, the installation must submit an Application for Authority to Construct to the APCP, in duplicate, with a filing fee of \$100. In addition, the applicant is charged \$50 per hour for engineering review time. Upon permit issuance, installations are required to begin the construction/modification within eighteen months for major sources and within two years for all other sources. When an addition or modification is planned for an existing installation, the application forms are completed only for the added or modified equipment or process. The APCP's review of the permit applications may take up to 90 or 180 days to complete depending on the type of construction permit requested.

A **De Minimis New Source Review Permit** is issued for a major or minor installation when the modification by itself has the potential to produce emissions below the de minimis level for each regulated air contaminant. A project with potential emissions above de minimis levels may request voluntary limits to de minimis levels to qualify for a de minimis permit.

A **Minor New Source Review Permit** is required for an installation or process, such that the construction or modification has the potential to emit at or greater than the de minimis level of a regulated air contaminant but less than the major level

A **Major Source New Source Review Permit**, also known as a **Prevention of Significant Deterioration (PSD) Permit**, is required for any installation or process, when the construction or the modification has the PTE more than the major emission level of a regulated air contaminant. These requirements are found in 10 CSR 10-6.060 (8). Major emission levels

vary between 100 and 250 tons per year depending on local compliance with ambient air quality standards and whether the facility is a Named Installation. See Table 1 and Table 2 for emissions levels for common air pollutants.

Named Installations refers to a list of source categories that can be found at, 10 CSR 10-6.020(3)(B) and Table 3 below. This list, used in the construction and operating permit rules, identifies types of sources of air pollution that must include fugitive emissions when calculating whether or not they are subject to the rule or section. For example, fugitive emissions must be included in the calculation of a Portland Cement Plant when deciding whether the potential to emit exceeds the 100 tons per year threshold (section (8) of the construction permit rule, PSD). However, stone quarry plants (not on the list) do not have to include fugitive emissions when comparing the PTE to 250 tons per year.

**Table 3**  
**List of named installations**

1. Coal cleaning plants (with thermal dryers)
2. Kraft pulp mills
3. Portland cement plants
4. Primary zinc smelters
5. Iron and steel mills
6. Primary aluminum ore reduction plants
7. Primary copper smelters
8. Municipal incinerators capable of charging more than 250 tons of refuse per day
9. Hydrofluoric, sulfuric or nitric acid plants
10. Petroleum refineries
11. Lime plants
12. Phosphate rock processing plants
13. Coke oven batteries
14. Sulfur recovery plants
15. Carbon black plants (furnace process)
16. Primary lead smelters
17. Fuel conversion plants
18. Sintering plants
19. Secondary metal production plants
20. Chemical process plants
21. Fossil-fuel boilers (or combination thereof) totaling more than 250 million British thermal units per hour heat input
22. Petroleum storage and transfer facilities with a capacity exceeding three hundred thousand (300,000) barrels
23. Taconite ore processing facilities
24. Glass fiber processing plants
25. Charcoal production facilities
26. Fossil-fuel-fired steam electric plants of more than 250 million British thermal units per hour heat
27. All other stationary source categories regulated by a standard promulgated under Section 111, Standards of Performance for New Stationary Sources or Section 112, MACT of the CAAAs.

In nonattainment areas, major sources are subject to **Nonattainment Major New Source Review Permit** regulations. These requirements are found in 10 CSR 10-6.060 (7). If the potential to emit of the nonattainment pollutant is greater than de minimis, a Nonattainment permit is required.

In Missouri there are two areas designated as nonattainment due to violations of NAAQs. A nonattainment area for ozone and particulate matter less than microns (PM<sub>2.5</sub>) consists of Franklin, Jefferson, St. Charles and St. Louis Counties, and the City of St. Louis. The nonattainment area for lead includes Herculaneum in Jefferson County.

**Operating Permits** are issued by the APCP in accordance with Title V of the 1990 CAAAs. The federal regulation enabling Title V is found in 40 CFR 70 and thus operating permits are frequently referred to as Title V permits. All sources with the PTE any regulated air pollutant above *de minimis* levels, including “grandfathered” sources not required to have a construction permit, must obtain an operating permit. The intent of the program is to insure that sources comply with all applicable state and federal regulations. There are three classes of operating permits: Part 70 (Major), Intermediate (also called Synthetic Minor) and Basic State.

A **Part 70 Operating Permit** is required for installations with potential emissions exceeding 100 tons per year of any criteria pollutant, 10 tons per year of any single hazardous air pollutant (HAP) or 25 tons per year of combined HAPs, or if the EPA Administrator requires a Part 70 permit as a part of a federal rule making. These emissions levels are calculated after control devices and are called the major source threshold.

An **Intermediate (or Synthetic Minor) Operating Permit** may be obtained by installations whose PTE is above the major source threshold, but request a voluntary limit on operations to keep emissions below the major source threshold. Conditions could include absolute emissions limits, record keeping of operating hours limits, or production limits. Before applying for intermediate status, businesses should carefully consider whether voluntary conditions to limit emissions would be an undue handicap on operations.

A **Basic State Operating Permit** is required if the PTE is between de minimis and major levels. All incinerators must obtain an operating permit, regardless of the level of emissions.

The completed application is submitted with a \$100 fee to the APCP or if the business is located in one of the local jurisdictions such as Kansas City or St. Louis, to that local agency. No review time is charged. Part 70 applications are overviewed by the EPA regional office and require public notice. A public hearing may be requested for cause by any interested party. A hearing does not have to be held, if in the judgment of the APCP it is not required. Intermediate applications require public notice, and interested parties may comment or request a hearing.

Several source categories have the option of applying for a **Permit by Rule** rather than a de minimis or minor New Source Review permit. The permit by rule application contains conditions of operation. Once the installation accepts these conditions and submits the applicable application, the department reviews and issues the permit by rule within seven days of receipt of the notification/application. At the time of publication, permit by rule was available for the following source categories: printing operations, crematories and animal incinerators, surface coating and livestock markets.

Portable equipment having the potential to emit any regulated air pollutant greater than de minimis levels must obtain a construction permit. This permit will be a De Minimis or Minor New Source Review Permit depending on the level of emissions. The equipment will be permitted for all sites included in the application, but the applicant must indicate the original location for the plant. When the owner or operator wants to move the equipment, a **Portable Source Relocation Request** must be submitted to the APCP. For pre-approved sites (site previously permitted) the agency reviews these requests within seven days, for new sites these reviews take 21 days. Once a portable plant is relocated, the operations at the new site are limited to 24 months. If an owner desires to stay at a relocation site longer than the 24 months, they must submit a regular construction permit application for approval, which is subject to a 90-day review.

**Temporary Installations and Pilot Plants** with a PTE less than 100 tons per year may receive a permit upon written request to the APCP before construction begins. Permits are issued only when the attainment or maintenance of ambient air quality standards is not threatened.

Many of the required forms are available on-line under the heading *Air Pollution* at <http://www.dnr.mo.gov/forms/index.html>. For more information about the specific permits, *Environmental Permits and How to Obtain Them* may be helpful, and is also located online. To receive a paper copy of any air pollution control application forms, contact the APCP Permit Section at 573-526-3835.

## **Risk Management Program to prevent accidental releases**

Under 112(r) of the Federal CAAAs of 1990: Prevention of Accidental Releases, if you handle, manufacture, use, or store any of the 140 specified toxic and flammable substances above the threshold quantities in a process, you are required to develop and implement a **Risk Management Program**. The goal of the Risk Management Program is to prevent accidental releases of substances that can cause serious harm to the public and the environment. Your Risk Management Plan will help the Local Emergency Planning Committee prepare for and respond to chemical accidents. It will also be useful to the public in understanding the chemical hazards in their community.

Covered facilities are required to submit a plan describing their efforts to prevent and minimize the consequences of accidental chemical releases. The accidental release regulation, found in Code of Federal Regulations 40 CFR 68, requires that covered facilities identify, assess, document, and minimize their chemical hazards by developing a risk management program and submitting a risk management plan to the EPA.

The phrase "risk management program" refers to all of the requirements of Part 68, which must be implemented on an on-going basis. The phrase "risk management plan" refers to the document summarizing the risk management program that you must submit to EPA.

In general, 40 CFR 68 requires that:

- Covered facilities must develop and implement a Risk Management Program and maintain documentation of the program at the site. The Risk Management Program will

include an analysis of the potential offsite consequences of an accidental release, a five-year accident history, a release prevention program, and an emergency response program.

- Covered facilities must develop and submit a Risk Management Program to EPA no later than the date on which the facility first has more than a threshold quantity. The risk management plan provides a summary of the Risk Management Program. The Risk Management Program will be available for federal, state and local government agencies and the public via the Internet.
- Covered facilities also must continue to implement the Risk Management Program and update their Risk Management Programs every five years or when covered processes change, when new covered processes are added, or within six months of when the offsite consequence analysis distances change by a factor of 2. For example, if the distance doubles or is cut in half.

### **Am I covered?**

The type and quantity of chemicals used will determine if your facility is affected. Some of the chemicals covered by this regulation include ammonia and chlorine. Your business will likely be required to comply with the risk management program if you use any of the 140 regulated substances in quantities that exceed certain thresholds. Even if you are a small business, you may be using common hazardous chemicals in quantities great enough to cause harm to the surrounding community if there were an accident. These regulations also apply to government facilities.

Some included chemicals and threshold quantities:

- Ammonia (anhydrous)-covered if you exceed 10,000 lbs.
- Chlorine-covered if you exceed 2500 lbs.

If you discover that you are subject to the Risk Management Program, you will then determine which "program level" you fit. EPA established three levels of requirements to reduce the regulatory burden for facilities with a low risk of offsite impacts in the event of a chemical accident. Program Level 1 has the fewest requirements, while Program Levels 2 and 3 require more work because their processes present a greater risk to the surrounding communities. For guidance when determining whether the chemicals you use are covered substances above the threshold quantities and to determine which level applies to you, contact the Air Pollution Control Program (APCP).

The availability of your risk management plan via the Internet is intended to stimulate communication between industry and the public to improve accident prevention and emergency response practices at the local level. This way, the people who live near your business, and the police and firefighters who protect them, will learn more about the hazards of the chemicals that you use and the steps that you are taking to prevent accidents.

The department is committed to implement the Risk Management Program in Missouri with a focus on compliance assistance. EPA will provide for enforcement activities in Missouri. The regulation requires that all plans be submitted electronically to EPA via computer diskette. Small businesses that are unable to comply with required electronic submission may be eligible for an electronic waiver whereby they can submit their Risk Management Program on paper.

## **Chemical safety, site security, and Fuels Regulatory Relief Act**

On August 5, 1999, President Clinton signed the **Chemical Safety Information, Site Security and Fuels Regulatory Relief Act** (Public Law 106-40). The new law primarily concerns the public availability of the Off-site Consequence Analysis (OCA) sections of risk management plans. The new law prohibits government officials from disclosing to the public the OCA sections of Risk Management Programs and other related materials until at least August 5, 2000. However, the law does not prohibit facilities from sharing with the public the OCA sections of their Risk Management Programs, and it requires most facilities to provide the public with at least a summary of their OCA information by Feb. 1, 2000.

If your facility was required to submit an Risk Management Program for a Program 2 or Program 3 process, you should have announced and held a public meeting by Feb. 1, 2000, to discuss your Risk Management Program, including the OCA sections. If you meet the applicable definition of "small business stationary source," you may opt to publicly post a summary of your OCA information.

In either case, you must certify to the Federal Bureau of Investigation (FBI) by June 5, 2000 that you have held the meeting or posted the summary. Facilities having only Program 1 processes are exempt from the public meeting/summary requirement. The certificate may be mailed to the following address:

Director, FBI  
Attention: RMP Program - Room 1B327  
935 Pennsylvania Ave. N.W.  
Washington, D.C. 20535-0001

The FBI will document receipt of the certifications and provide documentation to the EPA. No other communication should be included with certifications to the FBI.

The owner or operator of a facility may choose to share with the public the OCA sections of the facility's RMP. PL 106-40 provides that the OCA sections of any Risk Management Program made available to the public without restriction by the facility owner or operator is not subject to the restrictions of the law. Once a facility has released that portion of its Risk Management Program to the public, government officials may do so, as well. If your facility makes the OCA portion of your Risk Management Program available to the public without restriction, PL 106-40 requires you to notify EPA that you have done so. EPA must keep a public list of facilities that have released the OCA portion of their Risk Management Programs without restriction.

EPA has the authority to enforce the meeting, certification, and notification provisions of the law. Failing or refusing to comply with the above provisions may result in EPA initiating a judicial action in federal district Court to enforce the obligations under the new law.

This law created a new exemption for flammable fuels used as fuel or held for sale as fuel at a retail facility. A retail facility is defined as a facility "at which more than one-half of the income is obtained from direct sales to end users or at which more than one-half of the fuel sold by volume, is sold through a cylinder exchange program."

This exemption was added to the existing exemption for anhydrous ammonia when used as an agricultural nutrient by the end user.

**For more information:** Contact EPA's hotline at 800-424-9346 (during regular business hours) or the Chemical Emergency Preparedness and Prevention Office website: <http://www.epa.gov/ceppo>.