

► PROVIDING SOUND ADVICE TO HELP EMERGING BUSINESSES GROW IN IOWA

The Iowa Department of Economic Development (IDED) is committed to assisting economic developers as they advise businesses with new projects and expansions. IDED and the Iowa Department of Natural Resources (IDNR) have developed this fact sheet as a guide to help a business or project meet state and federal air quality regulations. For more information on any of the programs listed below, contact the IDED Regulatory Assistance Team at 800.245.4692.

Any facility that uses equipment which vents to outside air through a vent, stack or other opening will likely need a standard air construction permit issued by the state of Iowa. This permit is issued for each piece of equipment or emission point. A business should verify permit requirements before beginning operations.

In addition to a standard air permit, other air quality requirements established by the federal Environmental Protection Agency (EPA) may apply. The National Ambient Air Quality Standards (NAAQS), Major Source Operating Permit Program (Title V permit), National Emission Standards for Hazardous Air Pollutants (NESHAPs) and Prevention of Significant Deterioration (PSD) Air Construction Program are federally established standards and programs. Industry pays particular attention to these provisions because they can be complex, require significant expenditure for pollution control, and non-compliance may result in monetary penalty and adverse public relations. DNR implements these regulations under EPA oversight.



National Ambient Air Quality Standards (NAAQS)

NAAQS establishes health-based outdoor air contaminant standards for six pollutant types. Maximum allowable concentration levels for various periods of time are set for these “criteria pollutants:”

- Carbon monoxide (CO)
- Lead (Pb) and its compounds
- Nitrogen Dioxides (NO₂)
- Ozone (O₃)
- Particulate Matter (PM 10) (less than 10 microns in diameter)
- Sulfur Oxides (SO_x) or Sulfur Dioxide (SO₂)

IDNR may only issue air permits that do not cause or contribute to violations of NAAQ standards.

Major Source Operating Permit Program (Title V)

A business may also need an operating permit called a “Title V” permit. Title V refers to that part of the federal act which establishes this program, and is intended to ensure a facility operates in “continuous compliance” with applicable air quality requirements.

A Title V permit is required of a facility considered a “major” source. A facility can be considered a “major source” under the Title V programs if it meets any of these three criteria:

- emits more than 100 tons of any of the six criteria pollutants as defined under NAAQS,
- emits more than 10 tons of any one hazardous air pollutant,
- emits 25 tons of any combination of hazardous air pollutants.

Title V permit holders pay an annual fee to the state, which is set each year, and is based upon costs needed to administer the Title V program.



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National Emission Standards for Hazardous Air Pollutants (NESHAP)

NESHAPs regulate hazardous air pollutants (HAP), and are defined as a contaminant or compound that is very hazardous to human health or toxic to the environment under the federal Clean Air Act. EPA has established both health-based and industry-based standards for HAPs.

Health-based emission standards regulate these hazardous air pollutants:

- Inorganic arsenic,
- Asbestos,
- Benzene,
- Beryllium,
- Mercury,
- Vinyl chloride, and
- Volatile hazardous air pollutants,

In addition to health based standards, EPA also uses “maximum achievable control technology” (MACT) standards for 189 HAP industry-based activities. This means a business engaged in a process using a listed HAP may be required to use MACT for certain processes.

Prevention of Significant Deterioration (PSD)

PSD is a federally required air construction permit for a “major source.” Under the PSD program a major source is one that either emits 250 or more tons total pollutants per year or is one of 28 listed categories of business subject to a 100 tons per year threshold.

A facility must apply for a PSD permit if it meets any of these criteria, as well as hitting a significance threshold of tons per year (tpy) for any of these following specific pollutants:

- Asbestos - .007
- Beryllium - .0004
- Carbon Monoxide – 100
- Fluorides – 3
- Hydrogen Sulfide - 10
- Lead - .6
- Mercury - .1
- Nitrogen Oxides (NOX) - 40
- Ozone (measured as volatile organic compounds) - 40
- Particulate Matter (PM) – 25
- PM 10 – 15
- Sulfur compounds (H₂s) – 10
- Sulfur Dioxide (SO₂) – 40
- Sulfuric Acid Mist – 7
- Total Reduced Sulfur – 10
- Vinyl Chloride - 1

PSD is determined for each individual pollutants produced. This means a business may hit a PSD trigger for one type of pollutant, but not another. DNR makes a determination of the type of pollution control needed on a case by case basis.

This program requires that best available control technology (BACT) be used to control the PSD pollutant. The BACT analysis is intended to identify a reasonable cost per ton for pollutant control or removal.

For more information to find out about these and other programs designed to help your business, call the IDED Regulatory Assistance Team at 800.245.4692 or visit www.iowalifechanging.com.