

AIR QUALITY CONSTRUCTION PERMITS

PROTECTING PUBLIC HEALTH AND WELFARE

To the public, a construction permit is often a baffling array of complicated calculations and specifications. To an engineer, it's a detailed document that ensures, smokestack-by-smokestack, processing unit-by-unit, a facility can meet federal and state air quality standards after construction. For both, the permit is a legal contract between the facility and State of Iowa, setting standards for construction and operation—to protect public health and promote human welfare now and in the future.

PURPOSE OF PERMITS

When an existing business wants to increase production or add new equipment or when a new business wants to build, they must apply for and receive a DNR-approved air

quality construction permit if they emit air pollutants, with a few exceptions. Permits are issued as part of a project and there may be as few as one to dozens of permits issued in a single project.

The air quality construction permitting program does not prevent air pollution emissions from increasing. Instead, DNR ensures new and expanding facilities are constructed and operated to meet state and federal air quality standards. We also require large industrial sources to be as clean as possible, incorporating advances in pollution controls when they expand or construct.

DNR's number one goal is to protect public health. If the limits requested by the facility exceed a regulated health standard, Iowa DNR cannot issue the permit. If the facility, including each emission unit and point, can meet all state and federal standards, we must issue the permit.

FACILITY RESPONSIBILITIES

A construction permit sets the standards for construction, defining what is expected of a business to protect public health and promote human welfare. The permit specifies:

- allowed construction activities, such as size and type of equipment installed, and where it is installed,
- emission limits that must be met,
- production limits, and
- how to operate and maintain equipment.



Jim Kacer, DNR

When a business wants to build or expand, they must apply for a construction permit to show how they will meet state and federal air quality standards. DNR issues permits for projects from paint booths at an auto body shop to coal-fired boilers at a power plant.

WHO NEEDS A CONSTRUCTION PERMIT?

Under Iowa regulations, all new or modified equipment and control equipment that emits air pollutants must have a construction permit unless the equipment is exempt. Even facilities exempt from applying for a permit must meet air quality regulations. Residential heaters, cook stoves and fireplaces along with certain agricultural equipment related to raising crops and livestock are some of the items that are exempt.

The DNR works with about 7,200 facilities, which hold construction permits in Iowa. These companies range from small shops to large utilities.



Air. We can't live without it.

UNDERSTANDING A CONSTRUCTION PERMIT

In Iowa, each individual smokestack or emission point receives a construction permit. A typical permit is 10 pages. The cover page lists all emission units and control equipment. Pages 2 to 5 contain legal language applying to all construction permits—such as rule and notification requirements. The remaining pages detail the facility's emission limits, stack characteristics, compliance demonstrations, production limits; and its monitoring, recordkeeping and reporting requirements. These requirements outline the responsibilities of the facility to meet state and federal laws.

The Application Process

1. Company submits permit application.
2. DNR assigns an engineer.
3. The DNR engineer reviews the application to ensure new emissions from the proposed construction and operation will not significantly degrade air quality. The permit conditions maintain clean air and protect progress toward cleaner air in areas with unhealthy air. After thorough review, DNR issues the permit if the facility can meet specific standards.

Becoming Involved

The public can play an important role as DNR considers air quality permits for approval. Comment periods (usually 30 days) and public hearings are opportunities for people to provide information to DNR on the draft permit.

AIR POLLUTANTS DNR REGULATES

The National Ambient Air Quality Standards set maximum pollutant concentration levels to protect public health and welfare. These "criteria" pollutants include:

- Nitrogen oxides (NO_x)
- Volatile organic compounds (VOC) which contribute to ground-level ozone (O₃), a component of smog
- Sulfur dioxide (SO₂)
- Fine particulate matter (PM₁₀ and PM_{2.5})
- Carbon monoxide (CO) and
- Lead (Pb).

The DNR also regulates toxic air pollutants through the federal National Emission Standards for Hazardous Air Pollutants program. This program reduces toxic pollutants, but does not regulate their ambient concentrations.

The DNR does not regulate odor, noise, light pollution, traffic, zoning or ambient concentrations of air toxics.

To stay informed:

- Check for a list of active projects at www.iowadnr.gov/airpermitsearch.
- If there is a formal comment period (usually by request or for very large projects), the draft permit is posted for public review. Find public notices in the legal section of a local newspaper and sometimes the Des Moines Register.

OTHER PERMITS

Other permits such as drinking water, flood plain, storm water and wastewater could also be required. Find out more at www.iowadnr.gov/About-DNR/About-DNR/Business-Regulatory-Assistance.