

THE AIR DVD: *Chapter 3 - Compliance Basics*

We are fortunate in Nebraska because we have good air quality. We maintain it by requiring certain facilities to obtain and comply with air quality permits.

So, you have your air quality permit and you're thinking the work is over, right? Not so fast....

The first thing you should do is read your permit and the accompanying fact sheet. Most violations can be avoided by simply reading and understanding these documents.

The fact sheet will explain your requirements, describe your facility, and provide emission calculations.

Your fact sheet will also summarize the federal standards you must abide by. It may not cover everything so you should read all applicable federal emissions standards in their entirety.

You can find these regulations on the electronic code of federal regulations website. www.ecfr.gpoaccess.gov

Once you've read your air permit we recommend you take the following steps.

First, collect data for your records. Many times there will be multiple people involved in your recordkeeping and different areas of the plant where record keeping is performed.

Next, develop a filing system to organize your records. This will help you demonstrate compliance more effectively when a NDEQ inspector shows up at your facility. This will also help you when it comes time to submit your annual reports.

Finally, designate a primary and a secondary contact person at your facility who are able to provide information needed by inspectors. You never know when an NDEQ Air Inspector may come a knockin'.

If your permit contains limitations, you will typically be required to conduct emission testing or monitoring to demonstrate compliance.

Emissions tests are required for a variety of reasons. You may have to test an emission point to verify compliance with a limit or to verify the efficiency of your pollution control equipment.

You can find emission testing requirements in your air quality permit or within a specific regulation.

Monitoring requirements vary, from installing continuous emission monitors to inspecting your baghouse daily.

You may be required to read the opacity of the emissions from your stack.

Opacity of a plume is the degree to which visibility of a background is reduced.

In other words, opacity is the amount of light blocked by a medium, like smoke or tinted glass.

An opacity of 0% means that all light can pass through. An opacity of 100% means that no light can pass through.

Opacity indicates the concentration of pollutants leaving an emissions point

The EPA has developed a method to read opacity by sight called the Method 9.

For this method, you take a reading every 15 seconds for 6 minutes, then, calculate the average opacity.

Some permits will require the person reading opacity to be certified in Method 9, while others may only need to be trained.

To be a certified reader, you need to pass visible emissions training, also called smoke school, every 180 days.

To be a trained reader, you need to be certified in method 9 once every 5 years.

Smoke School is offered in many areas from different organizations throughout the year. In Lincoln, there usually is one held in the spring and one in the fall.

The NDEQ recognizes Method 9 certification from other states. Check the calendar of events on the NDEQ website for Lincoln smoke school sessions.

Nebraska air regulations require you to keep visible emissions, also known as fugitive dust, from leaving your property.

You may be required to perform daily observations to verify that your source isn't creating fugitive dust.

For more information, take a look at the Fugitive Dust Fact sheet on the NDEQ website.

To verify compliance with your permit, you are required to keep thorough records.

You should keep on file any information that demonstrates compliance with your limitations, standards, and monitoring requirements. Some of the most common air permit violations occur because the proper records are not being kept.

Your records need to be complete. For instance, if you are required to use diesel containing less than .05% sulfur, you'll need to be sure your diesel purchase receipts contain the sulfur content.

To verify your mass balance emission calculations, you'll need to keep your purchase records, consumption records, and material safety data sheets.

Material safety data sheets list the amount of volatile organic compounds and hazardous air pollutants contained in your products.

If the MSDS gives a range for a pollutant, you need to use the highest given. So if there is 20-40% of toluene in a product; you would use 40 percent in your calculation.

Ask your material distributor for a certified product data sheet or an environmental data sheet. They tend to include information that is more specific than an MSDS.

To calculate your emissions, you may also need the weight of materials in pounds per gallon. If your MSDS doesn't provide this information, contact the product manufacturer.

The Air Quality Division has created a guidance document to help you calculate and keep track of evaporative loss emissions from surface coating. You can find it on the NDEQ website under Publications.

Other records you will be required to keep include any reports you have submitted, changes you have made to your facility and stack testing results.

All records must be kept on-site for five years. Even though federal standards require you to keep records for up to three years, you must comply with the more stringent Nebraska standards.

Records kept electronically should be backed up in case of computer failure. If you cannot reproduce records, it is as if you haven't kept them in the first place.

Be sure to provide all of the appropriate information on your spreadsheets such as units of measure, cell labels, and emission factor sources

For those of you who don't need an air permit you still need to keep documents verifying why a permit isn't needed. These include explanations of your processes, potential emission calculations, emission factor sources, and emission unit capacities.

There are several reports that a source may be required to submit to the NDEQ or the EPA. Let's take a closer look at them.

All facilities that have been issued an operating permit or that are operating under a permit-by-rule, must submit an annual certification of compliance report, or COC.

This report verifies your compliance with permit conditions. The COC requirement is found in the general conditions of the permit or in Title 129.

The COC must identify each condition of the permit, the compliance status, and all deviations from the permit requirements.

The COC must also include whether compliance was continuous or intermittent, and list the methods used for determining compliance status.

And don't forget, you are also required to certify your compliance with the general conditions of your permit.

You can address each general condition individually or make one statement that covers all of the general conditions as long as your compliance has been continuous for all of those conditions.

You are required to address any other material information that may indicate noncompliance with requirements of the operating permit, even if your monitoring indicates compliance.

You certify compliance for the previous calendar year from January through December.

All COCs are due March 31st each year. Class I sources must send their reports to the NDEQ and the EPA, but Class II sources only need to submit their reports to NDEQ.

Reports must be signed by a responsible official. To determine who would be considered a responsible official at your facility, review the definition in Title 129.

Class I sources must also submit semi-annual deviation reports. This requirement is found in the general conditions of the operating permit.

The deviation report will include information for all deviations from permit conditions or requirements.

Deviations are departures from an indicator range or work practice established for monitoring.

Semi-annual deviations reports are due September 30th for the period of January through June and due March 31st for the period of July through December of the previous year.

Deviation reports do not need to be submitted to the EPA, but do need to be signed by a responsible official.

Class II sources don't need to submit semi-annual deviation reports, but still need to identify their deviations in their annual COC report if their compliance has been intermittent.

We have created sample forms that you can download and utilize. We have also developed a guidance document to help you understand the reporting requirements. These can be found on our website under the air quality guidance documents.

The Air Quality Division compiles air emissions data from many sources to create an air emissions inventory. This annual report provides an estimate of actual emissions based on production, emission rates, consumption, combustion, and stack tests.

Facilities report their plant wide emission totals for Carbon Monoxide, Ammonia, Nitrogen Oxides, Lead, Particulate Matter less than 2.5 and less than 10 microns in diameter, Sulfur Oxides, Volatile Organic Compounds, and regulated hazardous air pollutants

Compliance personnel review them before conducting inspections. Permitting staff review the data when writing permits and modeling emissions. Policy makers use them for guidance when drafting rules and regulations.

Every source subject to operating and construction permit requirements must complete an emissions inventory report when requested.

Class I sources and Class II sources are required to complete the inventory on an annual basis. Lower emitting sources, like No Permit Required and Low Emitter facilities, must complete the reports once every three years.

Facilities that are required to complete an inventory are mailed a form on January 1st of each year. Instructions and other helpful information will be included with the mailing.

Blank forms and a list of the sources whose inventory reports are being requested can be found on the Department's website.

The reports must be postmarked by March 31st, submitted in hard copy form, and completed with permanent ink.

The report forms have general plant information sections that must be completed by all industries and separate sections for your emissions calculations.

We have developed specific worksheets for some common industry types.

Currently, there are worksheets for Grain and Feed Manufacturers, Crushed Stone Processors, Alfalfa Dehydrators, Asphalt Plants, Concrete Batch Plants, Aggregate Plants, Petroleum and Chemical Storage facilities, and Incinerators.

Generic worksheets are provided for other facilities that don't fall into one of the source categories mentioned. If you are using generic forms, be sure to include your emission point information, emission factor source, and the units of measure.

For Class I sources, emission fees are due for each ton of chargeable emissions they emit each year.

Chargeable emissions include NO_x, Lead, PM₁₀, SO_x, VOC's and hazardous pollutants. No fees are due for CO, Ammonia, and PM_{2.5}.

The maximum fee assessment is 4000 tons per pollutant. For electrical generating facilities with a capacity of between 75 and 115 megawatts, the maximum is 400 tons per pollutant.

The fees generated are used to support the Air Quality Division's major industrial source permitting programs. The fee rate for emissions varies from year to year.

Historically, fee rates have ranged from \$40 to \$60 per ton of regulated pollutant. Each year on June 1 the Department sends invoices for air emission fees that are due and payable on July 1 of each year.

Late payments are subject to late fees, which are 20% of the amount due and increase by 10% for each additional 30 day period that the payment is late.

Approximately 700 facilities submit emissions inventory reports each year. The information is reviewed and entered into our Department's database.

Nebraska's comprehensive emissions inventory is summarized in the air quality report.

The air quality data for Nebraska is also incorporated into a National Emissions Inventory. It is used to track trends, perform air dispersion modeling, estimate exposure concentrations and characterize potential public health risks.

This national inventory is comprehensive, accounting for air emissions from a variety of source categories, including those not typically inventoried.

These additional categories include smaller emission sources such as dry cleaners, gas stations, and auto body shops.

All sources with a construction permit will need to submit a notification to the NDEQ containing the date construction commenced. The notification must be submitted within 30 days of commencing construction. Additionally, the construction permit will require you to

submit notification of the initial startup date within 15 days of that date.

Most of the federal emission standards also will require you to submit notifications. Under the New Source Performance Standards rules, you will typically be required to submit notifications that mimic those required by construction permits. There may be monitoring and compliance reporting requirements within each rule, as well.

The National Hazardous Air Pollutant rules typically require you to submit initial notifications to alert the EPA and the NDEQ that you are going to be subject to a particular standard.

The rules will also typically require a compliance status notification be submitted once the compliance date has past. A rule may also require you to submit compliance or monitoring information on a frequent basis.

If you need to conduct emissions testing, you must typically submit a testing protocol within 30 days prior to the test. There may be times you would need to submit the protocol 60 days prior to the test.

You must submit your test results to the NDEQ within 45 days of conducting an emissions test.

If you have any questions about reports and notifications, contact the Air Quality Division. 402-471-2189 or 877-253-2603