# CHAPTER 4: Air Quality Division

The objectives of the Air Quality Division are to achieve and maintain the ambient air quality standards, to protect the quality of the air in the state, including areas that have air cleaner than the standards, and to implement federal and state air guality rules and regulations. Thousands of tons of air pollutants are emitted into the air in Nebraska each year from industrial and other man-made activities. Air pollutants can affect human health, reduce visibility, cause property damage, and harm the environment. The regulated air pollutants of most concern are particulate matter, carbon monoxide, nitrogen oxides, sulfur dioxide, ozone, lead, and 187 listed hazardous air pollutants.



This air monitoring site operated by NDEQ near Weeping Water is powered totally through solar power.

The primary air quality programs that help assure healthy air quality are: the construction permit program, operating permit program, emission inventory program, ambient air quality monitoring program, inspection and compliance program, air toxics program, and planning and development program.

Three local agencies – Lincoln-Lancaster County Health Department, Omaha Air Quality Control, and Douglas County Health Department – have accepted, through agreement with NDEQ and direct delegation from the U.S. Environmental Protection Agency (EPA), responsibility for various facets of the air quality program in Nebraska. These responsibilities include air quality monitoring, permitting, and enforcement within their areas of jurisdiction.

# **Permitting Section**

The Federal Clean Air Act Amendments of 1990 and the passage of LB1257 (1992) by the Nebraska Legislature required that the Nebraska Department of Environmental Quality (NDEQ) establish and implement a comprehensive operating permit program for sources of certain air pollutants. Nebraska also implements the federal construction permit program, Prevention of Significant Deterioration (PSD). The purpose of the PSD program is to protect air quality in areas where the air is cleaner than the ambient air quality standards, while still allowing industrial and economic growth. The PSD program applies to sources of air pollution that emit significant levels of certain types of pollutants.

Nebraska's Title V air quality operating permit program is referred to as the Class I operating permit program. Although the Federal Title V program only regulates major sources of air pollution, the Nebraska program also regulates certain minor sources using Class II operating permits (major and minor are defined in Title 129). An operating permit must be applied for within 12 months of startup of a regulated air contaminant source, is valid up to five years, and must be renewed. Operating permits contain all applicable requirements for all emission points at a facility.

The first step in the air quality permitting process is to determine whether a construction permit is required pursuant to Nebraska Administrative Code Title 129 – Nebraska Air Quality Regulations (Title 129). When required, an air quality construction permit must be obtained prior to constructing an air contaminant source and is valid for the life of the covered emission units. Not all new sources of air pollution are required to obtain a construction permit, only those with potential emissions at or above the permitting thresholds specified in Title 129.

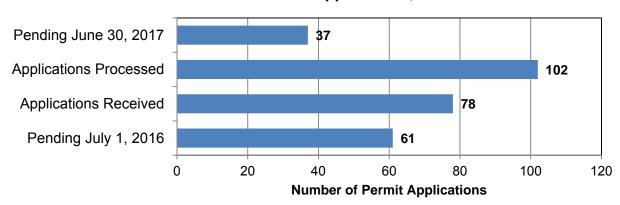
Title 129 provides owners and operators of air contaminant sources with a choice of three types of construction and operating permits – individual, permit-by-rule, and general. Not all sources are eligible for all three types. Individual permits are available for all regulated sources and include all requirements applicable and specific to that source. Permit-by-rule requirements are detailed in Title 129. General permits are issued with requirements that are specific to limited types of source.

An individual permit is issued to a specific source at a specific location to address the particular needs and challenges at the source in question. Because it is "tailor made" for the source, developing an individual permit requires much more time and labor each time an individual permit is issued. Each individual permit, permit-by-rule, and general permit must go through a public notice (30-day comment period), which increases the time required to issue the permit. However, a major difference is that each permit-by-rule and general permit is only issued once, and eligible applicants apply for and obtain coverage without the need to develop a permit or go through a comment period each time coverage under that permit-by-rule or general permit is issued to an eligible source.

A permit-by-rule and a general permit are similar in that the rule or permit has the same requirements for, and covers, all sources in that category, provided that the source meets the applicability criteria and applies for and obtains coverage. A difference is that the requirements for a permit-by-rule are established in Title 129; whereas, in a general permit, the requirements are established in the permit. The result is that permits-by-rule and general permits offer a significantly streamlined process for eligible applicants within the narrowed scope of the permit-by-rule or general permit, at a significant resource savings for both the applicant and the Department.

# **Construction Permit Program**

The Department has maintained a construction permit program for air contaminant sources since the 1970s. Facilities are required to obtain a construction permit before they construct, reconstruct, or modify any air contaminant source or emission unit where there is a net increase in the potential to emit above specified thresholds. The chart on the next page summarizes construction permit applications received, processed and pending (note: the Processed category includes permits issued, withdrawn, denied, and determinations of no permit required).

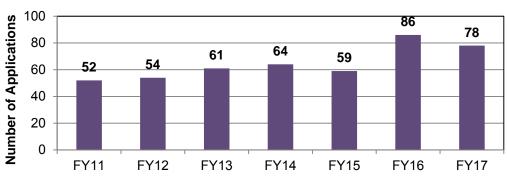


# **Construction Permit Applications, FY2017**

For sources regulated under the construction permit program that emit significant levels of certain types of air pollutants and trigger PSD requirements, the NDEQ conducts additional, more rigorous reviews of the construction permit application to ensure that best available control technology will be used. Two PSD construction permits were issued in FY2017. Best available controls are employed to minimize impacts on the environment. Before issuing a PSD permit, NDEQ must also assure that the source will not cause or contribute significantly to any deterioration of air quality that could make the area potentially vulnerable to violations of the ambient air quality standards. The PSD program also ensures that visibility in nearby national parks and wilderness areas is protected. NDEQ notifies federal land managers of pending PSD decisions. Lastly, the program requires that permitting authorities advise nearby States and Tribes of pending PSD decisions so those authorities can express any concerns with potential impacts in their areas.

As a part of its state program, the NDEQ requires significant sources of hazardous air pollutants to control emissions with the best available control technology (Toxics BACT).

The number of air quality construction permit applications received each year varies depending on the state of the economy and business activity in the state. Applications declined during the slower economy of FY09 through FY12, but increased again during FY13 through FY17, when NDEQ saw an increase in activities associated with manufacturing and food and data processing.

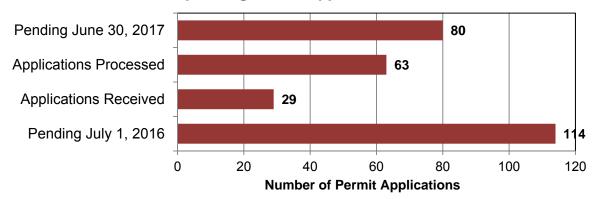


# Construction Permit Applications Received, FY11 through FY17

The online application process for air quality general construction permits (these include certain emergency engines and certain aggregate processing, asphalt, and concrete plants) implemented by the NDEQ in FY2016 resulted in coverage being issued to 13 applicants in FY2017. These permits are included in the charts on the previous page.

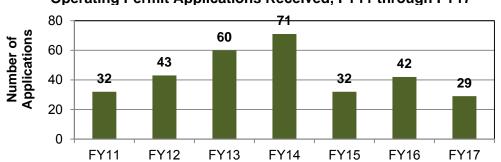
# **Operating Permit Program**

Operating permits are issued for both major and minor sources of air pollution. These permits have a five-year renewable term. The Nebraska operating permit program also offers an innovative alternative for sources that have taken measures to keep their emissions very low, called the Low Emitter Program. General operating permits and permits by rule are also available for certain source categories, in addition to individual operating permits. The chart below provides statistics relating to all applications received, processed, and pending under the operating permit program.



**Operating Permit Applications, FY2017** 

There have been wide variations in the numbers of operating permits up for renewal each year. The following chart summarizes air quality operating permit applications received from FY11 through FY17 (applications for all application types, including applications for permit revisions, general operating permits, permit-by-rule, etc.).



# Operating Permit Applications Received, FY11 through FY17

# **Compliance Section**

# **Ambient Air Quality Monitoring Program**

The Clean Air Act requires the U.S. Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment, which are called "criteria pollutants". The Act established two types of national air quality standards: primary standards, which are intended to protect public health, and secondary standards, intended to protect the environment. National standards have been established for the following six pollutants:

- Particulate Matter
  - > With a diameter of 10 micrometers or less (PM<sub>10</sub>)
  - With a diameter of 2.5 micrometers or less (PM<sub>2.5</sub>)
- Sulfur Dioxide (SO<sub>2</sub>)
- Nitrogen Dioxide (NO<sub>2</sub>)
- Carbon Monoxide (CO)
- Ozone (O<sub>3</sub>)
- Lead (Pb)

Nebraska has an additional ambient air quality standard for Total Reduced Sulfur (TRS). The TRS standard was adopted by the Environmental Quality Council in 1997 and is a public health-based standard.

# Nebraska Ambient Air Monitoring Network

The State of Nebraska operates an ambient air-monitoring network to determine compliance with the NAAQS and State Ambient Air Quality Standards (SAAQS). In addition, the Nebraska network includes a site for monitoring regional haze impacts that is part of a national program to help protect visibility in our National Parks and Monuments. A TRS monitor previously operated by NDEQ in Dakota City was decommissioned in July 2016.

Three agencies are involved in the day-to-day operation of the network: NDEQ, Lincoln-Lancaster County Health Department, and Douglas County Health Department. Omaha Air Quality Control (part of the Omaha Public Works Department) also provides technical support for network-related activities.

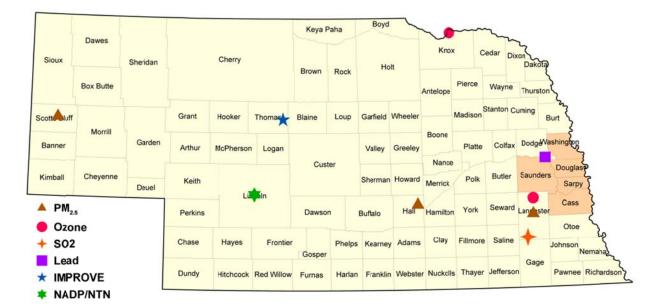
The Nebraska monitoring network includes sites at which air quality is monitored to evaluate attainment with the standards and other health- and welfare-associated priorities. NDEQ evaluates the adequacy of its monitoring network in accordance with federal regulations each year. Changes may be made to the network due to changes in monitoring regulations, updates to the ambient standards, perceived changes in pollution trends, and/or funding issues. Loss of site access is another consideration that occasionally affects the network.

Most of the sites in the monitoring network evaluate pollutants for which standards are established (i.e.,  $PM_{2.5}$ ,  $PM_{10}$ , CO, SO<sub>2</sub>, Lead, or Ozone). Some sites monitor for more than one pollutant. The NCore site in Omaha is part of a national network that monitors for nine

pollutant parameters. There are two additional types of sites in the network: Interagency Monitoring of Protected Visual Environments (IMPROVE) and National Atmospheric Deposition Program/National Trends Network (NADP/NTN) sites. (See maps below and on the following page for locations.)

IMPROVE monitors provide information for studying regional haze that may impact the visibility in listed federal Class I National Park and Wilderness Areas. There is one IMPROVE monitoring site at Nebraska National Forest at Halsey, Nebraska. This site provides data on pollution trends and transport.

The National Trends Network (NTN) of the National Atmospheric Deposition Program (NADP) is a nationwide network of sites that monitor for pollutants deposited by precipitation. The deposition constituents examined include acidity, sulfates, nitrates, ammonium chloride, and base-cations (e.g., calcium, magnesium, potassium, and sodium). There are two NADP/NTN sites in Nebraska: one near Mead and one near North Platte. Both have been operational for over 20 years. These sites are operated by the University of Nebraska, with analytical and data development support from the NADP. The Mead site was upgraded to include mercury (Hg) deposition monitoring and is part of the NADP/Mercury Deposition Network (MDN). Both sites maintain the NADP monitoring. Additional information about the NADP/NTN can be found at: <a href="http://nadp.sws.uiuc.edu/NADP/">http://nadp.sws.uiuc.edu/NADP/</a>



# Nebraska Monitoring Sites Outside of the Omaha Metropolitan Statistical Area

#### PM<sub>2.5</sub>

Lincoln (Lancaster County) Grand Island (Hall County) Scottsbluff (Scottsbluff County)

#### Ozone

Davey (Lancaster County) Santee (Knox County)

#### Lead

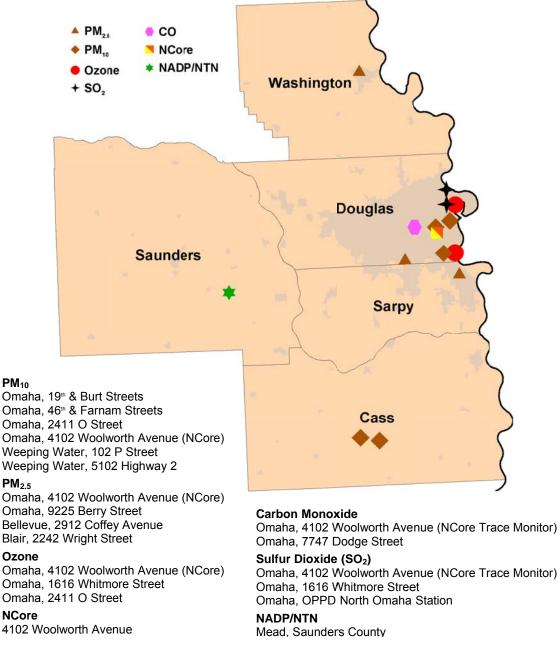
Fremont (Dodae Countv)

Sulfur Dioxide (SO₂) Sheldon Station (Lancaster County) NADP/NTN Maxwell (Lincoln County) IMPROVE Nebraska National Forest (Thomas County)

The Nebraska counties in the Omaha-Council Bluffs Metropolitan Statistical Area are indicated by the orange grav shading.

The state map on the previous page shows the nine monitoring sites that are located outside of the Omaha-Council Bluffs Metropolitan Statistical Area. Three of these sites are operated by NDEQ, either directly or under contract. The three sites in Lancaster County are operated by the Lincoln-Lancaster County Health Department with NDEQ oversight. The National Atmospheric Deposition Program site near North Platte is operated by the University of Nebraska. An additional ozone site near Santee in northeast Nebraska is operated by the U.S. EPA.

### Monitor Locations in the Nebraska Portion of the Omaha-Council Bluffs Metropolitan Area



The map above shows the location of the thirteen monitoring sites located in the Nebraska portion of the Omaha-Council Bluffs Metropolitan Statistical Area (two sites monitor two

pollutants and are represented by overlapping pairs of symbols). Ten of these sites, located in Douglas, Sarpy, and Washington Counties, are operated by the Douglas County Health Department with NDEQ oversight. The two PM<sub>10</sub> sites near Weeping Water in Cass County are operated by NDEQ. The National Atmospheric Deposition Program site at Mead is operated by the University of Nebraska.

# Monitoring Information On-Line

Ozone and continuous  $PM_{2.5}$  data from Lincoln and Omaha is reported hourly to the EPA AirNow system, which makes contemporaneous air quality information available to the public on the web at <u>http://www.airnow.gov/</u>. The Douglas County Health Department also participates in the ENVIROFLASH program that allows members of the public to sign up to receive air quality alerts via email.

The Douglas County Health Department also reports daily Air Quality Index (AQI) evaluations on the City of Omaha website. The AQI is a numeric rating of the current air quality and provides the public with a quick and simple means to evaluate current air quality in each metro area.

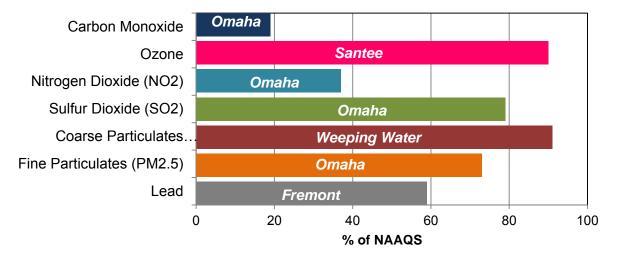
#### **Renewable Powered Monitoring Sites**

The NDEQ operates one monitoring site that is powered totally through renewable energy sources: a solar-powered site near Weeping Water.

#### Compliance with National Ambient Air Standards (NAAQS)

Current air quality monitoring data finds all areas of Nebraska to be in attainment (compliance) with the NAAQS. The chart below shows where the highest air pollutant levels are being detected in Nebraska for each criteria pollutant and how their levels compare to the NAAQS. (A reading of greater than 100% would mean that the NAAQS standard was exceeded, but highest readings for all criteria pollutants were well below 100%.)

#### Maximum Ambient Criteria Pollutant Levels in Nebraska as a Percentage of the National Ambient Air Quality Standards (NAAQS): Based on Monitoring Data Collected from 2014 through 2016



There are two areas of Nebraska that EPA has listed as "Unclassifiable" with respect to attainment with the NAAQS for sulfur dioxide. These areas are adjacent to coal-fired power plants in north Omaha and near Hallam in southern Lancaster County. Two additional sulfur dioxide monitoring sites were established at the end of 2016 to provide data on the air quality at these sites. Initial monitoring data indicates that sulfur dioxide levels are in attainment/compliance with the NAAQS. EPA has not yet made a final sulfur dioxide attainment decision on an area in Adams County surrounding another coal-fired power plant.

The Division compiles an annual Ambient Air Monitoring Network Plan that provides a more detailed analysis of ambient air monitoring data, pollutant trends through time, and NAAQS compliance. These reports are available on the agency website: http://deg.ne.gov/Publica.nsf/Pubs Air Amb.xsp.

# **Inspections and Facility Compliance**

The Compliance Program is responsible for conducting compliance inspections of air pollution sources, responding to citizen complaints, observing and evaluating emission tests, and the acid rain program.

Consistent with the Nebraska Environmental Protection Act, the Air Quality Division attempts to obtain compliance with environmental regulations first through voluntary efforts. Voluntary compliance has helped bring about a better working relationship with the regulated community without sacrificing environmental quality. However, enforcement actions are pursued by the Agency when compliance issues are serious, chronic, or cannot otherwise be resolved. To further the Department's goals to protect and enhance public health and the environment, in certain instances, environmentally beneficial projects, or Supplemental Environmental Projects, may be part of an enforcement settlement.

Compliance Activity	NDEQ	LLCHD*	OAQC*
On-site Inspections	139	82	13
Facility Stack Tests Conducted	94	16	5
On-site Observations Conducted	23	1	0
Continuous Emission Monitoring Audits Conducted	63	9	0
On-site Observations Conducted	6	0	0
Complaints Received	87	59	85
Burn Permits Issued	114	82	49
Burn Permits Denied	1	1	1
Burn Permits Withdrawn	0	2	0

#### 2017 Compliance Activity Summary

\*LLCHD – Lincoln Lancaster County Health Department; OAQC – Omaha Air Quality Control

# **Emission Inventory and Emission Fees**

Each year, the Department conducts an inventory of emissions from major industrial sources and a representative sample of lower-emitting minor industrial sources. Every three years, the Department assists the EPA in preparing a comprehensive national inventory of emissions. The next national inventory compiled will include emissions reported by our sources for the 2017 calendar year. The emissions inventory is used to support the planning efforts for national rulemaking and to assess trends in emissions. Emission inventories are due on March 31<sup>st</sup> each year. NDEQ also uses the emission inventories to support the assessment of annual emission fees. Major sources of air pollution are required to pay emission for which a fee is assessed is 4,000 tons per pollutant. For electrical generating facilities with a capacity of between 75 and 115 megawatts, the maximum emission for which a fee is assessed is 400 tons per pollutant. The fees generated are used to support the administration of the air programs.

The Department attempts to set the fee rate at the minimum level needed to pay reasonable direct and indirect costs of developing and administering the air quality permit program. An analysis detailing how the Department arrived at the fee rate is made available to fee payers and is on the NDEQ website. The rate for 2016 emissions was \$78 per ton; the rate for 2015 emissions was \$71 per ton.

# **Planning and Aid**

The Air Quality Division is responsible for maintaining state air quality regulations and providing expert information on National Emissions Standards for Hazardous Air Pollutants (NESHAPS), New Source Performance Standards (NSPS), and National Ambient Air Quality Standards (NAAQS). Standards are reviewed periodically based on the most recent scientific information available, and revised or retained as appropriate. When a new or revised standard is issued (even if the standards are retained), states must determine if they are in attainment with the standard and, if they are not, take the necessary corrective action. States are required to submit to EPA their designation recommendations and State Implementation Plans (SIPs) for each standard. The Division also administers local agreements with Lincoln-Lancaster County Health Department, the City of Omaha Air Quality Control division, and the Douglas County Health Department for their delegated functions in air quality permitting, compliance, and planning.

The Division also provides support and training resources to the regulated community and general public. Brief information updates about important happenings in the air quality regulatory world are provided to interested parties via email through the AirNews listserv. The Division also administers the Nebraska Clean Diesel Rebate Program to reduce diesel admissions by providing rebates for the early replacement of diesel vehicles.

# Planning for Air Quality Issues in Nebraska

Nebraska is currently considered in attainment with all of the National Ambient Air Quality Standards. Recent planning activity is addressing regulatory issues concerning sulfur dioxide, ozone, and lead, along with the Regional Haze Rule and the Clean Power Plan.

# Sulfur dioxide (SO<sub>2</sub>)

The 2010 sulfur dioxide (SO<sub>2</sub>) standard requires that states determine and demonstrate attainment in the areas surrounding large sources of this pollutant. NDEQ submitted Nebraska's designation recommendation of attainment for the areas surrounding three major sources to EPA in 2015. EPA designated two of these sources as in attainment in early 2016; the third (Sheldon Station in Lancaster County) was designated unclassifiable, and would require further characterization.

To supplement the 2010 SO<sub>2</sub> standard, the EPA finalized the Data Requirements Rule (DRR) in 2015 to assist in implementation of the 2010 standard. This rule requires air quality agencies to characterize the air quality near sources that emit 2,000 tons per year or more of SO<sub>2</sub> by the use of air quality monitoring or pollutant dispersion modeling, or adopt enforceable SO<sub>2</sub> emission limits not to exceed 2,000 tons per year for the affected sources. Sources in the state subject to this rule include Whelan Energy Center near Hastings (Adams County), Sheldon Station, and North Omaha Station (Douglas County).

The area around Whelan Energy Center area was characterized by modeling and demonstrated attainment with the standard. NDEQ submitted this demonstration to EPA in January of 2017, and designations will be issued by EPA no later than December 31, 2017. Air quality monitors were installed in 2016 near Sheldon Station and North Omaha Station and began operation in January 2017. Monitoring will continue through 2020 and a designation recommendation for these areas will be submitted to EPA in early 2021.

#### Ozone

EPA issued revised ozone standards in 2015, lowering the standard from 0.075 parts per million (ppm) to 0.070 ppm. NDEQ submitted its designation recommendation of attainment for Nebraska to EPA in September 2016. On November 6, 2017 EPA Administrator Scott Pruitt notified Governor Ricketts that EPA has designated all of Nebraska as "unclassifiable/attainment" with respect to the 2015 ground-level ozone standard. The updated State Implementation Plan for ozone is due to EPA in October 2018.

# Lead

EPA issued lead standards in October 2016, retaining the level of the previous primary and secondary standard of 15 micrograms per square meter (3-month rolling average) issued in 2008. NDEQ's designation recommendation of attainment for Nebraska is awaiting signature by the Governor. The updated State Implementation Plan is due to EPA in October 2019.

# **Regional Haze**

EPA implemented the Regional Haze Rule in 1999 to improve visibility in national parks and wilderness areas. The rule directs state and federal agencies to work together to achieve this goal. Numerous amendments to the Rule have been issued, most recently addressing Best Available Retrofit Technology (BART) determinations for particular pollutant sources.

NDEQ submitted the Regional Haze State Implementation Plan (SIP) for the first implementation period (2008-2018) in July 2011; in 2012, EPA issued a partial approval/partial disapproval of the SIP. The disapproved portions include the BART

determination for sulfur dioxide for Gerald Gentleman Station and the state's long-term strategy for regional haze insofar as it relied on the BART determination. A Federal Implementation Plan (FIP) was issued by EPA that relied on the Cross State Air Pollution Rule (CSAPR) to address reasonable progress toward regional haze goals. This rule established a trading program which allots an SO<sub>2</sub> emission budget for participating sources, which includes Gerald Gentleman Station. Emissions to date from this source have been below the allotted SO<sub>2</sub> budget under CSAPR, and no additional control measures have been required.

NDEQ filed a petition for review of the partial disapproval of the SIP, and was denied by the 8th Circuit Court of Appeals in February 2016. In this litigation, EPA requested and the court granted a voluntary remand of the FIP related to EPA's reliance on CSAPR to satisfy the long-term strategy requirements for Gerald Gentleman Station for SO<sub>2</sub>.

The Department submitted the Regional Haze Five-Year Progress Report in April 2017, and provided additional clarification to EPA to demonstrate progress toward visibility goals. At present, NDEQ is awaiting final approval from EPA, which will effectively finalize Nebraska's obligations under the first implementation period of the Regional Haze Rule, ending in 2018. EPA approval is intended to address the remand on the FIP, and support approval of portions of the 2008 ozone and 2012 PM<sub>2.5</sub> infrastructure SIPs that address interstate transport of pollutants, prevention of significant deterioration of air quality, and protection of visibility.

The second implementation period of the Rule will begin in 2018, and Nebraska's SIP will be due to EPA in July 2021.

# **Clean Power Plan**

The Clean Power Plan, which would have regulated greenhouse gas emissions from fossil-fuel power plants, was stayed by the U.S. Supreme Court in February 2016. This action negated the September 2016 deadline for states' initial submittals under the Plan. Nebraska was among 24 states to join a lawsuit against the Clean Power Plan in 2015.

On March 28, 2017, President Trump signed the Executive Order on Energy Independence, which directs EPA to review the Clean Power Plan and revise or repeal it if determined that it causes unnecessary, costly burdens on coal-fired electric utilities, coal miners, and oil and gas producers. In EPA Administrator Scott Pruitt's guidance letter to state Governors, dated March 30, 2017, he conveyed that EPA supports the application of day-to-day tolling of future deadlines in the rule, should they become relevant. He also noted that states have not been required or expected to work towards meeting compliance dates set in the Plan. The Department halted work on the planning process following the stay in 2016.

On April 28, 2017, the Court of Appeals ordered that the cases against the Plan be held in abeyance while EPA completes its review pursuant to the Executive Order, and directed EPA to file status reports at 30-day intervals.

# Nebraska Clean Diesel Rebate Program

NDEQ established the Nebraska Clean Diesel Program in 2008 to distribute funding received from the U.S. EPA to reduce diesel emissions, as authorized by Congress in the Diesel Emissions Reduction Act (DERA). The DERA program provides funding annually to

states for the establishment of grant, rebate, and loan programs for the early replacement of diesel engines and vehicles and the installation of diesel emission controls.

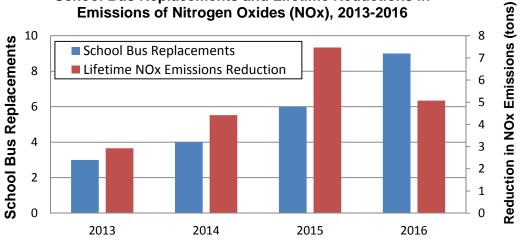
Since 2013, the Nebraska Clean Diesel Program has reduced emissions by providing rebates to Nebraska school districts for the early replacement of older diesel school buses. These rebates reimburse 25% of the cost of a new, cleaner-burning diesel or alternative-fuel school bus (up to a maximum rebate amount set for each year's program). Replaced buses and engines are scrapped to eliminate their harmful emissions of nitrogen oxides (NOx), particulates, hydrocarbons, and carbon monoxide.

In the 2016 program, NDEQ distributed \$179,262.50 in rebates to eight Nebraska public school districts and one private school to replace a total of nine school buses. The 2016 rebate recipients are shown in the table below.

School District	Location	Rebate Amount
Brady Public Schools	Brady	\$20,000.00
Guardian Angels Central Catholic High School	West Point	\$20,000.00
Elmwood-Murdock Public Schools	Elmwood	\$20,000.00
Hayes Center Public Schools	Hayes Center	\$19,400.00
Mead Public School District	Mead	\$20,000.00
Norfolk Public Schools	Norfolk	\$20,000.00
Pleasanton Public Schools	Pleasanton	\$20,000.00
Randolph Public Schools	Randolph	\$19,862.50
South Central Nebraska Unified District #5	Nelson	\$20,000.00

Since 2013, twenty-two Nebraska school districts have received \$451,064 in rebates for new bus purchases under this program. Nitrogen oxide emissions have been reduced by 19.89 tons based on the estimated remaining lifetimes of the replaced buses.

Clean Diesel School Bus Replacements					
		Rebate	Lifetime Tons		
Year	Buses	Dollars	NOx Reduced		
2013	3	\$ 73,890	2.93		
2014	4	\$ 79,088	4.42		
2015	6	\$ 118,823	7.49		
2016	9	\$ 179,263	5.07		
TOTALS	22	\$ 451,064	19.89		
19.89 tons = 39,772 pounds					
\$451,064 / 39,772 pounds = \$11.34 per pound of NOx reduced over the vehicle lifetime.					



School Bus Replacements and Lifetime Reductions in

For more information about the Nebraska air quality program, please refer to the annual Air Quality Reports and the Ambient Air Monitoring Network Plan, both of which are available on the agency's website at http://deg.ne.gov/ under "Air."