

Date:	December 28, 2015
To:	Appropriations Committee Members of the Legislature
From:	Shelley Schneider, Air Quality Division Administrator – NDEQ
RE:	State Fiscal Year 2015 Air Quality Permit Program Report

Enclosed please find a copy of the Air Quality Permit Program Emission Fee Appropriations Report for State Fiscal Year 2015. This report was prepared in accordance with § 81-1505.04.

If you have any questions regarding this report, please feel free to contact me at (402) 471-4299 or at <u>Shelley.Schneider@nebraska.gov</u>.

Enc. 1

Air Quality Permit Program Emission Fee Appropriations Report

Presented to Appropriations Committee of the Legislature

By the Department of Environmental Quality



December 28, 2015

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# Introduction

The Department of Environmental Quality submits this report to the members of the Appropriations Committee of the Nebraska Legislature, pursuant to Neb. Rev. Stat. §81-1505.04, as amended. This report details all direct and indirect program costs incurred during the State Fiscal Year 2015 (SFY 2015) in carrying out the air quality permit program. The permit program is the result of the Federal Clean Air Act Amendments of 1990 (CAAA) and the passage of LB1257 (1992) by the Nebraska Legislature. The Department was required to establish and implement a comprehensive operating permit program for major sources of certain air pollutants. The Federal program is referred to as the Title V program. The State of Nebraska's "Title V program" is often referred to as the Class I program.

Pursuant to the provisions of §81-1505.04, the Department is required to collect an annual fee on the emissions from major sources of air pollution in an amount sufficient to cover the costs of the implementation of the permit program. The statute provides flexibility to develop and adjust the fee according to Federal regulation or "as required to pay all reasonable direct and indirect costs of developing and administering the air quality permit program." The State's Payroll and Financial Center system is utilized to document time and resources spent on the program. The purpose of this report is to document the revenue generated from emission fees and identify costs associated with the program. In addition, as required by statute, this report identifies the costs incurred by the Department to administer the program for each major source and each primary activity not specific to a major source.

# **Emerging Issues**

#### A. National Ambient Air Quality Standards & Cross-State Pollution

The Clean Air Act requires EPA to review the National Ambient Air Quality Standards (NAAQS) every five years. These standards are set to protect public health, welfare and the environment. Currently, Nebraska is in compliance, or is in attainment, with all six pollutant standards. There are standards for ozone ( $O_3$ ), lead (Pb), particulate matter (PM), carbon monoxide (CO), nitrogen oxides (NOx), and sulfur oxides (SO<sub>x</sub>). Changes have occurred recently to the lead, nitrogen oxides, sulfur oxides and fine particulate matter standards. EPA finalized revisions to the proposed ozone standard on October 1, 2015. EPA lowered the ozone standard from 75 ppb to somewhere between 70 ppb, 8-hr average. Currently, all of Nebraska monitors record levels in attainment with the revised standard.

Nebraska continues to maintain its attainment status with all of the pollutant standards. Looking forward, as the NAAQS have been lowered by EPA significantly for  $PM_{2.5}$  lead,  $NO_x$ , and  $SO_x$ , ensuring the attainment status is maintained may prove to be challenging. Should Nebraska become non-attainment (not comply) with a NAAQS, the State must develop a strategy to return to compliance typically within 3 to 5 years and sustain on-going compliance. A non-attainment designation may make it difficult for existing industry to easily expand and detract new industry from coming into the impacted parts of the state.

Furthermore, emissions from one state can sometimes cause or contribute to air pollution issues in a downwind state. This is the fundamental basis of the cross-state air pollution rule (CSAPR) which EPA proposed in 2010 and finalized during the summer of 2011 to address ozone and  $PM_{2.5}$  issues. EPA named Nebraska as a state that has an impact on Wisconsin and their ability to maintain compliance with the 24-hour  $PM_{2.5}$  standard. The Nebraska Attorney General's office joined a lawsuit against EPA in District Court challenging the CSAPR rule. The CSAPR rule was to take full effect January 1, 2012, however, on December 30, 2011; the Court stayed CSAPR pending the court's resolution of the petitions for review. In April 2014, the United States Supreme Court upheld the CSAPR rule. The stay was lifted

in October 2014; therefore, implementation began in 2015. As such, the electric generating facilities in Nebraska must comply with the sulfur dioxide and nitrogen dioxide emission caps beginning in 2015. With the recent revisions to the ozone standard in 2015, EPA has already begun the process of a second phase of the CSAPR rule to address ozone. Nebraska is not anticipated to be affected by this rulemaking.

#### B. Greenhouse Gas Permitting

As a result of a US Supreme Court decision (U.S. vs. Massachusetts), the EPA was required to evaluate whether greenhouse gas emissions (GHG) were endangering the public health and, if so, whether such emissions from vehicles significantly contributed to such endangerment. Therefore, EPA has been working on a path of greenhouse gas emission regulation under the structure of the Clean Air Act. EPA promulgated a mandatory reporting rule for sources with emissions over 25,000 tons per year. EPA runs this reporting program, not the state. Reporting began in 2011 on calendar year 2010 emissions.

EPA also promulgated GHG permitting rules under the Title V operating permit program and the federal prevention of significant deterioration (PSD) permit program in June 2010. EPA expected states to incorporate the revised rules into their programs by January 2, 2011. Nebraska adopted these revised rules at the December 2010 Environmental Quality Council (EQC) hearing. In June 2014, the United States Supreme Court partially overturned the GHG permitting rules. The Court said that EPA may not treat GHGs as an air pollutant for purposes of determining whether a source is subject to federal permitting rules. A source must otherwise be subject due to other pollutants. EPA is planning to revise the GHG permitting rules in the future pursuant to the US Supreme Court decision.

#### C. Clean Power Plan

In June 2014, EPA proposed a rule, referred to as the Clean Power Plan (CPP), pursuant to Section 111(d) of the Clean Air Act which would require states to develop plans for regulating carbon dioxide from existing power plants. The rule was finalized in August 2015. The CPP establishes state-specific interim and final goals, based on emission performance rates for fossil fuel fired electric generating units and each state's mix of power plants. The goals are expressed in two ways—rate-based and mass-based— either of which can be used by the state in its plan. States must either submit a plan or a request for an extension by September 2016. Final plans must be submitted by September 2018, with compliance beginning in 2022.

# Definitions

For the purposes of this report, the following definitions have been used:

**<u>Chargeable emissions</u>**: The total tonnage of regulated pollutants emitted from a major source up to and including any applicable caps. A cap of 4,000 tons per regulated pollutant applies to all major sources. A cap of 400 tons per pollutant applies to mid-size electrical generation facilities that are not under jurisdiction of a local air program and that have a nameplate capacity of between 70 and 115 megawatts.

<u>Class I – Major Source</u>: An air emissions source permitted to emit annually 100 tons or more of PM10, CO, NOx, SOx, or VOC; 10 tons or more of any single HAP; 25 tons of any combination of HAPs. Until the US Supreme Court partially overturned the GHG permitting rule June 2014, a source with emissions of 100 tons or more of greenhouse gases on a mass basis and 100,000 tons of carbon dioxide equivalents were also considered major sources. The Court ruled that EPA may not treat GHGs as an air pollutant for purposes of determining whether a source is subject to federal permitting rules. Such sources with emissions above the thresholds are required to obtain a Class I operating permit. Some other source categories are required to obtain a Class I operating permit due to other federal requirements.

<u>Class II – Synthetic Minor Source:</u> A source that has a potential to emit to be a major source, but through enforceable limits has lowered its potential to emit to below the major source thresholds. A synthetic minor source must either obtain a Class II permit or qualify for the Low Emitter program. Synthetic minor sources are not assessed emission fees.

**<u>Compliance Assurance:</u>** Assuring compliance includes activities such as conducting facility inspections, responding to complaints, stack test observations, file reviews, voluntary compliance and enforcement.

**Direct costs:** Direct program costs are those costs incurred through the direct implementation of the Title V program. Examples include: costs of permit writing and review labor, staff development, training, inspector salaries and travel expenses, air monitoring equipment purchases, regulation development, small business assistance and computer modeling software purchases.

**Indirect costs:** Indirect costs are the programs share of costs incurred by the Department that benefit the entire agency. Examples include: building rent, costs of certain administrative labor such as the Director, the Deputy Directors, and general data management.

**Low Emitter Source:** A source that has a potential to emit to be a major source, but has demonstrated through records and emission inventories for at least 5 years a history of actual emissions not exceeding 50 percent of major source thresholds for regulated pollutants and that is not otherwise required to obtain a permit.

**Non Source-Specific Costs:** Those costs not specifically attributable to a single source. Examples include: resources required for review of federal regulations, resources required for participation in national organizations, small business assistance, labor for drafting a general air permit, and ambient air monitoring in areas of multiple sources.

**<u>Primary Activity:</u>** A main functional area of the air program. Examples of primary activities include: permitting, small business assistance, emission inventory, state regulation and program development, compliance assurance, federal policy and rulemaking, and acid rain.

**Source-Specific Costs:** Those costs specifically attributable to a single source. Examples include: labor for drafting an operating permit for a single source, labor for inspecting a single source, and cost of publishing a public notice for a permit.



Renewable Energy – The wind and sun power the NDEQ air quality monitoring station in Scottsbluff, NE. Courtesy, Scottsbluff Star Herald.

# **Direct and Indirect Costs – SFY2015**

#### A. Fees Assessed

Major source emissions were first subject to fees for calendar year 1994 emissions. The following table details the fee rates for the last several years, the date those fees were due, how much was collected, and which fiscal year the fees were intended to fund.

Emission	Fee Rate	Fee Due Date	Fees	Fiscal Year
Inventory	per Ton of		Collected <sup>1</sup>	Funded
Year	Pollutant			
2006	\$57	July 1, 2007	\$2,410,594	SFY2008
2007	\$57	July 1, 2008	\$2,326,284	SFY2009
2008	\$62	July 1, 2019	\$2,478,420	SFY2010
2009	\$70	July 1, 2010	\$2,666,552	SFY2011
2010	\$66	July 1, 2011	\$2,566,717	SFY2012
2011	\$64	July 1, 2012	\$2,640,609	SFY2013
2012	\$65	July 1, 2013	\$2,588,903	SFY2014
2013	\$67	July 1, 2014	\$2,738,257	SFY2015
2014	\$70	July 1, 2015	\$2,832,625	SFY2016

 Table 1: Fees Collected

#### B. General Discussion of Program Costs

The Department's SFY2015 estimated expenditures (budget) was \$3,073,424 for the Title V program. The Department expended \$2,669,344 or approximately 87% of the budget. Table 2 provides a summary of SFY2015 expenditures within the Title V program by budget category.

 Table 2: Title V Program Costs SFY2015 by Budget Category

Category	Agency Program Costs
Personnel	\$ 1,475,510
Benefits	380,992
Contractual	27,513
Supplies	2,856
Other	30,398
Travel	33,515
Equipment	7,174
<b>Total Direct Costs:</b>	\$1,957,958
Total Indirect Costs:	711,386
Total Costs:	\$ 2,669,344

(July 1, 2014 - June 30, 2015)

<sup>&</sup>lt;sup>1</sup> Fees collected reflect late payment fees and updates to the emissions inventory that may have occurred after the initial submittal was filed.

# **Primary Activity Costs**

#### A. Payroll and Financial Center System

The Department was required to establish a system that provides reporting of resources expended on the primary components of the air quality program, as well as resources expended for each major source. Use of a tracking system commenced in July 1996.

Under the Payroll and Financial Center system, program activities are charged to the Title V (Class I) program, the "state" program, the Federal 103 program, or to the construction permit application fee program. The emission fees paid by major sources funds the Title V program. The "state" program refers to the 105 grant program which is funded by Federal funds and State general funds. The Federal 103 program is funded wholly by Federal funds and is utilized only for maintaining the PM<sub>2.5</sub> (particulate matter with an aerodynamic diameter of less than 2.5 microns) ambient monitoring network. The construction permit application fee program was enacted by the Legislature during the 2004 session (LB449) and began January 1, 2005. When applying for an air quality construction permit, the owner or operator of the facility must submit an application fee. The fees collected under the construction permit program are used toward paying some of the costs of processing the application.

All time spent by staff on the Title V program is recorded as program activity on timesheets in the Payroll and Financial Center system. The Title V program includes activities associated with major sources and synthetic-minor sources. Permit, planning and compliance program staff document time by primary activity and by specific source or non-source specific activities. An example of how the Title V program activities are tracked follows:

33 - 560 - 008223 Indicates which fund time Indicates the primary activity Indicates whether the time is for is to be charged (Ex. Title (ex. Class I – major source a specific source or for a non-V program) source specific activity (ex. permitting) FLEXcon Company, Inc.)

#### B. Costs by Primary Activity

The following table details the Title V air program costs for SFY2015 by primary activity:

Time Tracking Code	Primary Activity	Agency Program Costs
001	Administration and Management	\$ 146,855
002	General Office	264,259
553	Emission Inventory	49,164
554	Ambient Air Monitoring	109,341
555/104	General Air Program	338,007
557	Local Agency Coordination	563
559	Small Business Assistance Program	100,118
560	Class I – Major Source Permits	499,098
561	Class II – Synthetic Minor Permits	188,818
563	State Regulatory & Program Development	5,909
564	Federal Policy & Rulemaking Review	33,675
566/562/569	Other permitting	4,820
558/567	Compliance Assurance	863,774
568	Complaints	4,606
570	Low Emitter Permits	21,789
	Other (non-specified)	38,548
	TOTAL	\$2,669,344

Table 3: Costs by Primary Activity SFY2015(July 1, 2014- June 30, 2015)

#### С. Costs Specific to Class I Major Sources

Table 4 contains the costs the agency incurred that were specific to individual Class I major sources.

Facility Name	Facility Location	Facility ID	Time Tracking Code	Total Agency Costs
A-1 Fiberglass	Hastings	723	008366	\$ 4,727
Abengoa Bioenergy Co, LLC	York	59094	008291	29,470
Abengoa Bioenergy Co, LLC	Ravenna	77854	009013	6,307
ADM Corn Processing	Columbus	39285	008206	47,399
AGP Corn Processing	Hastings	62574	008236	11,493
AGP Soy Processing	Hastings	72698	008794	63,481
Archer Daniels Midland Co	Fremont	9169	008265	4,046
Ash Grove Cement Co	Louisville	4129	004504	46,385
Atlas Roofing Corporation	Mead	43396	008221	839
BD Medical Systems	Columbus	38719	008383	798
Bertrand Compressor Station	Loomis	88547	010189	8,770
Bimbo Bakeries USA, Inc	Hastings	140	008474	5,474
Bimbo Bakeries USA, Inc	Bellevue	59056	008471	1,541
Burgess Well Company	Minden	27639	007332	13,491
Butler County Landfill, Inc	David City	62743	008812	127
Cargill Ag Horizons <sup>2</sup>	Albion	1446	008310	0
Cargill Inc Polyol Sweeteners	Blair	64401	008787	2,347
Cargill Lactic Acid Plant	Blair	91164	010294	7,059
Cargill Meat Solutions Corp <sup>3</sup>	Schuyler	6272	008524	0
Cargill, Inc	Blair	57902	008296	22,260
Chief Ethanol Fuels, Inc	Hastings	58049	008315	18,974
Clean Harbors Environmental Services, Inc	Kimball	58562	008319	49,626
CNH Industrial America, LLC	Grand Island	24371	008395	5,247

# Table 4: Costs by Class I Major Source SFY2015(July 1, 2014 - June 30, 2015)

<sup>&</sup>lt;sup>2</sup> Work, such as inspections at the facility, fell outside SFY15. <sup>3</sup> Work, such as inspections at the facility, fell outside SFY15.

Facility Name	Facility Location	Facility ID	Time Tracking Code	Total Agency Costs
Columbus Terminal	Columbus	39527	008345	\$ 4,701
Cornhusker Energy Lexington	Lexington	77755	009010	8,663
CW Burdick Gen Station <sup>4</sup>	Grand Island	54712	008770	0
David City Municipal Power	David City	4016	008300	118
Don Henry Power Center	Hastings	58345	008530	3,841
Douglas Co Recycling Landfill	Bennington	62593	008467	9,246
Douglas County Landfill	Omaha	59516	008244	7,619
Dutton-Lainson Co	Hastings	125	008374	12,693
Endicott Clay Products	Endicott	27355	008389	2,939
Exmark Manufacturing Co	Beatrice	23151	009016	304
FLEXcon Company, Inc	Columbus	58429	008223	19,769
Flint Hills Resources Fairmont	Fairmont	86026	010000	20,974
G & P Development, Inc Landfill	Milford	45275	008825	1,825
Geneva Terminal	Geneva	22282	008343	735
Global Equipment Company, Inc	Norfolk	53804	008936	0
Grand Island Regional Landfill	Shelton	62812	008809	424
Green Plains Atkinson, LLC	Atkinson	86416	010027	14,637
Green Plains Central City, LLC	Central City	82836	009032	14,330
Green Plains Ord, LLC	Ord	85861	009091	1,288
Green Plains Wood River, LLC	Wood River	86000	009094	16,855
Hornady/Alda, LLC <sup>5</sup>	Alda	24980	008234	0
J Bar J Landfill	Ogallala	63354	008826	3,124
Koch Fertilizer Beatrice, LLC	Beatrice	23383	008411	15,793
Lon D Wright Power Plant	Fremont	48518	008350	10,566
Loveland Products, Inc	Fairbury	27086	008217	4,044
Magellan Pipeline Co, LP	Omaha	17738	008462	3,649
Magnolia Metal Corp	Auburn	36751	008465	978

<sup>&</sup>lt;sup>4</sup> Work, such as inspections at the facility fell outside SFY15. <sup>5</sup> Work, such as inspections at the facility fell outside SFY15.

Facility Name	Facility Location	Facility ID	Time Tracking Code	Total Agency Costs
Naturally Recycled Proteins	Wakefield	80265	009061	\$ 1,929
NatureWorks, LLC	Blair	69585	008857	202
Nebraska City Power Plant # 1	Nebraska City	37388	008353	8,175
Nebraska City Power Plant # 3	Nebraska City	64753	009004	2,203
NGPL Compressor Station #106	Beatrice	23034	008435	42,227
NGPL Compressor Station #196	Syracuse	37669	008470	16,852
NNSWC Landfill	Clarkson	62779	008811	230
North Denver Station	Hastings	55721	008339	2,400
Northern Natural Gas Co	Beatrice	23382	008324	1,050
Northern Natural Gas Co	Palmyra	37514	008325	2,398
NPPD Beatrice Power Station	Beatrice	76739	009002	8,229
NPPD Canaday Station	Lexington	8512	008433	1,610
NPPD Gerald Gentleman Station	Sutherland	34385	008396	17,607
NPPD Hebron Peaking Unit	Hebron	58034	008708	219
NPPD McCook Peaking Unit	McCook	39986	008836	167
Nucor Corporation	Norfolk	35548	008406	6,785
Nucor Steel	Norfolk	35677	008267	11,834
Omaha Papillion Creek Waste	Omaha	57789	008436	5,131
OPPD Cass County Station	Plattsmouth	70919	008870	19,026
OPPD Nebraska City Station	Nebraska City	58343	008355	28,455
OPPD Sarpy County Station	Bellevue	42638	008241	4,754
Osceola Terminal	Osceola	58738	008482	1,672
Pacific Ethanol Aurora East	Aurora	59052	008424	2,086
Pacific Ethanol Aurora West	Aurora	87072	010151	16,483
Plainview Municipal Power Plant	Plainview	38561	008757	2,617
Platte Generating Station	Grand Island	58027	008771	2,942
Purac America Inc	Blair	64258	008451	52

Facility Name	Facility Location	Facility ID	Time Tracking Code	Total Agency Costs
Rockies Express Pipeline, LLC <sup>6</sup>	Steele City	86963	010142	\$ 6,355
Sarpy County Sanitary Landfill	Springfield	48856	008828	6,127
TIGT Albion Compressor Station <sup>7</sup>	Albion	1416	008475	0
TIGT Big Springs Station	Big Springs	56628	008297	13,737
TIGT Grand Island Compressor Station	Grand Island	24673	008479	15,986
TIGT Holdrege Compressor Station	Holdrege	38270	008476	12,919
TIGT Huntsman Station	Sidney	5456	008392	3,016
TIGT Lexington Compressor Station	Lexington	8669	008437	9,576
TIGT North Platte Compressor Station	North Platte	58735	008477	7,162
Tyson Fresh Meats, Inc	Dakota City	7339	008376	16,166
Tyson Fresh Meats, Inc	Lexington	8744	008432	468
Union Pacific Railroad	North Platte	60192	008481	5,217
Valero Renewable Fuels Co	Albion	85814	009089	2,031
Veyance Technologies, Inc	Norfolk	53867	008391	3,507
Wayne Municipal Power Plant	Wayne	47263	008426	3,248
Western Sugar Cooperative	Scottsbluff	44141	008225	4,012
Whelan Energy Center	Hastings	58048	008338	12,038

### D. Sector-Specific Costs

The growth Nebraska has seen in the ethanol production sector has leveled off the last few years. Initially activities were associated with pre-construction permitting. Now that plants are built and operational, the work has shifted to compliance, operating permits, and enforcement activities. Most costs associated with administering the air program for ethanol production facilities are paid with Title V emission fees because facilities are either major or synthetic minor facilities. A small portion of the costs are paid with construction permit application fees. Ethanol plants are considered major or synthetic-minor for purposes of the air permit program. Table 5 details the amount of Title V funds that have been expended toward the ethanol sector since SFY2006:

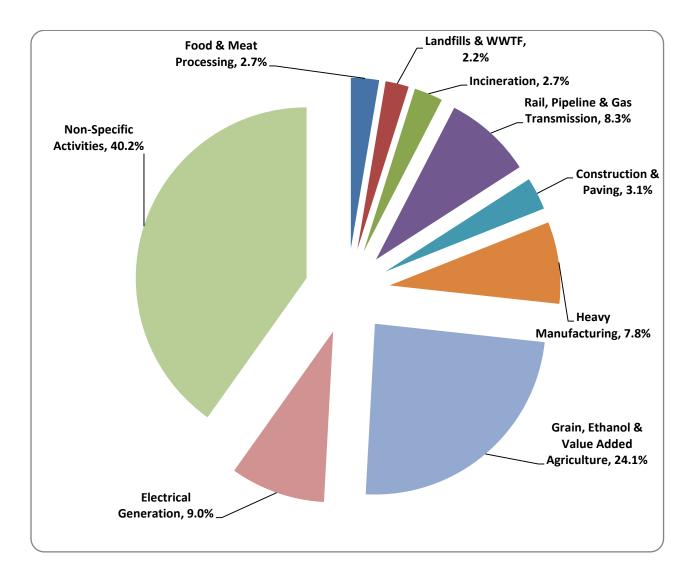
<sup>&</sup>lt;sup>6</sup> Rockies Express Pipeline, LLC revised their Class I operating permit to become a Class II source in June 2015. This source will no longer be Class I beginning in SFY16.

<sup>&</sup>lt;sup>7</sup> Work, such as inspections at the facility fell outside SFY15.

State Fiscal Year	Ethanol Sector Title V Spending	Percent of Total Title V Expenditures
SFY06	\$318,819	14%
SFY07	\$445,380	22%
SFY08	\$376,546	16%
SFY09	\$440,777	18%
SFY10	\$473,690	18%
SFY11	\$382,870	15%
SFY12	\$377,606	14%
SFY13	\$361,366	14%
SFY14	\$275,473	10%
SFY15	\$349,704	13%

 Table 5: Title V Air Program Spending on the Ethanol Fuel Sector since SFY06

Chart 1 illustrates the program costs by industry sector. The heavy and general industry category includes manufacturing facilities such as Nucor Steel, Omaha Steel Castings, and Valmont Industries. The food and meat processing sector includes bread manufacturing, meat packing, rendering, and pet food manufacturing. Incineration includes hospital waste incinerators, as well as the Clean Harbors facility in Kimball, Nebraska. Wastewater treatment plants (WWTPs) include those systems at municipalities. The "non-specific" category refers to costs associated with activities that are not associated with an individual source, but benefit a broad category of sources. Examples of "non-specific" activities include: ambient monitoring, rule development, data entry, outreach, and training. The program costs reflected in Chart 1 include those attributed to activities related to Class I major sources and Class II synthetic minor sources.



# Chart 1: Title V Costs by Sector (Percentage)