

Date: December 15, 2014

To: Appropriations Committee Members of the Legislature

From: Shelley Schneider, Air Quality Division Administrator – NDEQ

RE: State Fiscal Year 2014 Air Quality Permit Program Report

Enclosed please find a copy of the Air Quality Permit Program Emission Fee Appropriations Report for State Fiscal Year 2014. 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 Schneider@nebraska.gov.

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Air Quality Permit Program Emission Fee Appropriations Report

Presented to Appropriations Committee of the Legislature

By the Department of Environmental Quality



December 31, 2014

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Sunset at Wagon Train State Recreation Area near Hickman, NE Photo courtesy of Hayden Kaderly

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 2014 (SFY 2014) 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 Department's resource tracking and accounting systems allow documentation of 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 (O₃), lead (Pb), particulate matter (PM), carbon monoxide (CO), nitrogen oxides (NOx), and sulfur oxides (SO_x). Changes have occurred recently to the lead, nitrogen oxides, sulfur oxides and fine particulate matter standards. EPA is expected to finalize revisions to the proposed ozone standard in 2015. In November 2014, EPA proposed lowering the ozone standard from 75 ppb to somewhere between 65 to 70 ppb, 8-hr average. Currently, Nebraska monitors record levels as high as 69 ppb, 8-hr average in the Omaha area.

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. 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 is to begin in 2015. As such, the electric generating facilities in Nebraska must comply with the sulfur dioxide and nitrogen dioxide emission caps beginning in 2015.

B. Greenhouse Gas Regulation

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 pursuant to the US Supreme Court decision.

In June 2014, EPA proposed a rule 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. EPA developed the proposal using four building blocks: heat rate improvement at the power plant, re-dispatch to natural gas plants, increase dependence on renewable energy, and decrease energy demand through energy efficiency programs. EPA is expected to finalize the rules in June 2015.

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.

Class I – Major Source: 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 equivalent 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.

<u>Direct costs:</u> 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.

<u>Indirect costs:</u> 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.

<u>Low Emitter Source</u>: 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.

<u>Non Source-Specific Costs:</u> 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.

<u>Source-Specific Costs:</u> 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.

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



Direct and Indirect Costs - SFY2014

A. Fees Assessed

2013

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** Fiscal Year Fees Collected¹ Funded Inventory per Ton of Year **Pollutant** July 1, 2007 2006 \$57 \$2,410,594 SFY2008 July 1, 2008 2007 \$57 \$2,326,284 SFY2009 \$2,478,420 2008 July 1, 2019 SFY2010 \$62 2009 \$70 July 1, 2010 \$2,666,552 SFY2011 2010 \$66 July 1, 2011 \$2,566,717 SFY2012 2011 \$64 July 1, 2012 \$2,657,805 SFY2013 \$2,588,903 2012 \$65 July 1, 2013 SFY2014

Table 1: Fees Collected

B. General Discussion of Program Costs

\$67

The Department's SFY2014 estimated expenditures (budget) was \$2,968,018 for the Title V program. The Department expended \$2,700,500 or approximately 91% of the budget. Table 2 provides a summary of SFY2014 expenditures within the Title V program by budget category.

July 1, 2014

\$2,717,359

SFY2015

Table 2: Title V Program Costs SFY2014 by Budget Category

(July 1, 2013 - June 30, 2014)

Category	Agency Program Costs
Personnel	\$ 1,497,415
Benefits	378,979
Contractual	27,906
Supplies	10,735
Other	41,069
Travel	31,836
Equipment	4,824
Total Direct Costs:	\$1,992,764
Total Indirect Costs:	707,736
Total Costs:	\$ 2,700,500
Percent of Budget Expended	91%

¹ Fees collected reflect late payment fees and updates to the emissions inventory that may have occurred after the initial submittal was filed.

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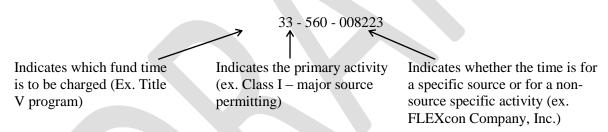
Primary Activity Costs

A. Resource Tracking

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 resource tracking system commenced in July 1996.

Under the resource tracking 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_{2.5} (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. 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:



Costs by Primary Activity B.

The following table details the Title V air program costs for SFY2014 by primary activity:

Table 3: Costs by Primary Activity SFY2014 (July 1, 2013- June 30, 2014)

Resource Tracking Code	Primary Activity	Agency Program Costs
001	Administration and Management	\$ 129,054
002	General Office	244,735
553	Emission Inventory	54,526
554	Ambient Air Monitoring	119,400
555	General Air Program	370,196
557	Local Agency Coordination	6,293
559	Small Business Assistance Program	159,587
560	Class I – Major Source Permits	463,166
561	Class II – Synthetic Minor Permits	211,510
563	State Regulatory & Program Development	14,047
564	Federal Policy & Rulemaking Review	34,147
566/562/569	Other permitting	14,170
558/567	Compliance Assurance	778,492
568	Complaints	6,263
570	Low Emitter Permits	26,461
	Other (non-specified)	68,454
	TOTAL	\$ 2,700,500

C. Costs Specific to Class I Major Sources

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

Table 4: Costs by Class I Major Source SFY2014

(July 1, 2013 - June 30, 2014)

Facility Name	Facility Location	Facility ID	Resource Tracking Code	Total Agency Costs
A-1 Fiberglass	Hastings	723	008366	\$ 846
Abengoa Bioenergy Co, LLC	York	59094	008291	22,860
Abengoa Bioenergy of Nebraska ²	Ravenna	77854	009013	6,823
ADM Corn Processing	Columbus	39285	008206	33,360
Archer Daniels Midland Co	Fremont	9169	008265	3,621
AGP Corn Processing, Inc	Hastings	62574	008236	5,530
AGP Soy Processing	Hastings	72698	008794	25,383
Agrium Advanced Technologies	Fairbury	27086	008217	18,189
Ash Grove Cement Co	Louisville	4129	004504	36,920
Aventine Renewable Energy ³	Aurora	87072	010151	922
BD Medical Systems	Columbus	38719	008383	14,439
Bertrand Compressor Station	Loomis	88547	010189	39
Bimbo Bakeries USA, Inc	Bellevue	59056	008471	1,525
Burgess Well Company	Minden	27639	007332	3,271
Butler County Landfill, Inc	David City	62743	008812	2,911
Cargill Ag Horizons	Albion	1446	008310	40
Cargill, Inc	Blair	57902	008296	39,228
Cargill Lactic Acid Plant	Blair	91164	010294	5,149
Cargill Meat Solutions Corp	Schuyler	6272	008524	2,606
Cargill Inc Polyol Sweeteners	Blair	64401	008787	4,747
Chadron Community Hospital	Chadron	7795	009062	1,611
Chief Ethanol Fuels, Inc	Hastings	58049	008315	9,232

² Became Class I due to the Greenhouse Gas regulation, however due to the June 2014 US Supreme Court decision, will no longer be Class I for SFY15.

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³ Became Class I due to the Greenhouse Gas regulation, however due to the June 2014 US Supreme Court decision, will no longer be Class I for SFY15.

Facility Name	Facility Location	Facility ID	Resource Tracking Code	Total Agency Costs
Clean Harbors Environmental Services, Inc	Kimball	58562	008319	\$ 15,483
CNH America, LLC	Grand Island	24371	008395	4,768
Columbus Terminal	Columbus	39527	008345	2,437
Cornhusker Energy Lexington ⁴	Lexington	77755	009010	9,006
CW Burdick Gen Station	Grand Island	54712	008770	2,797
David City Municipal Power	David City	4016	008300	9,884
Don Henry Power Center	Hastings	58345	008530	261
Douglas Co Recycling Landfill	Bennington	62593	008467	8,579
Douglas County Landfill	Omaha	59516	008244	6,233
Dutton-Lainson Co	Hastings	125	008374	7,063
Earthgrains Baking Companies	Hastings	140	008474	38
Endicott Clay Products Co	Fairbury	27355	008389	942
EXmark Mfg Co	Beatrice	23151	009016	4,309
FLEXcon Company, Inc	Columbus	58429	008223	4,075
Flint Hills Resources Fairmont	Fairmont	86026	010000	16,289
G & P Development, Inc Landfill	Milford	45275	008825	438
Geneva Terminal	Geneva	22282	008343	1,329
Global Equipment Company, Inc	Norfolk	53804	008936	9,075
Gordon Memorial Hospital	Gordon	57220	008992	716
Grand Island Regional Landfill	Shelton	62812	008809	3,417
Green Plains Atkinson, LLC ⁵	Atkinson	86416	010027	394
Green Plains Central City, LLC ⁶	Central City	82836	009032	9,899
Green Plains Ord, LLC ⁷	Ord	85861	009091	7,720

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⁴ Became Class I due to the Greenhouse Gas regulation, however due to the June 2014 US Supreme Court decision, will no longer be Class I for SFY15.

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⁵ Became Class I due to the Greenhouse Gas regulation, however due to the June 2014 US Supreme Court decision, will no longer be Class I for SFY15.

⁶ Became Class I due to the Greenhouse Gas regulation, however due to the June 2014 US Supreme Court decision, will no longer be Class I for SFY15.

⁷ Became Class I due to the Greenhouse Gas regulation, however due to the June 2014 US Supreme Court decision, will no longer be Class I for SFY15.

Facility Name	Facility Location	Facility ID	Resource Tracking Code	Total Agency Costs
Green Plains Wood River, LLC ⁸	Wood River	86000	009094	\$ 7,323
Insulfoam ⁹	Mead	43396	008221	-
J Bar J Landfill	Ogallala	63354	008826	757
Koch Nitrogen Company, LLC	Beatrice	23383	008411	6,372
Lon D Wright Power Plant	Fremont	48518	008350	17,001
Magellan Pipeline Co, LP	Omaha	17738	008462	302
Magnolia Metal Corp	Auburn	36751	008465	3,667
Naturally Recycled Proteins	Wakefield	80265	009061	12,049
NatureWorks, LLC	Blair	69585	008857	4,089
Nebraska City Power Plant # 1	Nebraska City	37388	008353	3,767
Nebraska City Power Plant # 3	Nebraska City	64753	009004	3,943
Nebraska Energy, LLC	Aurora	59052	008424	3,726
NGPL Compressor Station #106	Beatrice	23034	008435	9,521
NGPL Compressor Station #196	Syracuse	37669	008470	193
NNSWC Landfill	Clarkson	62779	008811	5,623
North Denver Station	Hastings	55721	008339	171
Northern Natural Gas Co	Beatrice	23382	008324	1,122
Northern Natural Gas Co	Palmyra	37514	008325	2,440
NPPD Beatrice Power Station	Beatrice	76739	009002	4,369
NPPD Canaday Station	Lexington	8512	008433	2,402
NPPD Gerald Gentleman Station	Sutherland	34385	008396	13,270
NPPD Hebron Peaking Unit	Hebron	58034	008708	185
NPPD McCook Peaking Unit	McCook	39986	008836	2,620
Nucor Corporation	Norfolk	35548	008406	171
Nucor Steel	Norfolk	35677	008267	36,261
Omaha Papillion Creek Waste	Omaha	57789	008436	3,013

⁸ Became Class I due to the Greenhouse Gas regulation, however due to the June 2014 US Supreme Court decision, will no longer be Class I for SFY15.

⁹ Work, such as inspections at the facility fell outside SFY14.

			Resource	
Facility Name	Facility Location	Facility ID	Tracking Code	Total Agency Costs
OPPD Cass County Station	Plattsmouth	70919	008870	\$ 14,215
OPPD Nebraska City Station	Nebraska City	58343	008355	38,945
OPPD Sarpy County Station	Bellevue	42638	008241	2,450
Osceola Terminal	Osceola	58738	008482	2,507
Plainview Municipal Power	Plainview	38561	008757	32,775
Platte Generating Station	Grand Island	58027	008771	19,032
Purac America Inc	Blair	64258	008451	5,217
Sarpy County Sanitary Landfill	Springfield	48856	008828	2,108
Steele City Compressor Station	Odell	86963	010142	1,080
Store Kraft Manufacturing ¹⁰	Beatrice	23048	008361	810
TIGT Albion Compressor Station	Albion	1416	008475	5,720
TIGT Big Springs Station	Big Springs	56628	008297	46,870
TIGT Grand Island Compressor	Grand Island	24673	008479	34,895
TIGT Holdrege Compressor Station	Holdrege	38270	008476	16,786
TIGT Huntsman Station #1	Sidney	5456	008392	22,053
TIGT Lexington Compressor Station	Lexington	8669	008437	2,005
TIGT North Platte Compressor	North Platte	58735	008477	4,818
Tyson Fresh Meats, Inc	Dakota City	7339	008376	3,943
Tyson Fresh Meats, Inc	Lexington	8744	008432	4,889
Union Pacific Railroad	North Platte	60192	008481	3,885
Valero Renewable Fuels Co ¹¹	Albion	85814	009089	6,103
Veyance Technologies, Inc	Norfolk	53867	008391	114
Wayne Municipal Power Plant	Wayne	47263	008426	5,066
Western Sugar Cooperative	Scottsbluff	44141	008225	6,833
Whelan Energy Center	Hastings	58048	008338	2,198

Facility notified NDEQ on October 15, 2014, that it was shutting down operations.

11 Became Class I due to the Greenhouse Gas regulation, however due to the June 2014 US Supreme Court decision, will no longer be Class I for SFY15.

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:

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

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%

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 animal products sector includes 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.

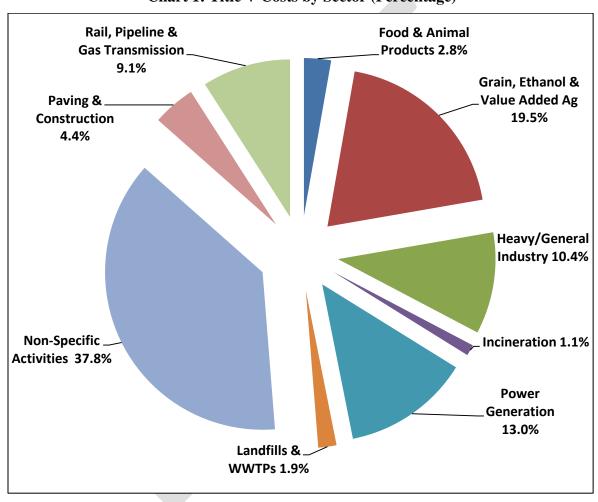


Chart 1: Title V Costs by Sector (Percentage)