Air Quality Permit Program
Emission Fee
Appropriations Report

Presented to
Appropriations Committee
of the Legislature

By the
Department of Environment and Energy

NEBRASKA
DEPT. OF ENVIRONMENT AND ENERGY

December 2022

Table of Contents

Introduction

The Department of Environment and Energy 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 2022 (SFY 2022) 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 is 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. This report verifies that revenue generated from emission fees was used by NDEE solely to offset appropriate and reasonable costs associated with the air quality permit program.

Emerging Issues

A. National Ambient Air Quality Standards

Pursuant to the Clean Air Act, EPA must review the National Ambient Air Quality Standards (NAAQS) every five years. The purpose of these standards is to protect public health, welfare and the environment. Pollutants regulated by these standards include ozone (O_3), lead (Pb), particulate matter (PM), carbon monoxide (CO), nitrogen dioxide (NO_2), and sulfur dioxide (SO_2); Nebraska currently complies with all six standards. Pending actions affecting Nebraska include:

Particulate Matter ($PM_{2.5}$)

In April 2020, EPA proposed to retain the current NAAQS for particulate matter (PM), including both fine particles ($PM_{2.5}$) and coarse particles (PM_{10}), issuing its final rule in December 2020 to retain the current standards. The $PM_{2.5}$ primary standards are currently 12.0 $\mu g/m^3$ annual average and 35 $\mu g/m^3$ 24-hr average. In June 2021, EPA announced that it will reconsider the 2020 final rule based on evidence that current standards may not be adequate; it expects to issue proposed rulemaking before the end of December 2022. The Clean Air Scientific Advisory Committee, CASAC, the independent committee that provides advice to the US EPA Administrator on the technical basis for the NAAQS. A majority of CASAC scientists recommended an annual standard in the range of 8 to 10 $\mu g/m^3$ to be appropriate; whereas a minority found that a range of 10 to 11 $\mu g/m^3$ to be appropriate. A majority of CASAC members favored also lowering the 24-hour standard in the range of 25 to 30 $\mu g/m^3$.

B. Municipal Solid Waste Landfill Plan

On May 21, 2021, EPA finalized the federal implementation plan for municipal solid waste landfills (MSWL). The plan supports the following federal rule located at 40 CFR Part 60 Subpart Cf: Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills. The emission guidelines apply to

landfills that were constructed prior to July 17, 2014 and accepted waste after November 8, 1987. This new emission guideline lowers the threshold for which facilities must install gas collection and control equipment from 50 megagrams per year (Mg/yr) to 34 Mg/yr of nonmethane organic compounds (NMOCs). NDEE is working with EPA on implementation of the federal plan while the agency develops a state implementation plan. Updates to Title 129 – Nebraska Air Quality Regulations are planned for calendar year 2023.

C. Regional Haze

Regional Haze refers to impaired visibility due to particulates and industrial gases in the atmosphere. EPA issued the Regional Haze Rule in 1999 to improve visibility in national parks and wilderness areas. The rule requires that state and federal agencies work together to achieve this goal. Numerous amendments to the Rule have been issued addressing the Cross-State Air Pollution Rule (CSAPR) as an alternative to Best Available Retrofit Technology (BART) for particular pollutant sources, and regulatory requirements for state implementation plans. In addition, recent guidance and technical support documents are available to assist states in preparing State Implementation Plans (SIPs) for the second implementation period (2018-2028).

Nebraska submitted its Regional Haze 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. The disapproved portions will be addressed in the forthcoming SIP revision. This source participates in the CSAPR trading program, which allots each source an emissions budget for SO_2 and permits trading of allotments. Emissions to date from this source have been within the allotted SO_2 budget under CSAPR, and no additional control measures have been required.

The Department submitted its Regional Haze Five-Year Progress Report in April 2017. At present, the Department is developing its SIP revision for the second implementation period. This SIP revision will address portions of the initial SIP and progress report, as well as state obligations for the current implementation period. As of December 2022, Nebraska's draft SIP is undergoing Federal Land Manager (FLM) consultative review.

Definitions

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

Chargeable emissions: 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 particulate matter with an aerodynamic diameter less than 10 microns (PM10), carbon monoxide (CO), nitrogen oxides (NOx), sulfur oxides (SOx), or volatile organic compounds (VOC); 10 tons or more of any single hazardous air pollutants (HAP); 25 tons of any combination of HAPs. Until the U.S. Supreme Court partially overturned the greenhouse gas (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 because of other federal requirements.

Class II – Synthetic Minor Source: 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.

Compliance Assurance: 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 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% 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.

Primary Activity: 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.

Direct and Indirect Costs – SFY2022

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 10 years, the date those fees were due, how much was collected, and which fiscal year the fees were intended to fund.

Table 1: Fees Collected

Emission Inventory Year	Fee Rate per Ton of Pollutant	Fee Due Date	Fees Collected[1]	Fiscal Year Funded
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
2015	$71	July 1, 2016	$2,719,339	SFY2017
2016	$78	July 1, 2017	$2,959,554	SFY2018
2017	$78	July 1, 2018	$3,115,348	SFY2019
2018	$70	July 1, 2019	$2,941,109	SFY2020
2019	$65	July 1, 2020	$2,617,991	SFY2021
2020	$50	July 1, 2021	$1,876,463	SFY2022
2021	$50	July 1, 2022	$1,945,841[1]	SFY2023

B. General Discussion of Program Costs

The department's SFY2022 estimated expenditures (budget) was $2,509,266 for the Title V program. The department expended $2,224,029, or approximately 89% of the budget. Table 2 provides a summary of SFY2022 Title V budgeted costs.

Table 2: Title V Program Costs for SFY2022

(July 1, 2021 - June 30, 2022)

Category	Title V Program Costs
Personnel	$ 1,355,408
Benefits	389,615
Contractual	17,405
Supplies	4,346
Other	49,782
Travel	10,176
Total Direct Costs	1,826,432
Total Indirect Costs	397,597
Total Costs:	**$ 2,224,029**

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

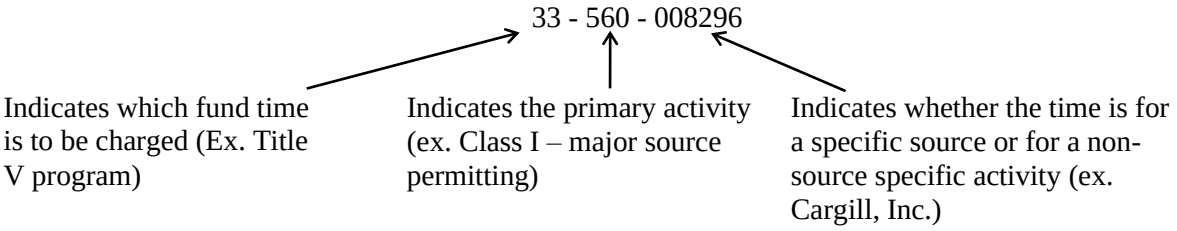
Primary Activity Costs

A. Payroll and Financial Center System

The department is 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 either 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 fund 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. There are currently no fees charged to sources for air quality operating permits.

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 activity is tracked follows:



B. Costs by Primary Activity

The following table details the Title V air program costs for SFY2022 by primary activity:

Table 3: Costs by Primary Activity SFY2022
(July 1, 2021- June 30, 2022)

Time Tracking Code	Primary Activity	Agency Program Costs
001; 115; 119; 120; 121; 123; 124; 128; 130; 607	Administration/Management	$ 302,956
002	General Office	$ 197,205
100	Outside Meeting	$ 4,246
103; 111; 567; 568; 592; 601	Compliance / Complaints / Enforcement	$ 480,521
106; 554; 608	Environmental Data Collection/ Ambient Air Monitoring	$ 13,494
112; 555; 564; 565; 604; 113; 602	Rules & Regulations / Legislation / Planning	$ 114,734
114; 606	Training	$ 145,908
116; 122	Process Improvement / Application Development	$ 44,615
553; 594; 605	Air Emission Inventory	$ 87,640
559; 600; 127	Small Business Assistance / Title V/Class II – Compliance Assistance/Outreach	$ 35,697
566; 590; 101; 610	Construction Permit	$ 308,711
591; 560; 561; 562; 570; 611; 612	Operating Permit	$ 447,549
593; 603	Modeling	$ 36,700
596	Monitoring Mercury	$ 3,200
	TOTAL	**$ 2,224,029**

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 SFY2022
(July 1, 2021 - June 30, 2022)

Facility Name	Facility Location	Facility ID	Time Tracking Code	Total Agency Costs
E Energy Adams LLC	Adams	86373	10021	$ 13,994
KN Int. Gas	Albion	1416	8475	$ 3,479
Valero Renewable Fuels Co	Albion	85814	9089	$ 5,416
Green Plains Atkinson, LLC	Atkinson	86416	10027	$ 1,881
Aurora East	Aurora	59052	8424	$ 452
A-1 Fiberglass	Aurora	85312	8917	$ 8,508
Aurora West	Aurora	87072	10151	$ 12,872
Northern Natural Gas Co	Beatrice	23382	8324	$ 7,548
Koch Fertilizer Beatrice, LLC	Beatrice	23383	8411	$ 17,913
Natural Gas Pipeline	Beatrice	23034	8435	$ 2,110
NPPD Beatrice Power Station	Beatrice	76739	9002	$ 3,566
OPPD Sarpy County Station	Bellevue	42638	8241	$ 14,895
Bimbo Bakeries USA	Bellevue	59056	8471	$ 11,803
Douglas County Recycling Landfill	Bennington	62593	8467	$ 2,071
KMIGT Big Springs Station	Big Springs	56628	8297	$ 1,157
Cargill, Inc	Blair	57902	8296	$ 170,568
Cargill Inc Polyol Sweeteners	Blair	64401	8787	$ 6,235
Nature Works, LLC	Blair	69585	8857	$ 14,897
Cargill Lactic Acid Plant	Blair	91164	10294	$ 10,898
Green Plains Central City, LLC	Central City	82836	9032	$ 6,958
NNSWC Landfill	Clarkson	62779	8811	$ 262
ADM Corn Processing	Columbus	39285	8206	$ 9,042
KANEB Pipeline	Columbus	39527	8345	$ 44
BD Medical Systems	Columbus	38719	8383	$ 17,830
Tyson Fresh Meats, Inc	Dakota City	7339	8376	$ 6,289
Butler County Landfill, Inc	David City	62743	8812	$ 10,612
Elk Creek Resources	Elk Creek	97622	2472	$ 484
Endicott Clay Products	Endicott	27355	8389	$ 3,704
Flint Hills Resources Fairmont	Fairmont	86026	10000	$ 12,869

Facility Name	Facility Location	Facility ID	Time Tracking Code	Total Agency Costs
Lincoln Premium Poultry	Fremont	76680	2500	$ 8,527
Archer Daniels Midland Co	Fremont	9169	8265	$ 7,617
Lon D Wright Power Plant	Fremont	48518	8350	$ 7,655
KANEB Pipeline	Geneva	22282	8343	$ 1,439
CNH Industrial America, LLC	Grand Island	24371	8395	$ 6,115
C.W. Burdick Gen. Station	Grand Island	54712	8429	$ 937
KN Int. Gas	Grand Island	24673	8479	$ 1,082
Platte Generating Station	Grand Island	58027	8771	$ 123
Chief Ethanol Fuels, Inc	Hastings	58049	8315	$ 3,114
Hastings Utility – Whelan Energy	Hastings	58048	8338	$ 2,620
Hastings Utility – N. Denver	Hastings	55721	8339	$ 7,629
A-1 Fiberglass	Hastings	723	8366	$ 1,368
Dutton-Lainson Co	Hastings	125	8374	$ 3,845
Hastings Utility – Don Henry	Hastings	58345	8530	$ 105
AGP Soy Processing	Hastings	72698	8794	$ 7,255
Hastings Adams Landfill	Hastings	55719	8816	$ 5,189
NPPD Hebron Peaking Unit	Hebron	58034	8708	$ 119
KMIGT Holdrege	Holdrege	38270	8476	$ 3,865
Williams Power & Light	Irvington	17738	8462	$ 417
Siouxland Ethanol	Jackson	85434	7303	$ 11,612
Clean Harbors Environmental Services, Inc	Kimball	58562	8319	$ 27,687
Tyson Fresh Meats, Inc	Lexington	8744	8432	$ 5,356
NPPD Canaday Station	Lexington	8512	8433	$ 1,995
KN Energy	Lexington	8669	8437	$ 56
Bertrand Compressor Station	Loomis	88547	10189	$ 4,407
Ash Grove Cement Co	Louisville	4129	4504	$ 30,440
NPPD McCook Peaking Unit	McCook	39986	8836	$ 100
Insulfoam	Mead	43396	8221	$ 582
G & P Development, Inc Landfill	Milford	45275	8825	$ 3,608
KAAPA Ethanol	Minden	75073	8994	$ 998
OPPD Nebraska City Station	Nebraska City	58343	8355	$ 8,105
Nucor Steel	Norfolk	35677	8267	$ 19,216

Facility Name	Facility Location	Facility ID	Time Tracking Code	Total Agency Costs
Contitech USA, Inc	Norfolk	53867	8391	$ 7,191
Vulcraft/Nucor	Norfolk	35548	8406	$ 8,203
KMIGT North Platte	North Platte	58735	8477	$ 1,075
Union Pacific Railroad	North Platte	60192	8481	$ 2,977
J Bar J Landfill	Ogallala	63354	8826	$ 3,538
Douglas County Landfill	Omaha	59516	8244	$ 17,756
Papillion CRK-WWTP	Omaha	57789	8436	$ 21,613
Green Plains Ord, LLC	Ord	85861	9091	$ 7,290
KANEB Pipeline	Osceola	58738	8482	$ 74
NGPL #196	Otoe	37669	8470	$ 4,161
Northern Natural Gas Co	Palmyra	37514	8325	$ 3,957
Husker Ag LLC	Plainview	73356	8963	$ 138
OPPD Cass County Station	Plattsmouth	70919	8870	$ 2,857
KAAPA Ethanol	Ravenna	77854	9013	$ 9,264
Cargill Meat Solutions	Schuyler	6272	8524	$ 5,259
Western Sugar Cooperative	Scottsbluff	44141	8225	$ 41,241
Grand Island Regional Landfill	Shelton	62812	8809	$ 3,191
Huntsman	Sidney	5456	8392	$ 1,735
Fireball	Springfield	106518	1657	$ 21,502
Sarpy County Sanitary Landfill	Springfield	48856	8828	$ 4,976
Raven Northbrook, LLC	Springfield	108432	10529	$ 21,053
NPPD Gerald Gentleman Station	Sutherland	34385	8396	$ 14,046
Naturally Recycled Proteins	Wakefield	80265	9061	$ 2,676
Green Plains Wood River, LLC	Wood River	86000	9094	$ 20,083
Green Plains	York	59094	8291	$ 9,210

D. Sector-Specific Costs

Chart 1 illustrates the program costs by industry sector. The heavy industry sector includes manufacturing facilities such as Nucor Steel, Ash Grove, and Elk Creek Resources. The food manufacturing sector includes bread manufacturing, meat packing, rendering, and pet food manufacturing. The "non-source specific" category refers to costs associated with activities that are not related to an individual source but benefit a broad category of sources. Examples of "non-source specific" activities include, but are not limited to: Grow Nebraska Team activities, ambient monitoring, rule development, process improvement activities, outreach, training, and operating expenses. The sector with the largest program costs to NDEE during SFY2022 was the Grain, Ethanol & Value-Added Agriculture Sector at 40%. Of this, $170,568 was attributed to one source, Cargill in Blair.

Chart 1: Costs by Sector (Percentage)