

**Air Quality Permit Program
Emission Fee
Appropriations Report**

**Presented to
Appropriations Committee
of the Legislature**

**By the
Department of Environment and Energy**



December 22, 2021

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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 2021 (SFY 2021) 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 and Cross-State Pollution

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 (O₃), lead (Pb), particulate matter (PM), carbon monoxide (CO), nitrogen dioxide (NO₂), and sulfur dioxide (SO₂); Nebraska is currently comply with all six standards. Pending actions affecting Nebraska include:

2010 SO₂ NAAQS

The 2010 sulfur dioxide (SO₂) standard requires states to demonstrate attainment in the areas surrounding large sources of this pollutant. EPA finalized the Data Requirements Rule (DRR) in 2015 to assist in implementation of the 2010 standard, requiring state air agencies to characterize the air quality near sources that emit 2,000 tons per year or more of SO₂. Nebraska chose to comply with this requirement using both air quality monitoring and pollutant dispersion modeling. Five sources in Nebraska were subject to this rule; three sources relied on modeling and two opted to conduct monitoring to meet the requirements.

NDEE submitted Nebraska's designation recommendations to EPA for the areas surrounding three major sources to EPA in September 2015. EPA designated two of these sources (Gerald Gentleman Station in Lincoln County, and Nebraska City Station in Otoe County) as in compliance with the standards on September 16, 2016. The third (Sheldon Station in Lancaster County) was designated as in compliance with the standards on August 16, 2021. The area surrounding North Omaha Station (Douglas County) was designated as in compliance with the standards on April 30, 2021.

EPA conducts a comprehensive review of the NAAQS for each pollutant every five years. As these standards are continually subject to being lowered, maintaining the state's attainment status may prove to

be a challenge. In April 2019, EPA retained the current primary (health-based) SO₂ NAAQS, and the 2012 PM_{2.5} NAAQS is presently under review. In the event Nebraska should be designated as not complying with a NAAQS, the state will be required to develop a strategy to return to compliance (typically within a timeframe of 3 to 5 years) and sustain on-going compliance thereafter. The impact of a non-compliance designation would potentially create challenges for existing industry to expand and may dissuade new industry from coming into the impacted parts of the state.

Because emissions from one state can sometimes cause or contribute to air pollution issues in a downwind state, EPA issued the Cross-State Air Pollution Rule (CSAPR) to address interstate transport. Interstate transport is addressed in State Implementation Plans (SIPs) submitted by states when a new or revised NAAQS is promulgated. At the present time, Nebraska is in compliance with this rule for all applicable NAAQS. A SIP revision for the 2010 SO₂ NAAQS was submitted to EPA in 2020 and approved in August 2021. When this SIP was originally submitted to EPA in 2013, these elements were addressed by reliance on a memo from former EPA Administrator Gina McCarthy; this memo was rendered void following implementation of the rule. An analysis of Nebraska sources of SO₂ and their potential for impacts on neighboring states was conducted and it was determined that emissions from Nebraska sources don't interfere with adjacent states' ability to maintain or comply with the NAAQS.

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 (PM₁₀), issuing its final rule in December 2020 to retain the current standards. 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 in the summer of 2022.

B. Affordable Clean Energy Rule

In August 2018, EPA proposed the Affordable Clean Energy (ACE) Rule, which became final on July 8, 2019. This rule included three separate rulemakings: 1) repeal of the Clean Power Plan; 2) establishment of emission guidelines for states to use when developing plans to limit greenhouse gas emissions at power plants, and 3) determination that Heat Rate Improvement is the best system for reducing greenhouse gas emissions from coal-fired power plants. There were 12 designated EGU units in the State of Nebraska that are subject to the ACE rule.

The Affordable Clean Energy Rule was vacated in January 2021. NDEE has put this plan on hold.

C. 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 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.

D. 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 SO₂ and permits trading of allotments. Emissions to date from this source have been within the allotted SO₂ 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 which was due to EPA in July 2021. This SIP revision will address portions of the initial SIP and progress report, as well as state obligations for the current implementation period.



Eagle Rock

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 PM10, CO, NO_x, SO_x, or VOC; 10 tons or more of any single HAP; 25 tons of any combination of HAPs. Until the U.S. 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 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: 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% 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 – SFY2021

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 Collected¹	Fiscal Year Funded
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
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

B. General Discussion of Program Costs

The department's SFY2021 estimated expenditures (budget) was \$2,962,442 for the Title V program. The department expended \$2,165,213, or approximately 73% of the budget. Table 2 provides a summary of SFY2021 Title V budgeted costs.

Table 2: Title V Budgeted Costs for SFY2021

(July 1, 2020 - June 30, 2021)

Category	Title V Budgeted Costs
Personnel	\$ 1,628,815
Benefits	420,549
Contractual	19,000
Supplies	4,500
Other	78,501
Travel	25,500
Equipment	0
Total Direct Costs	2,176,865
Total Indirect Costs	785,577
Total Costs:	\$ 2,962,442

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



Middle Loup near Thedford

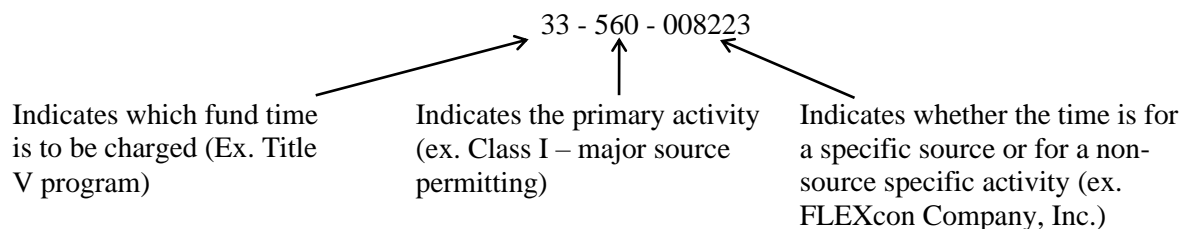
Primary Activity Costs

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 activities are tracked follows:



B. Costs by Primary Activity

The following table details the Title V air program costs for SFY2021 by primary activity:

Table 3: Costs by Primary Activity SFY2021
(July 1, 2020- June 30, 2021)

Time Tracking Code	Primary Activity	Agency Program Costs
001; 115; 119; 120; 121; 123; 124; 128; 130; 607	Administration/Management	\$ 130,584
002	General Office	139,865
100	Outside Meeting	4,286
103; 111; 567; 568; 592	Compliance / Complaints / Enforcement	460,159
106; 554; 608	Environmental Data Collection/ Ambient Air Monitoring	18,928
112; 555; 564; 565; 604; 113	Rules & Regulations / Legislation	114,022
114; 606	Training	143,340
116; 122	Process Improvement / Application Development	38,350
125	Legal Advice	0
170	Hazards (Floods)	0
553; 594; 605	Air Emission Inventory	97,818
559; 600	Small Business Assistance / Title V/Class II – Compliance Assistance/Outreach	45,451
566; 590; 101	Construction Permit	276,240
591; 560; 561; 562; 570	Operating Permit	415,419
593; 603	Modeling	39,304
596	Monitoring Mercury	8,769
601	Air 105/Title V – Compliance Office Activities	74,937
602	Air 105/Title V – Planning Office	21,155
610	Air 105/Title V – Construction Permit Office	52,788
611	Air 105/Title V – Operating Permit Office	67,549
612	Air 105/Title V – NO FID/Permit	16,249
	TOTAL	\$ 2,165,213

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 SFY2021
(July 1, 2020 - June 30, 2021)

Facility Name	Facility Location	Facility ID	Time Tracking Code	Total Agency Costs
A-1 Fiberglass	Hastings	723	008366	\$ 5,823.39
A-1 Fiberglass	Aurora	85312	008917	1,309.23
ADM Corn Processing	Columbus	39285	008206	33,358.80
AGP Soy Processing	Hastings	72698	008794	33,032.55
Archer Daniels Midland Co	Fremont	9169	008265	4,180.23
Ash Grove Cement Co	Louisville	4129	004504	21,163.08
BD Medical Systems	Columbus	38719	008383	784.52
Bertrand Compressor Station	Loomis	88547	010189	1,740.07
Bimbo Bakeries USA, Inc	Bellevue	59056	008471	517.30
Burgess Well Company	Minden	27639	007332	2,068.55
Butler County Landfill, Inc	David City	62743	008812	3,389.31
C.W. Burdick Gen. Station	Grand Island	54712	008429	510.75
Cargill Ag Horizons	Albion	1446	008310	249.67
Cargill Inc Polyol Sweeteners	Blair	64401	008787	16,444.45
Cargill Lactic Acid Plant	Blair	91164	010294	19,930.37
Cargill, Inc	Blair	57902	008296	165,897.90
Chief Ethanol Fuels, Inc	Hastings	58049	008315	16,673.54
City of Wayne	Wayne	47263	008426	453.16
Clean Harbors Environmental Services, Inc	Kimball	58562	008319	17,979.15
CNH Industrial America, LLC	Grand Island	24371	008395	7,716.89
David City Municipal Power	David City	4016	008300	442.55
Douglas County Recycling Landfill	Bennington	62593	008467	7,907.51
Douglas County Landfill	Omaha	59516	008244	11,714.50
Dutton-Lainson Co	Hastings	125	008374	2,744.52
E Energy Adams LLC	Adams	86373	010021	27,155.25

Facility Name	Facility Location	Facility ID	Time Tracking Code	Total Agency Costs
Eaton Corporation	Kearney	2374	008545	\$ 23,243.70
Endicott Clay Products	Endicott	27355	008389	952.64
Enron Natural Gas	Palmyra	37514	008325	11,314.14
Excel Corp	Schuyler	6272	008524	11,941.74
FLEXcon Company, Inc	Columbus	58429	008223	10,824.27
Flint Hills Resources Fairmont	Fairmont	86026	010000	31,714.36
G & P Development, Inc Landfill	Milford	45275	008825	2,695.04
Goodyear Tire	Norfolk	53867	008391	5,560.64
Grand Island Burdick Station	Grand Island		54712	2,617.32
Grand Island Platte Gen Station	Grand Island		58027	6,856.75
Grand Island Regional Landfill	Shelton	62812	008809	2,225.24
Green Plains Atkinson, LLC	Atkinson	86416	010027	1,523.39
Green Plains Central City, LLC	Central City	82836	009032	13,478.19
Green Plains Ord, LLC	Ord	85861	009091	9,225.41
Green Plains Wood River, LLC	Wood River	86000	009094	28,968.08
Green Plains	York	59094	008291	8,673.02
Hastings Utility – Don Henry	Hastings	58345	008530	9,011.88
Hastings Utility – N. Denver	Hastings	55721	008339	4,320.13
Hastings Utility – Whelan Energy	Hastings	58048	008338	17,698.66
Huntsman	Sidney	5456	008392	1,666.78
IBP	Lexington	8744	008432	8688.63
J Bar J Landfill	Ogallala	63354	008826	3472.19
KAAPA Ethanol	Ravenna	77854	009013	30,511.38
KANEB Pipeline	Geneva	22282	008343	22,262.64
KANEB Pipeline	Columbus	39527	008345	7,004.22
KANEB Pipeline	Osceola	58738	008482	6,756.28
KN Energy	Lexington	8669	008437	5325.27
KN Int. Gas	Albion	1416	008475	184.70
KN Int. Gas	Holdrege	38270	008476	537.71

Facility Name	Facility Location	Facility ID	Time Tracking Code	Total Agency Costs
KN Int. Gas	North Platte	58735	008477	\$ 10,625.77
KN Int. Gas	Grand Island	24673	008479	145.58
Koch Fertilizer Beatrice, LLC	Beatrice	23383	008411	18,973.11
Lon D Wright Power Plant	Fremont	48518	008350	6,809.27
Lincoln Premium Poultry	Fremont		002500	27,926.33
Natural Gas	Beatrice	23034	008435	1,053.29
Natural Gas	Otoe	37669	008470	12,932.60
Naturally Recycled Proteins	Wakefield	80265	009061	7,419.74
NatureWorks, LLC	Blair	69585	008857	2,332.68
Nebraska City Power Plant # 1	Nebraska City	37388	008353	93.21
Nebraska City Power Plant # 3	Nebraska City	64753	009004	9,397.98
Nebraska Energy	Aurora	59052	008424	157.37
NNSWC Landfill	Clarkson	62779	008811	3,119.61
Northern Natural Gas Co	Beatrice	23382	008324	7,814.90
NPPD Beatrice Power Station	Beatrice	76739	009002	15,019.55
NPPD Canaday Station	Lexington	8512	008433	103.63
NPPD Gerald Gentleman Station	Sutherland	34385	008396	4,448.93
NPPD Hebron Peaking Unit	Hebron	58034	008708	2,902.18
NPPD McCook Peaking Unit	McCook	39986	008836	2,649.13
NPPD Gerald Gentleman Station	Sutherland		000098	17,588.70
Nucor Corporation	Norfolk	35548	008406	1,053.31
Nucor Steel	Norfolk	35677	008267	14,974.06
OPPD Cass County Station	Plattsmouth	70919	008870	2,242.81
OPPD Nebraska City Station	Nebraska City	58343	008355	29,902.34
OPPD Sarpy County Station	Bellevue	42638	008241	1,570.34
Pacific Ethanol Aurora West	Aurora	87072	010151	22,283.88
Papillion CRK-WWTP	Omaha	57789	008436	1,639.58
PGLA-1	Blair	64258	008451	17,852.84
Pioneer Trails Tank Car		86000	001955	633.68

Facility Name	Facility Location	Facility ID	Time Tracking Code	Total Agency Costs
Plainview Municipal Power Plant	Plainview	38561	008757	\$ 44.56
Platte Generating Station	Grand Island	58027	008771	799.91
Premier Ind.	Mead	43396	008221	2,840.39
Raven Northbrook, LLC	Springfield		010529	37,778.54
Sarpy County Sanitary Landfill	Springfield	48856	008828	4,330.12
Siouxland Ethanol	Jackson	85434	007303	5,289.67
TIGT Big Springs Station	Big Springs	56628	008297	7,876.12
Tyson Fresh Meats, Inc	Dakota City	7339	008376	12,714.41
Union Pacific Railroad	North Platte	60192	008481	12,454.19
Valero Renewable Fuels Co	Albion	85814	009089	7,093.32
Vulcraft/Nucor	Norfolk	35548	008406	717.15
Western Sugar Cooperative	Scottsbluff	44141	008225	45,216.12
Williams Power & Light	Irvington	17738	008462	4,404.73

D. Sector-Specific Costs

Chart 1 illustrates the program costs by industry sector. The heavy manufacturing sector includes manufacturing facilities such as Nucor Steel, Ash Grove, and FLEXcon. 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. Wastewater treatment facilities (WWTFs) include those systems at municipalities. 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 program costs reflected in Chart 1 include those attributed to source-specific activities related to specific sectors. The sector with the largest program costs to NDEE during SFY2021 was the Grain, Ethanol & Value-Added Agriculture Sector at 44.54%. Of this, \$165,898 was attributed to one source, Cargill in Blair.

Chart 1: Title V Costs by Sector (Percentage)

