D R A F T

FACT SHEET FOR: OP26M2-017 **DATE:**

DWEE ID: 026807

Name of Source: Stuart Municipal Power Plant

Source Classification: Class II Synthetic Minor at time of issuance
Area Source of Hazardous Air Pollutants (HAPs)

Regulatory changes may supersede information in this document. If the source should add or change equipment or change processes such that a NESHAP or NSPS subpart becomes an applicable requirement, it is the source's obligation to comply with that subpart and applicable requirements whether or not they are identified in the associated permitting action or Title 129. Also note that the NESHAP and NSPS subparts are subject to change. Detailed information related to NESHAP and NSPS subparts can be found on the DWEE Air Toxics Notebook and DWEE NSPS Notebook located on the DWEE website (https://dwee.nebraska.gov/). The DWEE website can also be used to find other permit related and facility specific information that is not identified in this fact sheet.

The source is subject to and will comply with all applicable requirements found in Title 40 Protection of Environment, Code of Federal Regulations that apply to the source including those found at 40 CFR Part 52, Subpart CC or 40 CFR Part 70, Appendix A (federally enforceable requirements); the State Implementation Plan (SIP) approved Title 129 as amended September 28, 2022 cited in this permit and denoted by an asterisk (*) are federally enforceable; and the Environmental Protection Act, Neb. Rev. Stat. §§ 81-1501 to 81-1532, and Nebraska Administrative Code Title 129 as amended June 28, 2026. When Title 129 as amended June 28, 2026, cited in this permit becomes SIP approved and federally enforceable it will supersede Title 129 as amended September 28, 2022.

DESCRIPTION OF THE SOURCE OR ACTIVITY:

This operating permit OP26M2-017 approves the operation of three (3) reciprocating internal combustion engines (RICE) at a municipal electrical generation plant.

PERMIT HISTORY

Date Issued	Number	Status
07/01/1996	CP96-0017	Not active; superseded by CP23-024
07/03/2002	OPSPR2-0013	Not active; superseded by OPSPR2-0050
01/18/2008	OPSPR2-0050	Not active; superseded by OP12R2-034
08/09/2013	OP12R2-034	Not active; superseded by OP18R2-009
01/24/2019	OP18R2-009	Not active; superseded by OP23R2-030
11/15/2023	CP23-024	Active
01/31/2024	OP23R2-030	Not active; superseded by OP26M2-017
TBD	OP26M2-017	Active

PERMIT REVISION:

On May 5, 2026, Stuart Municipal Power Plant submitted an operating permit modification application OP26M2-017 to incorporate the applicable requirements of Construction Permit CP23-024 issued November 15, 2023. Construction Permit CP23-024 authorized the addition of an 1,880 kW Reciprocating diesel internal combustion engine.

TYPE AND QUANTITY OF AIR CONTAMINANT EMISSIONS ANTICIPATED:

The change in emissions for this project is shown in the potential to emit (PTE) table below (pollutants in the facility not listed below did not have any change in PTE):

Regulated Pollutant	Potential Emissions[1] (tons/year)	Potential Emissions after Revision (tons/year)	Change in Potential Emissions[2] (tons/year)
Particulate Matter (PM)	1.81	1.90	0.09
Particulate Matter less than or equal to 10 microns (PM_{10})	1.67	1.75	0.08
Particulate Matter less than or equal to 2.5 microns ($PM_{2.5}$)	1.62	1.70	0.08
Sulfur Dioxide (SO_2)	0.24	0.25	0.01
Oxides of Nitrogen (NO_x)	93.25	98.00	4.75
Carbon Monoxide (CO)	0.16	26.03	22.49
Volatile Organic Compounds (VOCs)	5.83	6.13	0.3
Greenhouse Gases (GHGs)	34.03	38.48	4.18
Carbon Dioxide Equivalents (CO_2e)	50.07	861.94	811.87
Hazardous Air Pollutants (HAPs)	0.23	9.31	9.08

[1] The potential emissions are from the fact sheet associated with Operating Permit OP23R2-030.
[2] The change in potential emissions calculations were provided in the Air Quality Permit Revision Request Form received on May 5, 2026, and is located in the DWEE's file for this source.

APPLICABLE REQUIREMENTS AND VARIANCES OR ALTERNATIVES TO REQUIRED STANDARDS:

Title 129, Chapter 9, Section 005*; Title 129, Chapter 9, Section 005 – Significant Permit Revisions

The source requested a significant operating permit revision to its existing operating permit as per Title 129, Chapter 9, Section 005* [1]; Title 129, Chapter 9, Section 005[1]

> Title 129, Chapter 9, Section 005*; Title 129, Chapter 9, Section 005 A "significant permit revision" is any revision or change to a permit that cannot be accomplished as an administrative permit amendment or as a minor permit revision. Any relaxation in existing monitoring, reporting, or recordkeeping shall be considered significant.
>
> Title 129, Chapter 9, Section 005.01*; Title 129, Chapter 9, Section 005 A source may request a significant permit revision by submitting the application forms and information in accordance with Title 129, Chapter 6, Section 002*; Title 129, Chapter 6, Section 002 for operating permit revisions or Chapter 3, Section 001.05, for construction permit revisions.
>
> Title 129, Chapter 9, 005.03*; Title 129, Chapter 9, 005.03 For operating permits only, the permit shield described in Title 129, Chapter 6, Section 003.12*; Title 129, Chapter 6, Section 003.12, shall apply to a significant permit revision only after the Director approves the permit revision, provided that the permit contains a permit shield.

[1] Title 129, Chapter 9, Section 005.02*; Title 129, Chapter 9, Section 005.02 is not included because it contains instructions for the DWEE.

Stuart Municipal Power Plant complied with all the above applicable requirements when submitting their application for the significant operating permit revision.

SUPPLEMENTAL INFORMATION:

Title 129, Chapter 12*; Title 129, Chapter 12 - New Source Performance Standards (NSPS) and Emission Limits for Existing Sources

NSPS that appear to be applicable, but are not at the time of permit issuance, are discussed below.

Subpart A – General Provisions

This subpart applies to all sources subject to a specified NSPS subpart. Since all the emission sources are not subject to any specific NSPS subpart (see discussion below), this facility is not subject to Subpart A.

Subpart K – Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification commenced After June 11, 1973 and Prior to May 19, 1978: This subpart applies to each petroleum liquid storage vessel with a capacity greater than 151,416 liters (40,000 gallons) but not exceeding 246,052 liters (60,000 gallons) which was constructed, reconstructed, or modified after June 11, 1973 and prior to May 19, 1978. The tank at Stuart Municipal Power Plant (SMPP) is not subject to this subpart because the storage tank has a capacity of less than 40,000 gallons and was constructed prior to March 8, 1974.

Subpart Ka—Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984: This subpart applies to each storage vessel with a storage capacity greater than 151,416 liters (40,000 gallons) that is used to store petroleum liquids for which construction is commenced after May 18, 1978 and prior to July 23, 1984. The storage tank at SMPP is not subject to this subpart because the storage tank has a capacity less than 40,000 gallons, and was constructed prior to May 18, 1978.

Subpart Kb—Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984: This subpart applies to storage vessels with a capacity greater than or equal to 75 cubic meters (m^3) (19,810 gal) that are used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984. The storage tank at SMPP is not subject to this subpart because the storage tank has a capacity less than 75 m^3 and was constructed prior to July 23, 1984.

Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines: This subpart applies to manufacturers, owners, and operators of stationary compression ignition internal combustion engines. For Subpart IIII to apply to manufacturers, the CI ICE must have a displacement of less than 30 liters per cylinder with a model year 2007 or later. For Subpart IIII to apply to owners and operators, the CI ICE must have commenced construction, modification, or reconstruction after July 11, 2005. Please note that for this subpart the 'commence construction' date is the date the engine was ordered by the owner or operator. This subpart is not applicable to the engines at SMPP because they all were constructed prior to July 11, 2005. If any of the engines are modified or reconstructed in the future as described in §60.14 and §60.15, they will become subject to this subpart

Title 129, Chapter 13, Sections 002* and 003*; Title 129, Chapter 13, Sections 002 and 003 - National Emission Standards for Hazardous Air Pollutants (NESHAP)

Stuart Municipal Power Plant is considered an area source of HAPs because the PTE for a single HAP and total HAPs are below 10 and 25 tpy, respectively. This source is subject to the following NESHAP:

Subpart A – General Provisions

Subpart A is applicable for emission units EU-1, EU-4, and EU-5 because they are each subject to NESHAP Subpart ZZZZ.

Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

This subpart applies to stationary reciprocating internal combustion engines located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand. The engines at Stuart Municipal Power Plant (EU-1, EU-4, and EU-5) are subject to this subpart because they are existing stationary RICE units located at an area source of HAP (40 CFR 63.6590(a)(iii)).

Title 129, Chapter 15*; Title 129, Chapter 15 - Compliance

Process Weight Rate

Title 129, Chapter 15, Section 001.01*; Title 129, Chapter 15, Section 001.01, limits PM (filterable) emissions to the amounts shown in Table 15-1*; Table 15-1 during any one hour. These process weight rate limits, which are based on throughput of the emission units, vary as throughputs change. Since the potential to emit for each emission point is less than the process weight rate limitations, these PM limitations were not included in Condition III of this permit.

Particulate Emissions from Combustion Sources

All of the PM emission points subject to the Chapter 15, Section 001.02*; Chapter 15, Section 001.02 limitations are in compliance with those limitations, as the potential to emit for each emission point is less than the limitations. Therefore, these PM limitations were not included in Condition III of this permit

Opacity Limitations from Emission Units

Specific Condition I.(J) specifies that no person shall cause or allow emissions, from any source, which has an opacity equal to or greater than twenty percent (20%). Opacity must be determined using an EPA-approved method or recorded by a continuous opacity monitoring system which has been operated and maintained pursuant to 40 CFR Part 60 Appendix B except as provided for in Chapter 15, Sections 001.05 and 001.05E*; Chapter 15, Sections 001.05 and 001.05E; (Title 129, Chapter 15, Section 001.04)*; (Title 129, Chapter 15, Section 001.04). Therefore, while not specifically stated in Condition III, this requirement is still applicable to all emission units at the source.

Title 129, Chapter 16, Section 001*; Title 129, Chapter 16, Section 001 - Sulfur Compound and Nitrogen Oxides Emissions

Emission unit EU-1 was constructed prior to February 26, 1974, and is subject to Title 129, Chapter 16, Section 001*; Title 129, Chapter 16, Section 001 sulfur emission limitations.

Proposed changes to the specific permit requirements of Operating Permit #OP23R2-030 issued on January 31, 2024, **made in Significant Operating Permit Revision #OP received on** May 5, 2026, are **in bold print and underlined,** deletions are in ~~strikethrough~~ and the descriptions of changes to permit conditions are in *italics*.

SPECIFIC PERMIT CONDITIONS DISCUSSION:
III. REVISED SPECIFIC PERMIT CONDITIONS:

(A) Specific Conditions for Reciprocating Internal Combustion Engines

(1) Permitted Emission Points:

(a) The following table identifies emission points, emission units, permitted capacities, permitted fuel types, required control equipment the source must operate, and applicable standards at the source at the time of permit issuance, in accordance with operating permit ~~application~~ OP23R2-030, ~~received September 29, 2023~~ **issued January 31, 2024;** ~~and~~ Construction Permit CP23-024, issued November 15, 2023; **and significant operating permit application OP26M2-017, received May 5, 2026,** including any supporting information received prior to issuance of this permit:

Control Equipment ID# and Description	Emission Unit Description	Applicable NSPS Requirements	Applicable NESHAP Requirements

Emission Point ID#: EP-1			
C5500; Oxidation Catalyst, installed 2012	EU-1: Reciprocating Internal Combustion Engine (RICE); Dual Fueled; 675 kW; 17.0 L/Cylinder displacement; Installed in 1968	None	40 CFR Part 63, NESHAP Subpart A; ~~Title 129, Chapter 28, Section 001.01~~*; Title 129, Chapter 13, Section 002.01***; Title 129, Chapter 13, Section 002.01**
		None	40 CFR Part 63, NESHAP Subpart ZZZZ~~; Title 129, Chapter 28, Section 001.88~~*; Title 129, Chapter 13, Section 002.78***; Title 129, Chapter 13, Section 002.79**
Emission Point ID#: EP-4			
C5400; Oxidation Catalyst, installed 2012	EU-4: RICE; Diesel Fueled; 784 kW; 17 L/Cylinder displacement; installed 1996	None	40 CFR Part 63, NESHAP Subpart A; ~~Title 129, Chapter 28, Section 001.01~~*; Title 129, Chapter 13, Section 002.01***; Title 129, Chapter 13, Section 002.01**
		None	40 CFR Part 63, NESHAP Subpart ZZZZ~~; Title 129, Chapter 28, Section 001.88~~*; Title 129, Chapter 13, Section 002.78***; Title 129, Chapter 13, Section 002.79**
Control Equipment ID# and Description	**Emission Unit Description**	**Applicable NSPS Requirements**	**Applicable NESHAP Requirements**

Emission Point ID#: EP-5			
CE-5: Oxidation Catalyst, installed 2024	**EU-5; RICE: Diesel Fueled: 1,880 kW; 6.899 L/Cylinder displacement; installed 2024 (Model year is 1998)**	**None**	**40 CFR Part 63, NESHAP Subpart A; Title 129 Chapter13, Section 002.01*; Title 129, Chapter 13, Section 002.01**
		None	**40 CFR Part 63, NESHAP Subpart ZZZZ; Title 129 Chapter13, Section 002.78*; Title 129 Chapter13, Section 002.79**

(b) For emission unit**s EU-4 and EU-5**, the source shall comply with the requirements of the New Units Exemption for Acid Rain Affected Units in 40 CFR 72.7.

(2) Emission Limitations and Testing Requirements:

(a) Pollutant emission rates from each emission point identified in the table below shall not exceed the permitted limits. Performance testing, if required, shall be conducted in accordance with Standard Condition I.(M).

Pollutant	Permitted Limit	Averaging Period	Basis for Permit Limit	Performance Testing Required
Emission Point ID#: EP-1				
PM (Filterable)	4.20 lbs/hr[2]	Three (3) 1-hour test runs	~~Title 129, Chapter 20, Section 002*;~~ Title 129, Chapter 15, Section 001.02**; Title 129, Chapter 15, Section 001.02**	No
SO_x	2.5 lb/MMBtu[4]	Three (3) 1-hour test runs	~~Title 129, Chapter 24*;~~ Title 129, Chapter 16, Section 001**; Title 129, Chapter 16, Section 001**	No

NO_x	~~<~~98 tpy for all units combined[1]	12 consecutive rolling calendar months	~~Title 129, Chapter 5, Section 001.03A1*;~~ Title 129, Chapter 6, Section 001.02***; Title 129, Chapter 6, Section 001.02**	No
CO	23 ppmvd at 15% O_2; or reduce CO emissions by 70% or more	Three (3) 1-hour test runs	40 CFR Part 63 Subpart ZZZZ	Yes
Opacity	< 20 Percent[3]	6 Minutes	~~Title 129, Chapter 20, Section 004*;~~ Title 129, Chapter 15, Section 001.04*; **Title 129, Chapter 15, Section 001.04**	No
Emission Point ID#: EP-4				
PM (Filterable)	4.91 lbs/hr[2]	Three (3) 1-hour test runs	~~Title 129, Chapter 20, Section 002*;~~ Title 129, Chapter 15, Section 001.02***; Title 129, Chapter 15, Section 001.02**	No
NO_x	~~<~~98 for all units combined[1]	12 consecutive rolling calendar months	~~Title 129, Chapter 5, Section 001.03A1*;~~ Title 129, Chapter 6, Section 001.02***; Title 129, Chapter 6, Section 001.02**	No
CO	23 ppmvd at 15% O_2; or reduce CO emissions by 70% or more	Three (3) 1-hour test runsv	40 CFR Part 63 Subpart ZZZZ	Yes
Opacity	< 20 Percent [3	6 Minutes	~~Title 129, Chapter 20, Section 004*;~~ Title 129, Chapter 15, Section 001.04*; **Title 129, Chapter 15, Section 001.04**	No
Emission Point ID#: EP-5				
PM (Filterable)	**0.52 lbs/MMBtu[2]**	**Three (3) 1-hour test runs**	**Title 129, Chapter 15, Section 001.02*; Title 129, Chapter 15, Section 001.02**	**No**

NO_x	**98 tpy for all units combined[1]**	**12 consecutive rolling calendar months**	**Title 129, Chapter 6, Section 001.02*; Title 129, Chapter 6, Section 001.02**	**No**
CO	**23 ppmvd at 15% O_2; or reduce CO emissions by 70% or more**	**Three (3) 1-hour test runs**	**40 CFR Part 63 Subpart ZZZZ**	**Yes**
Opacity	**< 20 Percent [3]**	**6 Minutes**	**Title 129, Chapter 15, Section 001.04*; Title 129, Chapter 15, Section 001.04**	**No**

[1] Compliance with Condition III.(A)(3)(d) demonstrates compliance with NO_x emission limitations.
[2] Compliance with this limit is demonstrated by potential emission rates, which are less than the permitted limits. See the fact sheet attachment for further details.
[3] Compliance with this limit is demonstrated by complying with Conditions III.(A)(3)(b) and (f).
[4] Compliance with Condition III.(A)(3)(c) demonstrates compliance with SO_x limitations.

(b) The source shall comply with all applicable emission limitations and testing requirements in NESHAP Subpart ZZZZ for emission units EU-1**,** ~~and~~ EU-4**,** and **EU-5** [Construction Permit CP23-024, Condition III.(A)(2)(a), issued November 15, 2023; 40 CFR 63 Subparts A and ZZZZ**; Title 129 Chapter 13 Sections 002.01* and 002.78*; Title 129 Chapter 13 Sections 002.01 and 002.79**].

(i) The source is subject to the applicable emission limitations requirements of 40 CFR §63.6600 through §63.6603.

(ii) The source is subject to the applicable testing requirements of 40 CFR §63.6610 through §63.6630.

(3) Operational and Monitoring Requirements:

(a) The source shall comply with all applicable operational and monitoring requirements in NESHAP Subpart ZZZZ for emission units EU-1**,** ~~and~~ EU-4**,** and **EU-5** [Construction Permit CP23-024, Condition III.(A)(3)(c), issued November 15, 2023; 40 CFR 63, Subparts A and ZZZZ**; Title 129 Chapter 13 Sections 002.01* and 002.78*; Title 129 Chapter 13 Sections 002.01 and 002.79**].

(i) The source is subject to the operational and monitoring requirements of 40 CFR §63.6625, §63.6635, **and** §63.6440.

(b) Emission unit EU-1 shall exclusively combust natural gas and ultra low sulfur diesel, and emission unit EU-4 **and emission unit EU-5** shall combust ultra low diesel fuel only [Construction Permit CP23-024, Condition III.(A)(3)(b), issued November 15, 2023].

(c) The sulfur content of diesel fuel burned shall not exceed 15 ppm for emission units EU-1**,** ~~and~~ EU-4**, and EU-5** [40 CFR Part 63 Subpart ZZZZ; ~~Title 129, Chapter 24*;~~ Title 129, Chapter 16, Section 001***; Title 129, Chapter 16, Section 001**].

(d) The total kilowatt hours (~~kWh~~**kW**) generated by EU-1**,** ~~and~~ EU-4**, and EU-5,** combined, shall not exceed 6,143,760 ~~kWh~~**kW** per any period of 12 consecutive rolling calendar months [Construction Permit CP23-024, Condition III.(A)(3)(a), issued November 15, 2023].

(i) Each engine shall be equipped with a kW-hour meter capable to record kilowatts and operating hours [Construction Permit CP23-024, Condition III.(A)(3)(a)(i), issued November 15, 2023].

(e) A source representative shall conduct daily visible emissions surveys for each emission point EP-1**,** ~~and~~ EP-4**, and EP-5** when each emission unit is operating under normal conditions. These surveys shall be conducted after the normal start-up period or 30 minutes after initial start-up, whichever is sooner, and shall be conducted during daylight hours [~~Title 129, Chapter 8, Sections~~ 004.01~~* and 015*;~~ Title 129, Chapter 6, Sections 003.03* and 003.13***; Title 129, Chapter 6, Sections 003.03 and 003.13**].

(i) For deviation reporting purposes, visible emissions (excluding water vapor) from any emission point shall be considered a deviation and shall be reported in accordance with Condition II.(A).

(4) Recordkeeping and Reporting Requirements:

(a) The source shall comply with all applicable recordkeeping and reporting requirements in NESHAP Subpart ZZZZ [Construction Permit CP23-024, Condition III.(A)(5)(c), issued November 15, 2023; 40 CFR 63 Subparts A and ZZZZ]

(i) The source is subject to the applicable recordkeeping and reporting requirements of 40 CFR §63.6645 through §63.6660.

(b) The source shall notify the **~~N~~DWEE**, in writing, if the 12 consecutive rolling calendar month period of total kWh generated by emission units EU-1**,** ~~and~~ EU-4**, and EU-5** combined exceeds 4,607,820 kWh. Notification shall be sent within fifteen 15) days of such knowledge by the permittee. Upon such notification, the **~~N~~DWEE** may require performance testing to ensure that the source is in compliance with the NO_x emission limit in Condition III.(A)(2)(a) [~~Title 129, Chapter 8, Section 015*; Title Chapter 34, Section 001*;~~ Title 129, Chapter 6, Section 003.13*** and** ~~;~~ Title 129, Chapter 15, Section 005.01***;Title 129, Chapter 6, 003.13 and Title 129, Chapter 15, Section 005.01**].

(c) The source shall maintain the following records in accordance with ~~Title 129, Chapter 8, Sections 004.02* and 015.02* and~~ Title 129, Chapter 6, Section 003.03* and 003.13B***; Title 129, Chapter 6, Section 003.03 and 003.13B,** and the applicable requirements specified in Condition II.(A):

(i) Total kWh generated by engines identified in Condition III.(A)(1)(a), for each calendar month and each period of twelve (12) consecutive rolling calendar months to demonstrate compliance with Condition III.(A)(3)(d) [Construction Permit CP23-024, Condition III.(A)(5)(a), issued November 15, 2023].

(ii) The sulfur content, and date of delivery for diesel fuel delivered to demonstrate compliance with Condition III.(A)(3)(c).

(iii) Records ~~of all~~ **to verify** diesel was used by EU-4 **and EU-5.** ~~for each month and for each twelve (12) consecutive calendar months~~ **Fuel receipts can be used to demonstrate compliance** [Construction Permit CP23-024, Condition III.(A)(5)(b), issued November 15, 2023].

(d) The results of each visible emissions survey shall be recorded in a log, which shall include, at a minimum, the following items [~~Title 129, Chapter 8, Sections 004.02* and 015*;~~ Title 129, Chapter **6**, Sections 003.03* and 003.13***; Title 129, Chapter 6, Sections 003.03 and 003.13**].

(i) The emission points included in the survey.

(ii) All emission points from which visible emissions occurred (except for water vapor).

(iii) Emission points for which the emission units were not in operation during the survey.

(iv) Each entry shall be dated and initialed by the person conducting the visible emissions survey.

The emission point EP-5, a diesel fueled RICE model 1998 engine, was added. In addition, the text was amended as needed to include emission unit 5 in the emission limits, the operational and monitoring requirements and the recordkeeping and reporting requirements. The language around the records that can be used to demonstrate fuel compliance was clarified. These changes incorporate the requirements of construction permit CP23-024 issued on November 15,2023

In addition, the Title 129 references were updated to reflect the September 28, 2022, and July 28, 2026, amendments. References to the department name were changed to the current name of Nebraska Department of Water, Energy and Environment (DWEE).

The source has requested a change in the NO_x limit from 98 tpy to100 tpy for a combined limit for the three engines. This change was not incorporated for two reasons. The 6,143,760kW per year (kW-hr/yr) is a limit that was placed in construction permit CP23-024 which results in a NO_x limit of 98 tpy. Changing the NO_x to 100 tpy would mean an increase in the kW per year limit. Changing the NO_x limit to 100 typ would require the source to seek a new construction permit with revised limits. The limit was changed to equal to 98 tpy NO_x.

The following terms and conditions from the construction permit(s) listed were not incorporated into this permit, or have been modified as discussed below:

Permit Number and Issuance Date	Specific Condition	Reason Modified or Not Included In Operating Permit
CP23-024 November 15, 2023	III.(A)(3)(a) second sentence	This second sentence pertains to the first year of operation of EU-5. This sentence was not included in the OP since EU-5 has been in operation for more than a year.

STATUTORY OR REGULATORY PROVISIONS ON WHICH PERMIT REQUIREMENTS ARE BASED:

Applicable regulations: Title 129 - Nebraska Air Quality Regulations as amended June 28, 2026.

Compliance with this permit shall not be a defense to any enforcement action for violation of an ambient air quality standard

Fact Sheet Attachemnt

Emission Calculations - Reciprocating Internal Combustion Engines (RICE)

EU-1, EU-4, EU-5

Stuart Municipal Power Plant

Engine Specifications

Emission Unit	Maximum Horsepower Capacity	Maximum Capacity MMBtu/hr [1]	Maximum Annual Capacity MMBtu/yr[2]
EP-1	675	4.73	41,391.00
EP-4	784	5.49	48,074.88
EP-5	1,880	13.16	115,281.60
Total Capacity	**3,339**	**23.37**	**204,747.48**

[1] Convert HP to MMBtu/hr = Horsepower*7,000/1,000,000; Conversion factor obtained from AP 42 Chapter 3.4, Table 3.4.-1 04/2025

[2]Maximum Annual Capacity = (MMBtu/hr)*(8,760 hrs/yr)

Limited Facility Wide MMBtu/yr[3] = 61,250

[3] Based on limiting NOx emissions below 98 ton/yr : x MMBtu/yr * 3.2 lb/MMBTU * 1 ton/2000 lbs = 98 ton/yr

Limited Facility Wide kWh/yr[4] = 6,143,760

Limited Facility Wide kWh/yr = MMBtu/yr * 292.83 [4] * .36 [5]

[4] Conversion factor found in AP-42 Appendix A - Miscellaneous Data and Conversion Factors

[5]Assuming 64% power loss, based on the AP-42 conversion from engine fuel input in MMBtu/hr to mechanical output in hp. The ideal conversion 1 MMBtu/hr = 393 hp, becomes, accounting for engine heat loss (inefficiency) due to friction (AP-42, Table 3.3-1, footnote (a)), about 1 MMBtu/hr = 143 hp; 303 hp - 143 hp = 250 hp lost; 250//393 = 0.64 = 64% lost, or an efficiency of 36%.

Emission Calculations - Reciprocating Internal Combustion Engines (RICE)

List Engines

Criteria Pollutants and Greenhouse Gases

Sulfur Content of Diesel	15 ppm	0.0015%	
Pollutant	**Emission Factor (lb/MMBtu)[(1)]**	**Unrestricted Potential Emissions[(2)] (tons/yr)**	**Limited Potential Emissions (tons/yr)[(3)]**
Particulate Matter (filterable)	6.20E-02	6.35	1.90
Particulate Matter ≤ 10µm	5.73E-02	5.87	1.75
Particulate Matter ≤ 2.5µm	5.56E-02	5.69	1.70
Sulfur Oxides[(4)]	8.09E-03	0.83	0.25
Nitrogen Oxides	3.20	327.60	98.00
Carbon Monoxide	0.85	87.02	26.03
Volatile Organic Compounds	0.20	20.47	6.13
Carbon Dioxide (CO_2)[(5)]	1.16	118.75	35.53
Methane (CH_4)[(5)]	6.60E-03	0.68	0.20
Nitrous Oxide (N_2O)[(5)]	9.00E-02	9.21	2.76
Greenhouse Gases (mass basis)[(6)]		128.64	38.48
CO_2e[(7)]			861.94

[(1)] Emission Factors from AP-42 Chapter 3.4 Large Stationary Diesel and All Stationary Dual Fuel Engines, Tables 3.4-1 and 3.4-2 (04/2025)

[(2)] Calculated based on all engines (EP-1, EP-4, and EP-5) operating 8,760 hrs/yr

[(3)] Limited Potential Emissions based on the limited facility wide MMBtu/yr calculated on Page 1

[(4)] Sulfur oxide emission factor (1.01lb/MMBtu * sulfur content) calculated using 0.0015% sulfur content as required by this permit.

[(5)] CO_2, CH_4, and N_2O calculated using the emission factors in Tables C-1 and C-2 of 40 CFR Part 98, *Mandatory Greenhouse - Gas Reporting Rule* Emission factors provided in tables converted from kg/MMBtu to lbs/MMBtu by multiplying by 2.204

[(6)]Greenhouse Gases mass basis = Sum of Carbon Dioxide, Methane and Nitrous Oxide

[(7)]CO_2e calculated using Global Warming Potential (GWP) found in 40 CFR 98, Subpart A, Table A-1 as published June 3, 2026 - Full CO_2e calculations found on page 4 of this spreadsheet

Fact Sheet Attachment

Emission Calculations - Reciprocating Internal Combustion Engines (RICE)

List Engines

Hazardous Air Pollutants (HAPs)

Pollutant	Emission Factor[(1)] (lb/MMBtu)	Unrestricted Potential Emissions[(2)] (ton/yr)	Limited Potential Emissions[(3)] (ton/yr)
Acetaldehyde	2.52E-05	0.00	7.72E-04
Acrolein	7.88E-06	0.00	2.41E-04
Benzene	7.76E-04	0.08	2.38E-02
Biphenyl	3.95E-06	0.00	1.21E-04
Carbon Tetrachloride	6.07E-05	0.01	1.86E-03
Chlorobenzene	4.44E-05	0.00	1.36E-03
Chloroform	4.71E-05	0.00	1.44E-03
Ethylbenzene	1.08E-04	0.01	3.31E-03
Ethylene Dibromide	7.34E-05	0.01	2.25E-03
Fluorene	1.28E-06	0.00	3.92E-05
Formaldehyde	7.89E-05	0.01	2.42E-03
Methanol	2.48E-03	0.25	7.60E-02
Methylene Chloride	1.47E-04	0.02	4.50E-03
n-Hexane	4.45E-04	0.05	1.36E-02
Naphthalene	1.30E-04	0.01	3.98E-03
Total PAH	1.68E-04	0.02	5.15E-03
Propylene	2.79E-03	0.29	8.54E-02
Styrene	5.48E-05	0.01	1.68E-03
Toluene	2.81E-04	0.03	8.61E-03
Vinyl Chloride	2.47E-05	0.00	7.56E-04
Xylenes	1.93E-04	0.02	5.91E-03
Total HAPS		**0.81**	**0.243**

(1) Emission Factors from AP-42 Chapter 3.4 Large Stationary Diesel and All Stationary Dual Fuel Engines, Tables 3.4-1 and 3.4-2

(2) Calculated based on all engines (EU-2, EU-3, EU-4, and EU-5) operating 8,760 hrs/yr

(3) Limited Potential Emissions based on the limited facility wide MMBtu/yr calculated on page 1.

Fact Sheet Attachment

Emission Calculations - Reciprocating Internal Combustion Engines (RICE)

List Engines

Greenhouse Gases- CO_2 Equivalent

Pollutant	Global Warming Potential (GWP) (Unitless) [1]	Limited Potential CO_2e[2] (tons/yr)
CO_2	1	35.53
CH_4	25	5.05
N_2O	298	821.36
Total CO_2e[3]		**861.94**

[1] CO_2e calculated using Global Warming Potential (GWP) found in 40 CFR 98, Subpart A, Table A-1 as published June 3, 2026

[2] Limited Potential Emissions based on the limited facility wide MMBtu/yr calculated on Page 1

Stuart Municipal Power Plant
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PM Limitations for Combustion Sources

Total Heat Input (MMBtu/hr)	Maximum Allowable Emissions of PM (lbs/MMBtu)
10 or less	0.6
Between 10 and 10,000	$1.026/I^{0.233}$ Where I = total heat input in MMBtu/hr.
10,000 or more	0.12

Process (per emission unit)	HP	MMBtu/hr[1]	Allowable PM (lbs/hr)	PM Emission Factor (lb/MMBtu)	Unit PM emission rate (lbs/hr)
EU-1	675	4.73	2.84	6.20E-02	0.29
EU-4	784	5.49	3.29	6.20E-02	0.34
EU-5	1,880	13.16	7.41	6.20E-02	0.82

[1]MMBtu/hr ratings computed assuming 7000 btu/hp-hr from AP-42