February 24, 2026

Mr. Gary Bergstrom
Air Quality Program Supervisor
Lincoln-Lancaster County Health Department
c/o Air Quality Program
3140 N Street
Lincoln, NE 68510

Re: TBGS, Source Number 00240, Minor Source Construction Permit Application

Dear Mr. Bergstrom:

Lincoln Electric System (LES) is submitting the enclosed minor source construction permit application for the LES Terry Bundy Generating Station (TBGS) in Lincoln, Nebraska. This application addresses refueling the existing landfill gas engines and requests a change to how bypass stack limitations are calculated for the existing turbines.

The changes will result in very small emission increases but will provide valuable operational flexibility needed for the service area. The facility will remain an area source of hazardous air pollutants (HAPs) and will remain subject to the facility-wide area source limit.

1. LES is requesting to refuel three existing RICE engines for operation on natural gas. The current source of landfill gas will become unavailable by October 2026 (at the latest). Refueling to natural gas will allow continued operation of the engines and retain this capacity in the Southwest Power Pool. To facilitate the conversion, a small fuel gas heater will be added to treat the natural gas supplying the engines.
    a. LES requests to stack test all three engines initially but then continue with the current practice of testing one engine every 8,760 operating hours.

2. LES is also requesting to convert the operation limits for the three existing combustion turbines (bypass stack operation only) from hours to fuel volume. This will not result in any emissions increase but will allow flexibility to run at lower loads. Emissions are based on fuel consumption, not operating time, so this is a better method of setting and tracking limits.

If you have questions, please call Deb McGuire at (402) 473-3427.

Sincerely,

Jason L. Fortik

Jason Fortik, P.E.
Vice President Power Supply
Lincoln Electric System

Attachment A: Permit Application

cc: Robynn Andracsek, P.E, Providence Engineering and Environmental Group LLC

LINCOLN ELECTRIC SYSTEM
TERRY BUNDY GENERATING STATION
LINCOLN NEBRASKA

AIR PERMIT MODIFICATION APPLICATION

SOURCE NUMBER: 00240

FEBRUARY 2026

Providence Engineering and Environmental Group LLC
1201 Main Street
Baton Rouge, LA 70802
(225) 766-7400
www.providenceeng.com
Providence Project No: 1490-007

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SECTION 1.0

INTRODUCTION

1.0 INTRODUCTION

1.1 Background

The Lincoln Electric System (LES) Terry Bundy Generating Station (TBGS) in Lincoln, Nebraska (Lancaster County) is a fossil fuel-fired steam electric plant which consists of three landfill gas-fired engines and three turbines. TBGS is:

- An existing major source under the U.S. Environmental Protection Agency's (EPA's) Prevention of Significant Deterioration (PSD) program,
- an existing minor source (*i.e.,* an area source) of Hazardous Air Pollutants (HAPs) as defined in the U.S. Code of Federal Regulations (CFR) at 40 CFR 63.2, and
- A Class I (Title V) source under the Lincoln-Lancaster County Health Department (LLCHD) and 40 CFR 70.

Lancaster County is designated as an attainment/unclassified area for all criteria pollutants. **Figure 1** shows the location of the TBGS site with respect to the surrounding area. **Figure 2** shows the process flow diagram.

1.2 Project Description - Engines

The three combustion engines, which were added to the site in 2012, initially consumed landfill gas (LFG) as fuel but will be converted to burn only natural gas after January 2026. There will be no other physical changes to the facility or emission points.

The engines were originally authorized on November 21, 2012 under Construction Permit #152. The engines are permitted as three, lean-burn, spark-ignition reciprocating internal combustion engines with associated electric generators, designated as emission units 12-1 (Generator #1), 13-1 (Generator #2), and 14-1 (Generator #3). Each engine is coupled to a 1,600 electric kilowatt (ekW) generator (nominal rating) for the generation of up to a total of 4.8 megawatts (MW) of electricity.

The 2012 permit modification limited the engine emissions to less than the PSD modification thresholds (see **Table 1)**. Additionally, site-wide emissions are limited to less than the HAP major source thresholds (see **Table 2**). This permit application does not change these limits.

TGBS achieved the carbon monoxide (CO) permit limit by installing an oxidation catalyst on each engine. The engines will continue to be controlled with oxidation catalysts for control of CO, volatile organic compounds (VOC), and HAPs which are also VOCs.

Table 1
Emission Limits for Combined Engine Emissions

Pollutant	Emission Limit
PM_{10}	<15.0 tons
$PM_{2.5}$	<10.0 tons
NO_x	<40.0 tons
SO_2	<40.0 tons
VOC	<40.0 tons
CO	≤99.0 tons

Table 2
Site-Wide Emission Limits for Hazardous Air Pollutants

Pollutant	Emission Limit
Any Individual Hazardous Air Pollutant	<10.0 tons
Total Combined Hazardous Air Pollutants	<25.0 tons

Compared to LFG, natural gas combustion is expected to emit the same rate of nitrogen oxides (NO_x), a lower rate of CO, and higher rates of VOC and formaldehyde.

Both the uncontrolled and controlled potential emissions of formaldehyde are above 2.5 tons per year (tpy); therefore, under the Lincoln-Lancaster County Air Pollution Control Program. Regulations and Standards (LLCAPCPRS) Article 2 Section 27, a best available control technology analysis (BACT) for formaldehyde is required. As determined in the original permit, BACT remains an oxidation catalyst.

The engines will remain subject to New Source Performance Standards for Stationary Spark Ignition Internal Combustion Engines (NSPS Subpart JJJJ), National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (NESHAP Subpart ZZZZ), and an LLCHD 20% opacity standard. **Section 2** includes the full regulatory applicability analysis for the project. **Section 3** includes the LLCHD forms and **Section 4** includes the calculations.

1.3 Project Description - Turbines

With this application, LES requests that the limits on the turbines be converted from hours to fuel consumption for simple-cycle operation through the bypass stacks. Each turbine is rated at 439 million British thermal units per hour (MMBtu/hr). The higher heating values used for natural gas and fuel oil are 1,050 Btu/cubic foot and 137,000 Btu/gal, respectively. See **Table 3**. This change will have no effect on the hourly emission rates. The calculations for this were provided in Attachment C of

the TBGS Title V renewal application and are also provided in **Attachment A** of this application.

Table 3
Requested Changes to Combined Limits for Turbines 2, 3, and 4 Bypass Stacks

Option	Fuel	Hours	NO_x ppm	MMBtu/yr	Requested Limit
1: 100% Natural Gas	Natural Gas	5,000	25	2,195,000	2,090.48 MMcf/yr
2: Maximize Fuel Oil, Remainder on Natural Gas	Natural Gas	3,000	25	2,195,000	1,254.29 MMcf/yr
	Fuel Oil	2,000	42		6.32 MMgal/yr

~~1.4 Project Description - Heater~~

~~With this application, LES will add a fuel gas heater which heats natural gas prior to entering the facility and is fired by natural gas, a clean-burning fuel. The heater is rated at 0.1 MMBtu/hr and is proposed to operate 8,760 hours per year.~~

*The source has elected not to install the 0.1 MMBtu/hr gas heater at the facility. All references to the heater have been removed in this application.

SECTION 2.0

REGULATORY APPLICABILITY AND NON-APPLICABILITY

2.0 REGULATORY APPLICABILITY AND NON-APPLICABILITY

The following discussion addresses the applicability of key regulations.

2.1 New Source Performance Standards

The NSPSs contained in 40 CFR Part 60 have been adopted by the EPA to regulate air emissions from many types of industrial facilities. All industries subject to NSPS must meet certain general requirements, such as monitoring and recordkeeping. In addition, certain specific requirements apply to each type of industry subject to NSPS. The affected sources at the facility will be subject to the following NSPS:

2.1.1 NSPS Subpart A

40 CFR 60 Subpart A - General Provisions

The facility includes sources subject to individual NSPS subparts, and consequently, is subject to the requirements of Subpart A. These requirements include general notifications, excess emissions reporting, and performance testing.

~~*2.1.2 NSPS Subpart Dc*~~

~~40 CFR 60 Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units~~

~~The fuel gas heater is not subject to any NSPS. The heater burns only natural gas and is 0.1 MMBtu/hr and therefore is exempt.~~

2.1.3 NSPS Subpart JJJJ

40 CFR 60 Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

40 CFR Part 60, Subpart JJJJ (NSPS Subpart JJJJ) applies to stationary spark ignition (SI) internal combustion engines (ICE) that commence construction (*i.e.,* are ordered) after June 12, 2006, where the stationary SI ICE are manufactured on or after July 1, 2007 [for engines with a maximum engine power greater than or equal to 500 horsepower (hp)]. The requirements of this subpart regulate NO_x, CO, and VOC emissions for engines. Subpart JJJJ is applicable to the SI ICE (12-1, 13-1, and 14-1).

Engines (> 500 hp) that are manufactured after July 1, 2010, must meet the following emission limits: 2.0 grams per horsepower hour

(g/hp-hr) NO_x [150 parts per million by dry volume (ppmvd) at 15% oxygen (O_2)], 4.0 g/hp-hr CO (610 ppmvd at 15% O_2), and 1.0 g/hp-hr VOC (80 ppmvd at 15% O_2). The owner must demonstrate compliance with these emission limits by conducting performance testing. In addition, the engine must be operated and maintained according to the manufacturer's instructions and records must be kept of conducted maintenance to demonstrate compliance. If the engine is not maintained according to manufacturer's instructions, a maintenance plan and records of maintenance must be kept and an initial performance plus subsequent testing is required to demonstrate compliance.

The engines will demonstrate compliance with the applicable NSPS Subpart JJJJ emission limits by conducting a performance test in accordance with 40 CFR Part 60.4244 and following the requirements listed in Table 2 of the subpart.

2.2 National Emissions Standards for Hazardous Air Pollutants (40 CFR Part 61)

NESHAPs have been developed by the EPA to provide pollutant specific control requirements. The facility is not subject to NESHAP Part 61 standards.

2.3 NESHAP for Source Categories (40 CFR Part 63)

2.3.1 NESHAP Subpart ZZZZ

NESHAP Subpart ZZZZ establishes national emission limitations and operating limitations for stationary reciprocating internal combustion engines (RICE) for major and non-major (*i.e.,* area) sources of HAPs. Engines 12-1, 13-1, and 14-1 are all stationary RICE located at an area source of HAPs and are therefore subject to this subpart. Per the requirements in 40 CFR 63.6590(c), a new or reconstructed stationary RICE located at an area source meets the requirements of this subpart by meeting the requirements of 40 CFR Part 60 Subpart IIII or JJJJ, as applicable. No further requirements apply to Engines 12-1, 13-1, and 14-1 under this part since each engine will comply with NSPS Subpart JJJJ.

~~*2.3.2 NESHAP Subpart JJJJJJ*~~

~~The fuel gas heater is not subject to any NESHAP. The heater burns only natural gas and is 0.1 MMBtu/hr and therefore is not subject to 40 CFR 63 Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources.~~

2.4 Acid Rain Program General Provisions

The Acid Rain Program General Provisions establish the permitting regulations for the EPA's Acid Rain Program under 40 CFR Part 72. This program focuses on reducing sulfur dioxide (SO_2) and NO_x emissions, the primary contributors to acid rain. It mandates general provisions and operating permit program requirements, including monitoring and recordkeeping, to ensure compliance. The facility has no sources subject to this regulation.

Engines 12-1, 13-1, and 14-1 are exempt from the regulations outlined in 40 CFR Part 72 since each has a generating capacity less than 25 megawatts (MW). The existing turbines, however, are subject to Acid Rain.

2.5 Lincoln-Lancaster County Air Pollution Control Program Regulations

The LLCAPCPRS contain local and adopted state rules applicable to the proposed project. In addition to the permitting requirements discussed above, the following specific LLCHD rules will apply to the engines.

2.5.1 LLCAPCPRS Article 2, Section 18: New Source Performance Standards

Engines 12-1, 13-1, and 14-1 will be subject to these regulations as they cover the NSPS in 40 CFR 60. Heater 22 is exempt since it is not subject to an NSPS.

2.5.2 LLCAPCPRS Article 2, Section 19: Prevention of Significant Deterioration of Air Quality

The facility will be subject to these regulations as they cover 40 CFR 52 – Approval and Promulgation of Implementation Plans. Under these regulations, the facility is considered an existing major source and is therefore subject to the regulations and requirements in this subpart.

2.5.3 LLCAPCPRS Article 2, Section 20: Particulate Limitations and Standards

LLCAPCPRS Article 2, Section 20 limits PM to the rates calculated in 20(C) and specifies that opacity greater than 20% is not allowed.

2.5.4 LLCAPCPRS Article 2, Section 24: Sulfur Compound Emissions – Existing Sources – Emission Standards

Sulfur compound emission limitations per Article 2, Section 24 of the LLCAPCPRS do not apply to this installation since they apply to existing fossil fuel burning equipment. The engines and heater qualify as new equipment since they were not in operation prior to February 26, 1974.

2.5.5 LLCAPCPRS Article 2, Section 27: Hazardous Air Pollutants – Maximum Achievable Control Technology (MACT)

Article 2, Section 27 (B) of LLCAPCPRS, entitled "Hazardous Air Pollutants – Maximum Achievable Control Technology (MACT)," indicates the application of best available control technology is required for an installation when the potential emissions of a single HAP equals or exceeds 2.5 tpy. The potential uncontrolled formaldehyde emissions from the three engines are estimated to be over the applicability threshold. Currently, the engines use an oxidation catalyst to control CO, VOC, and formaldehyde emissions. The use of an oxidation catalyst on these engines has been demonstrated to be BACT for the last 20 years of operation on LFG. The use of an oxidation catalyst on natural gas-fired engines is currently considered to be BACT to control emissions of CO and VOC and consequently formaldehyde. Therefore, LES believes the continued operation of the oxidation catalysts satisfies the LLCHD MACT requirement for application of BACT for formaldehyde.

SECTION 3.0

APPLICATION FORMS

Air Quality Permit Application Form - Physical Plant

Lincoln-Lancaster County Health Department
Environmental Public Health Division - Air Quality Program
Lincoln, NE 68510
ph: (402) 441-8040 fax: (402) 441-3890
http://www.lincoln.ne.gov/city/health/environ/air.htm

Purpose of Application:

- ☐ Initial Operating Permit
- ☐ Operating Permit Renewal
- ☐ Initial Construction Permit
- ☑ Modify Existing Operating or Construction Permit

SECTION 1: ADMINISTRATIVE INFORMATION AND RESPONSIBLE OFFICIAL CERTIFICATION

Part A: Company Information

Company Name:	Lincoln Electric System				
Company Address:	P.O. Box 80869				
Company City:	Lincoln	**Company State:**	Nebraska	**Company ZIP:**	68501-0869
Is the business incorporated?	☐ Yes ☑ No				

Part B: General Facility Information

Facility Name:	Terry Bundy Generating Station				
LLCHD Facility ID #:	00240				
Facility Physical Address:	7707 Bluff Road				
Facility City:	Lincoln	**Facility State:**	Nebraska	**Facility ZIP:**	68517
Facility NAICS Code(s):	221112	Fossil Fuel Electric Power Generation			
	221119	Other Electric Power Generation			
Is the facility located within 50 miles of another state?	☑ Yes ☐ No	**If so, which state(s)?**	☑ Iowa	☐ Kansas	☐ Missouri
Is the facility located on leased property?	☐ Yes ☑ No				

Part C: Contact Information

Facility Contact Person:	Dalton Johnson		
Facility Contact Person Title or Responsibility:	Environmental Supervisor		
Phone Number:	(402) 473-3429	**E-Mail:**	djohnson@les.com
Alternate Phone Number: *(optional)*		**Fax Number:** *(optional)*	
Who is the primary contact for questions regarding this application?	☑ Facility Contact Person ☐ Other		

SECTION 1: ADMINISTRATIVE INFORMATION AND RESPONSIBLE OFFICIAL CERTIFICATION

Part D: Permit Information			
Does this facility currently hold an operating permit issued by the LLCHD?		☑ **Yes**	☐ **No**
If so, what type of operating permit does the facility hold?	☑ **Class I (Title V) - Major Source** ☐ **Class II - Synthetic Minor Source**	☐ **Class II - Minor Source**	
What is the expiration date of the operating permit you currently hold?		1/1/2019	
Does this facility currently hold one or more construction permits issued by the LLCHD?		☑ **Yes**	☐ **No**
If so, list the numbers for all currently effective construction permits. Do not include superceded permits.	109d	152	
If you know what type of permit you are applying for, check the appropriate box:	☐ **Class II Operating Permit** ☑ **Minor Source Construction Permit (most common const. permit)** ☐ **PSD Construction Permit**	☐ **Class I Operating Permit** ☐ **I do not know the permit type.**	

Part E: Responsible Official Certification	
Compliance Certification ☑ **Agree** ☐ **Disagree**	I hereby certify that, based on information and belief formed after reasonable inquiry, the facility that emits air pollutants, which is identified in this application and that is subject to the applicable requirements identified in Section 9: 1. Is in compliance with all applicable requirements, except as described in Section 9; 2. Will continue to comply with all applicable requirements for which compliance has been achieved; and, 3. Will comply with all applicable requirements for which compliance is not currently achieved
Truth and Accuracy Certification ☑ **Agree** ☐ **Disagree**	I certify under penalty of law that, based on information and belief formed after reasonable inquiry, the statements and information contained in this Air Quality Construction Permit application are true, complete, and accurate. I certify that all hard copies of this application are identical in content.
Electronic Copy Certification ☑ **Agree** ☐ **Disagree** ☐ **Not Applicable**	I certify under penalty of law that, based on information and belief formed after reasonable inquiry, the statements and information contained in the electronic copy of the Air Quality Construction Permit application are identical in content to the hard copy submittal.
Citizenship Attestation ☑ **Agree** ☐ **Disagree**	For the purpose of complying with Neb. Rev. Stat. §§4-108 through 4-114, I attest as follows *(check one)*: ☑ **I am a citizen of the United States.** OR ☐ **I am a qualified alien under the federal Immigration and Nationality Act, and will provide my immigration status, alien number, and USCIS documentation upon request.** I hereby attest that my responses and the information provided on this form and any related application for public benefits are true, complete, and accurate, and I understand that this information may be used to verify my lawful presence in the United States.
Responsible Official Name: (printed or typed)	Jason Fortik
Responsible Official Title:	Vice President, Power Supply
Responsible Official Signature:	Jason L. Fortik
Date:	2/24/2026

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SECTION 2: DETAILED SOURCE INFORMATION

Part A: Operating Schedule

Is this source operated seasonally, or year-round?	☐ Seasonal	☑ Year-Round	
Provide the normal operating schedule:		**Hours per Day:**	24
		Days per Week:	7
		Weeks per Year:	52
Does the source operate under an alternative schedule on a regular basis?	☐ Yes ☑ No		

Part B: New Process Description

On separate sheet(s) of paper, provide a detailed narrative description of the process or equipmen you are planning to construct/reconstruct/modify. Explain the stages in each process that may result in the discharge of an air pollutant. Include all emission points, emission units, pollution control equipment, and identification numbers. The narrative should complement the facility layout and process flow diagrams.

Is a New Process Description attached to your application?	☑ Yes ☐ No	

Part C: Process Layout Diagram

On a separate sheet(s) of paper, provide a detailed diagram or drawing that includes all processes and/or equipment identified in this application. Make sure all elements in the drawing are properly identified, drawn to scale, and consistent with other sections of this application. The diagram should show the location of all new/modified buildings, structures, stacks, and property boundaries. Fences or other public access restrictions should be shown or identified and described. Be sure to identify adjacent roads and include a north arrow. Include an effective date for the diagram.

Is a Process Layout Diagram included with your application?	☑ Yes ☐ No	

Part D: Facility Description

On separate sheet(s) of paper, provide a brief narrative description of the facility. Explain the stages in each process that may result in the discharge of an air pollutant. Include all emission points, emission units, pollution control equipment, and identification numbers. The narrative should complement the facility layout and process flow diagrams.

Is a Facility Description included with your application?	☑ Yes ☐ No	

SECTION 2: DETAILED SOURCE INFORMATION

Part E: Emission Calculations	
Indicate which method(s) will be used to calculate emissions: (check all that apply)	
☑ **AP-42 or WebFIRE Emission Factors**	
☐ **Emission Factors from Stack Testing** *	
☐ **Material Mass-Balance Calculations** *	
☑ **Other** (specify >>>>) *	Vendor, 40 CFR Part 98, NSPS limits
☐ **Other** (specify >>>>) *	
☐ **Other** (specify >>>>) *	
If using emission factors or calculation methods other than those provided in AP-42 or WebFIRE, attach a copy of any alternate emission factors (including stack test results) and/or emission calculations as an attachment to this application.	
Indicate how material and/or fuel use will be substantiated:	
☐ **Material / Fuel Supplier Record(s)**	
☐ **Material / Fuel Use Logbook(s)**	
☐ **Receiving / Load-Out Scale Tickets**	
☑ **Other** (specify >>>>)	See attached calculations, fuel consumption will be tracked
☐ **Other** (specify >>>>)	
☐ **Other** (specify >>>>)	

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SECTION 3 – EMISSION UNIT SUMMARY

Table 3-A: Emission Unit Identification Ver. 01/2025

Emission Unit #		Source Classification Code # (SCC)	Emission Point Description	Emission Segment Description
Point #	Segment #			
Boiler Emission Units				
~~22~~	~~1~~	~~1-05-002-06~~	~~Fuel Gas Heater~~	~~Natural Gas~~
Stationary Engine Emission Units				
12	1	2-02-004-01	Engine: Stack C12 – Generator #1 (2,242 hp)	Diesel Combustion
13	1	2-02-004-01	Engine: Stack C13 – Generator #2 (2,242 hp)	Diesel Combustion
14	1	2-02-004-01	Engine: Stack C14 – Generator #3 (2,242 hp)	Diesel Combustion
12	1a	2-02-002-54	Engine: Stack C12 – Generator #1 (2,242 hp)	Natural Gas Combustion
13	1a	2-02-002-54	Engine: Stack C13 – Generator #2 (2,242 hp)	Natural Gas Combustion
14	1a	2-02-002-54	Engine: Stack C14 – Generator #3 (2,242 hp)	Natural Gas Combustion

SECTION 3 – EMISSION UNIT SUMMARY

Table 3-B: New/Modified/Reconstructed Stack / Release Point Information

For the purposes of this permit application, all material handling, crushing, screening, and truck traffic emissions are considered "fugitive" sources, for which stack information is not required. Stack information for any 'Miscellaneous' emission units is provided below.

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Emission Unit #	Associated Emission Unit	Latitude (decimal deg.)	Longitude (decimal deg.)	Elevation (feet a.s.l.)	Stack Height (feet)	Stack Inside Diameter (feet)	Exhaust Temp. (°F)	Exhaust Exit Velocity (feet/sec)	Exhaust Flow Rate (cu. feet/sec)	Vertical, Horizontal, or Fugitive	Raincap Present?
Boiler Emission Units											
~~22-1~~	~~Fuel Gas Heater~~	~~TBD~~	~~TBD~~	~~TBD~~	~~20.00~~	~~0.80~~	~~287.06~~	~~27.59~~	~~13.87~~	~~Vertical~~	~~No~~
Stationary Engine Emission Units											
12-1	Engine: Stack C12 – Gener...	40.909002	-96.611328	356.00	31.25	12.89	986.00	791.60	103,300.19	Vertical	No
13-1	Engine: Stack C13 – Gener...	40.909005	-96.611409	356.00	31.25	12.89	986.00	793.40	103,535.09	Vertical	No
14-1	Engine: Stack C14 – Gener...	40.909070	-96.611478	356.00	31.25	12.89	986.00	791.60	103,300.19	Vertical	No
12-1a	Engine: Stack C12 – Gener...	40.909002	-96.611328	356.00	31.25	12.89	986.00	791.60	103,300.19	Vertical	No
13-1a	Engine: Stack C13 – Gener...	40.909005	-96.611409	356.00	31.25	12.89	986.00	793.40	103,535.09	Vertical	No
14-1a	Engine: Stack C14 – Gener...	40.909070	-96.611478	356.00	31.25	12.89	986.00	791.60	103,300.19	Vertical	No

SECTION 5 – MAXIMUM POTENTIAL TO EMIT (MPTE)

Table 5-A: MPTE – Regulated Air Pollutant Emissions from Physical Plants and Other Equipment

Please list maximum potential emissions of all pollutants for each emission unit in pounds per year.

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Emission Unit #	SCC Code	Hourly Process Rate	Process Rate Units	Max Annual Throughput	Emission Factor Source	PM_{10}	$PM_{2.5}$	NOx	SOx	VOC	CO	GHGs (CO_2e)	LEAD	Total HAP
Boiler Emission Units														
~~22-1~~	~~1-05-002-06~~	~~0.1000~~	~~MMBtu/hr~~	~~876.00~~	~~AP-42~~	~~6.34~~	~~6.34~~	~~41.71~~	~~0.5006~~	~~4.59~~	~~70.08~~	~~104,000~~	~~0.0004~~	~~1.58~~
Stationary Engine Emission Units														
12-1	2-02-004-01	0.0139	Mgal	121.81	AP-42, Vendor	-1,277	-1,277	-25,546	-75.19	-24,247	-182,717	-32,411,486	-	-4,668
13-1	2-02-004-01	0.0139	Mgal	121.81	AP-42, Vendor	-1,277	-1,277	-25,546	-75.19	-24,247	-182,717	-32,411,486	-	-4,668
14-1	2-02-004-01	0.0139	Mgal	121.81	AP-42, Vendor	-1,277	-1,277	-25,546	-75.19	-24,247	-182,717	-32,411,486	-	-4,668
12-1a	2-02-002-54	0.0139	MMcf	121.81	AP-42, NSPS	1,277	1,277	21,649	75.20	9,785	60,207	383,688	-	6,242
13-1a	2-02-002-54	0.0139	MMcf	121.81	AP-42, NSPS	1,277	1,277	21,649	75.20	9,785	60,207	383,688	-	6,242
14-1a	2-02-002-54	0.0139	MMcf	121.81	AP-42, NSPS	1,277	1,277	21,649	75.20	9,785	60,207	383,688	-	6,242

SECTION 5 – MAXIMUM POTENTIAL TO EMIT (MPTE)

Table 5-D: Maximum Potential to Emit and Operating / Construction Permit Thresholds

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Criteria Air Pollutants	Emissions (tons per year)	Class II Operating Permit & Construction Permit Threshold (tons per year)	Meet or Exceed?	Class I Operating Permit Threshold (tons per year)	Meet or Exceed?
PM_{10}	0.00	15.0	No	100.0	No
$PM_{2.5}$	0.00	10.0	No		
NOx	-5.82	40.0	No	100.0	No
SOx	0.00	40.0	No	100.0	No
VOC	-21.69	40.0	No	100.0	No
CO	-183.73	50.0	No	100.0	No
Lead	0.00	0.6	No	5.0	No
Greenhouse Gases	-47,989.70				

Hazardous Air Pollutants	Emissions (tons per year)	Const. Permit, Class II Permit, & Toxic BACT Threshold (tons per year)	Meet or Exceed?	Class I Permit &Toxic MACT Threshold (tons per year)	Meet or Exceed?
Greatest Single HAP	2.20	2.5	No	10.0	No
Total Combined HAP	2.20	10.0	No	25.0	No

SECTION 6: SOURCE CLASS & PERMIT DETERMINATION

Part A: Permitting Requirement Determination		
The facility is an existing Title V major and PSD major source. This is a construction permit for a PSD minor modification.		
	☐	☐

Part B: Construction Permit Information (applies only to major sources avoiding a Class I permit)	
☐	
☐	

Part C: Toxic 'Best Available Control Technology' (T-BACT) Determination		
	☐	☑

Part D: Toxic 'Maximum Achievable Control Technology' (MACT) Determination		
	☐	☐
Part E: Source Elected Requirements for Actual Emission Reductions		
	☑	☐

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SECTION 6 – SOURCE CLASS & PERMIT DETERMINATION

Part F: Table 6-A – Source-Elected Throughput Limits and Emission Control Requirements

In the table below, indicate which emission units you will either accept throughput limits on, or to which you will agree to apply control equipment.

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Emission Unit #	SCC Code	Agree to Throughput Limit?	Maximum Annual Throughput	Annual Throughput Limit	Throughput Units	Agree to Emission Controls?	Control Device ID	Control Type	If 'Other', Specify Type
Boiler Emission Units									
~~22-1~~	~~1-05-002-06~~	~~No~~	~~0.000~~		~~MMcf~~	~~No~~			
Stationary Engine Emission Units									
12-1a	2-02-002-54	No	121.81		MMcf	Yes	Existing	Other	Catalytic Oxidizers
13-1a	2-02-002-54	No	121.81		MMcf	Yes	Existing	Other	Catalytic Oxidizers
14-1a	2-02-002-54	No	121.81		MMcf	Yes	Existing	Other	Catalytic Oxidizers

SECTION 6 – SOURCE CLASS & PERMIT DETERMINATION

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Part G: Source-Elected Facility-Wide Emission Limits

If you indicated in Parts A and/or B of Section 6 that you would like to take a facility-wide emission limit(s) as a condition of a Construction Permit to avoid being classified as either a Class I or a Class II source, then complete the following. If you do not wish to take a facility-wide emission limit(s), check "No" and proceed to Part H, below.

		PM_{10}	$PM_{2.5}$	NOx	SOx	VOC	CO	GHGs (CO_2e)	LEAD	Individual HAP	Total HAP
Do you wish to accept facility-wide emission limits as part of a construction permit? If "Yes", enter the limit(s) in units of pounds. For pollutants with no limit, enter zero (0).	☐ Yes ☑ No										

Part H: Source-Elected Emission Limits For All New/Modified Equipment

If this is a Construction Permit application, and you wish accept emission limits that will apply to ALL new and/or modified equipment listed in Table 3-A (either to avoid requiring an operating permit, or to avoid applicability of 'Best Available Control Technology' (BACT) requirements, then complete the following. If you do not wish to take such limits, or if this application is for an Operating Permit, check "No" and proceed to Part I, below.

		PM_{10}	$PM_{2.5}$	NOx	SOx	VOC	CO	GHGs (CO_2e)	LEAD	Individual HAP	Total HAP
Do you wish to accept emission limits that will apply to all of the emission units listed in Table 3-A as part of a Construction Permit? If "Yes", enter the limit(s) in units of pounds. For pollutants with no limit, enter zero (0).	☑ Yes ☐ No	15.00	10.00	40.00	40.00	40.00	100.00	75,000	-	10 (facility wide)	25 (facility wide)

SECTION 6 – SOURCE CLASS & PERMIT DETERMINATION

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Part I: Table 6-B – Source-Elected Unit-Specific Emission Limits

Using the drop-down box provided, indicate whether or not you would like to accept unit-specific emission limits for any 'Miscellaneous Emission Units' as part of the construction permit. For those units that you do agree to limit, enter the limit for each pollutant in units of pounds. For pollutants you do not wish to limit, enter zero (0).

Emission Unit #	SCC Code	Agreed to throughput limits or controls?	Agree to emission limit?	PM_{10}	$PM_{2.5}$	NOx	SOx	VOC	CO	GHGs (CO_2e)	LEAD	Individual HAP	Total HAP
~~22-1~~	~~1-05-002-06~~	~~No~~	~~No~~										
12-1a	2-02-002-54	Yes	Yes	30,000	20,000	80,000	80,000	80,000	200,000	N/A	N/A	-	-
13-1a	2-02-002-54	Yes	Yes							N/A	N/A	-	-
14-1a	2-02-002-54	Yes	Yes							N/A	N/A	-	-

SECTION 7 – ACTUAL POTENTIAL TO EMIT (APTE)

Table 7-D: Actual Potential to Emit and Operating / Construction Permit Thresholds

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Criteria Air Pollutants	Emissions (tons per year)	Class II Operating Permit & Construction Permit Threshold (tons per year)	Meet or Exceed?	Class I Operating Permit Threshold (tons per year)	Meet or Exceed?
PM_{10}	0.00	15.0	No	100.0	No
$PM_{2.5}$	0.00	10.0	No		
NOx	-5.85	40.0	No	100.0	No
SOx	0.00	40.0	No	100.0	No
VOC	-21.69	40.0	No	100.0	No
CO	-183.77	50.0	No	100.0	No
Lead	0.00	0.6	No	5.0	No
Greenhouse Gases	-48,041.70				

Hazardous Air Pollutants	Emissions (tons per year)	Const. Permit, Class II Permit, & Toxic BACT Threshold (tons per year)	Meet or Exceed?	Class I Permit &Toxic MACT Threshold (tons per year)	Meet or Exceed?
Greatest Single HAP	2.20	2.5	No	10.0	No
Total Combined HAP	2.20	10.0	No	25.0	No

SECTION 8: APPLICABLE RULES AND REQUIREMENTS

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PART A: Applicable Requirements of the LLCAPCPRS

Applicable requirements for your source may include maintaining allowable stack opacity, maintaining allowable particulate emissions for the total given heat input, adhering to fugitive dust regulations, adhering to the process weight/particulate emissions rates, adhering to all construction permit conditions, etc. In the boxes below, check all of those requirements in the LLCAPCPRS that may apply to your source, and identify the method by which you intend to demonstrate compliance with the requirement. If a requirement does not apply to your source, briefly explain the reason it does not apply.

Requirement Citation & Name	Does standard apply?	If "Yes", describe compliance method. If "No", explain reason it does not apply.
LLCAPCPRS Article 2, Section 18: New Source Performance Standards (40 CFR Part 60)	☑ Yes ☐ No	Describe compliance with each applicable NSPS in Part B, below.
LLCAPCPRS Article 2, Section 19: Prevention of Significant Deterioration (PSD) of Air Quality	☑ Yes ☐ No	Site meets standard for "major stationary source" as per 40 CFR 52.21(b)(1)(i)(A)
LLCAPCPRS Article 2, Section 20, paragraph (A) & Table 20-2: Process Weight Rate Particulate Emission Stds.	☐ Yes ☑ No	There are no incinerators or burn-ovens at the source.
LLCAPCPRS Article 2, Section 20, paragraph (B) & Table 20-1: Heat Input Rate Particulate Emission Stds.	☑ Yes ☐ No	Refer to Class I Operating Permit
LLCAPCPRS Article 2, Section 20, paragraph (E): <20% Opacity of Visible Emissions	☑ Yes ☐ No	Refer to Class I Operating Permit
LLCAPCPRS Article 2, Section 22, paragraph (B): Particulate Emission Stds. for Incinerators & Burn-Ovens	☐ Yes ☑ No	Does not apply to Class II sources, but Class I sources must give explanation in Part C.
LLCAPCPRS Article 2, Section 22, paragraph (H): Standards for Air Curtain Incinerators	☐ Yes ☑ No	There are no Air Curtain Incinerators at the source.
LLCAPCPRS Article 2, Section 22, paragraph (I): Standards for Pathological Material Incinerators	☐ Yes ☑ No	There are no Pathological Matieral Incinerators at the source.
LLCAPCPRS Article 2, Section 23: Hazardous Air Pollutants - Emission Standards (40 CFR Part 61)	☐ Yes ☑ No	If none apply, in Part C, list any that 'appear' to apply, but do not actually apply.
LLCAPCPRS Article 2, Section 24: Sulfur Compound Emissions - Existing Sources - Emission Standards	☐ Yes ☑ No	Engines are not "existing" units.
LLCAPCPRS Article 2, Section 25: Nitrogen Oxides - Emission Standards for Existing Stationary Sources	☐ Yes ☑ No	The source does not produce nitric acid.
LLCAPCPRS Article 2, Section 26: Acid Rain (40 CFR Parts 72 through 78)	☐ Yes ☑ No	If none apply, in Part C, list any that 'appear' to apply, but do not actually apply.
LLCAPCPRS Article 2, Section 27: Hazardous Air Pollutants - Maximum Achievable Control Technology (MACT)	☐ Yes ☑ No	If none apply, in Part C, list any that 'appear' to apply, but do not actually apply.
LLCAPCPRS Article 2, Section 28: MACT Emission Standards (40 CFR Part 63)	☐ Yes ☑ No	If none apply, in Part C, list any that 'appear' to apply, but do not actually apply.
LLCAPCPRS Article 2, Section 32: Dust - Duty to Prevent the Escape Of	☐ Yes ☑ No	Refer to Class I Operating Permit

SECTION 8: APPLICABLE RULES AND REQUIREMENTS

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PART B: Applicable Federal Regulations and Additional Applicable LLCAPCPRS

If your source is subject to any federal air regulations set forth under 40 CFR Parts 60, 61, 63, 64, 68, 82, or Parts 72-78, or to additional regulations set forth in the LLCAPCPRS not included in Part A, then in the spaces provided below, list all of those regulations that apply to your source. For each regulation that applies to your source, list which emission unit(s) the rule applies to, and attach a brief explanation of how you intend to comply with the rule.

Regulation Name (e.g. NSPS for Grain Elevators)	Regulation Citation (e.g. 40 CFR 60 Subpart DD)	Emission unit(s) covered by this regulation.
NSPS for Spark ICE	40 CFR 60 Subpart JJJJ	12-1, 13-1, and 14-1
NESHAP for RICE	40 CFR 63 Subpart ZZZZ	12-1, 13-1, and 14-1
Particulate Limitations and Standards	LLCAPCPRS Article 2, Section 20	12-1, 13-1, and 14-1
MACT	LLCAPCPRS Article 2, Section 27	12-1, 13-1, and 14-1

PART C: Non-Applicable LLCAPCPRS Regulations & Non-Applicable Federal Regulations

For those regulations that would appear to apply to your source, but do not actually apply to your source, use the spaces provided below to provide the citation of the regulation, as well as the reason(s) that the regulation does not apply to your source.

Regulation Citation (e.g. 40 CFR 60 Subpart DD)	Provide the reason(s) the regulation does not apply to your source.
40 CFR 71-75	Engines 12-1, 13-1, and 14-1 are exempt from the regulations outlined in 40 CFR Part 72 due to each having a generating capacity less than 25 megawatts (MW).
LLCAPCPRS Article 2, Section 24	The engines qualify as new equipment since they were not in operation prior to February 26, 1974.
~~40 CFR 63 Subpart JJJJJJ~~	~~The heater is smaller than the applicability threshold.~~
~~40 CFR 60 Subpart Dc~~	~~The heater is smaller than the applicability threshold.~~

SECTION 9: COMPLIANCE PLAN

Part A: Compliance Status for Applicable Rules and Requirements	
Will your source be in compliance with all applicable rules and requirements identified in Section 9 of this application, including those that with compliance dates set to take place during the term of the permit?	
☑ **Yes** ☐ **No**	**Proceed to Application Checklist.**

Part B: Applicable Rules and Requirements for Which Compliance Is Not Achieved or Will Not Be Achieved		
Regulation Citation (e.g. 40 CFR 63 Subpart A)	**Regulation Name** (e.g. General Provisions)	**Reason(s) why source will not be in compliance.**

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APPLICATION COMPLETENESS CHECKLIST

Does this application contain confidential information?	☐ Yes ☑ No	If "Yes" are application pages containing confidential data clearly marked?	☐ Yes ☑ No or N/A
Continue with the remainder of the checklist.			
Will your source require a PSD construction permit?			☐ Yes ☑ No
Continue with the remainder of the checklist, and submit the original signed copy of the permit application when complete.			

Section Number & Name	Included With Application?	If not included, provide reason.
Section 1: Administrative Information And Responsible Official Certification	☑ Yes ☐ No	
Section 2: Detailed Source Information	☑ Yes ☐ No	
Table 3-A: Emission Unit Identification	☑ Yes ☐ No	
Table 3-B: New/Modified/Reconstructed Stack / Release Point Information	☑ Yes ☐ No	
Table 4-A: Insignificant Activities List	☐ Yes ☑ No	Not applicable
Table 4-B: Insignificant Lubricating and Heavy Oil Storage Information	☐ Yes ☑ No	Not applicable
Table 4-C: Insignificant Cooling Towers	☐ Yes ☑ No	Not applicable
Table 5-A: MPTE – Regulated Air Pollutant Emissions from Physical Plants and Other Equipment	☑ Yes ☐ No	
Table 5-B: MPTE – VOC Emissions from VOC-Containing Materials	☐ Yes ☑ No	Not applicable
Table 5-C: MPTE - HAP Emissions from HAP-Containing Materials	☐ Yes ☑ No	Not applicable
Table 5-D: Maximum Potential to Emit and Operating / Construction Permit Thresholds	☑ Yes ☐ No	
Section 6: Source Class & Permit Determination	☐ Yes ☑ No	Not applicable
Part F: Table 6-A – Source-Elected Throughput Limits and Emission Control Requirements	☑ Yes ☐ No	
Part G: Source-Elected Facility-Wide Emission Limits	☐ Yes ☑ No	Facility is Title V and PSD major
Table 7-A: APTE – Regulated Air Pollutant Emissions from Concrete Batch Plants and Other Units	☐ Yes ☑ No	Not applicable
Table 7-B: APTE – VOC Emissions from VOC-Containing Materials	☐ Yes ☑ No	Not applicable
Table 7-C: APTE – HAP Emissions from HAP-Containing Materials	☐ Yes ☑ No	Not applicable
Table 7-D: Actual Potential to Emit and Operating / Construction Permit Thresholds	☑ Yes ☐ No	
Section 8: Applicable Rules And Requirements	☑ Yes ☐ No	
Section 9: Compliance Plan	☑ Yes ☐ No	
Table 9-A: Compliance Schedule	☐ Yes ☑ No	Facility is in compliance

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SECTION 4.0

CALCULATIONS

COMPANY	FACILITY NAME
Lincoln Electric System	TBGS

Description:

These calculations represent the different operating scenarios for the three engines.

Application Updates:

With this application, the engines will burn natural gas instead of landfill gas (LFG).

Operating Data for Landfill Gas Generators (12-1, 13-1, 14-1):

MMBtu/hr[1]	MMcf/hr[2]	Quantity	hr/yr each	HP (each)[3]	VOC Control[4]	CO Control[5]
14.6	0.0139	3	8,760	2,242.00	77.4%	40.0%

Heating Value of Natural Gas	1,050	Btu/cf

Greenhouse Gases		
Global Warming Potential (GWP)[6]		Natural Gas (lb/MMBtu)
CO_2	1	116.98
CH_4	25	0.0022
N_2O	298	0.0002
CO_2e		117.10

AP-42, Table 3.2-2	
4SLB (4-Stroke Lean Burn)	
	lb/MMBtu
PM_{10} (filterable)	7.71E-05
$PM_{2.5}$ (filterable)	7.71E-05
PM Condensable	9.91E-03
PM_{10} total	9.99E-03
$PM_{2.5}$ total	9.99E-03
SO_2	5.88E-04

		NSPS JJJJ Limit
	g/bhp-hr	g/bhp-hr
% load	100	
NOx	0.5	2
CO	2.3	5
NMNEHC (VOCs)	1.0	1
Formaldehyde	0.58	

Calculations:

	12-1, 13-1, 14-1 each			12-1, 13-1, 14-1 total on Natural Gas	PSD Significant Emission Rate (SER)
	lb/hr	lb/yr	tpy	tpy	tpy
PM_{10}	0.15	1,277.31	0.64	1.916	15
$PM_{2.5}$	0.15	1,277.31	0.64	1.916	10
SO_2	0.01	75.20	0.04	0.113	40
CO2e	44	383,688	192	67,393.70	N/A
NO_x	2.47	21,649.31	10.82	32.47	40
VOC	1.12	9,785.49	4.89	14.68	40
CO (uncontrolled)[7]	0.13	1,136.84	0.57	1.71	100
CO (controlled)	6.74	59,069.98	29.53	88.60	
Formaldehyde	0.65	5,675.58	2.84	8.51	N/A

HAPs:

CAS No.	Pollutant	VOC? (VOCs are controlled)	AP-42 ch. 3.2 Natural Gas (4-Stroke Lean Burn), Formaldehyde from Vendor, Control applied to VOCs			3 Engines
			lb/MMBtu	lb/hr	12-1, 13-1, 14-1 tpy (each)	tpy
	1,1,2,2-Tetrachloroethane	Yes	4.00E-05	1.32E-04	5.78E-04	**1.73E-03**
	1,1,2-Trichloroethane	Yes	3.18E-05	1.05E-04	4.60E-04	**1.38E-03**
	1,3-Butadiene	Yes	2.67E-04	8.81E-04	3.86E-03	**1.16E-02**
	1,3-Dichloropropene	Yes	2.64E-05	8.71E-05	3.82E-04	**1.14E-03**
91-57-6	2-Methylnaphthalene	Yes	3.32E-05	1.10E-04	4.80E-04	**1.44E-03**
	2,2,4-Trimethylpentane	Yes	2.50E-04	8.25E-04	3.61E-03	**1.08E-02**
83-32-9	Acenaphthene	No	1.25E-06	1.83E-05	7.99E-05	**2.40E-04**
203-96-8	Acenaphthylene	No	5.53E-06	8.07E-05	3.54E-04	**1.06E-03**
	Acetaldehyde	Yes	8.36E-03	2.76E-02	1.21E-01	**3.62E-01**
	Acrolein	Yes	5.14E-03	1.70E-02	7.43E-02	**2.23E-01**
71-43-2	Benzene	Yes	4.40E-04	1.45E-03	6.36E-03	**1.91E-02**
205-99-2	Benzo(b)fluoranthene	No	1.66E-07	2.42E-06	1.06E-05	**3.18E-05**
50-32-8	Benzo(a)pyrene	No	4.15E-07	6.06E-06	2.65E-05	**7.96E-05**
191-24-2	Benzo(g,h,i)perylene	No	4.14E-07	6.04E-06	2.65E-05	**7.94E-05**
	Biphenyl	Yes	2.12E-04	7.00E-04	3.06E-03	**9.19E-03**
	Carbon Tetrachloride	Yes	3.67E-05	1.21E-04	5.30E-04	**1.59E-03**
	Chlorobenzene	Yes	3.04E-05	1.00E-04	4.39E-04	**1.32E-03**
	Chloroform	Yes	2.85E-05	9.40E-05	4.12E-04	**1.24E-03**
218-01-9	Chrysene	No	6.93E-07	1.01E-05	4.43E-05	**1.33E-04**
	Ethylbenzene	Yes	3.97E-05	1.31E-04	5.74E-04	**1.72E-03**
	Ethylene Dibromide	Yes	4.43E-05	1.46E-04	6.40E-04	**1.92E-03**
206-44-0	Fluoranthene	No	1.11E-06	1.62E-05	7.10E-05	**2.13E-04**
86-73-7	Fluorene	No	5.67E-06	8.28E-05	3.63E-04	**1.09E-03**
50-00-0	Formaldehyde	Yes		6.48E-01	2.84E+00	**8.51E+00**
	Methanol	Yes	2.50E-03	8.25E-03	3.61E-02	**1.08E-01**
	Methylene Chloride	No	2.00E-05	2.92E-04	1.28E-03	**3.84E-03**
110-54-3	n-Hexane	Yes	1.11E-03	3.66E-03	1.60E-02	**4.81E-02**
91-20-3	Naphthalene	Yes	7.44E-05	2.45E-04	1.08E-03	**3.23E-03**
	PAH	No	2.69E-05	3.93E-04	1.72E-03	**5.16E-03**
85-01-8	Phenanthrene	No	1.04E-05	1.52E-04	6.65E-04	**2.00E-03**
	Phenol	Yes	2.40E-05	7.92E-05	3.47E-04	**1.04E-03**
129-00-0	Pyrene	No	1.36E-06	1.99E-05	8.70E-05	**2.61E-04**
	Styrene	Yes	2.36E-05	7.79E-05	3.41E-04	**1.02E-03**
	Perchloroethylene	No	2.48E-06	3.62E-05	1.59E-04	**4.76E-04**
108-88-3	Toluene	Yes	4.08E-04	1.35E-03	5.90E-03	**1.77E-02**
	Vinyl Chloride	Yes	1.49E-05	4.92E-05	2.15E-04	**6.46E-04**
	Xylenes	Yes	1.84E-04	6.07E-04	2.66E-03	**7.98E-03**
Total (tpy)					**3.12**	**9.36**
Largest HAP (tpy)					**Formaldehyde**	**8.51**

References:

1) From original construction permit application
2) Calculated from (MMBtu/hr) x (cf/Btu)
3) From Title V Permit
4) Control sufficient to avoid PSD for VOC and avoid major source for formaldehyde
5) Control sufficient to avoid PSD
6) LLCHD has not yet adopted the most recent Global Warming Potentials in 40 CFR 98.
7) As in the original permit, each engine includes 100 hours per year of uncontrolled operation.

COMPANY		FACILITY NAME	
Lincoln Electric System		TBGS	
DESCRIPTIVE NAME OF EMISSION POINT	EMISSION POINT ID		Project No.: 1490-007
Fuel Gas Heater	22		Date: Feb 2026
			By: RNA

Source Description:

This source represents emissions from a replacement heater that will warm the natural gas line entering the plant. It burns only natural gas.

Operating Data	
Fuel HHV	1,050 Btu/cf
Fuel Rate	0.1 MMBtu/hr
Hours per Year (normal operation)	8,760 hr/yr

Emissions

Pollutant	Emission Factor	Reference	Emission Rates[7] Hourly (lb/hr)	Annual (lb/yr)	Annual (tons/yr)
$PM_{2.5}$	7.6 lb/MMcf	Note 1	0.00	6.34	0.00
PM_{10}	7.6 lb/MMcf	Note 1	0.00	6.34	0.00
SO_2	0.6 lb/MMcf	Note 1	0.00	0.50	0.00
NOx	50.0 lb/MMcf	Note 2	0.00	41.71	0.02
CO	84.0 lb/MMcf	Note 1	0.01	70.08	0.04
VOC Total	5.5 lb/MMcf	Note 1	0.00	4.59	0.00
CO_2e		Note 3		104,000	52
Benzene	2.10E-03	Note 1	2.00E-07		8.76E-07
Dichlorobenzene	1.20E-03	Note 1	1.14E-07		5.01E-07
Formaldehyde	7.50E-02	Note 1	7.14E-06		3.13E-05
Hexanes	1.80E+00	Note 1	1.71E-04		7.51E-04
Naphthalene	6.10E-04	Note 1	5.81E-08		2.54E-07
PAHs	8.82E-05	Note 1	8.40E-09		3.68E-08
Toluene	3.40E-03	Note 1	3.24E-07		1.42E-06
Arsenic	2.00E-04	Note 1	1.90E-08		8.34E-08
Beryllium	1.20E-05	Note 1	1.14E-09		5.01E-09
Cadmium	1.10E-03	Note 1	1.05E-07		4.59E-07
Chromium	1.40E-03	Note 1	1.33E-07		5.84E-07
Cobalt	8.40E-05	Note 1	8.00E-09		3.50E-08
Lead	5.00E-04	Note 1	4.76E-08	0.00	2.09E-07
Manganese	3.80E-04	Note 1	3.62E-08		1.59E-07
Mercury	2.60E-04	Note 1	2.48E-08		1.08E-07
Nickel	2.10E-03	Note 1	2.00E-07		8.76E-07
Selenium	2.40E-05	Note 1	2.29E-09		1.00E-08
Total HAPs				1.58	7.88E-04

Greenhouse Gases:

	Pollutant	Emission Factor[3]	GHG Mass Emission Rates[4] Annual (tons/yr)	GWP[5]	CO_2e Emission Rates[6] Annual (tons/yr)
Natural Gas	CO_2	53.06 kg/MMBtu	51.236	1	51
	CH_4	0.001 kg/MMBtu	0.001	25	0
	N_2O	1.00E-04 kg/MMBtu	0.000	298	0
	CO_2e				52

REFERENCE/NOTES

1) Emission factors from AP-42, Chapter 1.4. $PM_{2.5}$ assumed equal to PM_{10}.

2) Proposed BACT

3) Emission factors based on 40 CFR 98, Tables C-1 and C-2, for natural gas.

4) Emission rates (ER) calculated as specified in 40 CFR 98.33(a)(1)(iii) and 40 CFR 98.33(c)(1)(ii) and in accordance with 98.33(b)(1)(v) as follows:
ER (tons/yr) = Emission Factor (kg/MMBtu) / 0.453592 (kg/lb) / 2,000 (lb/ton) * Heat Input (MMBtu/hr) * Operating Hours (hr/yr)

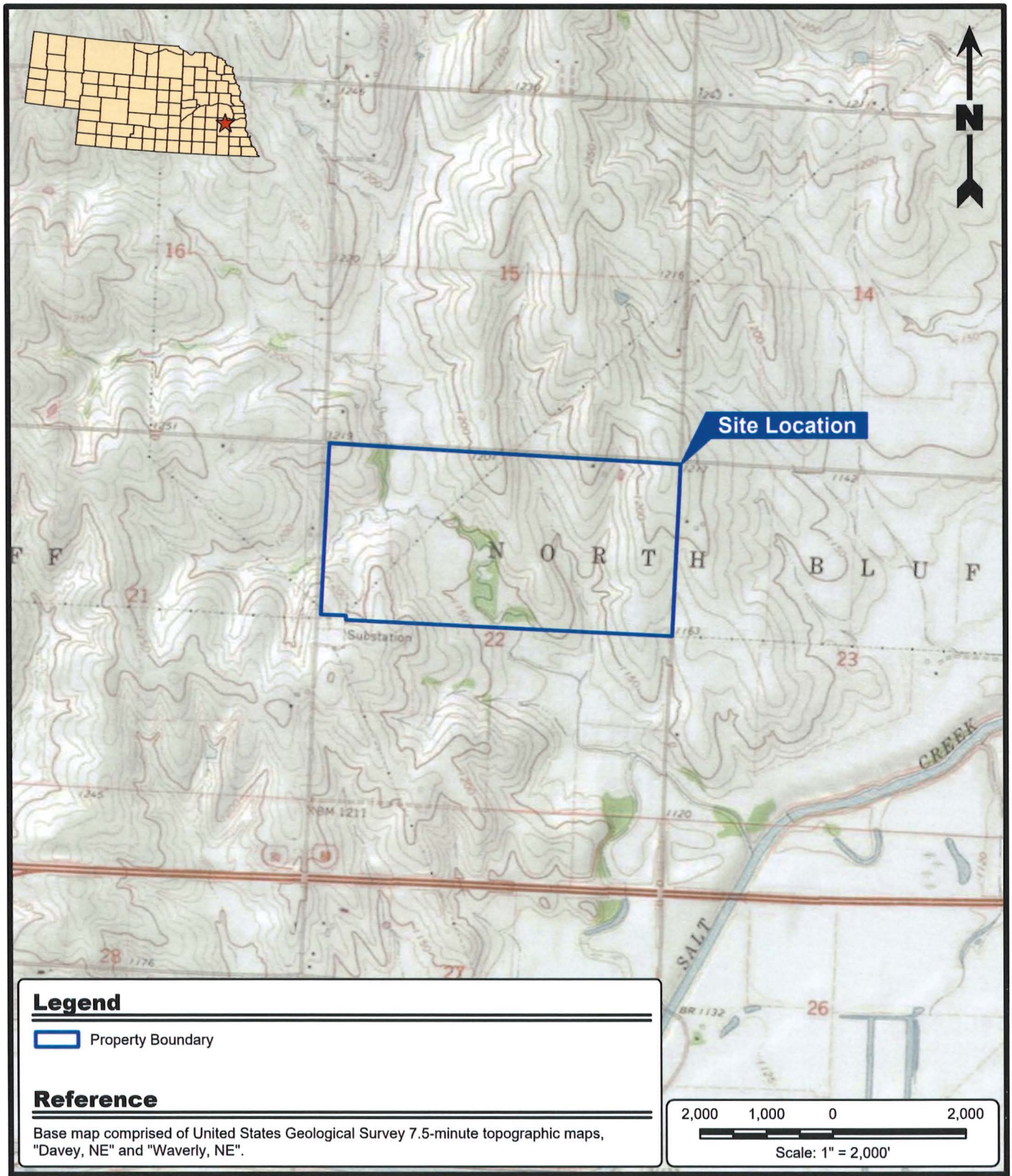
5) GWPs based on 40 CFR 98, Table A-1. Pre-2025 values used per LLCHD guidance.

6) CO_2e Emission Rates Annual calculated as follows:
ER (tons/yr) = ∑(GHG Mass Emission Rate * GWP)

7) Emission Rates Calculated as Follows
Avg (lb/hr) = Avg (lb/MMcf) * (MMBtu/hr) * (MMcf/MMBtu)
Annual (tons/yr) = Avg (lb/MMcf) * (MMBtu/hr) * (MMcf/MMBtu) * Hours of Operation (hr/yr) / (2,000 lb/ton)

FIGURE 1

SITE LOCATION MAP



Legend

Property Boundary

Reference

Base map comprised of United States Geological Survey 7.5-minute topographic maps, "Davey, NE" and "Waverly, NE".

PROVIDENCE

Providence Engineering and Environmental Group LLC
1201 Main Street · Baton Rouge, LA 70802
(225) 766-7400

Site Location Map

Air Permit Modification Application
Lincoln, Lancaster County, Nebraska

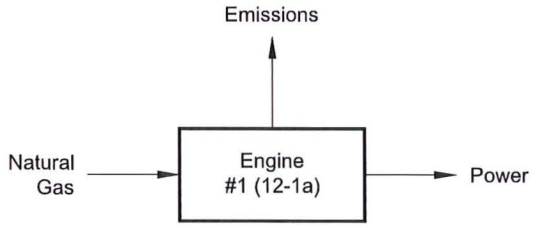
Lincoln Electric System
Terry Bundy Generating Station

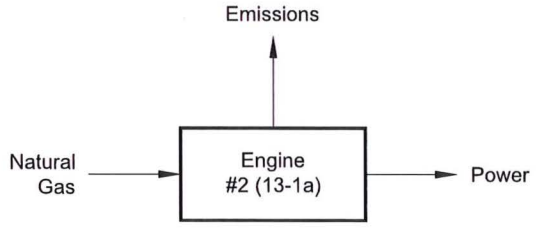
Drawn By	LMM	12/09/25
Checked By	JTL	12/09/25
Approved By	RA	12/09/25

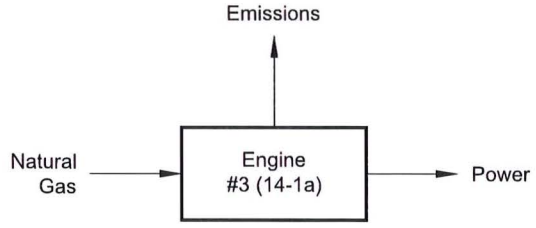
Project Number	1490-007
Drawing Number	1490-007-A001
Figure Number	1

FIGURE 2

PROCESS FLOW DIAGRAM







PROVIDENCE

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Process Flow Diagram

Air Permit Modification Application
Lincoln, Lancaster County, Nebraska

Lincoln Electric System
Terry Bundy Generating Station

Drawn By	LMM	12/09/25
Checked By	JTL	12/09/25
Approved By	RA	12/09/25

Project Number	1490-007
Drawing Number	1490-007-A002
Figure Number	**2**