pennsylvania DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR QUALITY

Request for Determination of Changes of Minor Significance and Exemption from Plan Approval/Operating Permit Under Pa Code §127.14 or §127.449 (RFD)

A. Type of Request

Exemption from Plan Approval
Select all that apply (see Instructions):

- ☐ Minor Sources or classes of sources, pursuant to 25 Pa. Code § 127.14(a)(1)-(7).
- ☒ Other sources and classes of sources of minor significance, pursuant to 25 Pa. Code § 127.14(a)(8).
- ☐ Physical changes to sources of minor significance, pursuant to 25 Pa. Code § 127.14(a)(9).
- ☐ Additional physical changes of minor significance that do not add new equipment, pursuant to 25 Pa. Code § 127.14(c)(1).
- ☐ Additional physical changes of minor significance that add new equipment, pursuant to 25 Pa. Code § 127.14(c)(2).
- ☐ Changes due to de minimis increases in emissions, pursuant to 25 Pa. Code § 127.449.

Exemption from Operating Permit
Select all that apply (see Instructions):

- ☐ Other sources and classes of sources of minor significance, pursuant to 25 Pa. Code § 127.14(a)(8).
- ☐ Physical changes to sources of minor significance, pursuant to 25 Pa. Code § 127.14(a)(9).
- ☐ Additional physical changes of minor significance that do not add new equipment, pursuant to 25 Pa. Code § 127.14(c)(1).
- ☐ Additional physical changes of minor significance that add new equipment, pursuant to 25 Pa. Code § 127.14(c)(2).
- ☐ Changes due to de minimis increases in emissions, pursuant to 25 Pa. Code § 127.449. (Must have valid operating permit conditions authorizing de minimis increases.)

B. Facility/Company Information

Firm/Company Name: Homer City Generation LP	**Facility/Plant Name**: Homer City Gen LP/Center TWP
Site Address: 1750 Power Plant Rd.	
City: Homer City	**State:** PA **ZIP:** 15748-8009
Municipality: Center Township	**County:** Indiana
Latitude: 40°30'50"N	**Longitude:** 79°11'47"W
Mailing Address (if different):	
City:	**State:** **ZIP:**
Federal Employer Identification Number (EIN) (if applicable)**:** 80-0833693	
Current Permit No. (if applicable)**:** 32-00055	**NAICS Code:** 221112
Person Completing Form:	**Title:**
Address (if different from facility/company)**:**	
City:	**State:** **ZIP:**
E-mail:	**Telephone: ( ) -**
Facility/Company Contact Person: Gary Cline	**Title:** Senior Env. Consultant
Address (if different from facility/company): 1750 Power Plant Road	
City: Homer City	**State:** PA **ZIP:** 15748
E-mail: gcline@homercityredevelopment.com	**Telephone:** (724) 388 - 4168

C. Project Description

Project Type: ☒ New construction ☐ Modification ☐ Remediation ☐ Other (see Instructions)

Total number of sources in project: 3

Description of project (may include process description, site diagram, and any other pertinent information – see Instructions and attach supporting documents in Section F. as needed):

Installation of three identical natural gas-fired emergency generators, rated at 200 kW each. These generators are exempt from obtaining a Plan Approval under 25 Pa. Code § 127.14(a)(8)(6), as aggregate potential NOx emissions for all three engiens are below 100 lbs/hr, 1,000 lbs/day, 2.75 tons per ozone season and 6.6 tons per year, as shown in Attachment 1 - PTE Calculations. Furhtermore, per the Department's 1 July 2021 guidance document 275-2101-003 outlining Plan Approval and Operating Permit Exemptions, this RFD is not required.

Homer City is submitting this form and its attachments for verification of concurrence and completeness of facility records.

D. Source Description

Complete a separate sheet for each source included in the project. For projects with more than one source, make additional copies of this page or download from DEP's Air Quality/Permits Web site.

Source ID/Name: 115-117 / Natural Gas-Fired Emergency Generators (302 bhp each)

Source Category Code and Description (See Instructions – Appendix A): 15.004

Source Location (if source is portable, submit a separate Request for Determination (RFD) application for each operating location):

Type: ☒ Stationary ☐ Portable (Enter number of days in operation at this location: _____)

Is equipment existing or proposed? ☐ Existing ☒ Proposed

Actual or Planned Date of Installation: / /

Source Description (see Instructions for examples of applicable information, attach supporting documents in Section F, and provide separate justification for any document designated as Confidential Business Information):

See Attachment 1 - Potential to Emit Calculations, Attachment 2 - Manufacturer's Specifications, and Attachment 3 - Emissions Test Data.

Emissions provided below are in aggregate for all three emergency generators.

Is the source subject to any New Source Performance Standards (NSPS), National Emission Standards for Hazardous Air Pollutants (NESHAP) or Maximum Achievable Control Technology (MACT) standard? If yes, specify federal citation including Subpart.

☒ Yes Subpart: 40 CFR 60 Subpart JJJJ ☐ No

You must provide all requested information below. Provide the supporting documentation and calculations as attachment(s) in Section F of this RFD.

Pollutants	Short-term Potential Emissions (specify units)*	Potential Emissions (tons/year)*	Short-term Estimated Atmospheric Emissions (Projected Actual Emissions) (specify units)*	Estimated Atmospheric Emissions (Projected Actual Emissions) (tons/year)*	Calculation/ Estimation Method
PM	N/A	3.13E-02	N/A	N/A	N/A
PM_{10}	N/A	3.13E-02	N/A	N/A	N/A
$PM_{2.5}$	N/A	3.13E-02	N/A	N/A	N/A
SO_X	N/A	9.48E-04	N/A	N/A	N/A
CO	N/A	0.11	N/A	N/A	N/A
NO_X	1.80E-02 lb/hr 0.43 lb/day	4.49E-03	N/A	N/A	N/A
VOC	N/A	4.99E-04	N/A	N/A	N/A
Total HAPs**	N/A	4.73E-02	N/A	N/A	N/A

* Must enter value or N/A

** For speciated HAPs (see Instructions) for required speciated HAPs or other pollutants, please attach additional sheets in Section F.

Will the construction or modification of this source increase emissions from other sources at the facility?

☐ Yes (Describe and quantify emissions on separate sheet) ☒ No

Is the construction or modification of the source subject to 25 Pa. Code, Chapter 127, Subchapter E, New Source Review (NSR) requirements or Prevention of Significant Deterioration (PSD) of Air Quality regulations at Subchapter D?

☐ Yes ☒ No

E. Exemption History

Identify all sources exempted within the last five years from plan approval/operating permit requirements for one of the following reasons: 1. Request for Determination (RFD), 2. Exemption List, or 3. De minimis emissions provisions of 25 Pa. Code §127.449 (see Instructions):

		Reason for Exemption (check one)		
Source Name	Date of Installation	RFD	Exemption List	De Minimis
		☐	☐	☐
		☐	☐	☐
		☐	☐	☐
		☐	☐	☐
		☐	☐	☐
		☐	☐	☐

F. List of Attached Documents (see Instructions)

List all supporting documents attached to this application. If any document contains Confidential Business Information (CBI), provide justification on separate attachment.

Confidential?	Description of Attachment
☐	Potential to Emit Calculations
☐	Manufacturer's Specifications
☐	Emsisions Test Data
☐	

G. Fees (Refer to the instructions for the appropriate fee.)

Are you a small business as defined by the Pennsylvania Air Pollution Control Act (35 P.S. § 4003)?

☐ Yes ☒ No

H. Signature of Responsible Person or Authorized Designee (see Instructions)

I certify under penalty of law as provided in 18 Pa. C.S.A. § 4904 and 35 P.S. § 4009(b)(2) that based on information and belief formed after reasonable inquiry, the statements and information contained in this form are true, accurate, and complete.

Signature: Michael J. Levesque **Title:** Chief Operating Officer **Date:** 01 / 21 / 2025

Name (typed or printed): Michael J. Levesque

Address (if different from site address):

City: **State:** **ZIP:**

E-mail: **Telephone:** (870) 559 - 6000

OFFICIAL USE ONLY
RFD #:

Date Received: _____ **Reviewed By:** _____

☐ **A plan approval is not required for this source (See 25 Pa. Code Section 127.14(a)(1)-(9))**

☐ **An operating permit is not required for this source (See 25 Pa. Code Section 127.443(a))**

☐ **The source(s) do(es) not qualify for exemption. Applicant is required to submit a plan approval application.**

☐ **The source(s) do(es) not qualify for exemption. Applicant is required to submit an operating permit application.**

_____ _____

Signature **Date**

_____ _____

Name **Title**

Remarks:

Conditions:

Attachment A – Potential to Emit Calculations

Table 1
Emergency Generator Potential to Emit - Criteria Pollutants

Criteria Pollutant Emission Factors

Source ID	Manufacturer	Model No.	Horsepower (bhp)[1]	Fuel Consumption (MMBtu/hr)[1]	Hours of Operation[2]	NO_x Emission Factor (g/hp-hr)[3]	CO Emission Factor (g/hp-hr)[3]	VOC Emission Factor (g/hp-hr)[3]	PM Emission Factor (lb/MMBtu)[3,4]	SO_x Emission Factor (lb/MMBtu)[3]
115	Cummins	C200N6	302	2.15	500	9.00E-03	2.27E-01	1.00E-03	1.94E-02	5.88E-04
116	Cummins	C200N6	302	2.15	500	9.00E-03	2.27E-01	1.00E-03	1.94E-02	5.88E-04
117	Cummins	C200N6	302	2.15	500	9.00E-03	2.27E-01	1.00E-03	1.94E-02	5.88E-04

Criteria Pollutant Potential to Emit

Source ID	NO_x Emissions (lb/hr)	NO_x Emissions (lb/day)	NO_x Emissions (tpy)	CO Emissions (tpy)	VOC Emissions (tpy)	PM Emissions (tpy)	SO_x Emissions (tpy)
115	5.99E-03	0.14	1.50E-03	0.04	1.66E-04	1.04E-02	3.16E-04
116	5.99E-03	0.14	1.50E-03	0.04	1.66E-04	1.04E-02	3.16E-04
117	5.99E-03	0.14	1.50E-03	0.04	1.66E-04	1.04E-02	3.16E-04
Total:	**1.80E-02**	**0.43**	**4.49E-03**	**0.11**	**4.99E-04**	**3.13E-02**	**9.48E-04**

[1] Brake horsepower and rated fuel consumption obtained from manufacturer's specifications. Assume standby rating burning natural gas.

[2] Calculations assume 500 potential operating hours per emergency generator.

[3] Emission factors for PM and SO_x obtained from U.S. EPA's AP-42 Section 3.2, Table 3.2-3. Factors for NO_x, CO, and VOC (estimated as NMHC) are from manufacturer's

[4] Assume $PM=PM_{10}=PM_{2.5}$.

Table 2
Emergency Generator Potential to Emit - HAPs

HAP Potential to Emit

Source ID	Fuel Consumption (MMBtu/hr)[1]	Hours of Operation[2]	HAP Emissions (tpy)									
			1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,3-Butadiene	1,3-Dichloropropene	Acetaldehyde	Acrolein	Benzene	Carbon Tetrachloride	Chlorobenzene	Chloroform
115	2.15	500	1.36E-05	8.22E-06	3.56E-04	6.83E-06	1.50E-03	1.41E-03	8.49E-04	9.51E-06	6.93E-06	7.36E-06
116	2.15	500	1.36E-05	8.22E-06	3.56E-04	6.83E-06	1.50E-03	1.41E-03	8.49E-04	9.51E-06	6.93E-06	7.36E-06
117	2.15	500	1.36E-05	8.22E-06	3.56E-04	6.83E-06	1.50E-03	1.41E-03	8.49E-04	9.51E-06	6.93E-06	7.36E-06
		Total:	4.08E-05	2.47E-05	1.07E-03	2.05E-05	4.50E-03	4.24E-03	2.55E-03	2.85E-05	2.08013E-05	2.2091E-05

HAP Potential to Emit

Source ID	Fuel Consumption (MMBtu/hr)[1]	Hours of Operation[2]	HAP Emissions (tpy)										
			Ethylbenzene	Ethylene Dibromide	Formaldehyde	Methylene Chloride	Naphthalene	PAH	Styrene	Toluene	Vinyl Chloride	Xylene	Total HAP
115	2.15	500	1.33E-05	1.14E-05	1.10E-02	2.21E-05	5.22E-05	7.58E-05	6.40E-06	3.00E-04	3.86E-06	1.05E-04	**1.58E-02**
116	2.15	500	1.33E-05	1.14E-05	1.10E-02	2.21E-05	5.22E-05	7.58E-05	6.40E-06	3.00E-04	3.86E-06	1.05E-04	**1.58E-02**
117	2.15	500	1.33E-05	1.14E-05	1.10E-02	2.21E-05	5.22E-05	7.58E-05	6.40E-06	3.00E-04	3.86E-06	1.05E-04	**1.58E-02**
		Total:	4.00E-05	3.43E-05	3.31E-02	6.64E-05	1.57E-04	2.27E-04	1.92E-05	9.00E-04	1.16E-05	3.14E-04	**4.73E-02**

HAP Emission Factors[3]

Pollutant	Emission Factor (lb/MMBtu)
1,1,2,2-Tetrachloroethane	2.53E-05
1,1,2-Trichloroethane	1.53E-05
1,3-Butadiene	6.63E-04
1,3-Dichloropropene	1.27E-05
Acetaldehyde	2.79E-03
Acrolein	2.63E-03
Benzene	1.58E-03
Carbon Tetrachloride	1.77E-05
Chlorobenzene	1.29E-05
Chloroform	1.37E-05
Ethylbenzene	2.48E-05
Ethylene Dibromide	2.13E-05
Formaldehyde	2.05E-02
Methylene Chloride	4.12E-05
Naphthalene	9.71E-05
PAH	1.41E-04
Styrene	1.19E-05
Toluene	5.58E-04
Vinyl Chloride	7.18E-06
Xylene	1.95E-04

[1] Rated fuel consumption obtained from manufacturer's specifications. Assume standby rating burning natural gas.

[2] Calculations assume 500 potential operating hours per emergency generator.

[3] Emission factors for HAPs from U.S. EPA, AP-42, Section 3.2, Table 3.2-3

Attachment B – Manufacturer’s Specifications

Generator set data sheet

Model	**C200N6**
Frequency	**60 Hz**
Fuel type	**Natural gas and propane**
kW (kVa) ratings	**200 (250) natural gas standby**
	180 (225) natural gas prime
	130 (163) propane standby
Emissions	**EPA-certified for stationary emergency and non-emergency applications**

Exhaust emission data sheet	EDS-3061
Sound performance data sheet	MSP-4053
Cooling performance data sheet	MCP-2101
Prototype test summary data sheet	PTS-684
Standard set-mounted radiator cooling outline	C200N6-01

Fuel consumption

	1/4 load	1/2 load	3/4 load	full load
200 kW natural gas standby				
Fuel consumption for cfh and m^3/hr is based on 1015 Btu/ft^3.				
cfh	635	1269	1692	2115
m^3/hr	18	36	48	60
MMBtu/hr	0.64	1.29	1.72	2.15
180 kW natural gas prime				
Fuel consumption for cfh and m^3/hr is based on 1015 Btu/ft^3.				
cfh	518	1341	1630	2043
m^3/hr	15	38	46	58
MMBtu/hr	0.53	1.36	1.65	2.07
130 kW propane standby				
Fuel consumption for cfh and m^3/hr is based on 2353 Btu/ft^3				
cfh	244	488	651	814
m^3/hr	7	14	18	23
MMBtu/hr	0.57	1.15	1.53	1.66

Fuel supply

Fuel supply pressure is measured at the factory-supplied fuel shut-off (FSO) valve.
Fuel inlet pressure must not exceed 25 in. WC under any operating condition.

Minimum operating pressure, in. H_20 (kPa)	7 (1.74)
Maximum operating pressure, in. H_20 (kPa)	11 (2.74)

Engine	200 NG standby	180 NG prime	130 propane standby
Engine manufacturer	Power Systems International (PSI)		
Engine model	11.1 L		
Configuration	Inline 6		
Aspiration	Turbocharged and coolant-air aftercooled		
Gross engine power output, bhp (kWm)	302 (225)	272 (203)	208 (155)
BMEP at set rated load, psi (kPa)	197 (1358)	177 (1220)	136 (938)
Bore, in. (mm)	4.84 (123)		
Stroke, in. (mm)	6.1 (155)		
Rated speed, rpm	1800		
Piston speed, ft./min (m/s)	1830 (9.3)		
Compression ratio	10.5:1		
Lube oil capacity, qt. (L)	26.5 (25)		
Overspeed limit, rpm	2100		
Regenerative power, kW	11		

Air	
Combustion air, cfm (m^3/min)	448 (12.69)
Max air cleaner restriction (dirty filter), in. H_2O (kPa)	15 (3.7)
Alternator cooling air, cfm (m^3/min)	

Exhaust	
Exhaust flow at set rated load, cfm (m^3/min)	1425 (40.35)
Exhaust temp, °F (°C)	1350 (732)
Max allowable system back pressure, in. H_2O (kPa)	41 (10.2)
Catalyst back pressure, in. H_2O (kPa)	20.4 (5.08)

Cooling			
Ambient design, °F (°C)	122 (50)		
Fan load, HP (kWm)	9 (6.7)		
Coolant capacity (with radiator), gal (L)	23 (105)		
Cooling system air flow, acfm (m^3/min)	18,000 (510)		
Heat rejected, jacket water circuit, Btu/min (MJ/min)	11,071 (11.68)		
Heat rejected, after-cooler circuit, Btu/min (MJ/min)	1462 (1.54)		
Total heat radiated to room, Btu/min (MJ/min)	12, 533 (13.2)		
Max cooling air flow static restriction, in. H_2O (kPa)	0.5 (0.12)		

Weight

Weight represents a set with standard features. See outline drawing for weights of other configurations.

Unit wet weight lbs. (kgs)	5778 to 6091 (2620 to 2763)

Full-load amperage (FLA) at rated voltage

Three-phase FLA based on 0.8 power factor (PF).

	120/240 (1 Ph)	120/208	127/220	139/240	220/380	240/416	254/440	277/480	347/600
200 kW	N/A	694	656	601	380	347	328	301	241
180 kW	N/A	625	590	541	342	312	295	271	217
130 kW	N/A	451	426	391	247	226	213	195	156

Derates

Engine power available up to 1200 ft. (366 m) and ambient temperatures up to 77 ˚F (25 ˚C). Above these conditions, derate at 2.5% per 1000 ft. (305 m) and 1.5% per 10 ˚F (5.6 ˚C) to a maximum of 10,000 ft.

Ratings definitions

Emergency standby power (ESP):
Applicable for supplying power to varying electrical load for the duration of power interruption of a reliable utility source. Emergency Standby Power (ESP) is in accordance with ISO 8528. Fuel Stop power is in accordance with ISO 3046, AS 2789, DIN 6271, and BS 5514.

Prime power (PRP):
Applicable for supplying power to varying electrical load for unlimited hours. Prime Power (PRP) is in accordance with ISO 8528. Ten percent overload capability is available in accordance with ISO 3046, AS 2789, DIN 6271, and BS 5514.

Base load (continuous) power (COP):
Applicable for supplying power continuously to a constant electrical load for unlimited hours. Continuous Power (COP) is in accordance with ISO 8528, ISO 3046, AS 2789, DIN 6271, and BS 5514.

Demand Response Power Rating - Spark Ignited Gas (DRP):
Applicable for supplying electrical power in parallel with commercially available power in variable and non-variable load applications. This fuel rating is intended for use in situations where power outages are contracted, such as in utility power curtailment. Engine operation is limited to a total of 500 hours per year. Engines may be operated in parallel to the public utility for up to 500 hours per year, with an average load factor no greater than 80% of rated Demand Response Power. Engines with Standby Power ratings available can be run in Emergency Standby applications up to the Standby Power rating for up to 50 hours per year. The customer should be aware, however, that the life of any engine will be reduced by constant high load operation.

ISO 9001:2015

This product has been manufactured under the controls established by an approved management system that conforms with ISO 9001:2015.

Warning: Backfeed to a utility system can cause electrocution and/or property damage. Do not connect GenSets to any building electrical system except through an approved device or after the building main disconnect is open. Neutral connection must be bonded in accordance with National Electrical Code.

Specifications are subject to change without notice.

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NAD-C200N6 March 2022

Attachment C – Emissions Test Data

Exhaust emission data sheet

C200N6 60 Hz spark-ignited generator set (GenSet)

Exhaust emissions data @ 2000 rpm

Exhaust component		Natural gas	Propane
		g/hp-hr	g/kw-hr
Oxides of nitrogen	NOx	0.009	0.02
Total unburned hydrocarbons	HC	N/A	0.09
Non-methane hydrocarbons	NMHC	0.001	N/A
Carbon monoxide	CO	0.227	0.33

Engine information:

Model: Power Systems International (PSI)

Emission certification: EPA-certified for stationary emergency and non-emergency applications

Aspiration: Turbocharged and charge air cooled

Bore: 4.8 in. (123 mm)
Stroke: 6.1 in. (155 mm)
Displacement: 673 in^3 (11.1 L)
Cylinders: 6
Combustion: Stoichiometric
Compression ratio: 10.5:1

Test conditions
0-hour non-deteriorated emissions data for permitting customers.
Weighted composite emissions from ISO 8178 D1 (NG) and D2 (LPG).