MGS CNP 1, LLC
109 Post Oak Lane, Suite 140
Houston, TX 77024

FIDELIS

June 18, 2025

Laura M. Crowder, Director
WV Department of Environmental Protection (WVDEP)
Division of Air Quality (DAQ)
601 57th Street SE
Charleston, WV 25304

Re: Application Status: Incomplete
MGS CNP 1, LLC/BECCS Plant
Permit Application No. R13-3708
Plant ID No. 053-00134

Ms. Crowder,

Please find our responses to each of your questions/comments in the incomplete application notice sent to MGS CNP 1, LLC (MGS) on June 6th 2025. MGS has provided a response in italics to address all the questions surrounding the application for the BECCS plant.

The following items will be attached to address comments.

- Attachment N - Updated emission calculations
- Attachment L - Engine Data Sheet
- Emission Specification for the Fire Pump Engine.

If you have additional questions, please do not hesitate to contact us.

Sincerely,

Jack Calhoun
Vice President

MGS CNP 1, LLC
109 Post Oak Lane, Suite 140
Houston, TX 77024

RE: Application Status: Incomplete
MGS CNP 1, LLC/BECCS Plant
Permit Application No. R13-3708
Plant ID No. 053-00134

Mr. Calhoun:

Your application for a construction permit for a steam to electric generation facility was received by this Division on February 24, 2025, and assigned to the writer for review. It has been determined that the application as submitted is incomplete based on the following items:

1. The emission of non methane hydrocarbons (NMHC) plus nitrogen oxides (NOx) presented in the application from the emergency engine for the firewater pump (Emission Unit ID 129-P-9402) indicate potentially non-compliance with the NMHC + NOx standard for stationary fire pump engines of Subpart IIII to 40CFR60. Please update your application accordingly.
   a. ***Attachment N shows the updated emissions for the proposed fire pump unit.***
   b. ***Attachment L has been updated with proposed fire pump engine information.***
   c. ***The emission specification for the fire pump engine has been provided to demonstrate compliance NSPS IIII.***

Please address the above issue by June 23, 2025. Application review will not commence until the application has been deemed to be technically complete. Failure to respond to this request in a timely manner may result in the denial of the application.

Should you have any questions, please contact Ed Andrews at (304) 926-0499 ext. 41244 or reply to this email.

Thanks,
Ed

MGS CNP 1, LLC Biomass Fired Power Plant Initial Minor NSR Application Emission Calculations Summary

Emission ID	NO_x		CO		PM		PM_{10}		$PM_{2.5}$		PM- Filterable		PM_{10} - Filterable		$PM_{2.5}$ - Filterable		VOC		SO_2		NH_3		H_2SO_4		Pb	
	lb/hr	Tons/Yr	lb/hr	Tons/Yr	lb/hr	Tons/Yr	lb/hr	Tons/Yr	lb/hr	Tons/Yr	lb/hr	Tons/Yr	lb/hr	Tons/Yr	lb/hr	Tons/Yr	lb/hr	Tons/Yr	lb/hr	Tons/Yr	lb/hr	Tons/Yr	lb/hr	Tons/Yr	lb/hr	Tons/Yr
121-H-2001	20.20	90.42	10.20	45.65	15.54	67.83	15.54	67.83	15.54	67.83	7.99	34.87	7.99	34.87	7.99	34.87	4.43	18.33	11.58	50.78	5.09	20.98	6.35	27.86	0.05	0.20
129-P-9402	3.07	0.08	3.33	0.08	0.20	<0.01	0.20	<0.01	0.20	<0.01	0.20	<0.01	0.20	<0.01	0.20	<0.01	0.11	<0.01	<0.01	<0.01	--	--	--	--	--	--
129-PKG-0001	6.61	0.17	13.23	0.33	0.20	<0.01	0.20	<0.01	0.20	<0.01	0.20	<0.01	0.20	<0.01	0.20	<0.01	5.67	0.14	0.03	<0.01	--	--	--	--	--	--
127-PKG-0001	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.51	2.10	0.64	2.79	--	--
121-LS-1001 / 121-LS-1002	--	--	--	--	1.08	4.72	1.08	4.72	1.08	4.72	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
121-CV-1001	--	--	--	--	0.06	0.19	0.03	0.09	<0.01	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
121-CV-1002	--	--	--	--	0.06		0.03		<0.01		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CHIP-1	--	--	--	--	0.11	0.37	0.05	0.18	<0.01	0.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
121-S-1001	--	--	--	--	0.11	0.37	0.05	0.18	<0.01	0.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
121-CV-1003	--	--	--	--	0.06	0.19	0.03	0.09	<0.01	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
121-CV-2001 A	--	--	--	--	0.06	0.19	0.03	0.09	<0.01	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
121-CV-2001 B	--	--	--	--	0.06		0.03		<0.01		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
121-S-2001 A	--	--	--	--	0.06	0.19	0.03	0.09	<0.01	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
121-S-2001 B	--	--	--	--	0.06		0.03		<0.01		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CHIP-2	--	--	--	--	--	0.21	--	0.11	--	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
121-CV-4001 A	--	--	--	--	0.54	1.79	0.25	0.85	0.04	0.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
121-CV-4001 B	--	--	--	--	0.54		0.25		0.04		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
121-CV-4002	--	--	--	--	0.54	1.79	0.25	0.85	0.04	0.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
121-CV-4003	--	--	--	--	0.54	1.79	0.25	0.85	0.04	0.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
121-CV-4004	--	--	--	--	0.54	1.79	0.25	0.85	0.04	0.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
121-CV-4005	--	--	--	--	0.54	1.79	0.25	0.85	0.04	0.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
121-CV-4006 A	--	--	--	--	0.39	1.31	0.19	0.62	0.03	0.09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
121-CV-4006 B	--	--	--	--	0.39		0.19		0.03		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
121-CV-4007 A	--	--	--	--	0.39	1.31	0.19	0.62	0.03	0.09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
121-CV-4007 B	--	--	--	--	0.39		0.19		0.03		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
121-S-4001 A	--	--	--	--	0.02	0.06	<0.01	0.03	<0.01	<0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
121-S-4001 B	--	--	--	--	0.02		<0.01		<0.01		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
121-TL-0001	--	--	--	--	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
121-CV-5001 A	--	--	--	--	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
121-CV-5001 B	--	--	--	--	<0.01		<0.01		<0.01		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
121-CV-5002A	--	--	--	--	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
121-CV-5002B	--	--	--	--	<0.01		<0.01		<0.01		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
121-S-1002	--	--	--	--	0.35	<0.01	0.17	<0.01	0.17	<0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
121-CV-1004	--	--	--	--	0.17	<0.01	0.08	<0.01	0.08	<0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
121-CV-5003 A	--	--	--	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
121-CV-5003 B	--	--	--	--	<0.01		<0.01		<0.01		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
121-CV-5004 A	--	--	--	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
121-CV-5004 B	--	--	--	--	<0.01		<0.01		<0.01		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
121-S-9902 A	--	--	--	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
121-S-9902 B	--	--	--	--	<0.01		<0.01		<0.01		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
121-X-9901 A / 121-X-9901 B	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
129-CT-9301	--	--	--	--	2.02	3.01	1.48	2.52	0.67	1.26	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PM-PlantRd	--	--	--	--	10.74	9.38	2.15	1.88	0.53	0.46	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
129-TK-9402	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
122-TK-9902	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.01	<0.01	--	--	--	--	--	--	--	--
122-TK-9901	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01	<0.01	--	--	--	--	--	--	--	--
BECCS-FUG	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8.32	36.46	--	--	0.60	2.64	--	--	--	--
VOC - Amine -LOAD	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01	<0.01	--	--	--	--	--	--	--	--
Totals:	**29.88**	**90.66**	**26.76**	**46.06**	**35.77**	**98.38**	**23.48**	**83.31**	**18.87**	**75.26**	**8.39**	**34.88**	**8.39**	**34.88**	**8.39**	**34.88**	**18.57**	**54.93**	**11.62**	**50.78**	**6.20**	**25.72**	**6.99**	**30.65**	**0.05**	**0.20**

MGS CNP 1, LLC Biomass Fired Power Plant Initial Minor NSR Application Emission Calculations HAPs Summary																
Emission ID	**Total HAPs**		**Acetaldehyde**		**Acrolein**		**Benzene**		**Formaldehyde**		**HCl**		**Styrene**		**Toluene**	
	lb/hr	**Tons/Yr**	**lb/hr**	**Tons/Yr**	**lb/hr**	**Tons/Yr**	**lb/hr**	**Tons/Yr**	**lb/hr**	**Tons/Yr**	**lb/hr**	**Tons/Yr**	**lb/hr**	**Tons/Yr**	**lb/hr**	**Tons/Yr**
121-H-2001	5.43	23.36	--	8.14	--	1.95	--	2.05	--	2.56	1.18	5.65	--	0.93	--	0.45
129-P-9402	0.02	<0.01	--	<0.01	--	<0.01	--	<0.01	--	<0.01	--	--	--	--	--	<0.01
129-PKG-0001	1.43	0.04	--	<0.01	--	<0.01	--	<0.01	--	0.03	--	--	--	<0.01	--	<0.01
127-PKG-0001	0.12	0.57	--	--	--	--	--	--	--	--	0.12	0.57	--	--	--	--
Totals:	**6.99**	**23.96**	**<0.01**	**8.14**	**<0.01**	**1.96**	**<0.01**	**2.05**	**<0.01**	**2.58**	**1.30**	**6.22**	**<0.01**	**0.93**	**<0.01**	**0.45**

Table N-12 Fire Water Pump
MGS CNP 1, LLC

There will be one diesel-fired fire water pump, with rating @ 600 hp.
Sulfur content of fuel used in engines will be 15 ppm sulfur or less.
Annual non-emergency operating hours will be limited to 100 hr/yr.
Engines will be new (model year 2024 or later).

FIN: **129-P-9402** **EPN:** **129-P-9402**

Fuel Type:	**Diesel**	
Year	2024	
Total Engines:	1	
Fuel Consumption per Engine:	35.90	gal/hr
Diesel Density [1]	7.001	lb/gal
Fuel Consumption per Engine:	251.34	lbs/hr
Diesel Fuel Heat Content (HHV): [1]	19,300	Btu/lb
Heat Input (HHV) per Engine:	4.85	MMBtu/hr
Engine Horsepower Output:	614	hp
Engine Output:	458	kW
Annual Operation:	50	hr/yr
Engine Load:	100%	
Displacement per Cylinder	< 30 L per cylinder	
Brake Specific Fuel Consumptions: [2]	7900.30	Btu/hp-hr

Notes:
[1] 19,300 Btu/lb is the average heating value of diesel and 7.001 lb/gal is the density of diesel as provided by vendor.
[2] Brake specific fuel consumption per hour = (Heat Input (HHV)) / (Engine Horsepower Output (hp)).

Water Pump Diesel Engine Emission Rates

Pollutant	**Emission Factor** [1,2,3]		**Emissions Rates (Per Engine)**		
			Max. Hourly	**Annual Average**[4]	**Annual**
			lb/hr	**lb/hr**	**tpy**
NOX [1]	3.04	g/kw-hr	3.07	0.02	0.08
CO [1]	3.30	g/kw-hr	3.33	0.02	0.08
PM10 [1,3]	0.20	g/kw-hr	0.20	0.00	0.01
PM2.5 [1,3]	0.20	g/kw-hr	0.20	0.00	0.01
VOC [1]	0.11	g/kw-hr	0.11	0.00	0.00
SO2 [2]	0.00	lb/hp-hr	0.01	0.00	0.000

Notes:
1. NOX, CO, PM, and VOC emission factors are from 40 CFR 60.4205(c) for engines with rated power greater than or equal to 600 hp (450 kW) but less than or equal to 750 hp (560 kW). NSPS Subpart IIII specifies to use emission factors from Table 4 to 40 CFR Subpart IIII.
2. Emission factors for SO2 based on 15 ppmw ULSD.
3. All PM is assumed to be less than 1.0 µm in diameter. Therefore, the PM emission factor is used to estimate emissions of PM10 and PM2.5.
4. Annual average hourly emission rates are (annual emissions in tpy)*2000 lb/ton*1 year/8760 hours.

Table N-12 Fire Water Pump
MGS CNP 1, LLC

Example Calculation:

Hourly NO_X = $\frac{3.0\ g}{kW\text{-}hr} \times 457.87\ kW \times \frac{1\ lb}{453.59\ g} = \frac{3.07\ lb}{hr}$

Annual NO_X = $\frac{3.07\ lb}{hr} \times \frac{50\ hrs}{yr} \times \frac{1\ ton}{2000\ lbs} = \frac{0.08\ ton}{yr}$

HAP Emissions from Engines

HAP Emission Estimation

Max Input = 4.85 MMBtu/hr each engine
Annual Hours @ Max Rating = 50.0 hrs/yr
Hourly Emissions = (Max Heat Input - MMBtu/hr) x (1 SCF/1,020 Btu) x (EF - lb/MMSCF)
Annual Emissions = (Max Heat Input - MMBtu/hr) x (1 SCF/1,020 Btu) x (EF - lb/MMSCF) x (Annual Operating Hours) / (2,000 lb/Ton)

Pollutant	EF [1] (lb/MMBtu)	Source	§112 HAP? [2]	Max. Hourly Emission [3] (lb/hr)	Annual Emission (lb/yr) [4]	Annual Emissions (tpy) [5]
Benzene	9.33E-04	AP42; Table 3.3-2; 10/96.	YES	4.53E-03	2.26E-01	1.13E-04
Toluene	4.09E-04	AP42; Table 3.3-2; 10/96.	YES	1.98E-03	9.92E-02	4.96E-05
Xylenes	2.85E-04	AP42; Table 3.3-2; 10/96.	YES	1.38E-03	6.91E-02	3.46E-05
Propylene	2.58E-03	AP42; Table 3.3-2; 10/96.	NO	1.25E-02	6.26E-01	3.13E-04
1,3-Butadiene	<3.91E-05	AP42; Table 3.3-2; 10/96.	YES	1.90E-04	9.48E-03	4.74E-06
Formaldehyde	1.18E-03	AP42; Table 3.3-2; 10/96.	YES	5.72E-03	2.86E-01	1.43E-04
Acetaldehyde	7.67E-04	AP42; Table 3.3-2; 10/96.	YES	3.72E-03	1.86E-01	9.30E-05
Acrolein	<9.25E-05	AP42; Table 3.3-2; 10/96.	YES	4.49E-04	2.24E-02	1.12E-05
Total PAH	<1.68E-04	AP42; Table 3.3-2; 10/96.	YES	8.15E-04	4.07E-02	2.04E-05
Naphthalene	8.48E-05	AP42; Table 3.3-2; 10/96.	YES	4.11E-04	2.06E-02	1.03E-05
Acenaphthylene	<5.06E-06	AP42; Table 3.3-2; 10/96.	YES	2.45E-05	1.23E-03	6.14E-07
Acenaphthene	<1.42E-06	AP42; Table 3.3-2; 10/96.	YES	6.89E-06	3.44E-04	1.72E-07
Fluorene	2.92E-05	AP42; Table 3.3-2; 10/96.	YES	1.42E-04	7.08E-03	3.54E-06
Phenanthrene	2.94E-05	AP42; Table 3.3-2; 10/96.	YES	1.43E-04	7.13E-03	3.57E-06
Anthracene	1.87E-06	AP42; Table 3.3-2; 10/96.	YES	9.07E-06	4.54E-04	2.27E-07
Fluoranthene	7.61E-06	AP42; Table 3.3-2; 10/96.	YES	3.69E-05	1.85E-03	9.23E-07
Pyrene	4.78E-06	AP42; Table 3.3-2; 10/96.	YES	2.32E-05	1.16E-03	5.80E-07
Benzo(a)anthracene	1.68E-06	AP42; Table 3.3-2; 10/96.	YES	8.15E-06	4.07E-04	2.04E-07
Chrysene	3.53E-07	AP42; Table 3.3-2; 10/96.	YES	1.71E-06	8.56E-05	4.28E-08
Benzo(b)fluoranthene	<9.91E-08	AP42; Table 3.3-2; 10/96.	YES	4.81E-07	2.40E-05	1.20E-08
Benzo(k)fluoranthene	<1.55E-07	AP42; Table 3.3-2; 10/96.	YES	7.52E-07	3.76E-05	1.88E-08
Benzo(a)pyrene	<1.88E-07	AP42; Table 3.3-2; 10/96.	YES	9.12E-07	4.56E-05	2.28E-08
Indeno(1,2,3-cd)pyrene	<3.75E-07	AP42; Table 3.3-2; 10/96.	YES	1.82E-06	9.10E-05	4.55E-08
Dibenzo(a,h)anthracene	<5.83E-07	AP42; Table 3.3-2; 10/96.	YES	2.83E-06	1.41E-04	7.07E-08
Benzo(g,h,I)perylene	<4.89E-07	AP42; Table 3.3-2; 10/96.	YES	2.37E-06	1.19E-04	5.93E-08
Total §112 HAP =	3.87E-03			1.88E-02	9.39E-01	4.70E-04

[1] Emission factors obtained from US EPA AP-42 Section 3.3 Gasoline and Diesel Engines (10/96), Table 3.3-2.
[2] Listed US EPA Hazardous Air Pollutants.
[3] Max. Hourly Emissions = Emission Factor (lb/MMBtu) *Max Heat Input Capacity per Engine (MMBtu/hr)
[4] Maximum Annual Emission Rate (lb/yr) = Hourly Emissions (lb/hr) * Annual Operating Hours (hr/yr)
[4] Maximum Annual Emission Rate (lb/yr) = Hourly Emissions (lb/hr) * Annual Operating Hours (hr/yr)
[5] Maximum Potential Annual Emission Rate (tpy) = Hourly Emissions (lb/hr) * Annual Hours (hr/yr) ((1 ton/2000 lb).

ATTACHMENT L – INTERNAL COMBUSTION ENGINE DATA SHEET

Complete this data sheet for each internal combustion engine at the facility. Include manufacturer performance data sheet(s) or any other supporting document if applicable. Use extra pages if necessary. *Generator(s) and microturbine generator(s) shall also use this form.*

Emission Unit ID#[1]	129-PKG-0001	129-P-9402	
Engine Manufacturer/Model	TBD	Clarke / C18H0-UFAD42	
Manufacturers Rated bhp/rpm	3,000	614	
Source Status[2]	NS	NS	
Date Installed/ Modified/Removed/Relocated[3]	2025	2025	
Engine Manufactured /Reconstruction Date[4]	2025	2025	
Check all applicable Federal Rules for the engine (include EPA Certificate of Conformity if applicable)[5]	☒40CFR60 Subpart JJJJ ☒JJJJ Certified? ☐40CFR60 Subpart IIII ☐IIII Certified? ☐40CFR63 Subpart ZZZZ ☐ NESHAP ZZZZ/ NSPS JJJJ Window ☐ NESHAP ZZZZ Remote Sources	☐40CFR60 Subpart JJJJ ☐JJJJ Certified? ☒40CFR60 Subpart IIII ☒IIII Certified? ☐40CFR63 Subpart ZZZZ ☐ NESHAP ZZZZ/ NSPS JJJJ Window ☐ NESHAP ZZZZ Remote Sources	☐40CFR60 Subpart JJJJ ☐JJJJ Certified? ☐40CFR60 Subpart IIII ☐IIII Certified? ☐40CFR63 Subpart ZZZZ ☐ NESHAP ZZZZ/ NSPS JJJJ Window ☐ NESHAP ZZZZ Remote Sources
Engine Type[6]	4SLB		
APCD Type[7]			
Fuel Type[8]	PQ	D	
H_2S (gr/100 scf)	0.25		
Operating bhp/rpm	3000	614	
BSFC (BTU/bhp-hr)	6589	7900.3	
Hourly Fuel Throughput	18,808 ft^3/hr gal/hr	ft^3/hr 35.90 gal/hr	ft^3/hr gal/hr
Annual Fuel Throughput (Must use 8,760 hrs/yr unless emergency generator)	1.88 $MMft^3$/yr gal/yr	$MMft^3$/yr 3590 gal/yr	$MMft^3$/yr gal/yr
Fuel Usage or Hours of Operation Metered	Yes ☒ No ☐	Yes ☒ No ☐	Yes ☐ No ☐

Calculation Methodology[9]	Pollutant[10]	Hourly PTE (lb/hr)[11]	Annual PTE (tons/year)[11]	Hourly PTE (lb/hr)[11]	Annual PTE (tons/year)[11]	Hourly PTE (lb/hr)[11]	Annual PTE (tons/year)[11]
OT	NO_x	6.61	0.33	3.07	0.08		
OT	CO	13.23	0.66	3.33	0.08		
OT	VOC	5.67	0.28	0.11	<0.01		
OT	SO_2	0.03	0.002	0.01	<0.01		
OT	PM_{10}	0.20	0.01	0.20	0.01		
AP	Formaldehyde	1.04	0.05	<0.01	<0.01		
AP	Total HAPs	1.43	0.07	0.02	<0.01		
	GHG (CO_2e)						

1 Enter the appropriate Source Identification Number for each natural gas-fueled reciprocating internal combustion compressor/generator engine located at the compressor station. Multiple compressor engines should be designated CE-1, CE-2, CE-3 etc. Generator engines should be designated GE-1, GE-2, GE-3 etc. Microturbine generator engines should be designated MT-1, MT-2, MT-3 etc. If more than three (3) engines exist, please use additional sheets.

2 Enter the Source Status using the following codes:

NS	Construction of New Source (installation)	ES	Existing Source
MS	Modification of Existing Source	RS	Relocated Source
REM	Removal of Source		

3 Enter the date (or anticipated date) of the engine's installation (construction of source), modification, relocation or removal.

4 Enter the date that the engine was manufactured, modified or reconstructed.

5 Is the engine a certified stationary spark ignition internal combustion engine according to 40CFR60 Subpart IIII/JJJJ? If so, the engine and control device must be operated and maintained in accordance with the manufacturer's emission-related written instructions. You must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required. If the certified engine is not operated and maintained in accordance with the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine and you must demonstrate compliance as appropriate.

Provide a manufacturer's data sheet for all engines being permitted.

6 Enter the Engine Type designation(s) using the following codes:

2SLB	Two Stroke Lean Burn	4SRB	Four Stroke Rich Burn
4SLB	Four Stroke Lean Burn		

7 Enter the Air Pollution Control Device (APCD) type designation(s) using the following codes:

A/F	Air/Fuel Ratio	IR	Ignition Retard
HEIS	High Energy Ignition System	SIPC	Screw-in Precombustion Chambers
PSC	Prestratified Charge	LEC	Low Emission Combustion
NSCR	Rich Burn & Non-Selective Catalytic Reduction	OxCat	Oxidation Catalyst
SCR	Lean Burn & Selective Catalytic Reduction		

8 Enter the Fuel Type using the following codes:

PQ	Pipeline Quality Natural Gas	RG	Raw Natural Gas /Production Gas	D	Diesel

9 Enter the Potential Emissions Data Reference designation using the following codes. Attach all reference data used.

MD	Manufacturer's Data	AP	AP-42	
GR	GRI-HAPCalc™	OT	Other 40 CFR 60 JJJJ / IIII	(please list)

10 Enter each engine's Potential to Emit (PTE) for the listed regulated pollutants in pounds per hour and tons per year. PTE shall be calculated at manufacturer's rated brake horsepower and may reflect reduction efficiencies of listed Air Pollution Control Devices. Emergency generator engines may use 500 hours of operation when calculating PTE. PTE data from this data sheet shall be incorporated in the *Emissions Summary Sheet*.

11 PTE for engines shall be calculated from manufacturer's data unless unavailable.

Clarke Model			C18H0-UFAD42	
Derived Rating	458	kW	614	hp
Rated Speed	1760	rpm	1760	rpm
NOx	3.04	g/kW-hr	2.27	g/hp-hr
HC	0.11	g/kW-hr	0.08	g/hp-hr
PM	0.113	g/kW-hr	0.085	g/hp-hr
CO	3.30	g/kW-hr	2.46	g/hp-hr
Certified Rating	522 kW		700 hp	
Rated Speed	2100 rpm		2100 rpm	
NOx	4.25 g/kW-hr		3.17 g/hp-hr	
HC	0.07 g/kW-hr		0.05 g/hp-hr	
PM	0.12 g/kW-hr		0.09 g/hp-hr	
CO	0.54 g/kW-hr		0.40 g/hp-hr	

-Applicable to Cat C18 700hp Tier 3, 630hp Tier 3 fire pump driver engines.
-PQ3060, PQ3061 respectively

-700 hp and 630 hp ratings are U.S. EPA certified as variable speed Emergency Stationary engines per 40 CFR Part 60 Subpart IIII.

-Estimated Nominal Emissions data for the fire pump rating cycle emissions are shown above.

-These engines are Certified to the variable speed 8 Mode C1 cycle that can be used in either constant or variable speed applications.