Fields of Opportunities

STATE OF IOWA

TERRY E. BRANSTAD, GOVERNOR
KIM REYNOLDS, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
CHUCK GIPP, DIRECTOR

July 25, 2013

Tony Trotter – Engineering Division
City of Fort Dodge
819 1st Avenue South
Fort Dodge, IA 50501

Subject: Air Quality Inspection - File No. 94-01-088
NOTICE OF VIOLATION – Failure to Obtain/Modify Construction Permits, Record Keeping

Dear Mr. Trotter:

Mr. David Knoll, Environmental Specialist with this office, conducted an air quality inspection of your facility on July 12, 2013. A field inspection report was completed and is enclosed for your file. Please be aware that the enclosed report addresses only the known emission points at your facility. Equipment and control equipment which was operating, and/or equipment and control equipment with recordkeeping requirements, were evaluated for compliance with air quality regulations.

During the inspection of the facility Mr. Knoll noted the following deficiencies and required actions. Please contact 1-877-AIR-IOWA for assistance with the required construction permit modifications.

- **The emission point EP3 (Boiler #2) has been removed and preplaced with a new boiler. Iowa Administrative Code subrule 567 22.1(1) states that no person shall construct, install, reconstruct, or alter any equipment or control equipment without making the required revisions to the construction permit. It was also noted during the inspection that EP2 (Boiler #1) will soon be removed and replaced with a new boiler. Applications must be immediately made to obtain/update construction permits for the new equipment.**

- **The emission point characteristics for EP2 and EP3 (Boilers #1 and #2) state the discharge style is vertical unobstructed. Both emission points contained rain caps at the time of inspection, making the discharge style obstructed. The emission point characteristics must be modified to reflect current conditions when the construction permit applications are made for the new boilers.**

- **Record keeping requirements for emergency generators EP4, EP6, and EP7 were not being met as no monthly, annual, or 12-month rolling records were being kept. Record keeping must immediately begin taking place, please see the enclosed inspection report for individual emission point record keeping requirements.**

Please be aware that air quality construction permits are needed for new, altered or modified equipment or control equipment which emit pollutants to the atmosphere. You are required to notify the DNR of any other existing equipment at your facility which is not listed on the enclosed report. This equipment or control equipment may require an as-built permit(s) from the DNR.

Please submit a written response to this office, **within 15 days receipt** of this letter, describing the actions you have taken, or will take, to correct the above listed deficiencies. Please submit your written response to: Iowa Dept. of Natural Resources, attn: Mr. David Knoll, 2300 15th St. SW, Mason City, IA 50401. Should you have questions regarding this inspection, please feel free to contact Mr. Knoll. at david.knoll@dnr.iowa.gov or 641-424-4073.

Sincerely,

FIELD SERVICES AND COMPLIANCE BUREAU

Jeffrey B. Vansteenburg
Field Office Supervisor

JBV/dak

Enclosure - Air Quality Inspection Report

c: Douglas Tondreau, 1801 Avenue O, Fort Dodge, IA 50501 (w/encl.)
John Horrell, 600 Phinney Park Drive, Fort Dodge, IA 50501 (w/encl.)
Air Quality Bureau (w/encl.)

IOWA DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION
AIR QUALITY COMPLIANCE INSPECTION
FIELD OFFICE # 2

FACILITY # 94-01-088

TITLE V PERMIT NO. _____

1. **Company Name:** FORT DODGE, CITY OF
2. **Company Address:** 600 Phinney Park Dr., Fort Dodge, IA 50501
3. **Plant Address:** 600 Phinney Park Dr., Fort Dodge, IA 50501
4. **Process and/or Product Type:** Municipal Water Supply and Wastewater
5. **Check Pollutant(s), Air Program Code(s), State Pollutant/Classification(s) as a total plant as they correspond with each other:**

Pollutant(s)	NSPS	PSD PERMIT	MACT NESHAP	TITLE V STATUS A	B	SM	Violation
VOC	☒	☐	☐	☐	☒	☐	☐
NO_x	☒	☐	☐	☐	☒	☐	☐
SO_x	☒	☐	☐	☐	☒	☐	☐
CO	☒	☐	☐	☐	☒	☐	☐
PM_{10}	☒	☐	☐	☐	☒	☐	☐
PT	☒	☐	☐	☐	☒	☐	☐
OTHER(S)							
HAPs	☒	☐	☐	☐	☒	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐

VISIT NUMBER: 1

6. **Inspection Type** Routine
7. **Inspection Date** 07/12/2013
8. **Time Arrive** 9:00 AM
9. **Wind Speed & Direction** 15 SSE
10. **Sky Conditions** Clear
11. **Inspection status** Complete
12. **Time Depart** 12:30 PM

13. **Persons Contacted:** John Horrell - Water Plant Operator — **Phone:** 515-576-6101
Doug Tondreau - USW- Project Manager — 515-955-4484
Tony Trotter - Engineer — 515-576-3601

14. **Inspector's Signature:** _____ **Date:** 7/25/13
David Knoll

15. **Division Approval By:** _____ **Date:** 7/25/13
Glenn L. Carper

TITLE V AIR QUALITY INSPECTION
EMISSION POINT - SPECIFIC CONDITIONS - Page 1
Inspector Initials DK

Waste Gas Burner (EP-1) Rating: 5000 cf/hr Location: 1801 Ave. B	In Compliance	Out of Compliance (Comments)	Not Applicable or Unable to Evaluate

EP	EU	EU Description	CE ID	CE Description	Permit No.
1	1	Waste Gas Burner	None	None	12-A-207

Equipment Operating: ***Yes***

Emission Limits

Pollutant: Particulate Matter (PM) Emission Limit(s): 0.1 gr/dscf Authority for Requirement: 567 IAC 23.3(2)	☐	☐	☒
Pollutant: Opacity Emission Limit(s): 40 %(1) Authority for Requirement: 567 IAC 23.3(2)"d"	☒	☐	☐
Pollutant: Sulfur Dioxide Emission Limit(s): 2.31(2) lb/hr(3); 500 ppm Authority for Requirement: 567 IAC 23.3(3)"e"	☐	☐	☒

(1) An exceedance of the indicator opacity of (10%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).
(2) Emission rate used in dispersion modeling.
(3) Standard is expressed as the average of three runs.

Comments: ***The burner runs intermittently, when waste gas is not needed for boilers. The observed opacity at the time of inspection was 0%.***

NSPS and NESHAP Applicability

This unit is not subject to NSPS because there is no applicable subpart.

This unit is not subject to NESHAP because there is no applicable subpart.

Operating Limits

Operating limits for this emission unit shall be:

A. This unit is limited to combusting natural gas or digester gas only.	☒	☐	☐
B. This maximum sulfur content of any fuel combusted in this unit shall not exceed 0.5% by weight.	☐	☐	☒

Comments: ***The burner only combusts digester gas and a small amount of natural gas for the pilot light. I contacted Gary Smith (DNR AQ Bureau) to discuss the sulfur content limit. Gary explained that the limit of 0.5% (5,000 ppm) was used for the emission calculations and was set at a level much higher than typical digester gas levels to ensure no exceedances would take place. Therefore, Gary stated it can be assumed that this limit is being met without any***

Waste Gas Burner (EP-1) Rating: 5000 cf/hr Location: 1801 Ave. B	In Compliance	Out of Compliance (Comments)	Not Applicable or Unable to Evaluate
monitoring needed. There is also no concern of the sulfur content in natural gas exceeding this limit.			
Operating Condition Monitoring All records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:			
A. The owner or operator shall maintain records of the type and amount of fuel combusted in this unit.	☒	☐	☐
Comments: ***There is a plant-wide meter that tracks the amount of natural gas burned, but no specific meter for the waste gas burner. There is no meter that tracks the amount of waste gas combusted in the burner. I contacted Gary Smith (DNR AQ Bureau) to discuss the records requirement. Gary stated that the requirement was listed in the permit so that the facility has some way of determining emissions for the emissions inventory report. Gary stated that there are no hours of operation limits for either the natural gas or digester gas, so the facility will be in compliance regardless of the amount or type of fuel that is combusted. Gary recommended that the facility track the hours of operation to determine type and amount of fuel combusted.***			
Emission Point Characteristics			

EP	Construction Permit #	Stack Height	Discharge Style	*Stack Opening (inches, dia)*	*Exhaust Temp. (°F)*	*Exhaust Flowrate*			
1	12-A-207	8 feet	Vertical, unobstructed	14 inches	1300°F	474 scfm	☒	☐	☐

Comments:

TITLE V AIR QUALITY INSPECTION
EMISSION POINT - SPECIFIC CONDITIONS - Page 3
Inspector Initials DK

Boiler (EP-2) Capacity: 3.969 mmBtu/hr Location: 1801 Ave. B	In Compliance	Out of Compliance (Comments)	Not Applicable or Unable to Evaluate

EP	EU	EU Description	CE ID	CE Description	Permit No.
2	2	Boiler	None	None	12-A-208

Equipment Operating: Yes

Emission Limits Pollutant: Particulate Matter (PM) Emission Limit(s): 0.6 lb/mmBtu Authority for Requirement: 567 IAC 23.3(2)b(3)	☐	☐	☒
Pollutant: Opacity Emission Limit(s): 40 %(1) Authority for Requirement: 567 IAC 23.3(2)"d"	☒	☐	☐
Pollutant: Sulfur Dioxide Emission Limit(s): 3.05(2) lb/hr(3); 500 ppm Authority for Requirement: 567 IAC 23.3(3)"e"	☐	☐	☒

(1) An exceedance of the indicator opacity of no visible emissions will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).
(2) Emission rate used in dispersion modeling.
(3) Standard is expressed as the average of three runs.

Comments: ***This boiler will soon be replaced with a new boiler of similar capacity. The observed opacity at the time of inspection was 0%.***

NSPS and NESHAP Applicability
This unit is not subject to NSPS because it is less than 10 mmBtu/hr heat input.

For information only: This equipment is of the source category affected by the following federal regulation:
National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers Area Sources [40 CFR Part 63, Subpart JJJJJJ].

Operating Limits Operating limits for this emission unit shall be: A. This unit is limited to combusting natural gas or digester gas only.	☒	☐	☐
B. This maximum sulfur content of any fuel combusted in this unit shall not exceed 0.5% by weight.	☐	☐	☒

Boiler (EP-2) Capacity: 3.969 mmBtu/hr Location: 1801 Ave. B	In Compliance	Out of Compliance (Comments)	Not Applicable or Unable to Evaluate
Comments: ***The boiler primarily operates on digester gas, but will occasionally burn natural gas when not enough digester gas is being produced. Please see comments regarding sulfur content of the fuels under the Operating Limits section of the Waste Gas Burner.***			
Operating Condition Monitoring All records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:			
A. The owner or operator shall maintain records of the type and amount of fuel combusted in this unit.	☒	☐	☐
Comments: ***There is a meter that tracks the amount of natural gas burned for both boilers, but not separate ones for each unit. There is no meter that tracks the amount of waste gas combusted in the boilers. I contacted Gary Smith (DNR AQ Bureau) to discuss the records requirement. Gary stated that the requirement was listed in the permit so that the facility has some way of determining emissions for the emissions inventory report. Gary stated that there are no hours of operation limits for either the natural gas or digester gas, so the facility will be in compliance regardless of the amount or type of fuel that is combusted. Gary recommended that the facility track the hours of operation to determine type and amount of fuel combusted.***			
Emission Point Characteristics			

EP	Construction Permit #	Stack Height	Discharge Style	*Stack Opening (inches, dia)*	*Exhaust Temp. (°F)*	*Exhaust Flowrate*			
2	12-A-208	16 feet	Vertical, unobstructed	14 inches	520°F	794 scfm	☐	☒	☐

Comments: ***The emission point has a rain cap, making the discharge obstructed rather than unobstructed.***

TITLE V AIR QUALITY INSPECTION
EMISSION POINT - SPECIFIC CONDITIONS - Page 5
Inspector Initials DK

Boiler (EP-3) Rating: 2.862 mmBtu/hr Location: 1801 Ave. B	In Compliance	Out of Compliance (Comments)	Not Applicable or Unable to Evaluate

EP	EU	EU Description	CE ID	CE Description	Permit No.
3	3	Boiler	None	None	12-A-209

Equipment Operating: Not Operating

Emission Limits

Pollutant: Particulate Matter (PM) Emission Limit(s): 0.6 lb/mmBtu Authority for Requirement: 567 IAC 23.3(2)b(3)	☐	☐	☒
Pollutant: Opacity Emission Limit(s): 40 %(1) Authority for Requirement: 567 IAC 23.3(2)"d"	☐	☐	☒
Pollutant: Sulfur Dioxide Emission Limit(s): 1.29(2) lb/hr(3); 500 ppm Authority for Requirement: 567 IAC 23.3(3)"e"	☐	☐	☒

(1) An exceedance of the indicator opacity of no visible emissions will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).
(2) Emission rate used in dispersion modeling.
(3) Standard is expressed as the average of three runs.

Comments: ***The boiler has been removed and a new boiler has been installed. No construction permit was obtained for the new boiler at the time of inspection.***

NSPS and NESHAP Applicability

This unit is not subject to NSPS because it is less than 10 mmBtu/hr heat input.

For information only: This equipment is of the source category affected by the following federal regulation:
National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers Area Sources [40 CFR Part 63, Subpart JJJJJJ].

Operating Limits

Operating limits for this emission unit shall be:

A. This unit is limited to combusting natural gas or digester gas only.	☐	☐	☒
B. This maximum sulfur content of any fuel combusted in this unit shall not exceed 0.5% by weight.	☐	☐	☒

Comments: ***The boiler has been removed and a new boiler has been installed. No construction permit was obtained***

Boiler (EP-3) Rating: 2.862 mmBtu/hr Location: 1801 Ave. B	In Compliance	Out of Compliance (Comments)	Not Applicable or Unable to Evaluate
for the new boiler at the time of inspection. **Operating Condition Monitoring** All records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following: A. The owner or operator shall maintain records of the type and amount of fuel combusted in this unit. **Comments:** ***The boiler has been removed and a new boiler has been installed. No construction permit was obtained for the new boiler at the time of inspection.***	☐	☐	☒
Emission Point Characteristics EP: 3 — Construction Permit #: 12-A-209 — Stack Height: 23 feet — Discharge Style: Vertical, unobstructed — Stack Opening (inches, dia): 14 inches — Exhaust Temp. (°F): 450°F — Exhaust Flowrate: 572 scfm **Comments:** ***The emission point was the same as the old boiler. The emission point contained a rain cap, making the discharge style obstructed.***	☐	☒	☐

Diesel Generator (EP-4)
Rated Power: 4,423 BHP
Location: 1801 Ave. B.

EP	EU	EU Description	CE ID	CE Description	Permit No.
4	4	Generator	None	None	12-A-210

	In Compliance	Out of Compliance (Comments)	Not Applicable or Unable to Evaluate
Equipment Operating: Not Operating			
Emission Limits Pollutant: Opacity Emission Limit(s): 40 %(2) Authority for Requirement: 567 IAC 23.3(2)"d", 23.1(2)"yyy"	☐	☐	☒
(1) Emission limits were set in order to limit the potential to emit of the emission unit. (2) An exceedance of the indicator opacity of (10%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).			
Comments: ***The generator was installed in 2007 or 2008 and only operated for emergencies or testing.***			
NSPS and NESHAP Applicability This engine is subject to 40 CFR Part 60 NSPS Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (IAC 23.1(2)"yyy"). The engine is an emergency stationary internal combustion engine that is not a fire pump engine.			
A. In accordance with §60.4211(c), the engine must be certified by its manufacturer to comply with the emissions standards from §60.4205 (b) and §60.4202 (a)(2). The emission standards that the engine must be certified by the manufacturer to meet are:	☒	☐	☐
B. In accordance with §60.4211(c), the owner or operator must comply with the required NSPS emissions standards by purchasing an engine certified by its manufacturer to meet the applicable emission standards for the same model year and engine power. The engine must be installed and configured to the manufacturer's specifications. Provided these requirements are satisfied, no further demonstration of compliance with the emission standards from §60.4205	☒	☐	☐

Pollutant	Emission Standard	Basis
Particulate Matter (PM)	0.20 grams/kW-hr	§ 89.112 Table 1
NMHC1 + NOx	6.4 grams/kW-hr	§ 89.112 Table 1
Carbon Monoxide (CO)	3.5 grams/kW-hr	§ 89.112 Table 1
Opacity – acceleration mode	20%	§ 89.113 (a)(1)
Opacity – lugging mode	15%	§ 89.113 (a)(2)
Opacity – peaks in above modes	50%	§ 89.113 (a)(3)

Diesel Generator (EP-4) Rated Power: 4,423 BHP Location: 1801 Ave. B.	In Compliance	Out of Compliance (Comments)	Not Applicable or Unable to Evaluate
(b) and §60.4202 (a)(2) is required. C. For Information only: This engine is of the source type regulated by the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (567 IAC 23.1(4)"cz", 40 CFR Part 63, Subpart ZZZZ). **Comments:** ***Documentation showing that the generator is certified by the manufacturer (Caterpillar) to meet EPA Tier 2 emission limits was provided. These limits are the same as shown in item A above.*** ***The generator was installed, configured and maintained according to the manufacturer specifications. Ziegler CAT performs routine maintenance on the generator.*** ***The engine satisfies Subpart ZZZZ by meeting NESHAP Subpart IIII.***			
Operating Limits A. This engine is limited to burning diesel fuel oil that meets the requirements of Condition D.	☒	☐	☐
B. This engine is limited to operating a maximum of 500 hours in any rolling 12-month period.	☒	☐	☐
C. This engine is limited to operating for emergency situations and required testing and maintenance. In accordance with §60.4211(e), the engine is limited to operating a maximum of 100 hours per year for maintenance checks and readiness testing. This engine is not allowed to operate as a peak shaving unit.	☒	☐	☐
D. In accordance with §60.4207(b), the diesel fuel oil burned in this engine shall meet the following specifications from 40 CFR 80.510(b) for nonroad diesel fuel: a maximum sulfur content of 15 ppm (0.0015%) by weight; and a minimum cetane index of 40 or a maximum aromatic content of 35 percent by volume.	☒	☐	☐
E. In accordance with §60.4209(a), the engine shall be equipped with a non-resettable hour meter.	☒	☐	☐
F. In accordance with §60.4211(a), this engine shall be operated and maintained in accordance with the manufacturer's emission-related written instructions. The owner or operator may only change emission related engine settings that are permitted by the manufacturer. **Comments:** ***The non-resettable hour meter on the generator showed a total 68.5 hours of operation since the generator was installed. Therefore, the engine is within operating hours limits, however no record keeping of operating hours is taking place.*** ***The engine only burns diesel fuel oil. A diesel fuel specifications sheet from the supplier was provided showing that the fuel complied with the sulfur content and cetane index requirements.*** ***The engine was installed, configured and operated according to manufacturer's instructions, no alterations have***	☒	☐	☐

Diesel Generator (EP-4) Rated Power: 4,423 BHP Location: 1801 Ave. B.	In Compliance	Out of Compliance (Comments)	Not Applicable or Unable to Evaluate
been made to the emission related engine settings.			
Operating Condition Monitoring All records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:			
A. The owner or operator shall maintain the following monthly records: i. the total number of hours that the engine operated;	☐	☒	☐
ii. the number of hours the engine operated for maintenance checks and readiness testing, and	☐	☒	☐
iii. the rolling 12-month total amount of the number of hours that the engine operated.	☐	☒	☐
B. The owner or operator shall maintain an annual record of the number of hours that the engine operated for maintenance checks and readiness testing.	☐	☒	☐
C. The owner or operator of the engine shall comply with the requirements of condition (D) listed above by one of the following methods: i. have the fuel supplier certify that the fuel delivered meets the definition of non-road diesel fuel as defined in 40 CFR 80.510(b);	☐	☐	☒
ii. obtain a fuel analysis from the supplier showing the sulfur content and cetane index or aromatic content of the fuel delivered; or	☒	☐	☐
iii. perform an analysis of the fuel to determine the sulfur content and cetane index or aromatic content of the fuel received. Record each month the total hours of operation for this engine, EU -1, and the reason the engine was operated.	☐	☐	☒
Comments: ***No record keeping is taking place, therefore no monthly, annual, or 12-month rolling totals were available.*** ***The engine only burns diesel fuel oil. A diesel fuel specifications sheet from the supplier was provided showing that the fuel complied with the sulfur content and cetane index requirements.***			
Emission Point Characteristics			

EP	Construction Permit #	Stack Height	Discharge Style	Stack Opening (inches, dia)	Exhaust Temp. (°F)	Exhaust Flowrate			
4	12-A-210	27.5 feet	Vertical, unobstructed	20 inches	885°F	9597 scfm	☒	☐	☐

Generator CI Engine (EP-6)
Rated Power: 3,633 BHP
Location: 135 E. Riverside Dr.

EP	EU	EU Description	CE ID	CE Description	Permit No.
6	6	Generator	None	None	13-A-183

In Compliance	Out of Compliance (Comments)	Not Applicable or Unable to Evaluate

Equipment Operating: Not Operating

Emission Limits

	In Compliance	Out of Compliance (Comments)	Not Applicable or Unable to Evaluate
Pollutant: Particulate Matter (PM) and PM10 Emission Limit(s): 0.39 lb/hr(1) Authority for Requirement: 23.1(2)"yyy" and NAAQS	☐	☐	☒
Pollutant: Opacity Emission Limit(s): 40 %(2) Authority for Requirement: 567 IAC 23.3(2)"d", 23.1(2)"yyy"	☐	☐	☒
Pollutant: Sulfur Dioxide Emission Limit(s): 2.5 lb/MMBTU(3) Authority for Requirement: 567 IAC 23.3(3), 23.1(2)"yyy"	☐	☐	☒

(1) Emission limits were set in order to limit the potential to emit of the emission unit.
(2) An exceedance of the indicator opacity of (10%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).
(3) Standard is expressed as the average of three runs.

Comments: ***The generator was installed in 2001 and only operates during emergencies or for testing.***

NSPS and NESHAP Applicability

This emission unit is of the source category regulated by New Source Performance Standards (NSPS) Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40 CFR §60.4200 through 40 CFR §60.4219). However, the engine has not been modified or reconstructed and commenced construction prior to July 11, 2005. Accordingly, this engine is not subject to the requirements of NSPS Subpart IIII.

For information only: This equipment is of the source category affected by the following federal regulation: National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE NESHAP) [40 CFR Part 63, Subpart ZZZZ].

Failure to include any NSPS or NESHAP requirements as a part of this permit does not relieve the permittee from the requirement to comply with all applicable NSPS or NESHAP requirements.

Generator CI Engine (EP-6) Rated Power: 3,633 BHP Location: 135 E. Riverside Dr.	In Compliance	Out of Compliance (Comments)	Not Applicable or Unable to Evaluate
Operating Limits			
A. This engine is limited to burning diesel fuel oil.	☒	☐	☐
B. The maximum sulfur content of the diesel fuel oil combusted in this engine shall not exceed 0.0015 % (by weight).	☒	☐	☐
C. This engine is limited to operating a maximum of 500 hours in any rolling 12-month period.	☒	☐	☐
Comments: ***The engine only burns diesel fuel oil. A diesel fuel specifications sheet from the supplier was provided showing that the fuel complied with the sulfur content and cetane index requirements.***			
The non-resettable hour meter showed that the engine has operated a total of 448 hours since installation, however no record keeping of operating hours is taking place.			
Operating Condition Monitoring All records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:			
A. The owner or operator shall maintain records of the sulfur content of the fuel oil combusted in this engine.	☒	☐	☐
B. The owner or operator shall maintain the following monthly records:			
i. the total number of hours that the engine operated;	☐	☒	☐
ii. and the rolling 12-month total amount of the number of hours that the engine operated.	☐	☒	☐
Comments: ***No monthly records are being kept for hours that the engine operated.***			
Emission Point Characteristics			

EP	Construction Permit #	Stack Height	Discharge Style	*Stack Opening (inches, dia)*	*Exhaust Temp. (°F)*	*Exhaust Flowrate*
6	13-A-183	17 feet	Vertical, unobstructed	10 inches	907°F	1,950 scfm

	☒	☐	☐
Comments:			

Generator CI Engine (EP-7)
Rated Power: 1,069 BHP
Location: North Central Ag Park

EP	EU	EU Description	CE ID	CE Description	Permit No.
7	7	Generator	None	None	13-A-184

In Compliance	Out of Compliance (Comments)	Not Applicable or Unable to Evaluate

Equipment Operating: Not Operating

Emission Limits

Pollutant: Particulate Matter (PM) and PM10 — ☐ | ☐ | ☒
Emission Limit(s): 0.44 lb/hr(1)
Authority for Requirement: 23.1(2)"yyy" and NAAQS

Pollutant: Opacity — ☐ | ☐ | ☒
Emission Limit(s): 40 %(2)
Authority for Requirement: 567 IAC 23.3(2)"d", 23.1(2)"yyy"

(1) Emission limits were set in order to limit the potential to emit of the emission unit.
(2) An exceedance of the indicator opacity of (10%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Comments: ***The generator was installed in 2008 and only operates during emergencies or for testing.***

NSPS and NESHAP Applicability

This engine is subject to 40 CFR Part 60 NSPS Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (IAC 23.1(2)"yyy"). The engine is an emergency stationary internal combustion engine that is not a fire pump engine.

A. In accordance with §60.4211(c), the engine must be certified by its manufacturer to comply with the emissions standards from §60.4205 (b) and §60.4202 (a)(2). The emission standards that the engine must be certified by the manufacturer to meet are: — ☒ | ☐ | ☐

Pollutant	Emission Standard	Basis
Particulate Matter (PM)	0.20 grams/kW-hr	§ 89.112 Table 1
NMHC1 + NOx	6.4 grams/kW-hr	§ 89.112 Table 1
Carbon Monoxide (CO)	3.5 grams/kW-hr	§ 89.112 Table 1
Opacity – acceleration mode	20%	§ 89.113 (a)(1)
Opacity – lugging mode	15%	§ 89.113 (a)(2)
Opacity – peaks in above modes	50%	§ 89.113 (a)(3)

B. In accordance with §60.4211(c), the owner or operator must comply with the required NSPS emissions standards by purchasing an engine certified by its manufacturer to meet the applicable emission standards for the same model year and engine power. The engine must be installed and configured to the manufacturer's specifications. Provided — ☒ | ☐ | ☐

Generator CI Engine (EP-7) Rated Power: 1,069 BHP Location: North Central Ag Park	In Compliance	Out of Compliance (Comments)	Not Applicable or Unable to Evaluate
these requirements are satisfied, no further demonstration of compliance with the emission standards from §60.4205 (b) and §60.4202 (a)(2) is required. However, if the engine is not installed, configured, operated, and maintained according to the manufacturer's emission-related written instructions, a compliance demonstration is required in accordance with §60.4211(g).			
C. For Information only: This engine is of the source type regulated by the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (567 IAC 23.1(4)"cz", 40 CFR Part 63, Subpart ZZZZ).			
Comments: ***Documentation showing that the generator is certified by the manufacturer (Caterpillar) to meet EPA Tier 2 emission limits was provided. These limits are the same as shown in item A above.***			
The generator was installed, configured and maintained according to the manufacturer specifications. Ziegler CAT performs routine maintenance on the generator.			
The engine satisfies Subpart ZZZZ by meeting NESHAP Subpart IIII.			
Operating Limits			
A. This engine is limited to burning diesel fuel oil that meets the requirements of Condition D.	☒	☐	☐
B. This engine is limited to operating a maximum of 500 hours in any rolling 12-month period.	☒	☐	☐
C. This engine is limited to operate as an emergency stationary internal combustion engine as defined in §60.4219 and in accordance with §60.4211. There is no time limit on the use of the engine in emergency situations provided that the annual hourly limit established in Condition 14. B. is not exceeded. In accordance with §60.4211, the engine is limited to operate a maximum of 100 hours per year for maintenance checks and readiness testing. The engine is also allowed to operate up to 50 hours per year in non-emergency situations, but the 50 hours are counted toward the 100 hours provided for maintenance and testing. The 50 hours per year for non-emergency operation cannot be used to generate income for the facility to supply power to the grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. This engine is not allowed to operate as a peak shaving unit.	☒	☐	☐
D. In accordance with §60.4207(b), the diesel fuel oil burned in this engine shall meet the following specifications from 40 CFR 80.510(b) for nonroad diesel fuel: a maximum sulfur content of 15 ppm (0.0015%) by weight; and a minimum cetane index of 40 or a maximum aromatic content of 35 percent by volume.	☒	☐	☐
E. In accordance with §60.4209(a), the engine shall be equipped with a non-resettable hour meter.	☒	☐	☐
F. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in §60.4211(g).	☒	☐	☐
G. In accordance with §60.4211(a), this engine shall be operated and maintained in accordance with the manufacturer's	☒	☐	☐

Generator CI Engine (EP-7) Rated Power: 1,069 BHP Location: North Central Ag Park	In Compliance	Out of Compliance (Comments)	Not Applicable or Unable to Evaluate
emission-related written instructions. The owner or operator may only change emission related engine settings that are permitted by the manufacturer. **Comments:** ***The non-resettable hour meter on the generator showed a total 124.9 hours of operation since the generator was installed in 2008. Therefore, the engine is within operating hours limits, however no record keeping of operating hours is taking place.*** ***The engine only burns diesel fuel oil. A diesel fuel specifications sheet from the supplier was provided showing that the fuel complied with the sulfur content and cetane index requirements.*** ***The engine was installed, configured and operated according to manufacturer's instructions, no alterations have been made to the emission related engine settings.***			
<u>Operating Condition Monitoring</u> All records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following: A. The owner or operator shall maintain the following monthly records: i. the number of hours that the engine operated for maintenance checks and readiness testing;	☐	☒	☐
ii. the number of hours the engine operated for allowed non-emergency operations;	☐	☒	☐
iii. the total number of hours that the engine operated; and	☐	☒	☐
iv. the rolling 12-month total amount of the number of hours that the engine operated.	☐	☒	☐
B. The owner or operator shall maintain the following annual records: i. the number of hours the engine operated for maintenance checks and readiness testing; and	☐	☒	☐
ii. the number of hours the engine operated for allowed non-emergency operations.	☐	☒	☐
C. The owner or operator of the engine shall comply with the requirements of condition (D) listed above by one of the following methods:			
i. have the fuel supplier certify that the fuel delivered meets the definition of non-road diesel fuel as defined in 40 CFR 80.510(b);	☐	☐	☒
ii. obtain a fuel analysis from the supplier showing the sulfur content and cetane index or aromatic content of the fuel delivered; or	☒	☐	☐
iii. perform an analysis of the fuel to determine the sulfur content and cetane index or aromatic content of the fuel received. Record each month the total hours of operation for this engine, EU -1, and the reason the	☐	☐	☒

Generator CI Engine (EP-7) Rated Power: 1,069 BHP Location: North Central Ag Park	In Compliance	Out of Compliance (Comments)	Not Applicable or Unable to Evaluate

engine was operated.

Comments: ***No record keeping is taking place, therefore no monthly, annual, or 12-month rolling totals were available.***

The engine only burns diesel fuel oil. A diesel fuel specifications sheet from the supplier was provided showing that the fuel complied with the sulfur content and cetane index requirements.

Emission Point Characteristics

EP	Construction Permit #	Stack Height	Discharge Style	*Stack Opening (inches, dia)*	*Exhaust Temp. (°F)*	*Exhaust Flowrate*
7	13-A-184	15 feet	Vertical, unobstructed	10 inches	962°F	1,950 scfm

	☒	☐	☐

Comments:

Generator CI Engine (EP-8) Rated Power: 3,633 BHP Location: 600 Phinney Park Dr.	In Compliance	Out of Compliance (Comments)	Not Applicable or Unable to Evaluate

EP	EU	EU Description	CE ID	CE Description	Permit No.
8	8	Generator	None	None	13-A-182

Equipment Operating: ***Not Operating***

Emission Limits

Pollutant: Particulate Matter (PM) and PM10 Emission Limit(s): 1.52lb/hr(1) Authority for Requirement: 23.1(2)"yyy" and NAAQS	☐	☐	☒
Pollutant: Opacity Emission Limit(s): 40 %(2) Authority for Requirement: 567 IAC 23.3(2)"d", 23.1(2)"yyy"	☐	☐	☒

(1) Emission limits were set in order to limit the potential to emit of the emission unit.
(2) An exceedance of the indicator opacity of (10%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require

Generator CI Engine (EP-8) Rated Power: 3,633 BHP Location: 600 Phinney Park Dr.	In Compliance	Out of Compliance (Comments)	Not Applicable or Unable to Evaluate
additional proof to demonstrate compliance (e.g., stack testing). **Comments:** ***The generator was being installed at the time of inspection and was not fully operational. The engine will only operate during emergencies or for testing.***			
NSPS and NESHAP Applicability This engine is subject to 40 CFR Part 60 NSPS Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (IAC 23.1(2)"yyy"). The engine is an emergency stationary internal combustion engine that is not a fire pump engine.			
A. In accordance with §60.4211(c), the engine must be certified by its manufacturer to comply with the emissions standards from §60.4205 (b) and §60.4202 (a)(2). The emission standards that the engine must be certified by the manufacturer to meet are: **Pollutant** / **Emission Standard** / **Basis** Particulate Matter (PM) / 0.20 grams/kW-hr / § 89.112 Table 1 NMHC1 + NOx / 6.4 grams/kW-hr / § 89.112 Table 1 Carbon Monoxide (CO) / 3.5 grams/kW-hr / § 89.112 Table 1 Opacity – acceleration mode / 20% / § 89.113 (a)(1) Opacity – lugging mode / 15% / § 89.113 (a)(2) Opacity – peaks in above modes / 50% / § 89.113 (a)(3)	☒	☐	☐
B. In accordance with §60.4211(c), the owner or operator must comply with the required NSPS emissions standards by purchasing an engine certified by its manufacturer to meet the applicable emission standards for the same model year and engine power. The engine must be installed and configured to the manufacturer's specifications. Provided these requirements are satisfied, no further demonstration of compliance with the emission standards from §60.4205 (b) and §60.4202 (a)(2) is required. However, if the engine is not installed, configured, operated, and maintained according to the manufacturer's emission-related written instructions, a compliance demonstration is required in accordance with §60.4211(g).	☒	☐	☐
C. For Information only: This engine is of the source type regulated by the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (567 IAC 23.1(4)"cz", 40 CFR Part 63, Subpart ZZZZ). **Comments:** ***Documentation showing that the generator is certified by the manufacturer (Caterpillar) to meet EPA Tier 2 emission limits was provided. These limits are the same as shown in item A above.*** ***The generator was installed, configured and maintained according to the manufacturer specifications. Ziegler CAT will perform routine maintenance on the generator.*** ***The engine satisfies Subpart ZZZZ by meeting NESHAP Subpart IIII.***			

Generator CI Engine (EP-8) Rated Power: 3,633 BHP Location: 600 Phinney Park Dr.	In Compliance	Out of Compliance (Comments)	Not Applicable or Unable to Evaluate
Operating Limits			
A. This engine is limited to burning diesel fuel oil that meets the requirements of Condition D.	☒	☐	☐
B. This engine is limited to operating a maximum of 500 hours in any rolling 12-month period.	☒	☐	☐
C. This engine is limited to operate as an emergency stationary internal combustion engine as defined in §60.4219 and in accordance with §60.4211. There is no time limit on the use of the engine in emergency situations provided that the annual hourly limit established in Condition 14. B. is not exceeded. In accordance with §60.4211, the engine is limited to operate a maximum of 100 hours per year for maintenance checks and readiness testing. The engine is also allowed to operate up to 50 hours per year in non-emergency situations, but the 50 hours are counted toward the 100 hours provided for maintenance and testing. The 50 hours per year for non-emergency operation cannot be used to generate income for the facility to supply power to the grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. This engine is not allowed to operate as a peak shaving unit.	☒	☐	☐
D. In accordance with §60.4207(b), the diesel fuel oil burned in this engine shall meet the following specifications from 40 CFR 80.510(b) for nonroad diesel fuel: a maximum sulfur content of 15 ppm (0.0015%) by weight; and a minimum cetane index of 40 or a maximum aromatic content of 35 percent by volume.	☒	☐	☐
E. In accordance with §60.4209(a), the engine shall be equipped with a non-resettable hour meter.	☒	☐	☐
F. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in §60.4211(g).	☒	☐	☐
G. In accordance with §60.4211(a), this engine shall be operated and maintained in accordance with the manufacturer's emission-related written instructions. The owner or operator may only change emission related engine settings that are permitted by the manufacturer.	☒	☐	☐
Comments: ***The generator was being installed at the time of inspection and was not fully operational. The non-resettable hour meter showed that the engine has been operated for a total of 3.3 hours of testing at the time of inspection.*** ***The engine only burns diesel fuel oil. A diesel fuel specifications sheet from the supplier was provided showing that the fuel complied with the sulfur content and cetane index requirements.*** ***The engine was installed, configured and operated according to manufacturer's instructions, no alterations have been made to the emission related engine settings.***			
Operating Condition Monitoring All records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the			

Generator CI Engine (EP-8) Rated Power: 3,633 BHP Location: 600 Phinney Park Dr.	In Compliance	Out of Compliance (Comments)	Not Applicable or Unable to Evaluate
following:			
A. The owner or operator shall maintain the following monthly records:			
i. the total number of hours that the engine operated;	☐	☐	☒
ii. the number of hours the engine operated for allowed non-emergency operations;	☐	☐	☒
iii. the total number of hours that the engine operated; and	☐	☐	☒
iv. the rolling 12-month total amount of the number of hours that the engine operated.	☐	☐	☒
B. The owner or operator shall maintain the following annual records:			
i. the number of hours the engine operated for maintenance checks and readiness testing; and	☐	☐	☒
ii. the number of hours the engine operated for allowed non-emergency operations.	☐	☐	☒
C. The owner or operator of the engine shall comply with the requirements of condition (D) listed above by one of the following methods:			
i. have the fuel supplier certify that the fuel delivered meets the definition of non-road diesel fuel as defined in 40 CFR 80.510(b);	☐	☐	☒
ii. obtain a fuel analysis from the supplier showing the sulfur content and cetane index or aromatic content of the fuel delivered; or	☒	☐	☐
iii. perform an analysis of the fuel to determine the sulfur content and cetane index or aromatic content of the fuel received.Record each month the total hours of operation for this engine, EU -1, and the reason the engine was operated.	☐	☐	☒
Comments: ***The generator was being installed at the time of inspection and was not fully operational. No records were therefore being kept at this time.***			
Emission Point Characteristics			

EP	Construction Permit #	Stack Height	Discharge Style	*Stack Opening (inches, dia)*	*Exhaust Temp. (°F)*	*Exhaust Flowrate*
8	13-A-182	15 feet	Vertical, unobstructed	18 inches	915°F	7,550 scfm

☒	☐	☐	
Comments:			