

State Registration Number  
B6527

**RENEWABLE OPERATING PERMIT  
STAFF REPORT**

ROP Number  
MI-ROP-B6527-2020

**MIDLAND COGENERATION VENTURE LIMITED PARTNERSHIP  
Midland Cogeneration Venture**

State Registration Number (SRN): B6527

Located at

100 Progress Place, Midland, Midland County, Michigan 48640

Permit Number: MI-ROP-B6527-2020

Staff Report Date: September 2, 2019

This Staff Report is published in accordance with Sections 5506 and 5511 of Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451). Specifically, Rule 214(1) of the administrative rules promulgated under Act 451, requires that the Michigan Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD), prepare a report that sets forth the factual basis for the terms and conditions of the Renewable Operating Permit (ROP).

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Michigan Department of  
Environment, Great Lakes, and Energy  
Air Quality Division

State Registration Number

B6527

**RENEWABLE OPERATING PERMIT**

**SEPTEMBER 2, 2019 - STAFF REPORT**

ROP Number

MI-ROP-B6527-2020

**Purpose**

Major stationary sources of air pollutants, and some non-major sources, are required to obtain and operate in compliance with an ROP pursuant to Title V of the federal Clean Air Act; and Michigan's Administrative Rules for Air Pollution Control promulgated under Section 5506(1) of Act 451. Sources subject to the ROP program are defined by criteria in Rule 211(1). The ROP is intended to simplify and clarify a stationary source's applicable requirements and compliance with them by consolidating all state and federal air quality requirements into one document.

This Staff Report, as required by Rule 214(1), sets forth the applicable requirements and factual basis for the draft ROP terms and conditions including citations of the underlying applicable requirements, an explanation of any equivalent requirements included in the draft ROP pursuant to Rule 212(5), and any determination made pursuant to Rule 213(6)(a)(ii) regarding requirements that are not applicable to the stationary source.

**General Information**

Stationary Source Mailing Address:	Midland Cogeneration Venture 100 Progress Place Midland, Michigan 48640
Source Registration Number (SRN):	B6527
North American Industry Classification System (NAICS) Code:	221112
Number of Stationary Source Sections:	1
Is Application for a Renewal or Initial Issuance?	Renewal
Application Number:	201900056
Responsible Official:	Brian Vokal, VP of Operation, Maintenance, & Engineering 989-633-7840
AQD Contact:	Matthew Karl, Environmental Quality Analyst 989-439-3779
Date Application Received:	March 21, 2019
Date Application Was Administratively Complete:	March 21, 2019
Is Application Shield in Effect?	Yes
Date Public Comment Begins:	September 2, 2019
Deadline for Public Comment:	October 2, 2019

## **Source Description**

Midland Cogeneration Venture (MCV) is an energy generating plant located at 100 East Progress Place, Midland, Midland County, Michigan 48640. MCV is the largest natural gas fired combined electrical energy and steam energy generating plant in the USA. MCV is a major supplier of electrical energy to customers in Michigan and the midcontinent, and a supplier of bulk process steam energy to proximity chemical production companies (Dow).

MCV operates twelve (12) natural gas fueled combined cycle turbines with a net facility electrical output of greater than 1550 megawatts (MW). The 12 turbines are equipped with heat recovery steam generators (HRSGs) with a combined steam capacity of 1,200,000 pounds per hour (lbs/hr). Six (6) of the turbines, identified as units 9-14, are equipped with duct burners for supplemental firing for each unit with a maximum heat input capacity of 249 million British Thermal Units per hour (MMBTU/hr). The turbines are also equipped with a fogging system to reduce inlet air temperature during the warm weather season. The fogging system typically operates at temperatures above 88°F and a relative humidity above 55%. Eleven (11) of the turbines, identified as units 3-11, 13, and 14, control nitrogen oxide (NOx) emissions using steam injection. NOx emissions from turbine unit 12 are controlled using a dry low NOx burner.

MCV also operates six (6) natural gas fired boilers, each with a heat input capacity of 370 MMBTU/hr and are capable of supplying 250,000 lbs/hr of steam. Part of the steam generated by the boilers is utilized to generate electricity and part is utilized by process steam customers located near the facility (chemical production companies - Dow).

MCV has an emergency diesel generator which has a maximum hourly rated capacity of 47 MMBTU/hr (7,000 horsepower). Historically, the generator was used during power failures to provide power for lighting and other vital plant systems and equipment. At the time of the last AQD site inspection (September 19, 2018), the generator was dismantled and inoperable, and at the time the facility did not think it would operate in the future and were discussing installation of a replacement. The section for this emission unit was removed during this ROP renewal.

Other permitted equipment includes a small cold cleaner used for parts cleaning. The air/vapor interface of the cold cleaner is less than 10 square feet. Safety Kleen provides maintenance and replaces the solvents annually. The solvent used in the cleaner does not contain any halogenated compounds, and consists of petroleum distillates, petroleum naphtha, Stoddard solvent, and mineral spirits. The cold cleaner is used only infrequently.

MCV received a permit to install (PTI) No. 103-12 to install two additional natural gas fired combustion turbine generators (CTGs) nominally rated at 2,237 MMBTU/hr with HRSGs and equipped with dry low NOx burner and selective catalytic reduction systems. These additional units would have had associated duct burners nominally rated at 249 MMBTU/hr used for supplemental firing of the HRSGs during periods of peak electricity or steam demand. PTI No. 103-12 was voided when rolled into the last ROP renewal in 2014. MCV did not install the equipment and requested an extension for installation ending in April 2016 but again did not install the equipment. MCV is requesting to remove the emission units (EU-CTG1 and 2; EU-DB1 and 2) and flexible groups (FG-CTG1-2 and FG-CTG/DB1-2) associated with that equipment in this renewal.

Equipment that is exempt from the requirement to receive a PTI include natural gas fired space heaters No. 1 through 4 (DVSPHTR1-4) and above ground gasoline storage tank No. 1 and 2 (DVGASTANK1-2).

MCV's energy generating plant is a combined cycle power plant (dual phase system). The process involves using a natural gas fired turbine to generate electricity and then using the hot combustion gases from that turbine in a HRSG to boil water and produce steam, which can then be used to drive a steam turbine to produce more electricity. The process can produce approximately 50% more electricity than a conventional energy plant, because of the higher fuel efficiencies it can achieve.

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System (MAERS) for the year **2017**.

**TOTAL STATIONARY SOURCE EMISSIONS**

<b>Pollutant</b>	<b>Tons per Year</b>
Carbon Monoxide (CO)	757
Lead (Pb)	0.41 lbs
Nitrogen Oxides (NO <sub>x</sub> )	2958
Particulate Matter (PM)	193
Sulfur Dioxide (SO <sub>2</sub> )	17.8
Volatile Organic Compounds (VOCs)	65
Ammonia (NH <sub>3</sub> )	3.5

See Parts C and D in the ROP for summary tables of all processes at the stationary source that are subject to process-specific emission limits or standards.

**Regulatory Analysis**

The following is a general description and history of the source. Any determinations of regulatory non-applicability for this source are explained below in the Non-Applicable Requirement part of the Staff Report and identified in Part E of the ROP.

The stationary source is in Midland County, which is currently designated by the United States Environmental Protection Agency (USEPA) as attainment/unclassified for all criteria pollutants.

The stationary source is subject to Title 40 of the Code of Federal Regulations (CFR) Part 70, because the potential to emit of carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>), and particulate matter (PM) all exceed 100 tons per year. Also, MCV is considered a major source of hazardous air pollutant (HAP) because the potential to emit of any single HAP regulated by Section 112 of the federal Clean Air Act, is equal to or more than 10 tons per year and/or the potential to emit of all HAPs combined is equal to or more than 25 tons per year.

EU-TURBINE12, FG-BOILERS1-6, FG-TURB/DB12, FG-SITURBINES, and FG-SITURB/DB at the stationary source were subject to review under the Prevention of Significant Deterioration regulations of 40 CFR 52.21, because at the time of New Source Review permitting the potential to emit of carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>), and particulate matter (PM) were greater than 100 tons per year.

At this time, there are no GHG applicable requirements to include in the ROP. The mandatory Greenhouse Gas Reporting Rule under 40 CFR Part 98 is not an ROP applicable requirement and is not included in the ROP.

EU-TURBINE12, FG-BOILERS1-6, FG-TURB/DB12, FG-SITURBINES, and FG-SITURB/DB at the facility are subject to the Standards of Performance for New Stationary Sources 40 CFR Part 60, Subpart A – General Provisions.

FG-BOILERS1-6 is subject to the New Source Performance Standards (NSPS) of 40 CFR Part 60, Subpart Da – Standards of Performance for Electric Utility Steam Generating Units.

FG-TURB/DB12, FG-DUCTBURNERS, and FG-SITURB/DB are subject to the NSPS of 40 CFR Part 60, Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units.

EU-TURBINE12, FG-TURB/DB12, and FG-SITURBINES are subject to the NSPS of 40 CFR Part 60, Subpart GG – Standards of Performance for Stationary Gas Turbines.

FG-BOILERS1-6 at the stationary source is subject to the Maximum Achievable Control Technology (MACT) standards for the Boiler MACT under the National Emission Standard for Hazardous Air Pollutants (NESHAP) promulgated in 40 CFR Part 63, Subparts A and DDDDD – Industrial, Commercial and Institutional Boilers and Process Heaters. The Boiler MACT has been cited as an applicable requirement in the FG-BOILER1-6 Emission Limits table. During this renewal, the flexible group FG-BOILERMACT was added to incorporate the requirements for existing gas 1 (natural gas only) boilers into the ROP.

EU-DIESELGEN is a diesel fired emergency generator with a maximum hourly rated capacity of 47 MMBTU/hr (7,000 horsepower), installed in August 1979, and is used during power failures to provide electricity for lighting and other vital plant systems and equipment. The generator is operated less than 100 hours per year for nonemergency purposes such as maintenance checks and readiness testing. EU-DIESELGEN is subject to the requirements of the NESHAP promulgated in 40 CFR Part 63, Subparts A and ZZZZ for Stationary Reciprocating Internal Combustion Engines for engines over 500 horsepower at a major source of HAPs. The performance testing, emission limitations, and operation and maintenance requirements of 40 CFR Part 63, Subpart ZZZZ for nonemergency engines are not applicable as long as the facility operates EU-DIESELGEN in compliance with the conditions contained in the ROP and 40 CFR Part 63, Subpart ZZZZ (40 CFR 63.6640(f)). The section for this emission unit was removed during this ROP renewal.

EU-TURBINE12, FG-BOILERS1-6, and FG-SITURBINES at the stationary source are subject to the Cross-State Air Pollution Rule NO<sub>x</sub> Annual Trading Program pursuant to 40 CFR Part 97, Subpart AAAAA.

EU-TURBINE12, FG-BOILERS1-6, and FG-SITURBINES at the stationary source are subject to the Cross-State Air Pollution Rule NO<sub>x</sub> Ozone Season Group 2 Trading Program pursuant to 40 CFR Part 97, Subpart EEEEE.

EU-TURBINE12, FG-BOILERS1-6, and FG-SITURBINES at the stationary source are subject to the Cross-State Air Pollution Rule SO<sub>2</sub> Group 1 Trading Program pursuant to 40 CFR Part 97, Subpart CCCCC.

MCV has not had any recent compliance issues. The last violation notice sent to the facility was on May 28, 2014 for failure to conduct a performance emission test on the boilers once every five years.

The monitoring conditions contained in the ROP are necessary to demonstrate compliance with all applicable requirements and are consistent with the "Procedure for Evaluating Periodic Monitoring Submittals."

The emission limitations or standards for carbon monoxide (CO) and nitrogen oxides (NO<sub>x</sub>) at the stationary source with the underlying applicable requirement of NSPS of 40 CFR Part 60, Subpart Da – Standards of Performance for Electric Utility Steam Generating Units from FG-BOILERS1-6 are exempt from the federal Compliance Assurance Monitoring (CAM) regulation pursuant to 40 CFR 64.2(b)(1)(vi) because the required continuous emissions monitoring (CEM) monitoring meets the CAM exemption for a continuous compliance determination method.

The emission limitation or standard for nitrogen oxides (NO<sub>x</sub>) at the stationary source with the underlying applicable requirement of NSPS of 40 CFR Part 60, Subpart GG – Standards of Performance for Stationary Gas Turbines from FG-TURB/DB12, FG-SITURBINES, and FG\_SITURB/DB are exempt from the federal Compliance Assurance Monitoring (CAM) regulation pursuant to 40 CFR 64.2(b)(1)(vi) because the required continuous emissions monitoring (CEM) monitoring meets the CAM exemption for a continuous compliance determination method.

Please refer to Parts B, C, and D in the draft ROP for detailed regulatory citations for the stationary source. Part A contains regulatory citations for general conditions.

**Source-Wide Permit to Install (PTI)**

Rule 214a requires the issuance of a Source-Wide PTI within the ROP for conditions established pursuant to Rule 201. All terms and conditions that were initially established in a PTI are identified with a footnote designation in the integrated ROP/PTI document.

The following table lists all individual PTIs that were incorporated into previous ROPs. PTIs issued after the effective date of ROP No. MI-ROP-B6527-2014a are identified in Appendix 6 of the ROP.

PTI Number			
351-07	316-05B	576-92	759-87
759-87B	311-79	1001-90	103-12

**Streamlined/Subsumed Requirements**

The following table lists explanations of any streamlined/subsumed requirements included in the ROP pursuant to Rules 213(2) and 213(6). All subsumed requirements are enforceable under the streamlined requirement that subsumes them.

Emission Unit/Flexible Group ID	Condition Number	Streamlined Limit/ Requirement	Subsumed Limit/ Requirement	Stringency Analysis
EU-TURBINE12	I.1	NOx, 98 pph, 1-hour average	40 CFR 60.332(a)(1)	The pound per hour limit determined through NSR and PSD BACT is more stringent than the calculated NOx emission limit contained in 40 CFR Part 60, Subpart GG which is based on heat load rate.
FG-SITURBINES	I.1	NOx, 159 pph, 1-hour average for each turbine	40 CFR 60.332(a)(1)	The pound per hour limit determined through NSR and PSD BACT is more stringent than the calculated NOx emission limit contained in 40 CFR Part 60, Subpart GG which is based on heat load rate.

**Non-applicable Requirements**

Part E of the ROP lists requirements that are not applicable to this source as determined by the AQD, if any were proposed in the ROP Application. These determinations are incorporated into the permit shield provision set forth in Part A (General Conditions 26 through 29) of the ROP pursuant to Rule 213(6)(a)(ii).

### **Processes in Application Not Identified in Draft ROP**

The following table lists processes that were included in the ROP Application as exempt devices under Rule 212(4). These processes are not subject to any process-specific emission limits or standards in any applicable requirement.

<b>PTI Exempt Emission Unit ID</b>	<b>Description of PTI Exempt Emission Unit</b>	<b>Rule 212(4) Citation</b>	<b>PTI Exemption Rule Citation</b>
DVSPHTR1	Natural gas fired space heater no. 1	Rule 212(4)(c)	Rule 282(2)(b)(i)
DVSPHTR2	Natural gas fired space heater no. 2	Rule 212(4)(c)	Rule 282(2)(b)(i)
DVSPHTR3	Natural gas fired space heater no. 3	Rule 212(4)(c)	Rule 282(2)(b)(i)
DVSPHTR4	Natural gas fired space heater no. 4	Rule 212(4)(c)	Rule 282(2)(b)(i)
DVGASTANK1	Above ground gasoline storage tank no. 1	Rule 212(4)(d)	Rule 284(2)(g)(i)
DVGASTANK2	Above ground gasoline storage tank no. 2	Rule 212(4)(d)	Rule 284(2)(g)(i)

### **Draft ROP Terms/Conditions Not Agreed to by Applicant**

This draft ROP does not contain any terms and/or conditions that the AQD and the applicant did not agree upon pursuant to Rule 214(2).

### **Compliance Status**

The AQD finds that the stationary source is expected to be in compliance with all applicable requirements as of the effective date of this ROP.

### **Action taken by the EGLE, AQD**

The AQD proposes to approve this ROP. A final decision on the ROP will not be made until the public and affected states have had an opportunity to comment on the AQD's proposed action and draft permit. In addition, the USEPA is allowed up to 45 days to review the draft ROP and related material. The AQD is not required to accept recommendations that are not based on applicable requirements. The delegated decision maker for the AQD is Chris Hare, Bay City District Supervisor. The final determination for ROP approval/disapproval will be based on the contents of the ROP Application, a judgment that the stationary source will be able to comply with applicable emission limits and other terms and conditions, and resolution of any objections by the USEPA.



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**RENEWABLE OPERATING PERMIT**

ROP Number  
MI-ROP-B6527-  
2020

**JANUARY 23, 2020 - STAFF REPORT ADDENDUM**

**Purpose**

A Staff Report dated September 2, 2019, was developed to set forth the applicable requirements and factual basis for the draft Renewable Operating Permit (ROP) terms and conditions as required by Rule 214(1) of the administrative rules promulgated under Act 451. The purpose of this Staff Report Addendum is to summarize any significant comments received on the draft ROP during the 30-day public comment period as described in Rule 214(3). In addition, this addendum describes any changes to the draft ROP resulting from these pertinent comments.

**General Information**

Responsible Official:	Brian Vokal, VP of Operation, Maintenance, & Engineering 989-633-7840
AQD Contact:	Meg Sheehan, Environmental Quality Analyst 989-439-5001

**Summary of Pertinent Comments**

The EPA was the only party to submit pertinent comments during the 30-day public comment period.

1. EPA Comment:

Please verify whether any of the units at Midland Cogeneration Venture (“MCV”) are subject to the Acid Rain Program, pursuant to 40 CFR 72.6(a), and include any relevant information in the Staff Report. The Title V permit is required to include any applicable acid rain requirements, in accordance with 40 CFR 70.6(a)(1) and 40 CFR Parts 72.50 and 72.51.

AQD Response:

An Attestation of Midland Cogeneration Venture Limited Partnership to the Michigan Department of Environment, Great Lakes and Energy was provided by the company on October 28, 2019, as a response to EPA’s comment. It reads as follows:

Midland Cogeneration Venture Limited Partnership (“MCV”) is the owner and operator of an electric generation facility consisting of multiple gas-fired electric generation units that were in existence on November 15, 1990. As of that same date, MCV had, and continues to hold, a qualifying power purchase commitment to sell at least 15 percent of its total net output capacity. MCV is also a qualifying facility within the meaning of section 3(18)(B) of the Federal Power Act. *CMS Midland, Inc.*, 38 FERC 61,244 (1987) and Docket No. QF87-237. The Acid Rain permitting program implementation rules exclude, in part at 40 CFR 72.6(b)(5), the applicability of the program to a facility that satisfied the following:

*A qualifying facility that:*

- (i) Has, as of November 15, 1990, one or more qualifying power purchase commitments to sell at least 15 percent of its total planned net output capacity; and
- (ii) Consists of one or more units designated by the owner or operator with total installed net output capacity not exceeding 130 percent of its total planned net output capacity. If the emissions rates of the units are not the same, the Administrator may exercise discretion to designate which units are exempt.

Based upon a review of the aforementioned provisions, the MCV facility is a qualifying facility as specified in 40 CFR 72.6(b)(5) and not subject to the requirements of the Acid Rain Program.

2. EPA Comment:

Staff Report, EU-TURBINE12 Streamlining. The Staff Report indicates that EU-TURBINE12, SC I.1. streamlines the NOx emission limit in 40 CFR 60.332(a)(1) and the 98 pound/hour BACT limit. Although the Staff Report generally states that the BACT limit is more stringent, it does not provide supporting information comparing the specific NSPS concentration limit and the BACT limit. Please supplement the Staff Report as necessary to support EGLE’s determination that the NSPS limit may be subsumed under this BACT limit, in accordance with EPA’s March 5, 1996 “White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program” and EGLE’s “Staff Guidance on Streamlined/Subsumed Requirements in ROPs.”

AQD Response:

From 40 CFR Part 60.332 Standard for Nitrogen Oxides:

$$STD = 0.0075 \left( \frac{14.4}{Y} \right) + F$$

Where:

STD = allowable ISO corrected (if required as given in § 60.335(b)(1) NOx emission concentration (percent by volume at 15 percent oxygen and on a dry basis),

Y = manufacturer’s rated heat rate at manufacturer’s rated load (kilojoules per watt hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour, and

F = NOx emission allowance for fuel-bound nitrogen as defined in paragraph (a)(4) of this section.

For EU-TURBINE12, the natural gas fired turbine has a maximum heat input of 984 MMBtu/hr at ISO conditions and a generation capacity of approximately 86 MW at 100 percent load.

So, converting to kilojoules per watt hour:

$$\frac{984 \text{ MMBtu}}{\text{hr}} \left| \frac{1,055,055.85 \text{ kJ}}{1 \text{ MMBtu}} \right| \left| \frac{1 \text{ MW}}{86 \text{ MW}} \right| \left| \frac{1}{1 \times 10^6 \text{ Watts}} \right| \cong 12.1 \frac{\text{kJ}}{\text{Wh}}$$

Using 12.1 kJ/Wh for Y and an F of 0 because the fuel is natural gas results in the following NOx emission concentration:

$$0.0075 \left( \frac{14.4}{12.1} \right) + 0 = 0.0089 \text{ percent volume (89 parts per million (ppm)), dry, corrected 15\% O}_2$$

From the application package for PTI No. 759-87 Table 1 Emissions Information Sheet:

Summary of Gas Turbine Emissions for ABB GT11N EV<sup>(d)</sup> (EU-TURBINE12)

Pollutant	Concentration (ppmv)	Higher Heating Value (lb/MMBtu)	Emission Rate (lb/hr)	Emission Rate (TPY) <sup>(a)</sup>
Particulate (PM10)			0.52	2.2
Sulfur Dioxide <sup>(b)</sup>			15.5	2.3
Carbon Monoxide		0.0264 (24-hr avg)	26.0	113.9
Volatile Organic Compounds			0.35	1.5
Nitrogen Oxides <sup>(c)</sup>	25 (24-hr avg)	0.10	89 (98)	(429.2)

(a) Based on 100% capacity factor and ISO conditions, 984.2 MMBtu/hr HHV.

(b) Based on maximum sulfur content of 5.5 grains per 100 standard cubic feet and monthly average sulfur content of 0.5 grains per 100 standard cubic feet.

(c) Nitrogen oxides are as 100% NO<sub>2</sub>.

(d) Exhaust gas temperature and flow rate remain essentially unchanged.

As shown above, for EU-TURBINE12 the corresponding NOx emission limit as allowed under Subpart GG is 89 ppm, dry, corrected to 15% O<sub>2</sub>. The permitted emission limit using dry-low NOx burner is 25 ppm and corresponding pound per hour emission limit are below the Subpart GG limit.

### 3. EPA Comment:

Staff Report, FG-SITURBINES Streamlining. The Staff Report indicates that FG-SITURBINES, SC I.1. streamlines the NOx emission limit in 40 CFR 60.332(a)(1) and the 159 pound/hour BACT limit. Although the Staff Report generally states that the BACT limit is more stringent, it does not provide supporting information comparing the specific NSPS concentration limit and the BACT limit. Please supplement the Staff Report as necessary to support EGLE's determination that the NSPS limit may be subsumed under this BACT limit, in accordance with EPA's March 5, 1996 "White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program" and EGLE's "Staff Guidance on Streamlined/Subsumed Requirements in ROPs."

#### AQD Response:

From 40 CFR Part 60.332 Standard for Nitrogen Oxides:

$$STD = 0.0075 \left( \frac{14.4}{Y} \right) + F$$

Where:

STD = allowable ISO corrected (if required as given in § 60.335(b)(1) NOx emission concentration (percent by volume at 15 percent oxygen and on a dry basis),

Y = manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour, and

F = NOx emission allowance for fuel-bound nitrogen as defined in paragraph (a)(4) of this section.

For FG-SITURBINES the natural gas fired turbines have a maximum heat input of 984 MMBtu/hr at ISO conditions and a generation capacity of approximately 100 MW at 100 percent load.

So, converting to kilojoules per watt hour:

$$\frac{984 \text{ MMBtu}}{\text{hr}} \left| \frac{1,055,055.85 \text{ kJ}}{1 \text{ MMBtu}} \right| \frac{1 \text{ MW}}{100 \text{ MW}} \left| \frac{1}{1 \times 10^6 \text{ Watts}} \right| \cong 10.4 \frac{\text{kJ}}{\text{Wh}}$$

Using 10.4 kJ/Wh for Y and an F of 0 because the fuel is natural gas results in the following NOx emission concentration:

$$0.0075 \left( \frac{14.4}{10.4} \right) + 0 = 0.010 \text{ percent volume (100 parts per million (ppm)), dry, corrected 15\% O}_2$$

From the application package for PTI No. 759-87 Table 1 Emissions Information Sheet:

Summary of ABB GT11N Gast Turbine Emission Limits Permit No. 759-87 (FG-SITURBINES)

Pollutant	Concentration (ppmv)	Higher Heating Value (lb/MMBtu)	Emission Rate (lb/hr)	Emission Rate (TPY) <sup>(a)</sup>
Particulate (PM10)			0.52	2.2
Sulfur Dioxide <sup>(b)</sup>			15.5	2.3
Carbon Monoxide		0.0264 (24-hr avg)	26.0	113.9
Volatile Organic Compounds			0.35	1.5
Nitrogen Oxides <sup>(c)</sup>	42 (24-hr avg)		159	697

(a) Based on 100% capacity factor and ISO conditions, 984.2 MMBtu/hr HHV.

(b) Based on maximum sulfur content of 5.5 grains per 100 standard cubic feet and monthly average sulfur content of 0.5 grains per 100 standard cubic feet.

(c) Nitrogen oxides are as 100% NO<sub>2</sub>.

(d) Exhaust gas temperature and flow rate remain essentially unchanged.

As shown above, for FG-SITURBINES the corresponding NO<sub>x</sub> emission limit as allowed under Subpart GG is 100 ppm, dry, corrected to 15% O<sub>2</sub>. The permitted emission limit using dry-low NO<sub>x</sub> burner of 42 ppm and corresponding pound per hour emission limit are well below the Subpart GG limit.

4. EPA Comment:

FG-BOILERS1-6, conditions I.1, I.2, and I.3. These PM and PM10 limits identify SC V.1 as the associated Monitoring/Testing Method, which requires performance testing as requested by the permitting authority. Please revise the permit and/or provide further explanation in the Staff Report as appropriate to assure that the permit also includes monitoring and recordkeeping sufficient to assure compliance with these PM and PM10 limits on an ongoing basis, in accordance with 40 CFR 70.6(a)(3) and (c)(1).

AQD Response:

Performance testing for PM and PM10 has been conducted on each boiler in FG-BOILERS1-6 in October 2008 and February 2009, and October 2014. Each boiler tested below the permit limits of 0.0075 lb/MMBtu PM, 0.0075 lb/MMBtu PM10, and 2.8 lb/hr PM10 during each test. The AQD believes these historical results, in conjunction with the work practice standards required by SC III.1, III.5, III.6 and IX.6 under FG-BOILERMACT, are sufficient to ensure compliance with SC I.1, I.2, and I.3. For these reasons, the AQD does not believe additional ongoing monitoring requirements are necessary.

Changes made to the September 2, 2019 Draft ROP for FG-BOILERS1-6:

- SC I.1 – Added SC III.1 (from FG-BOILERS1-6), and SC III.1, III.5, III.6., and IX.6 from FG-BOILERMACT as Monitoring/Testing Methods
- SC I.2 – Added SC III.1 (from FG-BOILERS1-6), and SC III.1, III.5, III.6., and IX.6 from FG-BOILERMACT as Monitoring/Testing Methods
- SC I.3 – Added SC III.1 (from FG-BOILERS1-6), and SC III.1, III.5, III.6., and IX.6 from FG-BOILERMACT as Monitoring/Testing Methods

5. EPA Comment:

FG-BOILERS1-6, conditions I.10 and I.11. These VOC limits identify SC V.1 as the associated Monitoring/Testing Method, which requires performance testing as requested by the permitting authority. Please revise the permit and/or provide further explanation in the Staff Report as appropriate to assure that the permit also includes monitoring and recordkeeping sufficient to assure compliance with these VOC limits on an ongoing basis, in accordance with 40 CFR 70.6(a)(3) and (c)(1).

AQD Response:

Performance testing for VOC has been conducted on each boiler in FG-BOILERS1-6 in October 2008 and February 2009, and October 2014. Each boiler tested below the permit limits of 0.0054 lb/MMBtu VOC and 2.0 lb/hr VOC during each test. The AQD believes these historical results, in conjunction with the work practice standards required by SC III.1, III.5, III.6 and IX.6 under FG-BOILERMACT, are sufficient to ensure compliance with SC I.10 and I.11. For these reasons, the AQD does not believe additional ongoing monitoring requirements are necessary.

Changes made to the September 2, 2019 Draft ROP for FG-BOILERS1-6:

- SC I.10 – Added SC III.1 (from FG-BOILERS1-6), and SC III.1, III.5, III.6, and IX.6 from FG-BOILERMACT as Monitoring/Testing Methods
- SC I.11 – Added SC III.1 (from FG-BOILERS1-6), and SC III.1, III.5, III.6, and IX.6 from FG-BOILERMACT as Monitoring/Testing Methods

6. EPA Comment:

FG-BOILERS1-6, condition I.12. This opacity limit does not identify any associated Monitoring/Testing Method. Please revise the permit and/or provide further explanation in the Staff Report as appropriate to assure that the permit also includes monitoring and recordkeeping sufficient to assure compliance with the opacity limit, in accordance with any monitoring required by the underlying applicable requirements as well as 40 CFR 70.6(a)(3) and (c)(1).

AQD Response:

The AQD added two new conditions as Monitoring/Testing Methods for this opacity limit, which require a certified visible emission reading be taken at least once every three months, and records of the certified visible emission readings be kept on file for at least five years. The AQD believes that the boilers being natural gas-fired (SC III.1), the ongoing work practice standards required in FG-BOILERMACT (SC III.1, III.5, III.6, IX.6), and a certified visible emission reading conducted at least once every three months (SC V.3, VI.8) is sufficient to ensure compliance with SC I.12. For these reasons, the AQD does not believe additional ongoing monitoring requirements are necessary.

Changes made to the September 2, 2019 Draft ROP for FG-BOILERS1-6:

- SC I.12 – Moved to the Emission Limits table and added SC III.1, V.3 and VI.8 (from FG-BOILERS1-6) and SC III.1, III.5, III.6, and IX.6 from FG-BOILERMACT as Monitoring/Testing Methods.
- SC V.3 – New condition which states:

- “A certified visible emission reading (i.e., Federal Reference Method 9 (40 CFR Part 60, Appendix A)) shall be taken at least once every three months during normal operation of FG-BOILERS1-6. **(R 336.1213(3))**”
- SC VI.8 – New condition which states:
  - “The permittee shall keep, in a satisfactory manner, records of the visible emission readings for FG-BOILERS1-6. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **(R 336.1213(3))**”

7. EPA Comment:

FG-BOILERMACT includes conditions required by the Industrial, Commercial, and Institutional Boilers and Process Heaters MACT, 40 CFR Part 63, Subpart DDDDD. To ensure consistency, clarity, and to assure that the permit includes all applicable requirements (including startup/shutdown provisions and updated electronic submittal provisions) pursuant to 40 CFR 70.6(a)(1), please consider updating this section of the permit in accordance with the most recent Michigan EGLE’s MACT permit condition templates. In particular, see Conditions III.7, VI.4, VI.5, and VII.18 in EGLE’s Existing Gas 1 Template.

AQD Response:

FG-BOILERMACT was updated in accordance with the most recent EGLE MACT permit condition template for 40 CFR Part 63, Subpart DDDDD.

Changes made to the September 2, 2019 Draft ROP for FG-BOILERMACT:

- Updated the following conditions with Michigan’s most recent EGLE MACT template language:
  - SC II.1
  - SC III.1, III.2, III.5
  - SC VI.1
  - SC VII.11, VII.16, VII.18
  - SC IX.3 – IX.6
- Added the following conditions from Michigan’s most recent EGLE MACT template language:
  - SC III. 3, III.4, III.6, III.7
  - SC VI.2 – VI.6
  - SC VII.4 – VII.15, VII.17
  - SC IX.1, IX.2, IX.7

8. EPA Comment:

FG-TURB/DB12, condition I.2. This CO limit identified SC V.1 as the associated Monitoring/Testing Method, which requires performance testing every five years. Please revise the permit and/or provide further explanation in the Staff Report as appropriate to assure that the permit also includes monitoring

and recordkeeping sufficient to assure compliance with the CO limit on an ongoing basis, in accordance with 40 CFR 70.6(a)(3) and (c)(1).

AQD Response:

EU-TURBINE12 and EU-DUCTBURNER12 are unlike the other units. EU-TURBINE12 is equipped with a dry, low NOx burner. The highest CO levels should occur when the turbine is run at 100% load and the duct burner at maximum firing rate. Historical test results were reviewed, and the single highest CO level found was during the conditions anticipated yet was only 40% of the limit of 60.9 pounds per hour. All other test results were at 30% of the limit or below. Based on those results, the AQD believes additional ongoing monitoring requirements are not necessary and kept the testing frequency intact (now stated in SC V.2).

Changes made to the September 2, 2019 Draft ROP for FG-TURB/DB12:

- SC I.2 – Added SC V.2 as a Monitoring/Testing Method
- SC V.1 – Reworded for clarity and consistency with updated EGLE testing language:
  - “The permittee shall verify CO emission rates from FG-TURB/DB12 by testing at the owner’s expense, in accordance with Department requirements. Testing shall be performed using an approved USEPA Method listed in 40 CFR Part 60, Appendix A. Testing must be done for EU-TURBINE12 at 50 percent and 100 percent of base load. Testing must also be done for EU-TURBINE12 at maximum load with EU-DUCTBURNER12 at maximum firing rate. An alternative method, or a modification to the approved USEPA Method, may be specified in an AQD-approved Test Protocol. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The final plan must describe the normal operating range for FG-TURB/DB12. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.<sup>2</sup> (R 336.2001, R 336.2003, R 336.2004, R 336.2810, 40 CFR 52.21 (j))”
- SC V.2 – New condition which states:
  - “The permittee shall verify the CO emission rates from FG-TURB/DB12, at a minimum, every five years from the date of the last test. (R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)”

9. EPA Comment:

FG-TURB/DB12, conditions I.7 and I.8. These opacity limits identify SC V.2 and SC VI.6 as the associated Monitoring/Testing Method, which require a certified visible emission reading every six months. Please revise the permit and/or provide further explanation in the Staff Report as appropriate to assure that the permit also includes monitoring and recordkeeping sufficient to assure compliance with these opacity limits on an ongoing basis, in accordance with 40 CFR 70.6(a)(3) and (c)(1). In addition, note that FG-TURB/DB12, condition I.7 may be missing a “footnote 2” designation.

AQD Response:

SC V.2 has been renumbered as SC V.4, and the frequency of certified visible emission readings was changed from at least once every six months to at least once every three months. For SC I.8, a new Monitoring/Testing Method was added (SC V.5), which requires a certified visible emission reading be conducted at least once annually during startup, shutdown, or malfunction. Another new condition was added under Process/Operational Restrictions (SC III.2), which requires only pipeline quality natural

gas be used as fuel for FG-TURB/DB12. The AQD believes that FG-TURB/DB12 being natural gas fired and a certified visible emission reading conducted at least once every three months during normal operation (once annually during startup, shutdown, or malfunction) is sufficient to ensure compliance with SC I.7 and I.8. For these reasons, the AQD does not believe additional ongoing monitoring requirements are necessary.

Changes made to the September 2, 2019 Draft ROP for FG-TURB/DB12:

- SC I.7 – Added a footnote 2 designation in the “Limit” column. SC V.2 was changed to SC V.4 in the “Monitoring/Testing Method” column. Added SC III.2 as a Monitoring/Testing Method.
- SC I.8 – Changed SC V.2 in the “Monitoring/Testing Method” column to SC V.5. Added SC III.2 as a Monitoring/Testing Method.
- SC III.2 – New conditions which states:
  - “The permittee shall use only pipeline quality natural gas as fuel for FG-TURB/DB12. **(R 336.1213(3))**”
- SC V.4 – Changed “at least once every six months” to “at least once every three months”
- SC V.5 – New condition which states:
  - “A certified visible emission reading (i.e., Federal Reference Method 9 (40 CFR Part 60, Appendix A) shall be taken at least once annually during startup, shutdown, or malfunction of FG-TURB/DB12. **(R 336.1213(3))**”

10. EPA Comment:

FG-SITURBINES, condition I.2. This CO limit identifies SC V.1 as the associated Monitoring/Testing Method, which requires performance testing every 2 years for one of the turbines. Please revise the permit and/or provide further explanation in the Staff Report as appropriate to assure that the permit also includes monitoring and recordkeeping sufficient to assure compliance with the CO limit on an ongoing basis, in accordance with 40 CFR 70.6(a)(3) and (c)(1).

AQD Response:

The turbines in FG-SITURBINES are all the same model installed at the same time. PTI Nos. 316-05B and 241-09 both required testing of units T03 through T08 with PTI No. 241-09 being the most recent permit. Testing at loads of 50% and 100% was required of one unit every two years. Historical test results were reviewed and indicated emissions far below the permitted level of 26 pounds of CO per hour. Oftentimes the levels were near zero. Based on those results, the AQD believes additional ongoing monitoring requirements are not necessary and kept the testing frequency intact. However, clarification was made to the testing requirements to ensure a different turbine is tested each time until all turbines (T03 through T08) are tested, at which point the testing cycle repeats. The clarification is now found in SC V.2.

Changes made to the September 2, 2019 Draft ROP for FG-SITURBINES:

- SC I.2 – Added SC V.2 as a Monitoring/Testing Method
- SC V.1 – Reworded for clarity and consistency with updated EGLE testing language:



- “The permittee shall verify CO emission rates from one turbine (EU-T03 through EU-T08) in FG-SITURBINES by testing at owner’s expense, in accordance with Department requirements. Testing must be done for one turbine at 50 percent and 100 percent of base load. Testing shall be performed using an approved USEPA Method listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to the approved USEPA Method, may be specified in an AQD-approved Test Protocol. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The final plan must describe the normal operating range for each turbine. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.<sup>2</sup> (R 336.2001, R 336.2003, R 336.2004, R 336.2810, 40 CFR 52.21 (j))”
- SC V.2 – New condition which states:
  - “The permittee shall verify the CO emission rates from one turbine (EU-T03 through EU-T08) in FG-SITURBINES, at a minimum, every two years from the date of the last test. A different turbine shall be tested every two years thereafter until all turbines have been tested. This cycle shall repeat after all turbines have been tested. (R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)”
- SC V.3 – Was previously numbered as SC V.4

#### 11. EPA Comment:

FG-SITURBINES, conditions I.8 and I.9. These opacity limits identify SC V.2 and SC VI.3 as the Monitoring/Testing Method, which require a certified visible emission reading every six months. Please revise the permit and/or provide further explanation in the Staff Report as appropriate to assure that the permit also includes monitoring and recordkeeping sufficient to assure compliance with these opacity limits on an ongoing basis, in accordance with 40 CFR 70.6(a)(3) and (c)(1).

#### AQD Response:

SC V.2 has been renumbered as SC V.4, and the frequency of certified visible emission readings was changed from at least once every six months to at least once every three months. For SC I.9, a new Monitoring/Testing Method was added (SC V.5), which requires a certified visible emission reading be conducted at least once annually during startup, shutdown, or malfunction. Another new condition was added under Process/Operational Restrictions (SC III.4) which requires only pipeline quality natural gas be used as fuel for FG-SITURBINES. The AQD believes that FG-SITURBINES being natural gas fired and a certified visible emission reading conducted at least once every three months during normal operation (once annually during startup, shutdown, or malfunction) is sufficient to ensure compliance with SC I.8 and I.9. For these reasons, the AQD does not believe additional ongoing monitoring requirements are necessary.

#### Changes made to the September 2, 2019 Draft ROP for FG-SITURBINES:

- SC I.8 – Changed SC V.2 in the “Monitoring/Testing Method” column to SC V.4. Added SC III.4 as a Monitoring/Testing Method.
- SC I.9 – Changed SC V.2 in the “Monitoring/Testing Method” column to SC V.5. Added SC III.4 as a Monitoring/Testing Method.
- SC III.4 – New condition which states:

- “The permittee shall use only pipeline quality natural gas as fuel for FG-SITURBINES. (R 336.1213(3))”
- SC V.4 – Changed “at least once every six months” to “at least once every three months”
- SC V.5 – New condition which states:
  - “A certified visible emission reading (i.e., Federal Reference Method 9 (40 CFR Part 60, Appendix A)) shall be taken at least once annually during startup, shutdown, or malfunction of FG-SITURBINES. (R 336.1213(3))”

12. EPA Comment:

FG-SITURB/DB, condition I.2. This CO limit identifies SC V.1 as the associated Monitoring/Testing Method, which requires performance testing every two years for one of the turbines and respective duct burner. Please revise the permit and/or provide further explanation in the Staff Report as appropriate to assure that the permit also includes monitoring and recordkeeping sufficient to assure compliance with the CO limit on an ongoing basis, in accordance with 40 CFR 70.6(a)(3) and (c)(1).

AQD Response:

The turbines and duct burners in FG-SITURB/DB are all the same model installed at the same time. PTI Nos. 316-05B and 241-09 both required testing of units T09, T10, T11, T13, and T14 with PTI No. 241-09 being the most recent permit issued. Testing was required with the turbines at maximum load with the respective duct burners at maximum firing rates. The test was to occur on one turbine / duct burner set every two years. Historical test results were reviewed and revealed one test at 90% of permitted levels. Another test event was at 77% of the limit. All other results were below 70% of the permitted level of 246 pounds of CO per hour. Based on those results, the AQD believes additional ongoing monitoring requirements are not necessary and kept the testing frequency intact but increased the number of turbine / duct burner sets to be tested each time to two. The testing requirements now specify two different turbines and respective duct burners are tested each time until all turbines and respective duct burners are tested, at which point the testing cycle repeats. The requirements are now stated in SC V.2.

Changes made to the September 2, 2019 Draft ROP for FG-SITURB/DB:

- SC I.2 – Added SC V.2 as a Monitoring/Testing Method
- SC V.1 – Reworded for clarity and consistency with updated EGLE testing language. Also changed the requirement to test one turbine/respective duct burner every two years to two turbines/respective duct burners every two years:
  - “The permittee shall verify CO emission rates from two turbines (EU-T09, 10, 11, 13, 14) and respective duct burners (EU-DUCTBURNER09, 10, 11, 13, 14) in FG-SITURB/DB by testing at owner’s expense, in accordance with Department requirements. Testing must be done for two turbines at maximum load with the respective duct burners at maximum firing rate. Testing shall be performed using an approved USEPA Method listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to the approved USEPA Method, may be specified in an AQD-approved Test Protocol. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The final plan must describe the normal operating range for each turbine. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results

to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.<sup>2</sup> (R 336.1205(1), R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(j))”

- SC V.2 – New condition which states:
  - “The permittee shall verify the CO emission rates from two turbines (EU-T09, 10, 11, 13, 14) and respective duct burners (EU-DUCTBURNER09, 10, 11, 13, 14) in FG-SITURB/DB, at a minimum, every two years from the date of the last test. Two different turbines and respective duct burners than the two tested during the previous test shall be tested every two years thereafter until all turbines and respective duct burners have been tested. This cycle shall repeat after all turbines and respective duct burners have been tested. (R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)”

### 13. EPA Comment:

FG-SITURB/DB, condition I.7 and I.8. These opacity limits identify SC V.2 and SC VI.6 as the associated Monitoring/Testing Method, which require a certified visible emission reading every six months. Please revise the permit and/or provide further explanation in the Staff Report as appropriate to assure that the permit also includes monitoring and recordkeeping sufficient to assure compliance with these opacity limits on an ongoing basis, in accordance with 40 CFR 70.6(a)(3) and (c)(1).

### AQD Response:

SC V.2 has been renumbered as SC V.4, and the frequency of certified visible emission readings was changed from at least once every six months to at least once every three months. For SC I.8, a new Monitoring/Testing Method was added (SC V.5), which requires a certified visible emission reading be conducted at least once annually during startup, shutdown, or malfunction. Another new condition was added under Process/Operational Restrictions (SC III.2), which requires only pipeline quality natural gas be used as fuel for FG-SITURB/DB. The AQD believes that FG-SITURB/DB being natural gas fired and a certified visible emission reading conducted at least once every three months during normal operation (once annually during startup, shutdown or malfunction) is sufficient to ensure compliance with SC I.7 and I.8. For these reasons, the AQD does not believe additional ongoing monitoring requirements are necessary.

### Changes made to the September 2, 2019 Draft ROP for FG-SITURB/DB:

- SC I.7 – Changed SC V.2 in the “Monitoring/Testing Method” column to SC V.4. Added SC III.2 as a Monitoring/Testing Method.
- SC I.8 – Changed SC V.2 in the “Monitoring/Testing Method” column to SC V.5. Added SC III.2 as a Monitoring/Testing Method.
- SC III.2 – New condition which states:
  - “The permittee shall use only pipeline quality natural gas as fuel for FG-SITURB/DB. (R 336.1213(3))”
- SC V.4 – Changed “at least once every six months” to “at least once every three months”
- SC V.5 – New condition which states:
  - “A certified visible emission reading (i.e., Federal Reference Method 9 (40 CFR Part 60, Appendix A)) shall be taken at least once annually during startup, shutdown, or malfunction of FG-SITURB/DB. (R 336.1213(3))”

#### 14. EPA Comment:

Appendix 9, Cross State Air Pollution Rule (CSAPR) Trading Program Title V Requirements. The description of CSAPR Monitoring Provisions section includes a unit identified as Unit 12 (EU-T12). This appears to be a reference to the unit identified elsewhere in the permit as EU-TURBINE12. In addition, the section includes a unit identified as Unit 15 (EU-T15). However, EU-T15 is not included in any other section of the permit. Please revise Appendix 9 as necessary to correctly identify the emission units subject to CSAPR.

#### Changes made to the September 2, 2019 Draft ROP in Appendix 9:

- The unit identified as Unit 12 (EU-T12) was renamed EU-TURBINE12.
- The unit identified as Unit 15 (EU-T15) was removed. EU-BOILER1 through EU-BOILER6 (previously Units 16 through 21) were renumbered as Units 15 through Unit 20.

#### Additional changes made to the September 2, 2019 Draft ROP

##### EU-TURBINE12

- SC I.2 – Added SC V.2 and V.3 as Monitoring/Testing Methods.
- SC V.1 – Minor clarifications and added that the test plan and the test results need to be submitted to the AQD Technical Programs Unit and the District Office.
- SC VI.1 – Added “hourly, yearly, monthly and 12-month rolling” NOx emission records.

##### FG-BOILERS1-6

- SC V.1 – The previous V.1 was deleted because of redundancy, so the previous V.2 is now V.1. Clarification was also added for the frequency of testing (“...upon written request of the AQD...”).

##### FG-TURB/DB12

- SC VI.3 – Added “hourly, monthly and 12-month rolling” NOx emission records.

##### FG-SITURBINES

- SC V.6 – Added minor clarifying language.
- SC VI.2 – Added “hourly, monthly and 12-month rolling” NOx emission records.

##### FG-SITURB/DB

- SC VI.3 – Added “hourly, yearly, monthly and 12-month rolling” NOx emission records.