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|  | Michigan Department of Environment, Great Lakes, and Energy  Air Quality Division | | |  |
| **State Registration Number** | | **RENEWABLE OPERATING PERMIT** | **ROP Number** | |
| N1784 | | **STAFF REPORT** | MI-ROP-N1784-2020b | |

**Ada Cogeneration LLC (a subsidiary of TransAlta Corporation)**

State Registration Number (SRN): N1784

Located at

7575 East Fulton Street, BLDG. 74-1A, Ada, Kent County, Michigan 49355

Permit Number: MI-ROP-N1784-2020b

Staff Report Date: November 4, 2019

Amended Dates: September 3, 2020

January 7, 2021

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** | **RENEWABLE OPERATING PERMIT** | **ROP Number** |
| N1784 | November 4, 2019 - STAFF REPORT | MI-ROP-N1784-2020 |

**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: | Ada Cogeneration Limited Partnership  PO Box 767  Ada, Michigan 49301 |
| Source Registration Number (SRN): | N1784 |
| 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: | 201900018 |
| Responsible Official: | Michael Mazowita, Authorized Representative  248-844-2573 |
| AQD Contact: | Kaitlyn DeVries, Environmental Quality Analyst  616-558-0552 |
| Date Application Received: | February 11, 2019 |
| Date Application Was Administratively Complete: | February 11, 2019 |
| Is Application Shield in Effect? | Yes |
| Date Public Comment Begins: | November 4, 2019 |
| Deadline for Public Comment: | December 4, 2019 |

**Source Description**

Ada Cogeneration Limited Partnership (Ada Cogen) is an electricity and steam cogeneration facility that is located within the Access Business Group Corporate Complex located in Ada, Michigan. The complex is adjacent to the Grand River and some commercial and residential properties are located to the south, on the other side of Fulton Street. The facility sells steam to Access Business Group and electricity to Consumers Energy Company. A stationary source determination has previously been conducted, and since less than 50% of the steam production is sent to Access Business Group, these are separate stationary sources. The gas turbine has a nameplate rating of 23.074 Mw and the steam turbine has a nameplate rating of 10 Mw

The facility itself consists of a gas turbine-generator prime mover, a heat recovery system generator, a steam turbine-generator, and a supplementary firing duct burner. The duct burner (EUDUCTBURNER) cannot operate independently of the turbine (EUTURBINE), but the turbine can operate independently of the duct burner. The facility was originally permitted for the firing of fuel oil in addition to natural gas, however, the company does not and will not burn any fuel oil. Therefore, all references to fuel oil, from the original permit have been removed from the ROP.

Emissions of nitrogen oxides from the facility are controlled by water injection. The facility monitors fuel usage and the volume of water injected and a minimum water injection: fuel combusted ratio is established during performance testing, to ensure that the emission limits for nitrogen oxides are met.

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System (MAERS) for the year **2018**.

**TOTAL STATIONARY SOURCE EMISSIONS**

| **Pollutant** | **Tons per Year** |
| --- | --- |
| Carbon Monoxide (CO) | 38.4 |
| Lead (Pb) | 0.11 pounds |
| Nitrogen Oxides (NOx) | 144.8 |
| Particulate Matter (PM) | 5.4 |
| Sulfur Dioxide (SO2) | 0.83 |
| Volatile Organic Compounds (VOCs) | 2.31 |

The following table lists Hazardous Air Pollutant emissions as calculated for the year 2018 by AQD:

|  |  |
| --- | --- |
| **Individual Hazardous Air Pollutants (HAPs) \*\*** | **Pounds per Year** |
| Formaldehyde | 34.86 |
| Ethylbenzene | 52.09 |
| Hexane | 390.09 |
| Toluene | 212.34 |
| **Total Hazardous Air Pollutants (HAPs)** | **0.6 tons** |

\*\*As listed pursuant to Section 112(b) of the federal Clean Air Act.

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 Kent 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, and nitrogen oxides exceed 100 tons per year.

The stationary source is a minor source of HAP emissions because the potential to emit of any single HAP regulated by Section 112 of the federal Clean Air Act, is less than10 tons per year and the potential to emit of all HAPs combined are less than 25 tons per year.

FGENERGY (EUTURBINE and EUDUCTBURNER) at the stationary source was 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 nitrogen oxides and carbon monoxide was greater than 250 tons per year. During the initial permitting, the facility underwent Best Available Control Technology (BACT) review of the cogeneration unit for carbon monoxide, nitrogen oxides, and sulfur dioxide. The facility also underwent Air Quality Impact Analysis for each pollutant emitted in excess of the designated PSD significance levels.

There have been no significant changes at the facility since the last ROP issuance.

FGENERGY (EUTURBINE and EUDUCTBURNER) at the stationary source is subject to the Standards of Performance for Stationary Gas Turbines promulgated in 40 CFR Part 60, Subparts A and GG. Initial performance testing as required by 40 CFR Part 60, Subpart GG has been completed, however, an ongoing testing requirement is maintained within the ROP. The required testing for EUTURBINE and EUDUCTBURNER are completed as part of the same testing and EUDUCTBURNER does not operate independently of EUTURBINE. Compliance is assessed based on the comparison of the results with the emission limits in EUTURBINE and FGENERGY, and continued recordkeeping of EUDUCTBURNER operations.

The stationary source is not subject to the Cross-State Air Pollution Rule (CSAPR) requirements of 40 CFR Part 97 and the requirements of the Federal Acid Rain Program under 40 CFR Part 72. The stationary source was granted permission from USEPA in a letter dated February 28, 2001 to use the exemption requirements of having a nameplate of less than 25 Mw, as defined in the Part 97. Additionally, the stationary source claimed an exemption from the Acid Rain program under 40 CFR Part 72, providing documentation that the facility does not produce more than 219,000 Mw-hr. annual average electric power output to any electric distribution system for sale. Furthermore, in a letter dated July 3, 2003, the AQD noted that the NOx SIP Budget Program does not apply to this stationary source.

Rule 290 was revised on December 20, 2016. The FGRULE290 flexible group table was created for emission units subject to these rules.  Emission units installed before December 20, 2016, can comply with the requirements of Rule 290 in effect at the time of installation or modification as identified in the tables. However, emission units installed or modified on or after December 20, 2016, must comply with the requirements of the current rules as outlined in the table.

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."

Previous ROP’s did not include requirements for 40 CFR Part 64 for Compliance Assurance Monitoring (CAM) because it was thought that EUTURBINE and FGENERGY were exempt from CAM based upon the CAM exemption 40 CFR 64.2(b)(1)(vi). However, during this review, it was determined that the NOx emissions from EUTURBINE and FGENERGY are subject to CAM because the water injection rate that is used to control the NOx emissions is established via performance testing and is then monitored as part of the continuously monitoring requirement. Therefore, CAM was incorporated into the ROP during this renewal.

The following Emission Units/Flexible Groups are subject to CAM:

| **Emission Unit/Flexible group ID** | **Pollutant/ Emission Limit** | **UAR(s)** | **Control Equipment** | **Monitoring (Include Monitoring Range)** | **Emission Unit/Flexible Group for CAM** | **PAM? \*** |
| --- | --- | --- | --- | --- | --- | --- |
| EUTURBINE | NOx/ 42 ppmv, corrected to 15% Ox on a dry gas basis | 40 CFR 52.21(j) | Water Injection | Water-to-fuel ratio monitored by a liquid flow meter and a natural gas flow meter for the fuel consumption. The range will be established at least once every five (5) years during the stack test and will be set for both with and without the duct burner. | FGCAM | No |
| FGENERGY | NOx/ 47.9 pph | 40 CFR 52.21(j) | Water Injection | Water-to-fuel ratio monitored by a liquid flow meter and a natural gas flow meter for the fuel consumption. The range will be established at least once every five (5) years during the stack test and will be sent for both with and without the duct burner. | FGCAM | No |
| FGENERGY | NOx/ 210 tpy | 40 CFR 52.21(j) | Water Injection | Water-to-fuel ratio monitored by a liquid flow meter and a natural gas flow meter for the fuel consumption. The range will be established at least once every five (5) years during the stack test and will be sent for both with and without the duct burner. | FGCAM | No |

\*Presumptively Acceptable Monitoring (PAM)

FGENERGY, comprised of EUTURBINE and EUDUCTBURNER, is a single gas-fired turbine operating as a cogeneration unit producing both steam and electricity. Water injection is used to control emissions of nitrogen oxides (NOx). EUDUCTBUNER cannot operate independently of EUTURBINE, but EUTURBINE can operate independently of EUDUCTBURNER. The water injection system injects demineralized water into the combustor of EUTURBINE through the fuel nozzles, therefore regulating the combustor flame temperature and lowering the NOx emissions. At least once every five (5) years the facility conducts a performance test to establish a water injection ratio for use with and without EUDUCTBURNER. The facility then relies on a continuous monitoring system to continuously monitor the fuel consumption, the water injection, and the hours of operation to calculate compliance with the emission rates established in the permit. Therefore, the continuous monitoring of the water-to-fuel ratio acts as an indicator for demonstrating compliance with the NOx emission limits.

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-N1784-2015 are identified in Appendix 6 of the ROP.

| **PTI Number** | | | |
| --- | --- | --- | --- |
| 943-87 |  |  |  |
|  |  |  |  |

**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** |
| --- | --- | --- | --- | --- |
| EUTURBINE | SC I.1 | NOx emission limit of 42 ppmv, corrected to 15% O2 on a dry gas basis / 40 CFR 52.21(j) | Calculated NOx emission limit of 102 ppmv corrected to 15% O2 on a dry gas basis / 40 CFR 60.332(a) | The NOx emission limit determined through NSR and PSD/BACT review is more stringent than the NOx limit from 40 CFR Part 60, Subpart GG for turbine of 215 MMBTU/hr heat input. |
| EUTURBINE | SC II.1 | The permittee shall fire only pipeline quality natural gas in EUTURBINE / R 336.1213 | Sulfur content of the gas. (40 CFR  60.333; 40 CFR  60.334(b); 40 CFR  60.334(h)) | Single fuel restriction to natural gas only (no other fuels burned), as configured and accepted by permittee, assures compliance with, and is more stringent than, sulfur dioxide emissions restrictions and monitoring requirements in 40 CFR Part 60, Subpart GG. |

**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.

| **PTI Exempt**  **Emission Unit ID** | **Description of PTI**  **Exempt Emission Unit** | **Rule 212(4)**  **Citation** | **PTI Exemption Rule Citation** |
| --- | --- | --- | --- |
| EUSPACEHEATERS | Four (4) natural gas fired space heaters rated at 125,000 BTU each | R 336.1212(4)(c) | R 336.1282(2)(b)(i) |
| EUCUTTINGTORCH | Cutting torch | R 336.1212(4)(e) | R 336.1285(2)(j)(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 Heidi Hollenbach Grand Rapids 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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|  | Michigan Department of Environment, Great Lakes, and Energy  Air Quality Division | |  |
| **State Registration Number** | **RENEWABLE OPERATING PERMIT** | **ROP Number** | |
| N1784 | January 23, 2020 - STAFF REPORT ADDENDUM | MI-ROP-N1784-2020 | |

**Purpose**

A Staff Report dated November 4, 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: | Michael Mazowita, Authorized Representative  248-844-2573 |
| AQD Contact: | Kaitlyn DeVries, Environmental Quality Analyst  616-558-0552 |

**Summary of Pertinent Comments**

Comments were received from USEPA during the 30-day public comment period. The comments were received on December 2, 2019 and are outlined below.

EPA Comment 1:

EUTURBINE SC I.1. The Monitoring/Testing Method references for the NOx limit may be missing additional references to SC V.3, SC VI.3, and SC VI.5. Please review these conditions and include them in the NOx Monitoring/Testing Method column as appropriate to clearly identify all compliance monitoring requirements associated with this limit, in accordance with 40 CFR 70.6(a)(3) and (c)(1).

AQD Response:

The Monitoring/Testing Method references for the NOx emission limit for EUTURBINE Special Condition (SC) I.1 was reviewed and some references were added. These references include: SC V.3, SC VI.3, and SC VI.5. With the addition of these monitoring and testing requirements, this assures compliance with 40 CFR 70.6(a)(3) and (c)(1).

EPA Comment 2:

EUTURBINE SC I.2. The Monitoring/Testing Method references for the CO limit may be missing additional references to SC VI.4. and SC VI.5. Please review these conditions and include them in the CO Monitoring/Testing Method column as appropriate to clearly identify all compliance monitoring requirements associated with this limit, in accordance with 40 CFR 70.6(a)(3) and (c)(1).

AQD Response:

The Monitoring/Testing Method references for the CO emission limit for EUTURBINE SC I.2 was reviewed and some references were added. These references include: SC VI.4 and SC VI.5. With the addition of these monitoring and testing requirements, this assures compliance with 40 CFR 70.6(a)(3) and (c)(1).

EPA Comment 3:

EUTURBINE SC II.1. Please review the regulatory authority for the natural gas material limit, verify the streamlining analysis/subsumed SO2 requirements, and revise the permit as necessary to assure that the permit includes all applicable requirements and associated monitoring in accordance with 40 CFR 70.6(a)(1), (a)(3), and (c)(1).

AQD Response:

The Standards of Performance for New Stationary Sources, 40 CFR Part 60, Subpart GG, defines natural gas in 40 CFR 60.331(u). In this section it states that natural gas contains a sulfur content of 20.0 grains or less of sulfur per 100 standard cubic feet. This is also equivalent to 0.068 weight percent total sulfur, 680 parts per million by weight (ppmw) total sulfur, and 338 parts per million by volume (ppmv) at 20 degrees Celsius total sulfur. The facility agreed to take a fuel restriction and only burn natural gas, opposed to the previously permitted allowance for fuel oil. 40 CFR 60.334(h)(3) indicates that if the gaseous fuel is demonstrated to have met the definition of natural gas in 40 CFR 60.331(u), it does not require additional monitoring. In order to be more clear, additional clarity will be added to EUTURBINE SC II.1, stating that for the purposes of this ROP, pipeline quality natural gas is defined per 40 CFR Part 60.331(u) and citing that Underlying Applicable Requirement (UAR). By adding this condition, it is more clear that the sulfur and sulfur monitoring requirements from NSPS Subpart GG are met.

EPA Comment 4:

EUTURBINE SC VI.3. This condition requires a parameter monitoring plan to be kept on-site which explains the procedures used to document proper operation of the NOx controls. Please ensure that the monitoring plan is readily accessible in the permit record, including online Internet availability if feasible. As addressed by EPA's March 5, 1996 "White Paper Number 2 for Improved Implementation of The Part 70 Operating Permits Program," information cited or cross-referenced in permits should be current and readily available to the permitting agency and to the public.

AQD Response:

The parameter monitoring plan that is required under EUTURBINE SC VI.3 was submitted as part of the ROP application; however, this plan is now posted on the Air Quality Division Website as a standalone plan. No changes were made to the permit as a result of this comment.

EPA Comment 5:

EUTURBINE SC VI.1 and 2. The underlying applicable requirements (UAR) cited for these monitoring/recordkeeping requirements list only NSPS Subpart GG. However, this monitoring is also associated with the NOx BACT limit in SC I.1. Were SC VI.1 and 2 included in the originating Permit to Install? If yes, should these conditions also include a UAR of 40 CFR 52.21(j) as well as a footnote 2 authority designation? If no, should these conditions also include a UAR of R 336.1213(3)? Please review the UARs and revise the permit as necessary.

AQD Response:

The requirements found in EUTURBINE SC VI.1 and 2 are required as part of NSPS Subpart GG. These requirements were part of the original Permit to Install. EUTURBINE SC VI.1 has the UAR of R 336.1213(3) already existing as part of the underlying applicable requirement. The UAR of R 336.1213(3) was added to EUTURBINE SC VI.2 to clarify that the requirement to calculate and maintain records for the ratio of water to fuel for the turbine as established by the most recent performance testing. A footnote 2 was added to the conditions.

EPA Comment 6:

FGENERGY SC I.1. and 2. The Monitoring/Testing Method references for the NOx limits may be missing additional references to SC V.3. Please review SC V.3 and include it in the NOx Monitoring/Testing Method column as appropriate to clearly identify all compliance monitoring requirements associated with these limits, in accordance with 40 CFR 70.6(a)(3) and (c)(1).

AQD Response:

The Monitoring/Testing Method references for the NOx emission limit for FGENERGY SC I.1 and SC I.2 were reviewed and some additional references were included. This reference includes SC V.3. With the addition of these monitoring and testing requirements, this assures compliance with 40 CFR 70.6(a)(3) and (c)(1).

EPA Comment 7:

FGCAM SC V. and VI. EUTURBINE, FGENERGY, and the Staff Report indicate that there are 2 water/fuel injection ratios- one for EUTURBINE alone, and one for FGENERGY (i.e., EUTURBINE and EUDUCTBURNER when operating together). To ensure that the permit includes clear, enforceable conditions meeting 40 CFR 70.6(a)(1) and 64.6(c), please revise FGCAM SC V. and VI. as necessary to clarify that there are 2 water-to-fuel CAM indicators.

AQD Response:

The NOx emissions from EUTURBINE and FGENERGY are subject to the provisions of 40 CFR Part 64, Compliance Assurance Monitoring (CAM). FGENERGY is comprised of EUTURBINE and EUDUCTBURNER. EUDUCTBURNER cannot operate independently of EUTURBINE and is therefore by itself, not subject to CAM. However, when the turbine and the duct burner operate together (FGENERGY), the NOx emissions are subject to CAM. Water injection is utilized for control for NOx emissions. Therefore, the water/fuel injection ratio is set for both with and without the duct burner. Testing requirements for EUTURBINE and FGENERGY are included in their respective emission unit and flexible group requirements. The Testing requirement for EUTURBINE is without the duct burner and the testing requirement for FGENERGY is with the duct burner. In order for the distinction in the two (2) ratios that are required, FGCAM SC V.1 and V.2 were updated to specify that testing is required for EUTURBINE and FGENERGY. The two (2) conditions now read:

1. The permittee shall establish the water-to-fuel ratio a minimum of every five (5) years from the date of the last test in accordance with the requirements in EUTURBINE and FGENERGY.

1. As part of the testing required in EUTURBINE and FGENERGY, the Continuous Monitoring System shall be used to determine the fuel consumption and water-to-fuel ratio necessary to comply with the Nitrogen Oxides emission limit at 3 points in the normal operating range of the gas turbine, including the minimum point in the range and 90-100% peak load.

**Changes to the November 4, 2019 Draft ROP**

In order to address EPA Comment 1, the monitoring/testing method column of the table associated with EUTURBINE Special Condition (SC) I.1 was updated to include references to SC V.3, SC VI. 3 and VI.5.

In order to address EPA Comment 2, the monitoring/testing method column of the table associated with EUTURBINE SC I.2 was updated to include references to SC VI. 4 and VI.5.

In order to address EPA Comment 3, EUTURBINE SC II.1 was updated to read:

The permittee shall fire only pipeline quality natural gas in EUTURBINE. For the purposes of this ROP, pipeline quality natural gas is defined as 0.068 weight percent total sulfur, 680 parts per million by weight (ppmw) total sulfur, and 338 parts per million by volume (ppmv) at 20 degrees Celsius total sulfur as defined in 40 CFR Part 60.331(u).b **(R 336.1213, 40 CFR 60.331(u))**

In order to address EPA Comment 5, EUTURBINE SC VI.1 and 2 have R 336.1213(3) added to the Underlying Applicable Requirements (UAR’s) cited for those conditions, and a footnote 2 was added. This UAR is in addition to the existing NSPS UAR.

In order to address EPA Comment 6, the monitoring/testing method column of the table associated with FGENERGY SC I.1 and SC I.2 were updated to include references to SC V.3.

In order to address EPA Comment 7, FGCAM SC V.1 and SC V.2 were updated to read:

1. The permittee shall establish the water-to-fuel ratio a minimum of every five (5) years from the date of the last test in accordance with the requirements in EUTURBINE and FGENERGY.

1. As part of the testing required in EUTURBINE and FGENERGY, the Continuous Monitoring System shall be used to determine the fuel consumption and water-to-fuel ratio necessary to comply with the Nitrogen Oxides emission limit at 3 points in the normal operating range of the gas turbine, including the minimum point in the range and 90-100% peak load.

As a result of the review period after the aforementioned changes were made due to EPA comment, the company had a chance to review the changes. As a result of their review, one (1) additional change was made. This change was to EUTURBINE Special Condition II.1 adding in the equivalent definition of natural gas of 20 grains or less total sulfur per 100 standard cubic feet.

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|  | Michigan Department of Environment, Great Lakes, and Energy  Air Quality Division |  |
| **State Registration Number** | **RENEWABLE OPERATING PERMIT** | **ROP Number** |
| N1784 | September 3, 2020 - STAFF REPORT FOR RULE 216(1)(a)(i)-(iv) ADMINISTRATIVE AMENDMENT | MI-ROP-N1784-2020a |

**Purpose**

On March 11, 2020, the Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD), approved and issued Renewable Operating Permit (ROP) No. MI-ROP-N1784-2020 to Ada Cogeneration Limited Partnership pursuant to Rule 214 of the administrative rules promulgated under Act 451. Once issued, a company is required to submit an application for changes to the ROP as described in Rule 216. The purpose of this Staff Report is to describe the changes that were made to the ROP pursuant to Rule 216(1)(a)(i-iv).

**General Information**

|  |  |
| --- | --- |
| Responsible Official: | Gary Woods, Managing Director, Gas & Renewables - TransAlta  403-267-7150 |
| AQD Contact: | Caryn Owens, Environmental Engineer  231-878-6688 |
| Application Number: | 202000116 |
| Date Application for Administrative Amendment was Submitted: | July 20, 2020 |

**Regulatory Analysis**

The AQD has determined that the change requested by the stationary source meets the qualifications for an Administrative Amendment pursuant to Rule 216(1)(a)(iv).

**Description of Changes to the ROP**

Administrative Amendment No. 202000116 was to change the facility name from Ada Cogeneration Limited Partnership to Ada Cogeneration LLC (a subsidiary of TransAlta Corporation). The Company name change took place on August 1, 2020.

**Compliance Status**

The AQD finds that the stationary source is expected to be in compliance with all applicable requirements associated with the emission unit(s) involved with the change as of the date of approval of the Administrative Amendment to the ROP.

**Action Taken by EGLE**

The AQD approved an Administrative Amendment to ROP No. MI-ROP-N1784-2020, as requested by the stationary source. The delegated decision maker for the AQD is the District Supervisor.

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| --- | --- | --- |
|  | Michigan Department of Environment, Great Lakes, and Energy  Air Quality Division |  |
| **State Registration Number** | **RENEWABLE OPERATING PERMIT** | **ROP Number** |
| N1784 | January 7, 2021 - STAFF REPORT FOR RULE 216(1)(a)(i)-(iv) ADMINISTRATIVE AMENDMENT | MI-ROP-N1784-2020b |

**Purpose**

On September 3, 2020, the Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD), approved and issued Renewable Operating Permit (ROP) No. MI-ROP-N1784-2020a to Ada Cogeneration LLC (a subsidiary of TransAlta Corporation) pursuant to Rule 214 of the administrative rules promulgated under Act 451. Once issued, a company is required to submit an application for changes to the ROP as described in Rule 216. The purpose of this Staff Report is to describe the changes that were made to the ROP pursuant to Rule 216(1)(a)(i-iv).

**General Information**

|  |  |
| --- | --- |
| Responsible Official: | Buck Surratt, Plant Manager,  Authorized Representative  616-676-0870 |
| AQD Contact: | Caryn Owens, Environmental Engineer  231-878-6688 |
| Application Number: | 202000174 |
| Date Application for Administrative Amendment was Submitted: | December 7, 2020 |

**Regulatory Analysis**

The AQD has determined that the change requested by the stationary source meets the qualifications for an Administrative Amendment pursuant to Rule 216(1)(a)(i).

**Description of Changes to the ROP**

Administrative Amendment Application No. 202000174 was to correct a typographical error for the zip code of the plant location. The zip code on the front page of the ROP was 49501 and it was changed to 49355 to reflect the correct physical address of the plant.

**Compliance Status**

The AQD finds that the stationary source is expected to be in compliance with all applicable requirements associated with the emission unit(s) involved with the change as of the date of approval of the Administrative Amendment to the ROP.

**Action Taken by EGLE**

The AQD approved an Administrative Amendment to ROP No. MI-ROP-N1784-2020a, as requested by the stationary source. The delegated decision maker for the AQD is the District Supervisor.