

## AIR POLLUTION CONTROL PERMIT TO CONSTRUCT

<b>Permittee Name:</b> Applied Digital Corporation	<b>Permit Number:</b> ACP-18345 v1.0
<b>Permittee Address:</b> 3811 Turtle Creek Blvd. Suite 2100 Dallas, TX 75219	<b>Source Description:</b> Synthetic Minor Source for PSD Synthetic HAP Area Source Synthetic Non-Title V Source
<b>Source Name &amp; Location:</b> FAR Generation Plant 6805 County Rd 81 Harwood, ND, 58042 Cass County	<b>Source Type:</b> Back-up Diesel Power Generation for Computer Processing and Data Preparation and Processing Services
<b>Date of Application:</b>	March 9, 2026

Pursuant to Chapter 23.1-06 of the North Dakota Century Code, the North Dakota Air Pollution Control Rules (North Dakota Administrative Code [NDAC] 33.1-15), and in reliance on statements and representations heretofore made by the permittee (i.e., owner) designated above, a Permit to Construct (PTC, also referred to as ‘permit’) is hereby issued authorizing such permittee to construct and initially operate the source unit(s) listed in Condition 1 at the location designated above. The source may be operated under this PTC until a Permit to Operate (PTO) is issued. This PTC is subject to all applicable rules and orders now or hereafter in effect of the North Dakota Department of Environmental Quality (Department), state and federal regulations, and to any conditions specified below:

Date: \_\_\_\_\_

\_\_\_\_\_  
 James L. Semerad  
 Director  
 Division of Air Quality

**1. Project and Facility Emission Units:**

ACP-18345 v1.0\_AQEA includes a project description, details of the facility wide emission profile, and a regulation analysis associated with this permit.

Table 1-1 lists all emission units associated with the facility upon Project completion.

*Table 1-1: Facility Emission Units upon Project Completion*

<b>Emission Unit Description <sup>A</sup></b>	<b>Emission Unit (EU)</b>	<b>Emission Point (EP)</b>	<b>Location <sup>B</sup></b>	<b>Air Pollution Control Equipment</b>
Ninety-six (96) Caterpillar 3516E emergency diesel generator engines rated at 4,393 hp; capable of producing 3,000 kW of power (NSPS III & MACT ZZZZ)	GA1-GA12, GB1-GB12, GC1-GC12, GD1-GD12, GE1-GE12, GF1-GF12, GG1-GG12, GH1-GH12	GA1-GA12, GB1-GB12, GC1-GC12, GD1-GD12, GE1-GE12, GF1-GF12, GG1-GG12, GH1-GH12	FAR01	NSPS III compliant & ULSD
96 Caterpillar 3516E emergency diesel generator engines rated at 4,393 hp; capable of producing 3,000 kW of power (NSPS III & MACT ZZZZ)	GI1-GI12, GJ1-GJ12, GK1-GK12, GL1-GL12, GM1-GM12, GN1-GN12, GO1-GO12, GP1-GP12	GI1-GI12, GJ1-GJ12, GK1-GK12, GL1-GL12, GM1-GM12, GN1-GN12, GO1-GO12, GP1-GP12	FAR02	NSPS III compliant & ULSD

<sup>A</sup> All emission unit ratings are considered nominal ratings.

<sup>B</sup> Each location is comprised of multiple buildings (engine banks A-P, 16 total) that house twelve (12) units with each unit having a dedicated emissions point.

**1. Applicable Standards, Restrictions and Miscellaneous Conditions:****A. New Source Performance Standards (NSPS):**

The permittee must comply with all applicable requirements of the following NSPS subparts, in addition to Subpart A, as referenced in NDAC 33.1-15-12 and Title 40 of the Code of Federal Regulations (CFR) Part 60.

- 1) NSPS IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (All EUs listed in Table 1-1)

**B. National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Source Categories/Maximum Achievable Control Technology (MACT):**

The permittee must comply with all applicable requirements of the following MACT subparts, in addition to Subpart A, as referenced in NDAC 33.1-15-22 and 40 CFR 63.

- 1) MACT ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (All EUs listed in Table 1-1). The North Dakota Department of Environmental Quality has not adopted the area source provisions of this subpart. Please send all documentation to EPA.

**C. Fuel Restriction:**

All generators are restricted to combusting ultra-low sulfur diesel (ULSD) fuel containing no more than 0.0015 percent sulfur by weight (15 ppmw).

**D. Hours Restriction for Planned Operations:**

- 1) Combined generator operating hours (Condition 2.F and 2.G) are restricted to 3,039 hours per year on a 12-month rolling average basis.
- 2) To remain classified as an emergency unit, each diesel generator engine must comply with the requirements of 40 CFR 60.4211(f). If the permittee does not operate each engine in accordance with this requirement, the engine will not be considered an emergency engine and must meet all requirements for non-emergency engines.

*Applicable requirement: NDAC 33.1-15-14-02.9.f, NDAC 33.1-15-12*

**E. Facility Air Quality Monitor Requirements:**

- 1) The permittee must submit a monitoring plan for Department review. The plan must include the following:
  - a) Location of the monitoring station.
  - b) Methodology used to sample nitrogen dioxide (NO<sub>2</sub>) in the monitoring station.

- c) Quality assurance procedures for monitoring station operation and data handling.

The monitoring plan must be submitted 30 days following permit issuance.

- 2) The monitoring plan must be approved by the Department.
- 3) Operations are restricted to Condition 2.F if the monitors are offline.
- 4) Upon approval, the plan will be incorporated into the permit record and will be attached to an operating permit.
- 5) The Department, at its discretion, may audit the performance of the monitoring stations.
- 6) The monitoring data and quality assurance reports must be submitted to the Department in an electronic format within 45 days of the end of the calendar quarter and must contain the following information either in the body of the report or the cover letter.
  - a) The highest and second-highest hourly NO<sub>2</sub> concentrations and a list of all values exceeding 100 parts per billion (ppb).
  - b) Each exceedance must contain date, time, operational status of the facility, and any other pertinent information. If there are no exceedances, a statement should be made to that effect.
  - c) A brief discussion of instrument malfunctions or significant problems that occurred during the quarter, and a summary of the corrective actions taken.
  - d) A summary of the calibrations and zero/span checks conducted for each parameter. For the calibrations, include the slopes, intercepts, and correlation coefficients of the least-squares linear regressions.
  - e) A computation of data recovery for each parameter at each site on a monthly basis for the quarter expressed in percentages (actual versus possible). Each parameter at each site is expected to maintain a minimum monthly data recovery rate of 80%. The reasons for failing to meet this requirement must be clearly explained.
  - f) A list of precision checks conducted during the quarter including dates, known concentrations, measured concentrations, individual percentage differences, quarterly average percentage differences, standard deviation and 95% probability limits (Reference: 40 CFR 58).
  - g) A report of the performance audits conducted during the quarter including known and measured concentrations and individual percentage differences. Also include slope, intercept, and the

correlation coefficient of the audit line and the percent difference (full scale).

*Applicable requirement: NDAC 33.1-15-14-09.a, NDAC 33.1-15-14-09.c, NDAC 33.1-15-14-09.d*

F. Planned Operation Restrictions when NO<sub>2</sub> Monitor is Offline:

If the monitor station required by Condition 2.E or the Fargo Northwest Air Monitoring Station operated by the Department (Site No. 38-017-1004) is offline, operations are restricted to the following for all generator maintenance and readiness testing:

- 1) Must be completed within one hour and is restricted to one building (e.g., engine bank A, engine bank P) at a time.
- 2) Must be conducted between the hours of 6:00am central time and 6:00pm central time (*11:00am Coordinated Universal Time (UTC) to 11:00pm UTC*).

*Applicable requirement: NDAC 33.1-15-14-09*

G. Planned Operation Restrictions when NO<sub>2</sub> Monitor is Online:

If the monitor station required by Condition 2.E and Site No. 38-017-1004 are online, operations are restricted to the following for all generator maintenance and readiness testing:

- 1) Must not occur if 1-hour NO<sub>2</sub> at the monitor is above 100 ppb.
- 2) Must be conducted between the hours of 6:00am central time and 6:00pm central time (*11:00am Coordinated Universal Time (UTC) to 11:00pm UTC*).

*Applicable requirement: NDAC 33.1-15-14-09*

H. Notification and Response Requirement:

Table 2-1 establishes the permittee notification and response requirements applicable for the monitor station required by Condition 2.E and Site No. 38-017-1004. Response is required regardless of facility generator operations.

*Table 2-1: Monitored 1-hour NO<sub>2</sub> Concentrations and Required Response*

<b>1-hour NO<sub>2</sub> (ppb)<sup>A</sup></b>	<b>Monitored Concentration Duration (hours)<sup>B</sup></b>	<b>Facility Response</b>
0-100	All	None
101-360	4 or more	<ul style="list-style-type: none"> <li>• Discontinue non-critical operations</li> <li>• Notify the Department within the 5<sup>th</sup> hour</li> </ul>

1-hour NO <sub>2</sub> (ppb) <sup>A</sup>	Monitored Concentration Duration (hours) <sup>B</sup>	Facility Response
		<ul style="list-style-type: none"> <li>• If monitored concentration persists for 5 hours, shutdown of generators is required and notice to local authority is to be provided</li> </ul>
361-650	3	<ul style="list-style-type: none"> <li>• Immediate shutdown</li> <li>• Notify the Department and local authority within the 4<sup>th</sup> hour</li> </ul>
650+	1	<ul style="list-style-type: none"> <li>• Immediate shutdown</li> <li>• Notify the Department and local authority within the 2<sup>nd</sup> hour</li> </ul>

<sup>A</sup> Valid hourly average.

<sup>B</sup> Consecutive valid hourly average monitored concentration.

- 1) Notice procedures and process must be approved by the local authority.
- 2) Notice to the Department must be sent to [airquality@nd.gov](mailto:airquality@nd.gov).

I. Notification, Recordkeeping, and Root Cause Analysis Requirements for Unplanned Operations:

- 1) The permittee must notify the Department and local authority<sup>1</sup> within 1 hour if generators are operated in the following scenarios:
  - a) Grid power becomes unavailable after notification from the electrical supplier.<sup>2</sup>
  - b) An uncontrollable power emergency occurs.<sup>3</sup>

This notification must include all currently known details.
- 2) The permittee must notify the Department and local authority<sup>1</sup> within 24 hours if generators are operated when no advanced notice is received from the electrical supplier. If known, the expected duration must be provided.
- 3) The permittee shall track generator hours and emissions for the duration of each event. This information shall be submitted as part of Condition 6.D and upon request from the Department.
- 4) The permittee shall perform an assessment conducted through a process of investigation to determine the primary cause, and any other contributing cause(s), which lead to the event. The assessment shall be submitted to the

<sup>1</sup> Following established procedures required in Condition 2.H.1)

<sup>2</sup> Issued by the Regional Transmission Organization such as Midcontinent Independent System Operator (MISO).

<sup>3</sup> Such as a North American Electric Reliability Corporation (NERC) Energy Emergency Alert (EEA) level 2 or above event.

Department within 30 days.

*Applicable requirement: NDAC 33.1-15-14-0.d*

**2. Emission Unit Limits:**

Emission limits from the operation of the source unit(s) identified in Table 1-1 of this PTC are as follows in Table 3-1. Source units not listed are subject to the applicable emission limits specified in NDAC 33.1-15.

*Table 3-1: Summary of Permit Emission Limits*

<b>Emission Unit Description</b>	<b>Emission Unit (EU)</b>	<b>Emission Point (EP)</b>	<b>Pollutant / Parameter</b>	<b>Emission Limit / Operational Requirement</b>
All diesel emergency generators	GA1-GA12 through GP1-GP12	GA1-GA12 through GP1-GP12	NO <sub>x</sub> + NMHC	6.4 g/kW-hr <sup>A</sup>
			CO	3.5 g/kW-hr <sup>A</sup>
			SO <sub>2</sub>	15 ppmw sulfur in fuel
			PM/PM <sub>10</sub> /PM <sub>2.5</sub>	0.2 g/kW-hr <sup>A</sup>
			Opacity	20% <sup>B</sup>
			Annual Hours	Condition 2.D
			Planned Operation	Condition 2.F or 2.G
All Operation	Condition 2.H			

<sup>A</sup> Compliance determined via operation and maintaining certified engine.

<sup>B</sup> 40% opacity is permissible for not more than one six-minute period per hour.

**3. Emission Testing Requirements:**

The Department may require the permittee to conduct tests to determine the emission rate of air contaminants from the source. The Department may observe the testing and may specify testing methods to be used. A signed copy of the test results shall be furnished to the Department within 60 days of the test date. To facilitate preparing for and conducting such tests, and to facilitate reporting the test results to the Department, the permittee shall follow the procedures and formats in the Department’s Emission Testing Guideline.<sup>4</sup>

*Applicable requirement: NDAC 33.1-15-01-12*

<sup>4</sup> See February 7, 2020, NDDEQ Division of Air Quality Emission Testing Guidelines: [https://www.deq.nd.gov/publications/AQ/policy/PC/Emission\\_Testing\\_Guide.pdf](https://www.deq.nd.gov/publications/AQ/policy/PC/Emission_Testing_Guide.pdf).

**4. Stack Height Requirements:**

Emissions must be vented through stacks with heights above the minimums defined in Table 5-1 and below the maximum defined by good engineering practice per NDAC 33.1-15-18. Stacks must not utilize air dispersion techniques to artificially alter ambient air concentrations. Stack heights must be no less than those below without prior approval from the Department.

*Table 5-1: Minimum Stack Heights*

Location	Emission Point (EP)	Stack Height (Feet)
FAR01 & FAR02	GA1-GA12 through GP1-GP12	46

**5. General Conditions (Action Required):**

A. Startup Notice:

A notification of the actual date of initial startup must be submitted to the Department within 15 days after the date of initial startup.

*Applicable requirement: NDAC 33.1-15-12*

B. Modification:

Any alteration, repair, expansion, or change in the method or physical operation of the source which results in the emission of an additional type or greater amount of air contaminants, or which results in an increase in the ambient concentration of any air contaminant is considered a modification and must be reviewed and approved by the Department before implementation. The Department must be notified 10 days in advance of any significant deviations from the application. The issuance of this PTC may be suspended or revoked if the Department determines that a significant deviation has been or is to be made without the proper review or approval.

*Applicable requirement: NDAC 33.1-15-14-02.9.d*

C. Like-Kind Emission Unit Replacement:

This permit allows the permittee to replace an existing emission unit with a like-kind unit. Replacement is subject to the following conditions:

- 1) The replacement unit is subject to the same emission limits and performance testing requirements—both state and federal—as the existing unit. The facility must comply with any additional federal standards (e.g. NSPS, MACT) triggered by the replacement.
- 2) The Department must be notified within 10 days of replacement. The date of manufacture of the replacement unit and any additional federal applicability must be included in the notification.
- 3) The replacement unit must operate in the same manner without increasing throughput and have equal or less emissions than the unit it is replacing.

- 4) Testing must be conducted to confirm compliance with emission limits within 180 days after start-up of the replacement unit. Emergency units must not be required to test if replaced by a like-kind unit.

*Applicable requirement: NDAC 33.1-15-14-02.9.d*

D. Annual Emission Inventory:

The permittee must submit an annual emission inventory report and/or an annual production report upon Department request on forms approved by the Department.

*Applicable requirement: NDAC 33.1-15-14-02.9.d*

E. Malfunction Notification:

The permittee must notify the Department of any malfunction which can be expected to last longer than 24 hours and can cause the emission of air contaminants in violation of applicable rules and regulations. Using empirical estimates of emission rates, the permittee must conservatively estimate if the malfunction can cause noncompliance.

*Applicable requirement: NDAC 33.1-15-01-13.2.a*

F. Transfer of Permit to Construct:

The holder of a PTC may not transfer such permit without prior approval from the Department.

*Applicable requirement: NDAC 33.1-15-14-02.11*

**6. General Conditions (Obligations):**

A. Construction:

This permit must become invalid if construction does not commence within 18 months after permit issuance, construction is discontinued for a period of 18 months or more, or construction is not completed within a reasonable time as determined by the Department. The Department may provide a time period greater than 18 months when such extension is supported by sufficient documentation from the applicant.

*Applicable requirement: NDAC 33.1-15-14-02.10.b.*

B. Construction and Operation:

Construction and operation of the facility must be in accordance with the permit application—which includes technical supplements, revisions, and supporting data. Any operations not listed in this permit are subject to all applicable NDAC 33.1-15 requirements. At all times, including periods of startup, shutdown, and malfunction, the permittee must, to the extent practicable, maintain and operate any affected facility—including associated air pollution control equipment—in a manner consistent with good practice for minimizing emissions.

*Applicable requirements: NDAC 33.1-15-12, NDAC 33.1-15-22*

C. Recordkeeping:

The permittee must maintain any compliance monitoring records required by this permit or applicable requirements for a period of at least five years (unless otherwise stated) from the date of the monitoring sample, measurement, report or application. Support information may include all calibration and maintenance records, all original strip-chart recordings and computer printouts for continuous monitoring instrumentation, and copies of all reports required by the permit.

*Applicable requirements: NDAC 33.1-15-14-02.9.d*

D. Control of Organic Compound Emissions:

The permittee must comply with all applicable requirements of NDAC 33.1-15-07, which establishes requirements for the construction of organic compound facilities related to closed-vent systems, control devices, and seals and for the control of VOC vapors using a continuously burning pilot flare or other equally effective control device.

E. Internal Combustion Engine Emissions Restricted:

The permittee must comply with all applicable requirements of NDAC 33.1-15-08-01, which restricts the operation of internal combustion engines which emit, from any source, unreasonable and excessive smoke, obnoxious or noxious gas, fumes or vapor.

F. Restriction of Fugitive Emissions:

The release of fugitive emissions must comply with the applicable requirements in NDAC 33.1-15-17, which restricts particulate matter and gaseous fugitive emissions that would violate other regulations.

G. Permit Invalidation:

This permit must be effective from the date of its issuance unless suspended, revoked or surrendered. The violation of any condition of this permit may result in revocation or suspension of the permit or other appropriate enforcement action. If any provision or application of a provision of this permit is held invalid in any circumstance, the remainder of this permit must remain valid.

*Applicable requirement: NDAC 33.1-15-14-02.9*

H. Nuisance or Danger:

This permit must in no way authorize the maintenance of a nuisance or a danger to public health or safety.

*Applicable requirements: NDAC 33.1-15-02-03, NDAC 33.1-15-14-02.9.c*

I. Right of Entry:

Any duly authorized officer, employee, or agent of the Department may enter and inspect any property, premise, or place at which the source is located at any time for the purpose of ascertaining

compliance with NDAC 33.1-15. The Department may inspect monitoring equipment, conduct tests, and take samples of air contaminants, fuel, processing material, and other materials, which affect or may affect the emission of air contaminants from any source. The Department must have the right to access and copy any records required by the Department.

*Applicable requirement: NDAC 33.1-15-01-06, NDCC 23.1-06-11*

**7. State Enforceable Conditions (Not Federally Enforceable):**

A. Emissions of Odorous Substances Restricted:

The permittee must not discharge into the ambient air any objectionable odorous air contaminant which measures seven odor concentration units or greater.

*Applicable requirement: NDAC 33.1-15-16*

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