AIR POLLUTION CONTROL PERMIT TO CONSTRUCT

Permittee: **Name**: John Deere Electronic Solutions, Inc. - Fargo ISG **Address**: 1441 – 44th Street NW Fargo, ND 58102	**Permit Number**: ACP-18288 v 1.0 **Permit Description**: Synthetic Minor
Source Name & Location: John Deere Electronic Solutions, Inc. - Fargo ISG (3 locations, see emission unit descriptions) Fargo, North Dakota 58102 Cass County	**Source Type**: Generator Sets
Date of Application: March 6, 2025	

Pursuant to Chapter 23.1-06 of the North Dakota Century Code (NDCC), and the Air Pollution Control Rules of the State of North Dakota (Article 33.1-15 of the North Dakota Administrative Code or NDAC), and in reliance on statements and representations heretofore made by the permittee (i.e., owner) designated above, a Permit to Construct is hereby issued authorizing such permittee to construct and initially operate the source unit(s) at the location designated above. This Permit to Construct is subject to all applicable rules and orders now or hereafter in effect of the North Dakota Department of Environmental Quality (Department) and to any conditions specified below:

_____ Date: _____

James L. Semerad
Director
Division of Air Quality

1. Project and Facility Emissions Units:

This Permit to Construct allows the construction and initial operation of the herein-mentioned new or modified equipment at the source. The source may be operated under this Permit to Construct until a Permit to Operate is issued unless this permit is suspended or revoked. The source is subject to all applicable rules, regulations, and orders now or hereafter in effect of the North Dakota Department of Environmental Quality and to the conditions specified herein.

Table 1-1 lists the new emissions units associated with the Project.

Table 1-2 lists the emission units that are being removed from the facility.

Table 1-3 lists all emissions units associated with the facility upon Project completion.

Table 1-1: Project Emissions Units (new to facility)

Emission Unit Description [A]	Emission Unit (EU)	Emission Point (EP)	Air Pollution Control Equipment
Gillette Model T4D-6000 liquid cooled diesel engine-driven peak shave generator set rated at 932 bhp, manuf. 2024 (1750 NDSU Research Park Drive, Fargo) (NSPS IIII, MACT ZZZZ)	5	5	Selective Catalytic Reduction, Ammonia Slip Catalyst

[A] All emission unit ratings are considered nominal ratings.

Table 1-2: Emission Units Removed from the facility

Emission Unit Description [A]	Emission Unit (EU)	Emission Point (EP)	Air Pollution Control Equipment
Kohler Power System, Model 800 ROZD-4 (Detroit engine, Model R1637K35), diesel engine-driven peak shave generator set rated at 1,200 bhp, manuf. February 2001 (1750 NDSU Research Park Drive, Fargo) (MACT ZZZZ)	3	3	Catalytic Oxidizer

[A] All emission unit ratings are considered nominal ratings.

Table 1-3: Facility Emissions Units upon Project Completion

Emission Unit Description [A]	Emission Unit (EU)	Emission Point (EP)	Air Pollution Control Equipment
Kohler Model 2000ROZD-4 (Detroit engine) diesel engine-driven peak shave generator set rated at 2,935 bhp, manuf. March 2001 (1441 - 44th Street NW, Fargo) (MACT ZZZZ)	1	1	Catalytic Oxidizer
Kohler Power System, Model 1000 ROZM (Mitsubishi engine, Model S12H-PTA), diesel engine-driven peak shave generator set rated at 1,501 bhp, manuf. January 2001 (4101 - 19th Avenue N, Fargo) (MACT ZZZZ)	2	2	Catalytic Oxidizer
Cummins Model 70GGHF (Ford engine, EPA Certified) natural gas engine-driven emergency generator set rated at 112 bhp, manuf. 2013 (1750 NDSU Research Park Drive, Fargo) (NSPS JJJJ, MACT ZZZZ)	4 [B]	4	Electronic Air/Fuel Ratio Control and Closed-loop Breather System
Gillette Model T4D-6000 liquid cooled diesel engine-driven peak shave generator set rated at 932 bhp, manuf. 2024 (1750 NDSU Research Park Drive, Fargo) (NSPS IIII, MACT ZZZZ)	5	5	Selective Catalytic Reduction, Ammonia Slip Catalyst

[A] All emission unit ratings are considered nominal ratings.

[B] The potential to emit for an emergency stationary reciprocating internal combustion engine (RICE) is based on operating no more hours per year than is allowed by the subpart (40 CFR 60 Subpart JJJJ and 40 CFR 63, Subpart ZZZZ) for other than emergency situations. For engines to be considered emergency stationary RICE under the RICE rules, engine operations must comply with the operating hour limits as specified in the applicable subpart(s). There is no time limit on the use of emergency stationary RICE in emergency situations.

2. Applicable Standards, Restrictions and Miscellaneous Conditions:

A. New Source Performance Standards (NSPS):

The permittee shall comply with all applicable requirements of the following NSPS subparts, in addition to Subpart A, as referenced in Chapter 33.1-15-12 of the North Dakota Air Pollution Control Rules and 40 CFR 60.

1) NSPS IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (EU 5)

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

The permittee shall comply with all applicable requirements of the following MACT subparts, in addition to Subpart A, as referenced in Chapter 33.1-15-22 of the North Dakota Air Pollution Control Rules and 40 CFR 63.

1) MACT ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (EUs 1-2, 4-5). The Department has not adopted the area source provisions of this subpart.

Please send all required reports and documentation to EPA Region 8 at the address listed below.

U.S. EPA Region 8
1595 Wynkoop Street
Mail Code 8ENF-AT
Denver, CO 80202-1129

C. Fuel Restrictions:

1) Diesel generator engines (EUs 1-2, 5) are restricted to combusting ultra-low sulfur diesel (ULSD) fuel containing no more than 0.0015 percent sulfur by weight (15 ppmw).

D. Operational Restrictions:

Each diesel generator engine (EUs 1-2, 5) shall operate no more than 500 hours per year on a 12-month rolling average basis. The hours of operation shall be measured by a meter on each engine. The total hours of operation shall be recorded monthly (per rolling 12-month period).

The owner/operator shall record the hours of operation on the first day of every month and determine the total hours of use during the previous 12-month period. Anytime the number of hours during the last 12-month period exceeds the allowable limit, the owner/operator shall notify the Department within 10 working days. The records regarding the number of hours of operation shall be kept on file (easily accessible format, electronic or otherwise) for five years and submitted to the Department upon request.

3. Emission Unit Limits:

Emission limits from the operation of the source unit(s) identified in Table 1-1 of this Permit to Construct (hereafter referred to as "permit") are as follows. Source units not listed are subject to the applicable emission limits specified in the North Dakota Air Pollution Control Rules.

Table 3-1: Permit Emissions Limits

Emission Unit Description	Emission Unit (EU)	Emission Point (EP)	Pollutant / Parameter	Emission Limit
Detroit Diesel engine (2,935 bhp)	1	1	Opacity Hours of Operation	20% [A] 500 hours (12-month rolling total)
Mitsubishi Diesel engine (1,501 bhp)	2	2	Opacity Hours of Operation	20% [A] 500 hours (12-month rolling total)
Cummins natural gas engine (112 bhp)	4	4	Opacity	20% [A]
Gillette Diesel engine (932 bhp)	5	5	NSPS IIII Opacity Hours of Operation	60.4204 20% [A] 500 hours (12-month rolling total

[A] 40% opacity is permissible for not more than one six-minute period per hour.

4. Emission Testing Requirements:

A. Sampling and Testing:

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. The basis for this condition is NDAC 33.1-15-01-12 which is hereby incorporated into this permit by reference. 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.

5. General Conditions (Equipment):

A. Best Management Practices:

At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions.

B. Operation of Air Pollution Control Equipment:

The permittee shall maintain and operate all air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions.

C. Like-Kind Engine Replacement:

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

1) The Department must be notified within 10 days after change-out of the unit.

2) The replacement unit shall operate in the same manner, provide no increase in throughput and have equal or less emissions than the unit it is replacing.

3) The date of manufacture of the replacement unit must be included in the notification. The facility must comply with any applicable federal standards (e.g. NSPS, MACT) triggered by the replacement.

4) The replacement unit is subject to the same state emission limits as the existing unit in addition to any NSPS or MACT emission limit that is applicable. Testing shall be conducted to confirm compliance with the emission limits within 180 days after start-up of the unit.

D. Organic Compound Emissions:

The permittee shall comply with all applicable requirements of NDAC 33.1-15-07 – Control of Organic Compounds Emissions.

E. Air Pollution from Internal Combustion Engines:

The permittee shall comply with all applicable requirements of NDAC 33.1-15-08-01 – Internal Combustion Engine Emissions Restricted.

F. Fugitive Emissions:

The release of fugitive emissions shall comply with the applicable requirements in NDAC 33.1-15-17.

6. General Conditions (Procedural):

A. Construction:

Construction of the above-described facility shall be in accordance with information provided in the permit application as well as any plans, specifications and supporting data submitted to the Department. The Department shall be notified 10 days in advance of any significant deviations from the specifications furnished. The issuance of this Permit to Construct may be suspended or revoked if the Department determines that a significant deviation from the plans and specifications furnished has been or is to be made.

Any violation of a condition issued as part of this permit to construct as well as any construction which proceeds in variance with any information submitted in the application, is regarded as a violation of construction authority and is subject to enforcement action.

B. Startup Notice:

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

C. Permit Invalidation:

This permit shall become invalid if construction is not commenced within 18 months after issuance of such permit, if construction is discontinued for a period of 18 months or more; or if construction is not completed within a reasonable time.

D. Source Operations:

Operations at the installation shall be in accordance with statements, representations, procedures and supporting data contained in the initial application, and any supplemental information or application(s) submitted thereafter. Any operations not listed in this permit are subject to all applicable North Dakota Air Pollution Control Rules.

E. Alterations, Modifications, or Changes:

Any alteration, repairing, expansion, or change in the method of 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, must be reviewed and approved by the Department prior to the start of such alteration, repairing, expansion or change in the method of operation.

F. Recordkeeping:

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

G. Annual Emission Inventory/Annual Production Reports:

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

H. Malfunction Notification:

The permittee shall notify the Department of any malfunction which can be expected to last longer than twenty-four hours and can cause the emission of air contaminants in violation of applicable rules and regulations.

I. Nuisance or Danger:

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

J. Transfer of Permit to Construct:

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

K. Right of Entry:

Any duly authorized officer, employee or agent of the North Dakota Department of Environmental Quality may enter and inspect any property, premise or place at which the source listed in Condition 1 of this permit is located at any time for the purpose of ascertaining the state of compliance with the North Dakota Air Pollution Control Rules. The Department may conduct tests and take samples of air contaminants, fuel, processing material, and other materials which affect or may affect emissions of air contaminants from any source. The Department shall have the right to access and copy any records required by the Department's rules and to inspect monitoring equipment located on the premises.

L. Other Regulations:

The permittee of the source unit(s) described in Condition 1 of this permit shall comply with all State and Federal environmental laws and rules. In addition, the permittee shall comply with all local burning, fire, zoning, and other applicable ordinances, codes, rules and regulations.

M. Permit Issuance:

This permit is issued in reliance upon the accuracy and completeness of the information set forth in the application. Notwithstanding the tentative nature of this information, the conditions of this permit herein become, upon the effective date of this permit, enforceable by the Department pursuant to any remedies it now has, or may in the future have, under the North Dakota Air Pollution Control Law, NDCC Chapter 23.1-06.

7. State Enforceable Only Conditions (not Federally enforceable)

A. Odor Restrictions:

The permittee shall not discharge into the ambient air any objectionable odorous air contaminant which is in excess of the limits established in NDAC 33.1-15-16.