

AIR POLLUTION CONTROL PERMIT TO CONSTRUCT

Permittee Name: Marvin Composites, LLC	Permit Number: ACP-18354 v1.0
Permittee Address: 4401 15 th Ave NW, PO Box 2712 Fargo, ND 58108	Source Description: Synthetic Minor Source Area HAP Source
Source Name & Location: Marvin Composites Facility 4401 15 th Ave NW Fargo, ND 58108 Cass County	Source Type: Window/Door Fiberglass Manufacturing
Date of Application:	April 21, 2026 (Application)

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-18354 v1.0_AQEA Memo provides a project description, the project and facility wide emission profile, and regulatory analysis associated with this permit.

Table 1-1 lists the emission units associated with the Project.

Table 1-2 lists all emission units associated with the facility upon Project completion.

Table 1-1: Project Emission Units

Emission Unit Description	Emission Unit (EU)	Emission Point (EP)	Air Pollution Control Equipment
Nineteen polymer pultrusion lines	PL10 through PL28 ^A	RTO2	RTO
Regenerative thermal oxidizer	RTO2	RTO2	N/A
Various saws and fabrication machinery (SFM)	SFM	DC10 through DC15	Dust Collectors

^A PL10 through PL15 are existing pultrusion lines that will be modified during the project and rerouted to RTO2.

Table 1-2: Facility Emission Units upon Project Completion

Emission Unit Description	Emission Unit (EU)	Emission Point (EP)	Air Pollution Control Equipment
Nine polymer pultrusion lines	PL1 through PL9	RTO1	Regenerative Thermal Oxidizer (RTO)
Regenerative thermal oxidizer	RTO1	RTO1	N/A
Nineteen polymer pultrusion lines	PL10 through PL28	RTO2	RTO
Regenerative thermal oxidizer	RTO2	RTO2	N/A
Curing oven used to solidify residual resin mix	CO1 ^A	RTO2	RTO
Two 6,300 gallon resin storage tanks	TK1 & TK2	TK1 & TK2	None
One 2,000 gallon diesel tank	TK5 ^A	TK5	None
Three 10,850 gallon resin storage tanks	TK6 through TK8	TK6 through TK8	None
One 10,850 gallon styrene storage tank	TK9	TK9	None
Various saws and fabrication machinery (SFM)	SFM	DC1 through DC15	Dust Collectors
Various natural gas fired heating units	Various ^A	Various	None
Caterpillar diesel fired electrical generator set rated at 1,500 bhp (Manuf. 1996) (MACT ZZZZ)	ENG1	ENG1	Oxidation Catalyst
Caterpillar DG500 (4SRB) natural gas fired generator engine rated at 800 bhp (NSPS JJJJ, MACT ZZZZ)	ENG2	ENG2	None
Caterpillar DG500 (4SRB) natural gas fired generator engine rated at 800 bhp (NSPS JJJJ, MACT ZZZZ)	ENG3	ENG3	None
Caterpillar DG500 (4SRB) natural gas fired generator engine rated at 800 bhp (NSPS JJJJ, MACT ZZZZ)	ENG4	ENG4	None

^A Considered an insignificant emission unit due to intermittent usage and low potential to emit.

2. **Applicable Standards, Restrictions and Miscellaneous Conditions:**

A. Operational Restrictions (EUs PL1 through PL9 and EP RTO1; PL 10 through PL28 and RTO2):

- 1) The regenerative thermal oxidizers (EPs RTO1 and RTO2) must be operated following best management practices and the manufacturer's recommended Operations and Maintenance (O&M) procedures, or a site-specific procedure developed from the manufacturer's recommended O&M procedures. The permittee shall have the O&M procedures available on-site and must provide the Department with a copy upon request.
- 2) During operations, the combustion chambers of the RTOs must be maintained at or above the minimum temperature established during the emissions testing requirements shown in Table 4-1 to ensure proper destruction efficiency and maintain compliance with the permitted emission limit. A different required operating temperature may be established based on the results of emissions testing.
- 3) The permittee shall record the operating temperature of the combustion chambers of each RTO and inward air flow for each polyester pultrusion booth enclosure at least once every fourteen days.
- 4) The pressure differential across the polyester pultrusion booth enclosures of each RTO must be maintained at a minimum pressure to ensure proper face velocity of the enclosure as specified in the O&M procedure. The verification of the pressure drop may be done with smoke tubes to indicate inward airflow of the permanent total enclosure or may be done using another method approved by the Department.
- 5) The permittee must conduct an emission test following the emissions test requirements shown in Table 4-1. These tests must be conducted at operating conditions representative of typical throughput of the pultrusion lines (EU PL 1 through 28). Future testing must be conducted at least once every operating permit renewal period, not to exceed six years between emission tests.
- 6) All malfunctions must be investigated, recorded, and reported to the Department upon request.

B. Fuel Restriction (EP RTO2):

- 1) The regenerative thermal oxidizer (EP RTO2) is restricted to combusting only natural gas containing no more than 2 grains of sulfur per 100 standard cubic feet.

3. 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

Emission Point Description	EU	EP	Pollutant/Parameter	Limit
Regenerative thermal oxidizer	PL1 through PL9	RTO1	Operational Styrene Opacity	Condition 2.A 1.1 lb/hr 20% ^A
Regenerative thermal oxidizer	PL10 through PL28	RTO2	Operational Styrene Opacity	Condition 2.A & 2.B 1.0 lb/hr 20% ^A
Diesel fired electrical generator	ENG1	ENG1 ^B	Opacity	20% ^A
Natural gas fired generator engines	ENG2 through ENG4	ENG2 through ENG4 ^B	Operational Opacity	NSPS JJJJ 20% ^A
Various natural gas fired heating units	Various	Various ^B	Opacity	20% ^A
Various saws and fabrication machinery (SFM)	SFM	DC1 through DC15 ^C	Opacity	20% ^A

^A 40% permissible for not more than one six-minute period per hour.

^B Limit is not changed with this permit action.

^C DC1 through DC9 limit is not changed with this permit action. DC10 through DC15 limits are new with this permit action.

4. Emission Testing Requirements:

The following testing requirements are applicable until issuance of the PTO. All emission tests identified in Table 4-1 must be conducted according to the Reference Methods (40 CFR 60 Appendix A), NDAC 33.1-15-01-12, applicable federal regulations, or as specified by the Department in accordance with good professional practice. All testing must require a minimum of three runs, one hour each, unless otherwise specified in an applicable federal subpart. The Department may conduct, require, and observe emission testing from any source at a reasonable time interval. The Department may reasonably require the permittee to demonstrate compliance with Condition 3 or to quantify emissions of any contaminant not addressed in this PTC whenever it has reason to believe noncompliance or the emission of a non-addressed contaminant is occurring.

Applicable requirement: NDAC 33.1-15-01-12

Table 4-1: Emission Testing Requirements

Emission Point (EP) Description	EP	Pollutant / Parameter	Method ^A
Regenerative thermal oxidizer	RTO1	Styrene	EPA Method 25A ^B
Regenerative thermal oxidizer	RTO2	Styrene	EPA Method 25A ^B

^A Other test methods may be used provided they are approved in advance by the Department.

^B Total gaseous organic concentration of vapors shall be considered representative of styrene concentration. Prior to conducting EPA Method 25A, EPA Method 1, 2, 3 (or 3A) and 4 shall be performed as applicable.

A. Startup:

Within 180 days after initial startup of the new and modified equipment listed in Table 4-1, the permittee must conduct emission tests in accordance with Table 4-1 using an independent testing firm to determine the compliance status of the facility with respect to the emission limits specified in Table 3-1.

Applicable requirement: NDAC 33.1-15-12

B. Personnel:

All tests must be conducted under the direction of reputable, qualified personnel trained in accordance with Department approved methods.

Applicable requirement: NDAC 33.1-15-01-12.1

C. Sampling Access:

The permittee must provide the necessary facilities (exclusive of instruments and sensing devices) and sampling ports in stacks, ducts, or flues downstream of all emission control devices to conduct emission measurements. The ports must be located to enable reliable sampling and must be adequate for the required test methods. Safe sampling access and platforms must be provided. Plans and specifications showing the size and location of the ports, platform and utilities must be submitted to the Department for review and approval.

Applicable requirements: NDAC 33.1-15-01-12.2, NDAC 33.1-15-12

D. Advanced Notification:

The permittee must notify the Department using forms found in the Emission Testing Guideline¹, or its equivalent, at least 30 calendar days in advance of any emission test required by the Department. Advanced notification for all other testing will be consistent with the requirements of the appropriate regulations but will in no case be less than 30 calendar days.

Applicable requirement: NDAC 33.1-15-01-12.1

E. Rescheduled Tests:

If the permittee is unable to conduct a test on its scheduled date, the permittee must notify the Department at least five days prior to the scheduled test date and coordinate a new test date with the Department.¹ Failure to give the proper notification may prevent the Department from observing the test, which may cause test results to be rejected.

Applicable requirement: NDAC 33.1-15-01-12.1

F. Reporting:

A signed copy of the test results must be furnished to the Department within 60 days of the test date as per 40 CFR 60.13(c)(2). To facilitate test preparation, execution, and reporting, the permittee must follow the procedures and formats in the Department's Emission Testing Guideline.¹

Applicable requirement: NDAC 33.1-15-12

¹ 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

5. General Conditions (Action Required):

A. Startup Notice:

A notification of the actual date of the startup of the new and modified equipment (EUs PL 10 through PL28, EP RTO2; EU SFM; EPs DC10 through DC15) 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/Annual Production Reports:

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 of the new and modified equipment 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. Operation:

Construction of the new and modified equipment 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