# AIR QUALITY EFFECTS ANALYSIS
# FOR
# PERMIT TO CONSTRUCT
ACP-18317 v1.0

**Applicant**:

Integrity Windows and Doors
1616 43rd Street NW
Fargo, ND 58102

**Facility Location**:

West Fargo South
1320 9th St NE
West Fargo, ND 58078

**Introduction and Background**:

Integrity Windows and Doors (Integrity), West Fargo South (WFS or facility) primarily manufactures doors. The company contacted the North Dakota Department of Environmental Quality – Division of Air Quality (Department) on October 21, 2025, after reviewing their recently renewed WFS permit to operate. The Department was informed that the existing engines were considered non-emergency, demand response at the Integrity West Fargo North, Fargo, and WFS locations. After reviewing the facility's potential to emit (PTE) paperwork, it was determined that a change in status was needed for Integrity WFS from a true minor source to a synthetic minor source of $NO_X$ with a 500 hour operating limit on the generator engine. The current operating permit for this facility, AOP-27794 v5.0, expires on November 4, 2030. This permit will be incorporated into the renewal.

ACP-18317 v1.0 Table 1-1 lists the emissions units associated with Integrity WFS.

Facility Wide Emissions Profile

**Potential to Emit (PTE)**

*Table 1 - PTE (tons per year)* [A]

| Emission Unit Description | EU | CO | $NO_X$ | $SO_2$ | VOCs | Total PM | Total HAPs |
|---|---|---|---|---|---|---|---|
| Butler/Caterpillar engine | 4 | 2.20 | 8.29 | -- | 0.23 | 0.02 | 0.01 |
| Natural gas furnaces and heaters | 1a and 1b, 2a through 2p, and 3a through 3h | 3.19 | 3.80 | 0.02 | 0.21 | 0.22 | 0.07 |
| | **Total:** | **5.4** | **12.1** | **0.0** | **0.4** | **0.2** | **0.08** |

[A] Abbreviations:
CO: carbon monoxide
$NO_X$: oxides of nitrogen
$SO_2$: sulfur dioxide
VOCs: volatile organic compounds
PM: filterable and condensable particulate matter
HAPs: hazardous air pollutants as defined in Section 112(b) of the Clean Air Act

As shown in Table 1, the facility wide PTE is below 100 tons per year (tpy) for all criteria air pollutants, below 10 tpy for any single hazardous air pollutant (HAP), and below 25 tpy for the combined HAP emissions. The facility PTE is based on enforceable restrictions put in place limiting the allowable amount of operating hours for the generator engine (EU 4). This restriction means the facility will be a synthetic minor source of air pollution, as the generator engine operational hours are limited to keep emissions below major source thresholds for the Title V programs.

**Rules Analysis**
**Potentially Applicable Rules and Expected Compliance Status**

A. NDAC 33.1-15-01 – General Provisions:

Multiple topics are included in the General Provisions chapter: entry onto premises - authority, variances, circumvention, severability, land use plans and zoning regulations (only to provide air quality information), measurement of air contaminants, shutdown and malfunction of an installation - requirements for notification, time schedule for compliance, prohibition of air pollution, confidentiality of records, enforcement, and compliance certifications.

*Applicability and Expected Compliance*

Based on the review of the information provided, the facility will comply with all applicable sections of this rule.

B. NDAC 33.1-15-02 – Ambient Air Quality Standards:

The facility must comply with the North Dakota and Federal Ambient Air Quality Standards (AAQS) and the "Criteria Pollutant Modeling Requirements for a Permit to Construct" guidelines[1].

*Applicability and Expected Compliance*

The facility is not subject to PSD nor does the facility's PTE trigger the modeling thresholds listed in the "Criteria Pollutant Modeling Requirements for a Permit to Construct", therefore, preconstruction modeling for this facility was not required. Based on the facility PTE compliance with the ambient air quality standards is expected to be maintained.

C. NDAC 33.1-15-03 – Restriction of Emission of Visible Air Contaminants:

This chapter requires all non-flare sources from new facilities to comply with an opacity limit of 20% except for one six-minute period per hour when 40% opacity is permissible. This chapter also requires facility flares to comply with an opacity limit of 20% except for one six-minute period per hour when 60% opacity is permissible. Lastly, this chapter restricts the opacity of fugitive emissions transported off property to 40% except for one six-minute period per hour when 60% opacity is permissible. This chapter also contains exceptions under certain circumstances and provides the method of measurement to determine compliance with the referenced limits.

*Applicability and Expected Compliance*

Based on Department experience with the non-flare sources, the facility is expected to comply with the 20% opacity limit.

D. NDAC 33.1-15-04 – Open Burning:

No person may dispose of refuse and other combustible material by open burning, or cause, allow, or permit open burning of refuse and other combustible material, except as provided for in Section 33.1-15-04-02 or 33.1-15-10-02, and no person may conduct, cause, or permit the conduct of a salvage operation by open burning.

*Applicability and Expected Compliance*

The facility is subject to this chapter and will comply with all open burning regulations.

E. NDAC 33.1-15-05 – Emissions of Particulates Matter Restricted:

This chapter establishes particulate matter emission limits and restrictions for industrial process equipment and fuel burning equipment used for indirect heating.

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[1] See October 6, 2014, Criteria Pollutant Modeling Requirements for a Permit to Construct. Available at: https://www.deq.nd.gov/publications/AQ/policy/Modeling/Criteria_Modeling_Memo.pdf

*Applicability and Expected Compliance*

Since the fuel burning equipment used for indirect heating is fired on gaseous fuels and ultra-low sulfur diesel fuel, the particulate matter limits in this chapter do not apply. It should be noted that combustion of gaseous fuels in the units is expected to result in extremely low particulate matter emissions that are well below the allowable levels established by this chapter.

F. NDAC 33.1-15-06 – Emissions of Sulfur Compounds Restricted:

This chapter applies to any installation in which fuel is burned and the $SO_2$ emissions are substantially due to the sulfur content of the fuel; and in which the fuel is burned primarily to produce heat. This chapter is not applicable to installations which are subject to an $SO_2$ emission limit under Chapter 33.1-15-12, Standards for Performance for New Stationary Sources, or installations which burn pipeline quality natural gas.

*Applicability and Expected Compliance*

All of the combustion equipment at the facility not subject to an NSPS will burn natural gas or inherently low sulfur fuels and thus are compliant with sulfur restrictions in this chapter as part of its physical and operational design.

G. NDAC 33.1-15-07 – Control of Organic Compounds Emissions:

This chapter establishes requirements for the construction of organic compound facilities and the disposal of organic compounds gas and vapor generated as waste resulting from storage, refining, or processing operations at the facility.

*Applicability and Expected Compliance*

The facility is not considered an organic compound facility and is not subject to the requirements of this chapter. Even though not subject, Table 1 shows the facility's limited potential volatile organic compound emissions are small at 0.4 tpy.

H. NDAC 33.1-15-08 – Control of Air Pollution from Vehicles and Other Internal Combustion Engines:

This chapter restricts the operation of internal combustion engines which emit from any source unreasonable and excessive smoke, obnoxious or noxious gas, fumes or vapor. This chapter also prohibits the removal or disabling of motor vehicle pollution control devices.

*Applicability and Expected Compliance*

The engine (EU 4) is also subject to opacity requirements under NDAC 33.1-15-03-02 and subject to the requirements of MACT Subpart ZZZZ. As a result of expected compliance with these provisions, the engine is not expected to emit any unreasonable and excessive smoke, obnoxious or noxious gases, fumes, or vapor.

I. NDAC 33.1-15-09 – [repealed]

J. NDAC 33.1-15-10 – Control of Pesticides:

This chapter provides restrictions on pesticide use and restrictions on the disposal of surplus pesticides and empty pesticide containers.

*Applicability and Expected Compliance*

The facility is subject to this chapter and is expected to comply with all applicable requirements should pesticides be used.

K. NDAC 33.1-15-11 – Prevention of Air Pollution Emergency Episodes:

When an air pollution emergency episode is declared by the Department, the facility shall comply with the requirements in Chapter 33.1-15-11 of the North Dakota Air Pollution Control (NDAPC) rules.

L. NDAC 33.1-15-12 – Standards of Performance for New Stationary Sources [40 Code of Federal Regulations Part 60 (40 CFR Part 60)]:

This chapter adopts most of the Standards of Performance for New Stationary Sources (NSPS) under 40 CFR Part 60. Integrity WFS does not appear to have any applicable requirements under this chapter.

M. NDAC 33.1-15-13 – Emission Standards for Hazardous Air Pollutants [40 Code of Federal Regulations Part 61 (40 CFR Part 61)]:

This chapter discusses emission standards for hazardous air pollutants. It specifically incorporates a majority of the subparts and appendices of the National Emission Standards for Hazardous Air Pollutants (NESHAP) under 40 CFR Part 61 as of July 2, 2010.

*Applicability and Expected Compliance*

The facility does not appear to have any applicable requirements under this chapter.

N. NDAC 33.1-15-14 – Designated Air Contaminant Sources, Permit to Construct, Minor Source Permit to Operate, Title V Permit to Operate:

This chapter designates that federally regulated sources are required to obtain a Permit to Construct and a Permit to Operate and comply with specific emission control and air quality standards.

*Applicability and Expected Compliance*

The facility currently has a minor source permit to operate. The facility will be considered a synthetic minor source via federally enforceable restrictions limiting $NO_X$ emissions below 100 tpy.

The permit must undergo public comment per NDAC 33.1-15-14-06.5.a.

O. NDAC 33.1-15-15 – Prevention of Significant Deterioration of Air Quality [40 CFR 52.21]:

This chapter adopts the federal provisions of the Prevention of Significant Deterioration of air quality (PSD) program (40 CFR 52.21). A facility is subject to PSD review if it is classified as a "major stationary source" under Chapter 33.1-15-15.

*Applicability and Expected Compliance*

This facility is not classified as a "major stationary source" under 40 CFR 52.21(b)(1)(i)(a) and is therefore only subject to PSD review if emissions of a regulated new source review (NSR) pollutant[2] exceed 250 tpy (excluding fugitive emissions). The PTE for this facility, as shown in Table 1, is below the 250 tpy threshold and, therefore, not subject to PSD review.

P. NDAC 33.1-15-16 – Restriction of Odorous Air Contaminants:

This chapter restricts the discharge of objectionable odorous air contaminants which measures seven odor concentration units or greater outside the property boundary. The emission of hydrogen sulfide is also addressed with strict concentration limitations. The chapter also establishes the method of measurement using certified inspectors, scentometers, and other approved instruments.

*Applicability and Expected Compliance*

Based on Department experience with sources having similar emission units, processes, and low hydrogen sulfide concentrations, the facility is expected to comply with this chapter.

Q. NDAC 33.1-15-17 – Restriction of Fugitive Emissions:

This Chapter restricts fugitive emissions from particulate matter or other visible air contaminants and gaseous emissions that would violate Chapter 2 (ambient air quality standards), Chapter 15 (PSD), Chapter 16 (odor), or Chapter 19 (visibility).

*Applicability and Expected Compliance*

The facility will be required to take reasonable precautions to prevent fugitive emissions in violation of the above referenced NDAC chapters.

R. NDAC 33.1-15-18 – Stack Heights:

This chapter restricts the use of stack heights above good engineering practices (GEP). The chapter primarily adopts federal regulations listed under 40 CFR 51.100(ii). This chapter also

[2] See 40 CFR 52.21(b)(50). Available at: https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-52/subpart-A/section-52.21#p-52.21(b)(50)

restricts the use of dispersion techniques to affect the concentration of a pollutant in the ambient air. Demonstrations of good engineering practice stack heights must be made available for review.

*Applicability and Expected Compliance*

The stacks are not being modified and compliance with this chapter's requirements is expected to be unaffected with this permit action.

S. NDAC 33.1-15-19 – Visibility Protection:

This chapter outlines regulations regarding visibility protection and applies to new major stationary sources as defined in Section 33.1-15-15-01. It contains provisions regarding visibility impact analysis, visibility models, notification requirements for permit applications, review by federal land managers, permit issuance criteria, and visibility monitoring.

*Applicability and Expected Compliance*

The facility is not a new major stationary source and, therefore, is not subject to the requirements of this chapter. Given the minor source levels of the visibility impairing air pollutants, such as $NO_X$, $SO_2$, and $PM_{2.5}$, it is expected that the facility will not adversely contribute to visibility impairment in any federal Class I areas.

T. NDAC 33.1-15-20 – Control of Emissions from Oil and Gas Well Production Facilities:

The facility is not an oil or gas well facility and is, therefore, not subject to the requirements of this chapter.

U. NDAC 33.1-15-21 – Acid Rain Program:

This chapter adopts the acid rain provisions of the Clean Air Act specified under 40 CFR Parts 72-78. The facility is not subject to the acid rain provision as it is not an electric utility.

V. NDAC 33.1-15-22 – Emissions Standards for Hazardous Air Pollutants for Source Categories [40 Code of Federal Regulations Part 63 (40 CFR Part 63)]:

This chapter adopts most of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories under 40 CFR Part 63. These standards typically apply to major sources of air pollution that are in a regulated source category. In addition to the major source requirements, some of the regulations have "area source" standards (for non-major sources). Some of the area source standards have not been adopted by the Department and compliance will be determined by the United States Environmental Protection Agency (USEPA) (i.e. 40 CFR 63, Subpart ZZZZ area source provisions have not been adopted by the Department).

*Applicability and Expected Compliance*

The facility's potential HAP emissions are less than 10 tons/year of any single HAP and are less than 25 tons/year of any combination of HAPs, so the facility is an area (minor) source of HAPs. As shown in the Table 1, total potential HAPs from the facility are approximately 0.06 tons/year.

Subpart A – General Provisions

Subpart A contains general requirements for prohibited activities and circumvention, preconstruction review and notification, standards and maintenance requirements, performance tests, monitoring, recordkeeping, reporting, and control device work practice requirements.

*Applicability and Expected Compliance*

The facility will comply with the general provisions of Subpart A through submission of timely notifications, performance testing, monitoring, recordkeeping, reporting, and following the control device work practice requirements under Subpart A.

Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Subpart ZZZZ establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emissions from stationery reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.

*Applicability and Expected Compliance*

The facility engine (EU 4) is subject to the requirements under this subpart. The North Dakota Department of Environmental Quality has not adopted the area source provisions of this subpart. The facility will comply with the provisions of Subpart ZZZZ though submission of all documentation in accordance with EPA regulations to U.S. EPA Region 8.

W. NDAC 33.1-15-23 – Fees:

This chapter requires a filing fee of $325 for permit to construct applications, plus any additional fees based on actual processing costs. The additional fees based on processing costs will be assessed upon issuance of the draft permit to construct. The annual operating permit fee is also applicable.

The applicant filing fee has been waived but may be required to pay additional fees associated with the permit processing.

X. NDAC 33.1-15-24 – Standards for Lead-Based Paint Activities:

The facility will not perform any lead-based painting and is, therefore, not subject to this chapter.

Y. NDAC 33.1-15-25 – Regional Haze Requirements:

This chapter is specific to existing stationary sources or groups of sources which have the potential to "contribute to visibility impairment" as defined in Section 33.1-15-25-01.2. Existing stationary sources or groups of sources determined to contribute to visibility impairment may be required to implement emissions reduction measures to help the Department make reasonable progress toward North Dakota's reasonable progress goals established in accordance with 40 CFR 51.308.

*Applicability and Expected Compliance*

The facility is not a new source and, based on low PTE of visibility impairment pollutants, is not expected to contribute to visibility impairment. Therefore, the facility is not subject to the requirements of this chapter.

**Summary**:

A complete review of the proposed project indicates that the facility is expected to comply with the applicable federal and state air pollution rules and regulations. The Department will make a final recommendation on the issuance of a Permit to Construct for Integrity WFS following completion of a 30-day public comment period. The public comment period will run from March 19, 2026 through April 17, 2026.

Update post comment period:
[Reserved]

**Date of Draft Analysis**: March 11, 2026
**Date of Final Analysis**: [Reserved]

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