

City of Mandan
Landfill Air Curtain Destructor
Title V Permit to Operate No. AOP-28380 v2.0
Statement of Basis
February 20, 2025

Facility Background: The City of Mandan Landfill Air Curtain Destructor is located near Mandan in Morton County, North Dakota. The facility is an existing municipal landfill that is closed and not accepting municipal waste. The predominant sources of air emissions are from the Air Curtain Incinerator (ACI). The unit combusts clean wood and yard waste.

On July 24, 2003, the Department received an application from the City of Mandan for an Air Curtain Destructor (aka an ACI). In the Air Quality Effects Analysis for Permit to Construct (PTC) No. ACP-17098 v1.0 (formerly PTC03019), the Title V applicability for the ACI was made based on the Potential to Emit (PTE) of the facility being less than the 100 tons per year threshold of the Title V rules. On July 30, 2003, ACP-17098 v1.0 was issued. On September 14, 2004, True Minor Source Permit to Operate (PTO) No. AOP-27766 v1.0 (formerly I04001) was issued to the facility and renewed on May 15, 2009, and again on September 15, 2014.

On October 3, 2003, the EPA published a document clarifying that a Title V PTO is required for ACIs (see 68 FR 57518) by 40 CFR 60, Subpart CCCC. However, the Department and City of Mandan staff inadvertently overlooked EPA's clarification on Title V PTO applicability made after the PTC was issued, and based on the PTC analysis, a True Minor Source PTO was issued and subsequently renewed until 2019. The Department determined that issuing a new PTC No. ACP-17944 v1.0 (formerly PTC19002) with an updated analysis would be the best path for documenting the error and rolling the new PTC requirements into a Title V PTO. ACP-17944 v1.0 and Title V PTO AOP-28380 v1.0 (formerly T5-I04001) were issued on May 04, 2020, and June 12, 2020, respectively.

Current Action: On December 04, 2024, the Department received a timely application dated November 25, 2024, from City of Mandan for renewal of the Landfill Air Curtain Destructor Title V PTO No. AOP-28380. The draft permit incorporates a February 18, 2025, Memo to File for a new ACI and engine unit. The new ACI unit requires the same monitoring, recordkeeping and reporting as the previous unit at the facility. All other changes and updates in the draft permit are administrative in nature.

The Department proposes to issue Title V Permit to Operate No. AOP-28380 v2.0 after the required 30-day public comment period and subsequent 45-day EPA review period of the draft permit. This statement of basis summarizes the relevant information considered during the issuance of the Title V permit. The legal basis for each permit condition is stated in the draft permit under the heading of "Applicable Requirement."

Applicable Programs/As-Needed Topics:

1. **Title V.** The facility requires a Title V Permit to Operate based on applicability of the regulation, not on the number of actual emissions (which are low). The facility operates an ACI and is required to have a Title V permit per 40 CFR 60, Subpart CCCC requirements (see below). A facility potential to emit table is provided on the last page of this document.

2. **New Source Performance Standards (NSPS).** The following NDAC 33.1-15-12-02 and 40 CFR 60 subparts apply to the facility.

Subpart A, General Provisions, applies to all source units to which another NSPS subpart applies.

Subpart CCCC, Standards of Performance for Commercial and Industrial Solid Waste Incineration Units, applies to all air curtain incinerators (EU 1).

Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (EU 2).

3. **National Emission Standards for Hazardous Air Pollutants (NESHAP).** No NDAC 33.1-15-13 and 40 CFR 61 subparts apply to the facility, with the possible exception of NDAC 33.1-15-13-02 (40 CFR 61) Subpart M (National Emission Standard for Asbestos) may apply during facility modifications involving asbestos.

4. **NESHAP/Maximum Achievable Control Technology (MACT).** The following NDAC 33.1-15-22-03 and 40 CFR 63 subparts apply to the facility, which is an area source of Hazardous Air Pollutant (HAP) emissions.

Subpart A, General Provisions, applies to all source units to which another MACT subpart applies.

Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, applies to the engines (EU 2). As an area source of HAP emissions, compliance with this subpart is achieved through compliance with Subpart IIII. North Dakota has not adopted the area source provisions of this subpart; all required reports and documentation are to be sent to EPA Region 8.

5. **Acid Rain.** NDAC 33.1-15-21 (40 CFR 72, 73, 75 and 76) does not apply to the facility since the plant is not an existing electric utility steam generating plant rated at greater than 25 MWe.

6. **Prevention of Significant Deterioration (PSD).** The facility is not a major source under 40 CFR 52 because it does not have the potential to emit more than 250 tons of a regulated air contaminant during normal operations.

7. **Best Available Control Technology (BACT).** Since the facility is not a major PSD source and does not contain changes that increase the potential emissions by a PSD-significant amount, a BACT review is not required for this permit. This facility also does not have any required control technology.
8. **Gap Filling.** Although the permit does contain gap filling for testing, monitoring or recordkeeping not otherwise required by rule, this draft renewal permit does not contain significant revisions to previously permitted gap filling. The gap filling conditions are generally identified by the applicable requirement NDAC 33.1-15-14-06.5.a(3)(a).
9. **Streamlining Decisions.** An emission limit that would have been otherwise applicable is not represented in the permit because more stringent limits apply. The NDAC 33.1-15-06-01.2 Restrictions applicable to fuel burning installations emission limit for sulfur (3.0 lb sulfur per million Btu) was streamlined because the standard ND and applicable subpart distillate oil restriction for sulfur (2 grains/100 scf) is more stringent.
10. **Compliance Assurance Monitoring (CAM).** CAM does not apply because adequate monitoring is specified in post-11/15/90 NSPS and NESHAP/MACT regulations and no controlled units have an uncontrolled potential to emit (PTE) of ≥ 100 tpy of any EPA regulated criteria or uncontrolled PTE of ≥ 10 tpy individual and ≥ 25 tpy combined HAP pollutant(s).
11. **Permit Shield.** Does not apply because the permit to operate does not contain a permit shield.
12. **New Conditions/Limits.** This draft permit incorporates a February 18, 2025, Memo to File for a new ACI and engine unit. No new limits and conditions are associated with the incorporation.
13. **40 CFR 98 -- Mandatory Greenhouse Gas Reporting.** This rule requires sources above certain emission thresholds or in certain supplier thresholds to calculate, monitor and report greenhouse gas emissions. According to the definition of "applicable requirement" in 40 CFR 70.2, neither Subpart 98, nor Clean Air Act Section 307(d)(1)(V), the CAA authority under which Subpart 98 was promulgated, are listed as applicable requirements for the purpose of Title V permitting. Although the rule is not an applicable requirement under 40 CFR 70, the source is not relieved from the requirement to comply with the rule separately from compliance with their Part 70 operating permit. It is the responsibility of each source to determine applicability to the subpart and to comply, if necessary.

Permit Changes by Section:

Note: Administrative changes were made to some sections of the permit to update to the current North Dakota (ND) format and to correct errors. In addition, the Permit to Operate number and references to Permit to Construct numbers have been updated to accommodate the Air Quality database (CERIS-ND). These changes may not be specifically addressed below.

Cover: The source name and expiration date were updated and the permit number was revised to coincide with CERIS-ND.

Table of Contents: No change.

1. **Emission Unit Identification:** The ACI (EU 1) and Engine (EU 2) was updated to the current units as listed in the February 18, 2025 Memo to File.
2. **Applicable Standards and Miscellaneous Conditions:** No change.
3. **Emission Unit Limits:** No change.
4. **Monitoring Requirements and Conditions:** No change.
5. **Recordkeeping Requirements:** No change.
6. **Reporting:** Condition Nos. 6.C and 6.E were updated to provide electronic reporting options.
7. **Facility Wide Operating Conditions:** Condition Nos. 7.B and 7.I were updated and the Noncompliance Due to an Emergency condition (7.H) was removed per EPA's Affirmative Defense Provision Rule effective 8/21/23 and to reflect the current ND standard facility wide operating conditions. All subsequent condition lettering designation was updated.
8. **General Conditions:** Condition No. 8.E was updated to reflect the current ND standard general condition.
9. **State Enforceable Only Conditions (not Federally enforceable):** No change.

Comments/Recommendations: It is recommended that the renewed Title V Permit to Operate No. AOP-28382 v2.0 be processed and considered for issuance following a 30-day public comment period and a subsequent 45-day EPA review period.

Potential to Emit:

Emission Unit Description	EU	EP	CO	NO_x	SO₂	VOCs	All PM	Total HAPs
ACI Unit	1	1	79.7	30.7	3.1	--	33.7	--
ACI Diesel-Fired Engine	2	2	2.7	2.5	0.7	--	0.02	--
Total (tons/year):			82.4	33.2	3.8	0.0	33.7	0.00

^A Abbreviations:

All PM: filterable and condensable particulate matter

SO₂: sulfur dioxide

NO_x: oxides of nitrogen

CO: carbon monoxide

VOCs: volatile organic compounds

HAPs: hazardous air pollutants as defined in Section 112(b) of the Clean Air Act