Air Quality Effects Analysis (AQEA)
for
ONEOK Rockies Midstream, LLC
Cooperstown Compressor Station

Lat/Long: 47.79, -103.73
McKenzie County, North Dakota

Associated with Permit No.:

ACP-18331 v1.0

North Dakota Department of Environmental Quality

Division of Air Quality

Date of Draft Analysis: May 28, 2026	**Dates of Public Comment Period:** May 29, 2026 to June 28, 2026
Date of Final Analysis: [Reserved]	**Update Post Comment Period:** [Reserved]
Analysis By: Corrianna Anderson Environmental Engineer Division of Air Quality	**Reviewed By:** David Stroh Permit Program Manager Division of Air Quality

1. Project Description

ONEOK Rockies Midstream, L.L.C. (ONEOK) submitted a permit to construct application to the North Dakota Department of Environmental Quality – Division of Air Quality (Department) on December 29, 2025. The application was for the installation of a new 2,500 hp electrically driven compressor (Project) at the Cooperstown Compressor Station (facility).

The emission units list is found in ACP-18331 v1.0.

ACP-18331 v1.0 Table 1-1 shows the new emission unit that will be installed during the Project.

ACP-18331 v1.0 Table 1-2 lists all the emissions units at the facility upon Project completion.

A. Permit Description:

Upon Project completion, the facility will be classified as a synthetic minor source. The facility will be adopting federally enforceable limits on VOC emissions from the condensate and produced water tanks (EUs TK-1, TK-2, and WTK-1) to avoid NSPS OOOO applicability for those tanks.

After a complete review of the proposed Project indicating that the facility is expected to comply with applicable federal and state air pollution rules and regulations, the Department will make a recommendation on PTC issuance for the Cooperstown Compressor Station following the completion of a 30-day public comment period.

B. Background:

ONEOK currently operates the Cooperstown Compressor Station as a permit exempt facility located in McKenzie County, North Dakota. The Permit to Construct will incorporate the existing compressor station and the addition of the new compressor.

2. Facility Emission Profile

For all emission units associated with the Project, Table 1 lists the potential to emit (PTE) for all criteria air pollutants and selected HAP. Table 1 abbreviations are as follows: total particulate matter (PM_{TOT}), sulfur dioxide (SO_2), oxides of nitrogen (NO_X), carbon monoxide (CO), volatile organic compounds (VOCs), and hazardous air pollutants (HAPs) as defined in Section 112(b) of the Clean Air Act.

Table 1 – Project PTE Summary. All units are in tons per year (tpy).

Emission Unit Description	Emission Unit (EU)	Emission Point (EP)	CO	NO_X	SO_2	VOCs	PM_{TOT}	Total HAPs	n-Hexane (Largest HAP)
400-bbl condensate tank	TK-1	COMBUST	--	--	--	5.99	--	0.38	0.34
400-bbl condensate tank	TK-2		--	--	--	5.99	--	0.38	0.34
400-bbl produced water tank	WTK-1		--	--	--	0.04	--	0.00	0.00
Vapor combustion device	COMBUST		2.72	0.61	0.01	5.96	--	0.54	0.49
Condensate truck loading	TL-1	TL-1	--	--	--	15.20	--	4.47	3.46
Produced water truck loading	TL-2	TL-2	--	--	--	0.15	--	0.04	0.03
Emergency vapor combustion device	FL-1	FL-1	0.29	0.14	0.00	0.19	--	<0.01	<0.01
200-bbl methanol tank	MTK-1	MTK-1	--	--	--	0.14	--	0.14	0
Fugitive emissions (NSPS OOOOb)	FUG	FUG	--	--	--	11.83	--	0.47	0.35
Miscellaneous vents and blowdowns	FUG-misc	FUG-misc	--	--	--	5.16	--	0.03	0.02
Total (without Fugitives):			**3.0**	**0.7**	**0.0**	**33.7**	**0.0**	**6.0**	**4.7**
Total (with Fugitives):			**3.0**	**0.7**	**0.0**	**50.7**	**0.0**	**6.4**	**5.0**

Table 2 details Title V applicability. The facility is considered an area source of HAP because the emissions are below the threshold as shown below.

Table 2 – Title V Applicability. All units are in tpy. [A]

	NO_X	**CO**	**SO_2**	**VOC**	**PM_{TOT}**	**Total HAP**	**n-Hexane (Largest HAP)**
Project/Facility PTE [A]	0.7	3.0	0.0	33.7	0.0	6.0	4.7
PSD Major Source Thresholds [B]	250	250	250	250	250	N/A	N/A
PSD Major Source?	**No**	**No**	**No**	**No**	**No**	N/A	N/A
Title V Threshold	100	100	100	100	100	25	10
Title V Major Source?	**No**	**No**	**No**	**No**	**No**	**No**	**No**

[A] Fugitive emissions are not included for the purposes of determining PSD major source applicability because the source is not a listed source category per 40 CFR 52.21(b)(1)(iii).

[B] The PSD Major Source Threshold is 250 tpy per 40 CFR 52.21(b)(1)(i)(A) and (B).

3. Rules Analysis

This section details the potential applicability and expected compliance status of each rule under the North Dakota Administrative Code (NDAC) 33.1-15—Air Pollution Control Rules.

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

This chapter covers the following topics: 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:

This chapter requires that the facility complies with the North Dakota and Federal Ambient Air Quality Standards (AAQS).

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" [1], therefore, preconstruction modeling for this facility was not required. Based on the facility PTE and proposed stack heights, 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 emission sources at new facilities to comply with an opacity limit of 20% except for one six-minute period per hour when 40% opacity is permissible. For all flare emission sources, the limits are 20% and 60% respectively. Fugitive emissions must not exceed 40% for more than one six-minute period per hour. The chapter establishes exceptions to opacity requirements and that compliance shall be determined using EPA Reference Method 9 or 22.

[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

The emergency vapor combustion device[2] (EU FL-1) is subject to the 20% opacity limit except that a maximum of 60% opacity is permissible for no more than one six-minute period per hour. In lieu of this chapter's flare standards, the Department is requiring that the vapor combustion device (EU COMBUST) comply with Condition 2.C of ACP-18331 v1.0.

D. NDAC 33.1-15-04 – Open Burning:

No person may cause, conduct, or permit open burning of refuse, trade waste, or other combustible material—as part of a salvage operation or otherwise—except as provided under NDAC 33.1-15-04-02 or 33.1-15-10-02.

Applicability and Expected Compliance

No open burning operations are permitted unless approved in advance by the Department.

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

This chapter establishes particulate matter emission limits, restrictions, and measurement methods for industrial processes, fuel burning equipment used for indirect heating (where emissions do not interact with process materials), waste incinerators, and crematoriums.

Applicability and Expected Compliance

The facility will not emit any particulate matter which results from industrial process equipment, nor will the facility operate any fuel burning equipment used for indirect heating; therefore, the requirements of this chapter are not applicable.

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

This chapter applies to any installation in which SO_2 emissions are substantially due to the sulfur content of burned fuel used primarily to produce heat. This chapter establishes requirements for measurement methods, continuous emission monitoring, reporting, and recordkeeping. This chapter is not applicable to installations which are subject to an SO_2 emission limit under NDAC 33.1-15-12 (NSPS, see Section 4.L) or which burn pipeline quality natural gas.

Applicability and Expected Compliance

The facility will not emit any sulfur compounds which result from industrial process equipment, nor will the facility operate any fuel burning equipment used primarily for heating; therefore, the requirements of this chapter are not applicable.

[2] i.e., flare, combustor, or other functionally equivalent combustion control device.

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

This chapter establishes requirements for the construction of organic compound facilities related to closed-vent systems, control devices, and seals. This chapter requires organic compound vapors to be controlled by a continuously burning pilot flare or other equally effective control device. This chapter also requires hydrogen sulfide (H_2S) to be controlled effectively.

Applicability and Expected Compliance

The stationary natural gas condensate storage tanks (EUs TK-1 & TK-2) and produced water tank (WTK-1) each have a capacity greater than 1,000 gallons and are thus subject to this chapter. The facility will comply with this chapter by equipping and operating the tanks with a vapor combustion device (EU COMBUST) capable of 98% destruction efficiency. The vapor combustion device is used to control VOC emissions to less than 6 tpy for each tank. See Condition 2.B and Condition 2.C of ACP-18331 v1.0.

The methanol storage tank (EU MTK-1) has a capacity of 200-bbl, or 8,400 gallons. The methanol storage tank is required to operate with a submerged fill pipe because it is a stationary volatile organic compound storage tank with a capacity of more than 1,000 gallons.

The condensate truck loading (EU TL-1) and the produced water truck loading (EU TL-2) do not have the potential to handle over 20,000 gallons per day[3] of volatile organic liquids and is not subject to NDAC 33.1-15-07-01.4. To be considered adequately controlled for the purposes of demonstrating compliance with Department policy, condensate truck loadouts at a facility must be controlled in accordance with the site-specific written determination ONEOK obtained from the department.[4] The Department approved an alternative company-wide condensate truck loading emission factor for VOCs at ONEOK facilities.[5]

The facility vapor combustion devices (EUs COMBUST and FL-1) will comply with this chapter by equipping and operating an automatic igniter or a continuous burning pilot. Additionally, the process vapor combustion device (EU COMBUST) will control organic compounds generated from the condensate tanks (EUs TK-1 and TK-2) and the produced water tank (EU WTK-1). The emergency vapor combustion device (EU FL-1) will control blowdowns from the electric compressors (EUs COMP-1 through COMP-3) and emergency facility upsets.

---

[3] Condensate loadout is restricted to 250,000 barrels per year on a 12-month rolling average, equivalent to ~29,000 gallons per day.

[4] See February 3, 2020, Compliance Requirements for Condensate Truck Loadout Emissions. Available at: https://www.deq.nd.gov/publications/AQ/policy/PC/Cond_Loadout_Memo.pdf

[5] See February 25, 2020, ORM Condensate VOC Emission Factor Approval. Available at: https://ceris.deq.nd.gov/ext/nsite/default/map/results/detail/211232/455

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 facility is subject to this chapter and is expected to comply with all applicable requirements should vehicles or other internal combustion engines be used.

I. NDAC 33.1-15-09 – [repealed]

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

This chapter provides restrictions on pesticide use, disposal, and the proper handling of 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 CFR 60):

This chapter adopts most of the New Source Performance Standards (NSPS) and appendices under 40 CFR 60 as of July 1, 2019, to which the facility is subject:

1) NSPS A – General Provisions

This subpart is applicable to any facility in which an NSPS applies and contains general requirements for control devices and work practices, notification, performance tests, monitoring, reporting and recordkeeping.

Applicability and Expected Compliance

The facility will comply with all requirements of this subpart. In addition, any physical or operational changes to the facility after it is built will be evaluated with respect to this subpart and others.

2) NSPS JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

This subpart applies to stationary spark ignition internal combustion engines that commence construction after July 1, 2007. Engines are categorized based on usage, size, and fuel type. This chapter establishes emission standards and requirements for compliance, testing, monitoring, reporting, and recordkeeping.

Applicability and Expected Compliance

There are no stationary spark ignition internal combustion engines at this facility, as the compressors (EUs COMP-1 through COMP-3) are driven by electric motors. Therefore, the facility is not subject to the requirements of this subpart.

3) NSPS OOOO – Standards of Performance for Crude Oil and Natural Gas Facilities for Which Construction, Modification, or Reconstruction Commenced After August 23, 2011, and on or Before September 18, 2015

This subpart establishes emission standards and compliance schedules for the control of VOC and SO_2 emissions from affected facilities in the crude oil and natural gas production source category that commence construction, modification, or reconstruction after August 23, 2011, and on or before September 18, 2015. This subpart includes provisions for various affected facilities including gas wells, compressors, pneumatic controllers, storage vessels, natural gas processing plants, and sweetening units.

Applicability and Expected Compliance

The two 1,500 hp electric driven reciprocating compressors (EUs COMP-1 and COMP-2) were purchased in May 2011. For equipment such as compressors, the purchase date is considered to be the date construction was commenced.[6] As a result, the existing compressors are not considered affected units under NSPS OOOO and are not expected to comply with the applicable standards for reciprocating compressors under NSPS OOOO.

The condensate tanks (EUs TK-1 and TK-2) and the produced water tank (EU WTK-1) were constructed after August 23, 2011 and before September 18, 2015. However, the VOC emissions from the tanks are restricted to federally enforceable limits of less than 6 tpy per tank, and thus these emission units are not affected facilities under this subpart.

[6] See NSPS OOOO Preamble Section IX.D.3. Available at: https://www.federalregister.gov/d/2012-16806/p-500

4) NSPS OOOOa – Standards of Performance for Crude Oil and Natural Gas Facilities for Which Construction, Modification or Reconstruction Commenced After September 18, 2015, and On or Before December 6, 2022

This subpart establishes emission standards and compliance schedules for the control of VOC, SO_2, and greenhouse gases (GHG, methane for the purposes of this subpart) emissions from affected facilities in the crude oil and natural gas production source category that commence construction, modification, or reconstruction after September 18, 2015, and on or before December 6, 2022. This subpart includes provisions for various affected facilities including wells, compressors, pneumatic controllers, storage vessels, natural gas processing plants, sweetening units, pneumatic pumps, and fugitive emissions.

Applicability and Expected Compliance

The 2,500 hp electric driven reciprocating compressor (EU COMP-3) was constructed in October 2019. As a result, it is considered an affected unit under NSPS OOOOa and is expected to comply with the applicable standards for reciprocating compressors under NSPS OOOOa.

5) NSPS OOOOb – Standards of Performance for Crude Oil and Natural Gas Facilities for Which Construction, Modification or Reconstruction Commenced After December 6, 2022

This subpart establishes emission standards and compliance schedules for the control of VOC, SO_2, and greenhouse gases (GHG, methane for the purposes of this subpart) emissions from affected facilities in the crude oil and natural gas production source category that commence construction, modification, or reconstruction after December 6, 2022. This subpart includes provisions for various affected facilities including wells, compressors, process controllers, storage vessels, natural gas processing plants, sweetening units, pumps, and fugitive emissions.

Applicability and Expected Compliance

The 2,500 hp electric driven reciprocating compressor (EU COMP-3) will be installed at the facility after December 6, 2022. As a result of the installation of this additional compressor, the compressor station will meet the NSPS OOOOb definition of a modified compressor station and will be considered a fugitive emissions affected facility subject to the leak detection and repair (LDAR) requirements of this subpart.

M. NDAC 33.1-15-13 – Emission Standards for Hazardous Air Pollutants (40 CFR 61):

This chapter adopts most of the National Emission Standards for Hazardous Air Pollutants (NESHAP) and appendices under 40 CFR 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 air contaminant sources that are required to obtain a Permit to Construct (PTC) and a Permit to Operate (PTO) and the requirements for permits of various types, including public comment.

Applicability and Expected Compliance

The facility submitted an application and has met all requirements necessary to obtain a PTC. The facility will be considered a synthetic minor source via federally enforceable restrictions limiting VOC emissions from the condensate tanks (EUs TK-1 through TK-3) to less than 6 tpy per tank. The permit must undergo public comment per NDAC 33.1-15-14-6. Once the facility completes construction and meets the PTC requirements, a facility inspection will be performed by the Department. Pending a satisfactory facility inspection and application, the facility will be issued a PTO by the Department.

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 PSD program (40 CFR 52.21) as of January 1, 2019. A facility is subject to PSD review if it is classified as a "major stationary source" or undergoes a "major modification" as defined by 40 CFR 52.21(b)(1-2). Major stationary sources are either: (1) facilities which fall under one of the specified source categories and the PTE exceeds 100 tpy of any NSR pollutant or, (2) facilities that do not fall under a specified category and the PTE exceeds 250 tpy of any NSR pollutant.

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[7] 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.

[7] 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)

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

This chapter restricts the discharge of objectionable odorous air contaminants which measure seven odor concentration units or greater outside the property boundary. This chapter addresses emissions of H_2S. This 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 H_2S concentrations, the facility is expected to comply with this chapter without additional controls. Any odor-related complaints received by the Department will be investigated and resolved in accordance with this chapter.

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

This chapter restricts PM and gaseous fugitive emissions that would violate Chapters 2 (AAQS), 3 (visible emissions), 15 (PSD), 16 (odor), or 19 (visibility), providing suggested abatement measures.

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) and dispersion techniques to affect pollutant concentrations in the ambient air as defined by 40 CFR 51.100(hh-kk). Stack heights in exceedance of GEP are permissible if they undergo a demonstration study which is made available for review by the Department and the public.

Applicability and Expected Compliance

Since facility PTE is below the lower threshold outlined in Department modeling guidance,[1] there are no stack height requirements beyond those required by this chapter and GEP.

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

This chapter requires new major stationary sources or major modifications[8] to demonstrate the emissions will not cause or contribute to adverse impact on visibility in federal Class I areas. This chapter establishes requirements for visibility impact analysis, visibility models, notification, review by federal land managers, public participation, and visibility monitoring.

[8] Chapter 19 applies to a "new major stationary source" or "major modification" as defined in NDAC 33.1-15-15-01.

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 within the three units of the Theodore Roosevelt National Park (nearest federal Class I areas) or at the Lostwood National Wildlife Refuge.

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

This chapter regulates emissions from oil and gas well production facilities, requiring operators to register new wells and report gas composition changes. It establishes PSD applicability for major sources and mandates compliance with air quality standards for pollutants like sulfur dioxide and hydrogen sulfide.

Applicability and Expected Compliance

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 under 40 CFR 72, 75, & 76 and appendices as of January 1, 2012.

Applicability and Expected Compliance

The facility is not subject to the acid rain provision since it is not an electric utility.

V. NDAC 33.1-15-22 – Emissions Standards for Hazardous Air Pollutants for Source Categories [40 CFR 63 a.k.a. MACT (Maximum Achievable Control Technology)]:

This chapter adopts most of the MACT standards and appendices under 40 CFR 63 as of July 1, 2019.

1) MACT A – General Provisions

This subpart is applicable to any facility to which a MACT standard applies and contains general requirements for control devices and work practices, notification, performance tests, monitoring, reporting and recordkeeping.

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 Table 1, total potential HAPs from the facility are approximately 6.4 tons/year. The greatest single potential HAP is n-hexane at approximately 5.0 tons/year.

2) MACT ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

There are no stationary reciprocating internal combustion engines at this facility, as the compressors (EUs COMP-1 through COMP-3) are driven by electric engines. Therefore, the facility is not subject to the requirements of this subpart.

W. NDAC 33.1-15-23 – Fees:

This chapter establishes a filing fee of $325 for PTC applications, plus any additional fees based on actual processing costs assessed upon issuance of the draft PTC. This chapter also requires an annual PTO fee for Title V major and minor sources and well registrations.

Applicability and Expected Compliance

The applicant has paid the $325 filing fee and may be required to pay the additional fees associated with the permit processing.

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

This chapter establishes standards and requirements for the accreditation, notification, and fees of procedures, training programs, certification, and licensing for individuals and firms engaged in lead-based paint activities.

Applicability and Expected Compliance

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

Y. NDAC 33.1-15-25 – Regional Haze Requirements (40 CFR 51.308):

This chapter establishes requirements for stationary sources (which were in existence between 1962 and 1977) which have the potential to "contribute to visibility impairment" in Class I Federal areas, as defined by 40 CFR 51.301, to implement best available retrofit technology. In addition, existing stationary sources or groups of sources are required to implement emission reduction measures to make reasonable progress toward North Dakota's reasonable progress goals established in accordance with 40 CFR 51.308 at the discretion of the Department.

Applicability and Expected Compliance

The facility is an existing source. Based on low PTE of visibility impairment pollutants, the facility is not expected to contribute to visibility impairment. Therefore, the facility is not subject to the requirements of this chapter.