AIR POLLUTION CONTROL
PERMIT TO CONSTRUCT

Permittee: **Name**: Arrow Midstream Holdings, LLC. **Address**: 1300 Main Street Houston, TX 77002	**Permit Number**: ACP-17857 v 1.2 **Permit Description**: Synthetic Minor
Source Name & Location: Station 8 Compressor Station SE¼, SE¼, Sec. 5, Tl49N, R95W McKenzie County	**Source Type**: Natural Gas Compressor Station
Date of Application: September 9, 2022 & September 23, 2024 PTO renewal package	

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. Facility Emissions Units:

This Permit to Construct does not affect the operation of the facility emissions units, does not allow for the construction of any new emissions units at the facility, and does not allow for the modification or reconstruction of any existing emissions units. ACP-17857 v1.1 Condition I Table 1B and Table 2B are rescinded in entirety and are replaced with the following:

Table 1-1: Facility Emissions Units

Emission Unit Description	Emission Unit (EU)	Emission Point (EP)	Air Pollution Control Equipment
Triethylene glycol (TEG) dehydration unit #1 rated at 120 MMscf, still vent (MACT HH)	Dehy1-still	FL2	BTEX flare (FL2)
TEG dehydration unit #1, flash tank	Dehy1-flash	N/A	FL1
TEG reboiler#1 fired on natural gas and rated at 1.25 MMBtu/hr	H1	H1	None
TEG dehydrator #1 BTEX flare (MACT HH)	FL2	FL2	N/A
TEG dehydration unit #2 rated at 50 MMscfd, still vent (MACT HH)	Dehy2-still	H2	Routed to H2 burner flame zone
TEG dehydration unit #2, flash tank	Dehy2-flash	N/A	FL1
TEG Reboiler #2 fired on natural gas and rated at 1.5 MMBtu/hr (MACT HH)	H2	H2	None
Four 500 bbl condensate storage tanks (NSPS Kb)	TK-CS1 through TK-CS4	N/A	Submerged fill pipe (SFP) & VRU
Two 500 bbl produced water tank	TK-WT1, TK-WT2	N/A	VRU
Condensate truck loading	L1	N/A [A]	VRU
Produced water truck loading	L2	L2	None
High-pressure flare (NSPS OOOOa)	FL1[B]	FL1	N/A
Fugitive emissions (NSPS OOOOa)	FUG	FUG	Leak detection and repair (LDAR)
Five electric driven compressors (NSPS OOOOa)	EC-1 through EC-5 [C, D]	N/A	FL1 [E]

[A] Truck vapor return lines are connected to the VRU.

[B] A closed vent system collects vapors from EC-1 through EC-5 during emergency and planned blowdowns, with vapors routed to FL1 for combustion.

[C] Insignificant or fugitive emission sources (no specific emission limit).

[D] Existing emission unit(s) included with this permit action. There are no physical modifications or regulatory applicability changes to the emission unit(s) with this permit action.

[E] A closed vent system collects vapors from the reciprocating compressor rod packing (EC-1 though EC-5), with vapors routed to FL1 for control.

2. Applicable Standards, Restrictions and Miscellaneous Conditions:

This Permit to Construct does not affect any existing applicable standards.

A. Fuel Restrictions:

ACP-17857 v1.1 Condition II.C is rescinded and has been updated, as follows, to reflect H2 being used as a control device for Dehy2-still vent vapors.

1) The heaters (EU H1 and H2) are restricted to combusting gas containing no more than 2 grains of sulfur per 100 standard cubic feet (~32 ppmv). *Note: EU H2 also serves as the control device for vapors from EU Dehy2-still.*

B. New Source Performance Standards (NSPS):

ACP-17857 v1.1 Condition II.D is rescinded and has been updated, as follows, to include reference to equipment subject to the various new sources 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) 40 CFR 60, Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984, and On or Before October 4, 2023 (EUs TK-CS1, TK-CS2, TK-CS3, & TK-CS4).

2) 40 CFR 60, Subpart 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 (EUs FL1, FUG & EC-1 through EC-5).

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

ACP-17857 v1.1 Condition II.E is rescinded and has been updated, as follows, to include reference to equipment subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP).

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) 40 CFR 63, Subpart HH – National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities (EUs Dehy1-still, Dehy2-still, & FL2). The North Dakota Department of Environmental Quality has not adopted the area source provisions of this subpart. Please send all documentation to EPA at the following address:

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

a) EU H2 serves as the control device for EU Dehy2-still. The vent stream from EU Dehy2-still shall be introduced into the flame zone of EU H2 to meet the requirements of §63.771(f)(1)(i).

D. Closed Vent System (CVS) for Vapor Recovery, Design and Operational Requirements.

The CVS and vapor recovery unit (VRU) operates as a shared control device for EUs TK-CS1 through TK-CS4, TK-WT1, TK-WT2, and L1.

1) The CVS and VRU shall be designed to collect all VOC vapors from EUs TK-CS1 through TK-CS4, TK-WT1, TK-WT2, and L1 meeting the specifications of §60.112b(a)(3).

2) The permittee shall operate the CVS and VRU and monitor the parameters of the CVS and VRU in accordance with the operating plan required under §60.113b(c)(1)(i). Since this is a shared control device, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the CVS from the EUs included in this Condition.

3) The permittee shall have the VRU available for operation and/or in operation 98% of the time when potentially recoverable gas is generated from the EUs listed in this Condition.

a) Period to be used for computing percentage of time. The period to be used shall be an 8760-hour rolling sum, rolled hourly, using only hours when potentially recoverable gas was generated during all or part of the hour. When no potentially recoverable gas was generated during an entire hour, then that hour shall not be used in computing the 8760-hour rolling sum.

3. Emission Unit Limits:

Emission limits from the operation of the source unit(s) identified in Table 3-1 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.

ACP-17857 v1.1 Condition II.A Table 3 and Table 4 are rescinded in entirety and are replaced with the following.

Table 3-1: Permit Emissions Limits

Emission Unit Description	EU	EP	Pollutant / Parameter	Emission Limits
TEG reboiler #1	H1	H1	Opacity	20% [A]
TEG reboiler #2	H2	H2	Opacity/ Design & operation	20% [A]/ Condition 2.C.1.a
High-pressure flare	FL1	FL1	Opacity/ Design & operation	0% [B]/ Condition 2.B.2
TEG dehydrator #1 BTEX flare	FL2	FL2	Opacity/ Design & operation	0% [C]/ Condition 2.C.1
Condensate storage tanks	TK-CS1 through TK-CS4	N/A	Design & operation	Condition 2.B.1/ Condition 2.D
Produced water tank	TK-WT1, TK-WT2	N/A	Design & operation	Condition 2.D
Condensate truck loading	L1	N/A	Design & operation	Condition 2.D
Fugitive emissions	FUG	FUG	LDAR	Condition 2.B.2
Electric driven compressors	EC-1 through EC-5	N/A	Design & operation	Condition 2.B.2

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

[B] Except for periods not to exceed a total of one minute during any fifteen minute period. See 60.5412a(d).

[C] Except for periods not to exceed a total of five minutes during any two consecutive hours. See 63.11(b)

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. Organic Compound Emissions:

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

D. 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.

E. Fugitive Emissions:

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

6. General Conditions (Procedural):

A. 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.

B. 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.

C. 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.

D. 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.

E. 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.

F. Nuisance or Danger:

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

G. Transfer of Permit to Construct:

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

H. 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.

I. 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.

J. 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.