Natural Gas Gathering Operations Plan

PURSUANT TO: NMAC 19.15.28

NGGS Facility ID: fAPP2404426632

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Version 1-0

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1.0 Overview

1.1 Purpose

The purpose of this Operations Plan is to document Company programs and the use of industry best practices that minimize the waste of natural gas throughout the Titan Gas Gathering System (TGGS) and associated facilities operated by Northwind Midstream, LLC ("Northwind").

Northwind will take all reasonable actions to prevent and minimize leaks and releases of natural gas as highlighted within this Operations Plan in order to (1) maintain the health and safety of our employees, contractors, and the communities in which we operate; (2) protect the environment; and (3) prioritize the minimization of Waste.

1.2 Scope

This Operations Plan applies to any current or future natural gas gathering system and/or facility operated by Northwind and is intended to meet the requirements of New Mexico Administrative Code (NMAC) Title 19, Chapter 15, Part 28 – Natural Gas Gathering Systems.

2.0 System Overview

2.1 Gathering System Description

The TGGS is to be constructed, owned, and operated throughout Lea County, New Mexico by Northwind. The system is comprised of natural gas gathering pipelines and compressor stations that will transport natural gas to the Titan Treating Facility. The natural gas treated at the Titan Facility is shipped via pipeline to various downstream customers.

2.1.1 *Pipeline Sizing and Pressure*

The gathering system will range in pipe size from six (6) to twenty (20) inches in diameter, operating at pressures between 25 psig to 1270 psig.

2.1.2 *Pipeline Regulation*

Northwind operates approximately 170 miles of Class I, gas gathering pipelines that transverse across Southeast New Mexico. Segments of the TGGS subject to the requirements of 49 CFR 192 *Transportation of Natural and other Gas by Pipeline* and/or the New Mexico Public Regulation Commission are designed and operated accordingly.

2.1.3 *Gas Composition*

Natural gas of varying compositions and concentrations of hydrogen sulfide (H_2S) and carbon dioxide (CO_2) will be gathered into the system from nearby producing fields. The gas gathered by the system may be classified "sweet" or "sour" depending upon upstream extraction zones and production treatment methods.

2.1.4 *Aboveground and Buried Facilities*

TGGS pipelines will primarily extend across rural and unpopulated areas of Lea County. Except for surface facilities, valves, and other appurtenances, the system is comprised entirely of buried pipelines and all sections of the pipeline are installed at a minimum depth of 36 inches below grade. As required, pipelines will include additional wall thickness and specialty coatings to resist abrasion.

2.1.5 *Installation Dates*

All facilities were constructed or modified after May 25, 2021. Therefore, all Northwind facilities have been, and additional facilities will be, designed to minimize waste (as defined in 19.15.2 NMAC; "Waste").

2.1.6 *Construction Materials*

The TGGS is primarily comprised of carbon steel with portions of interconnected polyethylene gas gathering lines.

3.0 Routine Operations and Maintenance

3.1 Marking and Identification

As stated within Section 2.1.4, the majority of pipelines are located below ground. Labeled line markers are placed and maintained as close to practical over each buried pipeline to identify the location and direction of the pipeline to reduce the possibility of damage or interference.

Northwind participates in the New Mexico 811 One Call program and registers all gas gathering pipelines through the state's program.

3.2 Audio, Visual, Olfactory Weekly Inspections

3.2.1 *Pipeline*

Pipeline inspections are performed annually via Audio, Visual, Olfactory (AVO) Inspection, advanced leak detection and repair technology, aerial visual detection, or other valid methods to detect leaks.

3.2.2 *Facilities*

Operators are required to conduct a weekly AVO inspection of the compressors, dehydration units, and treatment facilities associated with the natural gas gathering system to confirm those components are operating properly and confirm there are no leaks or releases, except as allowed in Subsection B of 19.15.28.8 NMAC.

- During the AVO inspection, the Operator shall inspect all components including flare stacks, thief hatches, closed vent systems, pumps, compressors, pressure relief devices, valves, lines, piping, flanges, and other connectors to identify defects, leaks and releases by:
  - Comprehensive external visual inspection
  - Listening for pressure and liquid leaks
  - Smelling for unusual odors

3.3 Leak Detection and Repair

In addition to completing AVO inspections required by the Waste Rule, several facilities operated by Northwind are subject to Leak Detection and Repair (LDAR) requirements under the Federal Regulations. Where required, Northwind implements LDAR programs and complies with routine leak inspections and repair schedules as stipulated in the applicable regulations (New Source Performance Standards Subpart OOOOa, Subpart OOOOb, and 20.2.50 NMAC).

3.4 Best Management Practices

Northwind has included the following examples of implemented practices to ensure the safety and reliability of all operations:

- Northwind installs cathodic protection on most carbon steel pipeline systems and performs annual cathodic protections surveys to ensure adequate protection of the system.
- Maintenance pigs are used to move natural gas condensate and water along the pipeline to minimize the risk of corrosion.
- Corrosion inhibitors and/or biocide treatments are used as necessary to mitigate the risk of internal corrosion.
- Northwind field personnel respond to One Calls throughout the system as a part of the continuous surveillance program.
- Pressure tests and dewatering are done in accordance with Northwind Construction Standards.

Additional best management practices may be implemented throughout the natural gas gathering system as needed or as technologies and processes progress.

4.0 Reduction of Releases

Northwind will take all reasonable actions to prevent and minimize leaks and releases of natural gas from the TGGS in accordance with the OCD's Waste Rule. An Operations Plan is required to be submitted

to NMOCD and maintained by Northwind. The Operations Plan discusses Northwind's practices and procedures to reduce leaks and releases.

4.1 Venting and Flaring of Natural Gas

Venting or flaring of natural gas from a natural gas gathering system that is deemed wasteful by 19.15.2 NMAC is prohibited. Northwind will maximize the gathering of natural gas by minimizing the waste of natural gas through venting and flaring. Where feasible, natural gas will be flared rather than vented, except when flaring is not technically feasible or would pose a risk to safe operations or personal safety. Scenarios included in Subsection B of 19.15.28.8 NMAC where venting and flaring are authorized are as follows:

- During an emergency or malfunction
- During the following activities unless prohibited by state, federal law, rule or regulation for the emission of VOCs or hydrocarbons:
  - Repair and maintenance, including blowdowns and depressurizing equipment to perform repair or maintenance
  - Normal operation of a gas activated pneumatic controller pumps, dehydration units, amine treatment units, compressors, compressor engines, turbines, valves, flanges, other connectors, storage tanks and other low-pressure production vessels
  - Gauging or sampling a storage tank or low-pressure vessels
  - Loading out liquids from a storage tank to a transport vehicle
  - Blowdown to repair a gathering pipeline
  - Pigging a pipeline, purging a gathering pipeline, or commissioning of pipelines, equipment or facilities only for as long as necessary to purge introduced impurities from the pipeline or equipment

Specific requirements included within the Waste Rule regarding venting and flaring from natural gas gathering systems during scheduled and unscheduled maintenance are as follows:

- During a scheduled maintenance, replacement, or repair of a new or existing natural gas gathering system. The Operator shall not vent natural gas during blowdown and shall route natural gas to a portable flare stack that complies with Subsection E of 19.15.27.8 NMAC.
  - If it is not technically feasible to flare, or if it is determined to be unsafe to flare, gas may be vented. Additional options reducing gas venting or flaring will be assessed as technologies become available.
- During unscheduled maintenance, replacement, or repair of a new or existing natural gas gathering system, to the extent that it is technically feasible and safe, the Operator shall not vent natural gas during blowdown and shall route the natural has to a portable flare stack.

4.2 Measurement and Reporting of Gas Vented or Flared

Gas that is vented or flared by Northwind will be estimated or measured.

4.2.1 *Measurement Devices*

Northwind measures or estimates the volume of natural gas that it vents, flares, or beneficially uses. The following work practices apply from the Waste Rule:

- If practical, flare meters are installed to measure the volume of natural gas flared from the natural gas gathering system.
  - Per the Waste Rule, measurement equipment shall adhere to industry standards such as API Ch 14.10 Measurement of Flow to Flares.
  - Metering equipment will not be designed or equipped with a manifold that allows diversion of natural gas around the metering element except for the sole purpose of inspecting and servicing the measuring equipment.

- If metering is not practical due to circumstances such as low flow rates or low-pressure venting and flaring the Operator shall estimate the volume

4.2.2 *Unexpected Venting or Flaring*

Northwind will notify the NMOCD of venting or flaring that:

- Exceeds 50 MCF in volume AND
- Results from one of the following:
  - an emergency OR
  - a malfunction OR
  - lasts eight hours or longer within any 24-hour period from a single event

The notification will be filed utilizing NMOCD Form C-129. A C-141 form will be utilized instead of the C-129 form for any minor or major release that includes liquid during venting or flaring (See 19.15.29.7 NMAC).

For venting or flaring that equals or exceeds 50 MCF but is less than 500 MCF from a single event, Northwind will notify the NMOCD in writing by filing a Form C-129 no later than fifteen (15) days following discovery or commencement of venting or flaring.

For venting or flaring that equals or exceeds 500 MCF or otherwise qualifies as a major release as defined in 19.15.29.7 NMAC from a single event, will result in a verbal or e-mail notification to NMOCD as soon as possible and no later than twenty-four (24) hours following discovery or commencement of venting or flaring. A Form C-129 must be filed that verifies, updates or corrects the initial verbal or e-mail notification.

A final Form C- 129 form is required no later than fifteen (15) days following the termination of venting or flaring.

Northwind will provide and certify the accuracy of the following information within the Form C-129:

- Northwind's name
- Name and type of facility
- Equipment involved
- Compositional analysis of vented or flared natural gas
- Date(s) and time(s) that venting or flaring was discovered or commenced and terminated
- Measured or estimated volume of vented or flared natural gas
- Cause and nature of venting or flaring
- Steps taken to limit the duration and magnitude of venting or flaring and the corrective actions taken to eliminate the cause and recurrence of venting or flaring

4.3 Reporting to Affected Upstream Operators

Under the Waste Rule, the Operator of natural gas gathering systems is required to provide written notification to each upstream Operator whose natural gas is being gathered by the system no less than fourteen (14) days prior to date of scheduled maintenance, replacement or repair of a natural gas gathering system in which volume impacts are anticipated and the gathering of natural gas is not feasible. Required information for each notification includes the date and expected duration that the natural gas gathering system will not gather natural gas.

In the event of an emergency, malfunction, or the need for unscheduled maintenance of a natural gas gathering system, the Operator is required to provide verbal notification to each upstream Operator in which volume impacts are anticipated and the gathering of natural gas is not feasible as soon as possible but no more than twelve (12) hours after the discovery of an applicable event. Required information for each notification include the date and expected duration that the system will not gather natural gas. The Operator shall provide written confirmation of the verbal notification, including the date, time, person and telephone number to whom the verbal notification was given no later than twenty-four (24) hours after discovery.

4.4 Routine Reporting of Vented or Flared Natural Gas

For each natural gas gathering system at which venting or flaring occurs the Operator shall report the volume of vented natural gas and the volume of flared natural gas for each month in each category listed below:

- The categories are as follows:
  - Emergencies, non-scheduled maintenance, or malfunctions
  - Routine maintenance including blowdown and depressurization
  - Beneficial use, including pilot and purge gas, fired equipment and engines
  - Gathering pipeline pigging, blowdowns and purging
  - Storage tanks
  - Venting as a result of normal operations of pneumatic controller and pumps
  - Improperly closed or maintained thief hatches and other waste as defined in Subparagraph (1) of Paragraph (b) of Subsection W of 19.15.2.7 NMAC

Appendix A Revision History

Version	Date	MOC #	Author	Summary of Change
1-0	3/11/2024	N/A	J.Yamartino J. Southard D.Barton	Initial issue

Appendix B Acronyms & Definitions

Acronyms

ALARM	Advanced Leak and Repair Monitoring
AVO	Audio, Visual, and Olfactory
GIS	Geographic Information System
GPS	Global Positioning System.
LDAR	Leak Detection and Repair
NMOCD	New Mexico Oil Conservation Division
NMPRC	New Mexico Public Regulation Commission
VOC	Volatile Organic Compound

Definitions

Advanced Leak and Repair Monitoring	Technology for detecting Natural Gas leaks or releases that is not required by applicable state or federal law, rule, or regulation and which the NMOCD has approved as eligible to earn a credit against the reported volume of lost Natural Gas pursuant to Paragraph (3) of Subsection B of 19.15.28.10 NMAC.
Custody Transfer Point	The transfer of Natural Gas from upstream separation, processing, treatment, or in-field gathering to a pipeline or any other form of transportation occurring at sales metering equipment.
Emergency	A temporary, infrequent, and unavoidable event in which the loss of Natural Gas is uncontrollable or necessary to avoid a risk of an immediate and substantial adverse impact on safety, public health, or the environment, but does not include an event arising from or related to: • Operator's failure to install appropriate equipment of sufficient capacity to accommodate the anticipated or actual rate and pressure of the Natural Gas Gathering System. • Operator's failure to limit the gathering of Natural Gas when the volume of Natural Gas exceeds the capacity of the Natural Gas Gathering System • Scheduled maintenance • Unscheduled maintenance or a Malfunction that results in venting or flaring of natural gas by an upstream Operator for which Operator fails to comply with Paragraph (2) of Subsection D of 19.15.28.8 NMAC • Operator's negligence • Recurring equipment failure; four (4) or more times within a single reporting area within the preceding thirty (30) days pursuant to Subsection A of 19.15.28.10 NMAC • Four (4) or more emergencies within a single reporting area pursuant to Subsection A of 19.15.28.10 NMAC experienced by the Operator within the preceding thirty (30) days, unless the NMOCD determines the Operator could not have reasonably anticipated the current event and it was beyond the Operator's control.
Flare / Flaring	Controlled combustion of Natural Gas in a device designed for that purpose.
Flare Stack	A device equipped with a burner used to Flare Natural Gas.

Gathering Pipeline	A pipeline that gathers Natural Gas within a Natural Gas Gathering System.
Malfunction	A sudden, unavoidable failure or breakdown of equipment beyond the reasonable control the Operator that substantially disrupts operations but does not include a failure or breakdown that is caused entirely or in part by poor maintenance, careless operation, or other preventable equipment failure or breakdown.
Natural Gas	A gaseous mixture of hydrocarbon compounds, primarily composed of methane, and includes both casinghead gas and gas as those terms are defined in 19.15.2 NMAC.
Natural Gas Gathering System	Gathering pipelines and associated facilities that compress, dehydrate, or treat Natural Gas after the Custody Transfer Point and ending at the connection point with a Natural Gas processing plant or transmission or distribution system.
New Gathering Pipeline	A gathering pipeline placed into service after May 25, 2021.
Vent / Venting	The release of non-combusted Natural Gas to the atmosphere.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Operator: Northwind Midstream Partners LLC 811 Louisiana St Houston, TX 77002	OGRID: 331501
	Action Number: 322308
	Action Type: [NGGS] NGGS Operations Plan (NGGS-OP)

QUESTIONS

Verification	
Does the operator own the selected facility	Yes
Is the selected facility a natural gas gathering system	Yes

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ACKNOWLEDGMENTS

☑	I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Gathering System Operations Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.