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March 26, 2018

Hand Delivery

Mr. Darrell Nitschke
Executive Director
North Dakota Public Service Commission
600 E. Boulevard, Dept. 408
Bismarck, ND 58505-0480



In re: ONEOK Rockies Midstream, L.L.C.
Demicks Lake Gas Processing Plant
McKenzie County
Case No. PU-14-764
Our File No. 072530-000009

Dear Mr. Nitschke:

Enclosed for filing are the original and ten copies of the Combined Notice of Site Plan and Facility Modifications Pursuant to Certification Relating to Order Provision No. 30 and Application for Waiver of Procedures and Time Schedules in the captioned case.

Please feel free to contact the undersigned should you have any questions. Thank you.

Sincerely,

Wade C. Mann

WCM/lh
enc.

cc: Michael Dailey (via email)
John Schuh (via email)

5. Certification Relating to Order Provision No. 30 further provides that Commission approval of Project modifications may be granted after notice and opportunity for hearing. Section 49-22.1-05 provides that an applicant may make an application to the Commission for waiver of procedures and/or time schedules. Because the Project will continue to meet the criteria under which the Project was originally permitted, ONEOK respectfully requests that the Commission waive, pursuant to N.D.C.C. § 49-22.1-05, notice and opportunity for hearing. In support of this request, ONEOK hereby incorporates by reference the information contained within its Application filed under Docket No. 1 in the above-referenced matter, as updated by this Combined Notice and Waiver Request and attached Exhibits.

6. Originally, ONEOK proposed to store processed natural gas in on-site storage tanks prior to being sold to a natural gas liquid (“NGL”) pipeline. Once wellhead gas is delivered to the plant and subsequently processed, ONEOK now proposes to transfer the NGL product directly to a NGL pipeline in-lieu of on-site storage.

Cost effectiveness is always a factor in a project’s evaluation, and NGL storage tanks are a significant cost additive to a project. The proposed NGL pipeline tie-in is expected to increase reliability and takeaway capacity while reducing Project costs. The last facility that ONEOK built, the Bear Creek Gas Plant, was the first to remove NGL storage tanks from the scope of the project, and this project has been operating successfully for over a year.

7. The original Project design contained the option for ONEOK to add an amine gas treating system to allow for the processing of sour gas in order to make the natural gas suitable for pipeline transport. The revised Project design now includes the addition of an amine gas treating system.

8. ONEOK also proposes to add thermal oxidizers to the Project for air pollution control.

9. The proposed modifications will not affect the Project’s capacity, which will remain 400 MMscfd.

10. All construction activities will occur within the geographic boundary of the previously approved 160-acre site. Therefore, the modifications will result in no additional impacts to avoidance or exclusion areas.

11. Due to a change in contractors that ONEOK engaged to construct the Project, the site plan of the Project will be modified. Attached as “Exhibit A,” and incorporated herein, is a revised plot plan.

12. ONEOK has updated Section 1 of the Project Application (Docket No. 1), which contains a description of the Project, to reflect ONEOK’s proposed modifications. Attached as “Exhibit B,” and incorporated herein, is Revised Section 1.

13. ONEOK originally estimated the Project’s construction costs to total approximately \$624 million. ONEOK now estimates that the total cost of construction will be approximately \$475 million. The decrease in estimated price of construction is due to changes in contractors and their

constructions strategies, and the Project's operational flexibility including, the removal of on-site storage tanks.

13. ONEOK has submitted a Title V Major Source Permit application to the North Dakota Department of Health ("NDDOH"). ONEOK will obtain all necessary permits from the NDDOH prior to engaging in construction activity for which the permit may be required.

14. ONEOK will be submitting materials to obtain all of the necessary county permits in order to begin construction within the next two months. Pursuant to Order Provision No. 3, ONEOK will obtain a conditional use permit from McKenzie County prior to engaging in construction activity for which the permit is required.

15. ONEOK intends to start construction upon receipt of necessary authorizations and anticipates initiating construction on Train 1 by May 1, 2018.

16. Gas production from Bakken Shale and Three Forks formation wells has exceeded existing processing capacity available in the region, and construction of additional processing capacity is required to meet the demand of area producers. In order to meet processing capacity demands as soon as possible, ONEOK respectfully requests that the Commission approve the Project modifications by May 1, 2018.

17. ONEOK will continue to comply with the Order issued in this case designating the site, and will continue to comply with all applicable federal, state, and local laws and rules.



Wesley J. Christensen
Wesley J. Christensen
Senior Vice President - Operations

STATE OF OKLAHOMA)
) ss.
COUNTY OF TULSA)

On this 20th day of March, 2018, before me personally appeared Wesley J. Christensen, known to me to be the Senior Vice President – Operations, of the limited liability company that is described in and that executed the within instrument, and acknowledged to me that such limited liability company executed the same.

2-14-2022
Expiration of Commission

Marguerite J. Landrum
Notary Public

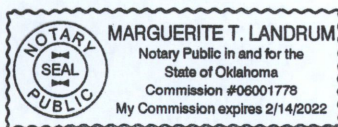


Exhibit B

SECTION 1: DESCRIPTION

1.1 TYPE

ONEOK's proposed Demicks Lake Plant would be located approximately 13.5 miles northeast of Watford City, North Dakota. As proposed, the Plant would be constructed on a plot of approximately 160 acres located in the NE $\frac{1}{4}$ of Section 20, Township 151 North, Range 96 West in McKenzie County, as depicted in the map included in Appendix B (Site).

The Plant will consist of two cryogenic turboexpander processing units (each a Train); each Train will have a design capacity of 200 million standard cubic feet per day (MMscfd) for a total Plant capacity of 400 MMscfd. The Plant will process well-head natural gas gathered from local crude oil production wells. Amine treatment will allow for the processing of sour gas. ONEOK's gathering system will deliver well-head gas to the Plant for processing, and once processed, the NGL product will be transferred directly to an NGL pipeline. Residue gas, largely methane and ethane, will be transferred to the Northern Border Pipeline for transit on that system.

Construction of the Plant will include the installation of underground piping, above ground piping, and above ground gas processing facilities. The major processing systems will be located within the battery limits of the Plant. Starting from the inlet gas and following the process, these systems include the following:

- Inlet gas slug catchers;
- Inlet gas condensate pumping, filtration, and stabilization;
- Amine Gas Treating
- Mole sieve dehydration;
- NGL extraction (including refrigeration);
- High pressure residue gas compression;
- NGL pipeline pumps;
- Flare system;
- Drain system;
- Plant control systems;
- Utility systems (electrical, instrument air, and heat medium).

A simplified engineering flow chart depicting the Plant's process and an overview plot plan drawing showing the layout of the proposed processing equipment are included in Appendix A

Exhibit B

1.2 PRODUCT

The Plant will produce an NGL mix stream containing products such as propane, butane, and natural gasoline, as well as pipeline grade natural gas, a mixture of methane, ethane and carbon dioxide.

1.3 SIZE AND DESIGN

1.3.1 GROSS DESIGN CAPACITY

The Plant is comprised of two process Trains, each designed with a nameplate capacity of 200 MMscfd for a total Plant capacity of 400MMscfd. Appendix A includes a Design Data Report, which discusses the nameplate capacity in more detail.

1.3.2 NET DESIGN CAPACITY

The net design capacity of the proposed Plant using a feed stream benchmark is 400 MMscfd less 6.8 MMscfd for utility natural gas.

1.3.3 ESTIMATED THERMAL EFFICIENCY OF THE ENERGY CONVERSION PROCESS AND THE ASSUMPTIONS UPON WHICH THE ESTIMATE IS BASED

This is not applicable to the process.

1.4 PROVIDE ONE COPY OF THE DESIGN DATA REPORTS SEPARATE FROM THE APPLICATION

See Appendix A for complete Design Data Report.

1.5 TIME SCHEDULE

1.5.1 CERTIFICATE OF SITE COMPATIBILITY

ONEOK seeks a Certificate of Site Compatibility on or before May 1, 2018.

1.5.2 LAND ACQUISITION

ONEOK has purchased an approximately 160-acre parcel from a private party for this Project. The purchase agreement for this transaction is dated August 13, 2014.

1.5.3 CONSTRUCTION START DATE

ONEOK will begin construction of Train 1 upon receipt of necessary authorizations. ONEOK anticipates that construction of Train 1 will be initiated on or after May 1, 2018. Construction of Train 2 will commence following sufficient volume commitments and authorization by ONEOK management.

1.5.4 CONSTRUCTION COMPLETION DATE

ONEOK anticipates that Train 1 commissioning activities will begin in the third quarter of 2019, and will be fully in service by the fourth quarter of 2019. Commissioning of Train 2 is anticipated to occur approximately fifteen months

Exhibit B

following the commencement of construction on site and would be fully in service shortly thereafter. Site work including restoration may continue for several months following the completion of Train 2.

1.5.5 TEST OPERATIONS

ONEOK anticipates that Train 1 testing will be completed before the end of the fourth quarter of 2019; and Train 2 testing shall be completed approximately three to six months following the commencement of construction.

1.6 COMMERCIAL PRODUCTION DATA FOR TRAIN 1

<u>Product</u>	<u>Production</u>
Inlet Gas Rate	200 MMscfd
Mole Percent Ethane+	36%
Residue Gas Production	157 MMscfd
NGL Production	4,948,000 lbs/d
100 Percent Capacity Factor	Not applicable to this process

1.7 COMMERCIAL PRODUCTION DATA FOR TRAIN 2

<u>Product</u>	<u>Production</u>
Inlet Gas Rate	200 MMscfd
Mole Percent Ethane+	36%
Residue Gas Production	157 MMscfd
NGL Production	4,948,000 lbs/d
100 Percent Capacity Factor	Not applicable to this process

1.8 ESTIMATED COST OF CONSTRUCTION

ONEOK estimates that the total cost of construction for Train 1 will be approximately \$250 million and that the total cost for construction of Train 2 will be approximately \$225 million.

1.9 ANY EXPANSIONS OR ADDITIONS

In the future, ONEOK may evaluate the region's need for gas processing to satisfy the goals of gas capture to reduce flaring, and as such, ONEOK will continue to evaluate the need for facility expansion. No further expansions or additions are planned at this time.

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1.9.1 NORTH DAKOTA DEPARTMENT OF HEALTH

The North Dakota Department of Health (NDDoH) administers regulatory programs that monitor and enforce compliance with state and Federal laws related to air and water quality. ONEOK is currently engaged, at various stages in the permitting process, with the NDDoH with respect to air emissions and water discharges.

1.9.1.1 NDDOH AIR QUALITY

The NDDoH administers the state's air quality protection programs. ONEOK is applying for the required permits for construction and operation of the new emission sources. Equipment such as electric-driven compressors, heat medium fluid heaters, storage vessels, flares, thermal oxidizers, and other ancillary equipment could be regulated emission sources and will be included in the permit application required by NDDoH for the construction and operation of air emission sources.

1. ONEOK's design plans include incorporating control measures to minimize total emissions for the Plant and ascertain compliance with all state and Federal rules. The estimated total emissions for the Plant have not been finalized. ONEOK has submitted a Title V Major Source Permit application to the NDDoH. ONEOK will obtain all necessary permits from the NDDOH prior to engaging in construction activity for which the permit may be required.

1.9.1.2 NDDOH POLLUTION DISCHARGE ELIMINATION SYSTEM

The North Dakota Pollution Discharge Elimination System (NDPDES) is the regulatory program that regulates water discharges. ONEOK will procure the following NDPDES permits from the NDDoH for regulated discharges associated with the construction and operation of the Plant.

Exhibit B

Appendix A

Block Flow

Plot Plan

PROJECT DESIGN DATA

1.1 PLANT CAPACITY

Each train of the Demicks Lake Plant is designed with a nameplate capacity of 200 MMSCFD to accommodate the forecasted gas composition shown below. The trains must have enough incremental capacity to accommodate intra-day flow swings of approximately - 50 MMSCFD

1.1 PLANT CAPACITY

Raw associated gas from oil production wells is designed to enter the plant fence at a pressure between 550 and 1100 psig at a temperature between 40°F and 90°F. The inlet slug catcher is rated to handle a maximum of 200 MMSCFD of inlet gas flow at 1,100 psig (MAWP). Raw inlet gas is limited to 50 ppm Hydrogen Sulfide with an expected average below 20 ppm. For the purposes of design, refer to the table below:

Components	Mol%	GPM
Nitrogen	2.4752	
Carbon Dioxide	0.8123	
Hydrogen Sulfide	20 ppm	
Methane	60.2235	
Ethane	20.3345	5.422
Propane	10.5107	2.887
Iso-butane	1.1117	0.363
Butane	3.2514	1.023
Iso-pentane	0.4156	0.152
N-Pentane	0.564	0.204
Hexane	0.1806	0.123
Heptane	0.09033	Included in Hexane GPM
Octane Plus	0.03011	
Totals	100.000	Ethane + 10.89 GPM Propane + 5.069 GPM

Exhibit B

1.3 BATTERY LIMIT CONDITIONS

Inlet gas conditions at the plant inlet

	Design	Maximum	Minimum
Gas Volume (MMscfd)	200	250	50
Gas Pressure (psig)	750	1100	550
Temperature (°F)	80	90	40
Hydrogen Sulfide (ppm)	20.0	50.0	0.0
Water Content (lbs water/MMscf)	Saturated	Saturated	0.0

1.4. PRODUCT SPECIFICATIONS

1.4.1 NGL Product Specifications

Y-Grade Product	Design	Maximum	Minimum
Pipeline MAOP (psig)	1,440	1,440	N/A
Carbon dioxide to ethane liquid volume ratio	0.0035	0.025	N/A
Methane to ethane liquid volume ratio	0.01	0.015	0.005
Methane vol% of total hydrocarbons	N/A	0.5	N/A
Vapor pressure at 100 °F (psig)	550.0	600.0	N/A
Copper Strip test at 100 °F	N/A	N/A	No. 1
Minimum product temperature (°F)	60.0	N/A	40.0
Maximum product temperature (°F)			
- Product with >= 65 mol% ethane	80.0	90.0	N/A
- Product with < 65 mol% ethane	100.0	110.0	N/A

Natural Gasoline (Condensate)	Design	Maximum	Minimum
Reid Vapor Pressure at 100°F	13	14	12
Liquid vol% of Propane	0.0	0.0	None
Liquid vol% of Butanes	3.0	6.0	1.5
Liquid vol% of Pentanes	N/A	N/A	40
Liquid vol% of Hexanes and heavier	N/A	50	N/A

1.4.2 Residue Gas Pipeline Specifications

Residue Gas	Design	Maximum
Pressure (psig)	1,440	1,600
Temperature (°F)	120	120
Water content (lbs/MMscf)	Nil	5.0
Hydrogen sulfide (ppm)	0.0	4.0
Gross higher heating value (BTU/ft ³)	N/A	1,200
Carbon dioxide (mol%)	0.0	2.0
Cricodentherm Temperature (°F)	N/A	20