

April 17, 2024

Mr. Kerry Morgan
DOT/PHMSA Specialist
Grayson Mill Operating, LLC
840 W Sam Houston Pkwy N, Suite 300
Houston, TX 77024

Subject: Sovereign Land Permit No. S-1749

Dear Mr. Morgan:

Thank you for reaching out to the Department of Water Resources (Department) concerning Sovereign Land Permit No. S-1749 (S-1749) signed by the State Engineer on January 27, 2012, authorizing Brigham Oil & Gas, LP, Williston, North Dakota to install an 8-inch welded steel crude oil pipeline beneath the bed of the Missouri River in Williams and McKenzie Counties via horizontal directional drilling (HDD) (Project).

You stated that Grayson Mill Operating, LLC, Houston, Texas (Grayson Mill) has recently acquired the crude oil pipeline and is inquiring about the need and process to amend S-1749 to reflect the change in ownership and authorize the relocation of an emergency shut-off valve located on private land.

The Project as originally designed and authorized involved installing an 8-inch welded steel carrier pipe (Carrier Pipe) within a 12-inch welded steel casing pipe (Casing Pipe). The thought and intent of the design being that a "pipe within a pipe" would lessen the risk of crude oil loss into the environment should the Carrier Pipe fail. However, soon after the Project was authorized, the Department was made aware that the "pipe within a pipe" methodology of pipeline construction was no longer a recommended practice. Independent and pipeline industry research had concluded that the "pipe within a pipe" method of installation could actually increase the risk of pipeline failure due primarily to damage that can occur to the Carrier Pipe's cathodic protection while installing the Carrier Pipe in the Casing Pipe.

In keeping with those industry recommendations, Brigham installed the Carrier Pipe without pulling it through a Casing Pipe as originally designed and authorized. While S-1749 was not amended to reflect this design and installation modification, it was documented by the Department in the Project file.

You provided that Brigham put the pipeline into service without incident and eventually sold the pipeline and associated assets to Statoil USA, now doing business as Equinor Pipeline, LLC, Stamford, Connecticut (Equinor). Equinor took the pipeline out of service in 2017 to accommodate relocating the east emergency shut-off valve to a location closer to the river in order to minimize the length of

pipeline between the north and south ESVs. Equinor did not relocate the ESV and the pipeline remains out of service.

Grayson Mill acquired the pipeline and other assets from Equinor in 2021 with the intent of putting the crude oil pipeline back into service. In preparation for that, Grayson Mill is seeking authorization to relocate the east emergency shut-off valve, amend S-1749 to reflect their ownership of the Project, as well as obtain a siting permit from the North Dakota Public Service Commission.

As we discussed in an April 2, 2024, phone conversation, the State of North Dakota takes title to the bed and banks of the Missouri River up to the ordinary high water mark (OHWM) as sovereign lands of the state. Any projects located at least partially within the OHWM of a navigable waterbody requires authorization from the Department prior to construction. While the location of emergency shut-off valves and other upland safety features are imperative to the safe and reliable operation and maintenance of that portion of the pipeline crossing the Missouri River, the Department does not directly authorize those Project features that occur entirely above the OHWM of the river. As such, relocation of the emergency shut-off valves does not require authorization from the Department.

Also, a change in Project ownership does not require a new or amended sovereign land permit. The sovereign land permit is fully transferable to the new owner provided the new owner adheres to the project design and permit conditions as originally authorized or amended by the Department.

The Project file for S-1749 will be updated to reflect the location of the east emergency shut-off valve and that the permit holder is now:

Grayson Mill Operating, LLC
840 W Sam Houston Parkway N, Suite 300
Houston, TX 77024

Thank you again for reaching out to the Department and for your assistance in this effort. If you have any questions or if we can be of further assistance, please reach out to me by email at gheiser@nd.gov or by phone at (701) 328-4935.

Sincerely,



Gerald R. Heiser
Sovereign Land Manager

Sovereign Land Permit No. S-1749

Permittee: **Brigham Oil & Gas, L.P.**
2120 26th St. W., Suite 102
Williston, ND 58801

Location: **S ½ of Section 6, Township 152 North, Range 102 West, McKenzie and Williams Counties**

Project Description:

The Permittee is hereby authorized to construct an 8-inch crude oil pipeline beneath the Missouri River via directional bore in McKenzie and Williams Counties. The bore will begin and end on private land adjacent to the river.

Specifically, the bore will be approximately 3,045 feet in length. The beginning and end points of the bore will be approximately 120 feet from the west channel bank and approximately 1,500 feet from the east channel bank of the Missouri River. A 12-inch steel casing pipe will be placed 70 to 90 feet beneath the bed of the Missouri River via directional bore. The casing pipe will be a 12-inch by 0.500-inch wall steel pipe with full depth weld and 100 percent X-ray. An 8-inch carrier pipe will be placed inside the casing to transport crude oil to sales points. The carrier pipe will be an 8-inch by 0.280-inch wall pipe with 100 percent X-ray.

Casing spacers will be placed every 8 feet within the casing pipe. Casing spacers are stainless steel bands with G-2 glass reinforced polyester runners (Model PSI S8G-2). Both ends of the casing pipe will be sealed. Both end seals will be a series of link seals, bentonite, and end seals encased in flowable fill. Annular space will be filled with Hydro-Safe, No-Ox Liquid Elevator Casing Filler E-800. A 4-inch vent pipe with level sensors tied by a remote transmitter to a SCADA system will be constructed on the east end of the casing pipe off of U. S. Army Corps of Engineers property. A containment area will be constructed at this location. Automatic pressure sensitive shut-off valves tied to the SCADA system will be installed at each end of the bore.

This authorization is subject to the conditions listed below and to the attached North Dakota Department of Health "Construction and Environmental Disturbance Requirements." Any other use of sovereign land is prohibited. Any proposed additional use must comply with the application and permitting process and all other requirements of state law.

General Conditions

1. Construction of the pipeline under the Missouri River via directional bore is a privileged use of a public resource and does not constitute a property right. The public use and enjoyment of the Missouri River is of high priority.
2. The pipeline will be installed between 70 and 100 feet below the lowest point of the riverbed as determined by a current channel cross section.
3. The bore will begin and end approximately 120 feet from the west and approximately 1,500 feet from the east channel banks of the Missouri River.
4. Each end of the casing pipe will be sealed.
5. Pressure sensitive shut-off valves will be installed at each end of the bore.
6. All construction, maintenance, and reclamation activities shall be carried out in a manner reasonably designed to prevent degradation of the Missouri River.
7. No work is to be conducted within the Missouri River from April 15 to June 1 to protect fisheries resources.
8. The Permittee will implement erosion control measures to minimize the opportunity for sediments to enter the Missouri River.
9. All construction debris or excess material shall be disposed of in a non-wetland, non-timbered upland site or in an approved landfill.
10. All disturbed sites are to be revegetated with species native to the project area.
11. This Authorization is site specific for the project as proposed and outlined in the application and supporting documents. Any changes or deviation from the site or design will need authorization from the State Engineer.
12. At the discretion of the State Engineer, in accordance with the exercise of any of the State Engineer's duties, the project is subject to modification or removal at the expense of the permittee.
13. The State Engineer or the State Engineer's representative shall have access to inspect the authorized project during construction and associated activities and for the life of the project to ensure that it is being or has been accomplished and maintained in accordance with the terms and conditions of this Authorization.
14. By granting this Authorization, no liability for damages of any kind, including those caused by improper construction, operation and maintenance, design or failure in design, materials,

or workmanship, is assumed by or transferred to the State of North Dakota, the State Engineer, the State Water Commission or any of their respective employees, agents, or assigns. The Permittee will indemnify and hold harmless the State of North Dakota, its officials, employees, agents, boards, commissions, and assigns for any and all liability for work performed and action taken under this Authorization.



Todd Sande
State Engineer

Date: 11/27/12