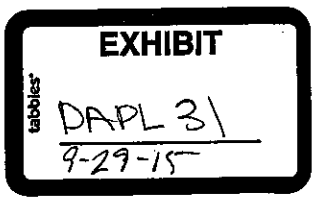
Chuck Frey

Direct Testimony



BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION OF DAKOTA ACCESS, LLC FOR AN ENERGY FACILITY PERMIT TO CONSTRUCT THE DAKOTA ACCESS PIPELINE PROJECT	))))))	HP14-002

DIRECT TESTIMONY OF

CHUCK FREY

ON BEHALF OF

DAKOTA ACCESS, LLC

DAKOTA ACCESS EXHIBIT 4

July 6, 2015

Q. Please state your name and business address for the record.

A. My name is Chuck Frey. I am employed by Energy Transfer Partners and my business address is 1300 Main St, Houston, TX. 77002.

Q. What is your position with Dakota Access, LLC ("Dakota Access")?

A. I am the Vice President of Engineering.

Q. Please briefly describe your educational experience.

A. I have a Bachelor of Science Degree in Civil Engineering from Texas Tech University.

Q. Please describe your duties with Dakota Access.

A. I am responsible for the engineering and engineering related work activities for Dakota Access.

Q. Which sections of the application are you responsible for?

A. I am responsible for sections: 10. Demand for the facility; 11. General Site Description; 37. Standards of Construction; 38. Line Description; 38.1. Design Capacity; 38.3. Technical Specifications; 38.4.Compressor Stations; and, 38.5. Storage Facilities.

Q. Describe the demand for the facility.

A. Dakota Access has secured binding long-term transportation and deficiency contracts from multiple committed shippers to support development of the Dakota Access Pipeline with a crude oil transportation capacity of approximately 450,000 bpd, with ninety percent (90%) of the transportation capacity subscribed by those committed shippers and the remaining ten percent (10%) of the transportation capacity reserved for walk-up shippers. Dakota Access Pipeline's crude oil transportation capacity can be expanded to approximately 570,000 bpd if transportation demand increases. Transportation service on the Dakota Access Pipeline shall be provided by Dakota Access pursuant to the Interstate Commerce Act and in accordance with the rules and

regulations of the Federal Energy Regulatory Commission for common carrier crude oil pipeline transportation service thereunder. Subscriptions from committed shippers were obtained by Dakota Access in connection with an initial open season that ran from March 12 to May 23, 2014, and an expansion open season that commenced on September 23, 2014, and concluded in mid-December of 2014.

Q. Provide a general description of where the facility is located in South Dakota.

A. The Project originates in North Dakota and enters South Dakota in Campbell County approximately 17 miles east of the Missouri River. A summary of the Project facilities in South Dakota is outlined in Table 11.0-1 below. The Project exits South Dakota as it crosses the Big Sioux River approximately 14 miles south of Sioux Falls, and continues in a southeast direction through Iowa. Approximately 274.65 miles of the 1,169-mile-long pipeline and one pump station will be constructed within South Dakota. Additionally, Dakota Access will construct aboveground appurtenances including 40 mainline valves (MLVs) and three pig launcher and receiver (L/R) facilities.

Pipeline Crossing Length (miles) / Pump Station Impact Area (acres)	**County**
29.17	Campbell
6.64	McPherson
36.17	Edmunds
27.88	Faulk
36.06	*Spink
30.35	Beadle

21.97	Kingsbury
14.26	Miner
18.61	Lake
1.72	McCook
26.16	Minnehaha
2.15	Turner
23.51	Lincoln
36.06	Spink

Q. Describe all above ground facility present along the pipeline route.

A. There are three types of above ground facilities:

Pump Station: The pump station is an above ground facility. The pump station is planned to be located in southwestern Spink County, approximately seven miles southeast Redfield, South Dakota. The pump station will be fenced and contain three pumps driven by electric motors, an electrical and controls building, electrical substation, a surge tank with a secondary containment dike, a communications tower, and parking area for station personnel. Design and construction of the pump station will meet the requirements of the National Electric Code and American Petroleum Institute (API) 500 and USDOT regulations at 49 CFR Part 195. Dakota Access will purchase electricity for the pump station from the incumbent provider. The pump station will be fully designed for remote, unmanned operation via the Pipeline Control Center or local operation.

The pipe entering and exiting the pump station will be located underground; however, some of the piping within the pump station yard (after entering and prior to exiting the pump station

facilities) will be aboveground.

Main Line Valves (MLV's): Dakota Access plans to install 40 MLVs along the route in South Dakota. Approximate locations for these valves are shown in the route mapping presented in Exhibits A2, A3, and A4. The MLVs will be constructed within the 50-foot permanently maintained ROW, and be approximately 75-feet-long and 50-feet-wide. These valve sites will be located within an easement obtained from landowners. The spacing intervals between the MLVs along the ROW are based upon the location of the high consequence areas (HCAs), DOT requirements and permit requirements. All valves will have remote actuators so that in the unlikely event of an emergency, these valves can be quickly activated from the Pipeline Control Center to isolate sections of the pipeline to minimize environmental impacts. The valves will also be designed to allow for local operation.

Launcher/Receivers: All pipeline segments will allow the passage of internal inspection devices, which are capable of detecting internal and external anomalies in the pipe such as corrosion, dents, and gouges. Internal inspection of pipelines has been largely responsible for reducing pipeline incident frequencies over the past decade. Pig L/Rs are designed to launch and receive these internal inspection devices.

All pig L/Rs and MLVs will be above-ground fabricated settings which will have a design factor of 0.5 and a pipe wall thickness of 0.625 inch (X-70). The L/Rs will be located along the Project as identified in Exhibits A2, A3, and A4.

Q. What is the design and construction standard by which Dakota Access will be built?

A. The Project is being designed according to USDOT regulations at 49 CFR Part 195, Transportation of Hazardous Liquids by Pipeline; the final design and construction will meet or exceed all applicable standards.

The entire pipeline will have a design factor of 0.72. The pipeline will have a nominal 30-inch diameter. Pipe material grade will be X-70 and comply with API 5L-PSL2. Pipe wall thickness will be 0.429 inch (X-70) or 0.625 inch (X-70). To protect against corrosion, Dakota Access will apply an external FBE coating to the pipeline and an impressed cathodic protection system will be used. All material will be manufactured, constructed, and operated in accordance with applicable regulations.

Q. Have you applied for any waivers from PHMSA?

A. No.

Q. As proposed, does the project meet or exceed all federal and state standards?

A. Yes.

Q. What is the design capacity and design pressure?

A. A process flow diagram for the South Dakota segment of the Project can be found within Exhibit B. The design of the pipeline system is based on a maximum operating pressure of the entire pipeline of 1,440 psig to allow a consistent maximum discharge pressure from the Project pump station, optimized for efficiency at various flow rates up to system capacity. Some sections will be exposed to lower pressures due to the combined pump station discharge pressure, friction pressure loss and hydrostatic head gain or loss for pipe segments located at elevations that differ from pump station elevation.

Q. Does the Project include compressor stations?

A. No.

Q. Does the Project include storage facilities?

A. No.

Q. In addition, are you sponsoring any Exhibits to the Application?

A. Yes, Exhibit B and Exhibit C to Application.

Q. Does this conclude your testimony?

A. Yes.

Dated this ____ day of July, 2015

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Chuck Frey