BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF NORTH DAKOTA

IN RE: NORTH DAKOTA PIPELINE COMPANY LLC	)	Case No. PU-13-848
Pursuant to North Dakota Century Code Chapter 49-22, Consolidated Application for a Certificate of Corridor Compatibility and Route Permit for the Sandpiper Pipeline Project in Mountrail, Ward, McHenry, Pierce, Towner, Ramsey, Nelson, Grand Forks and Williams Counties, North Dakota, hereinafter called the Consolidated Application	)	

Pre-Filed Testimony

of

Greg Schelin

February 14, 2014

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Q. Please state your name and business address.

A. My name is Greg Schelin. I am employed by Enbridge Employee Services, Inc. at 1409 Hammond Avenue, Superior, Wisconsin 54880.

Q. What is your position with Enbridge?

A. I am the Manager of Facility Execution, Sandpiper Execution, Major Projects.

Q. Please briefly describe your background and duties with Enbridge.

A. I have an Associate Degree, Electrical from Lake Superior College, Duluth, MN. I have over 27 years of experience as an Enbridge employee. During that time, although not in the State of North Dakota, I acted as the Operations representative for sites in the Superior Area and was involved in ensuring project completion for Southern Access Stages 1 and 2, Southern Lights, Alberta Clipper, LSR, and Line 55. In 2012 and 2013, I worked on facilities associated with the Main Line Expansions, the Line 78 project, in addition to the Sandpiper Pipeline Project. My current duties as Manager of Facility Execution include supervision of the Project Management Staff to insure construction of facilities that promote operational safety and reliability and to oversee the work of the Engineering Service Provider for detailed engineering of Sandpiper facilities.

Q. Describe your familiarity with the project.

A. I have been involved in the planning and development phases for the Sandpiper Pipeline Project for the past 12 months and serve as Manager of Facilities within the Project Execution Team. In that capacity, I am thoroughly familiar with the engineering design and the construction techniques that will be used to install the new and upgrade the existing pipeline facilities proposed in the Consolidated Application.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to support the design and construction of the facilities with the Sandpiper Project as presented in the Consolidated Application as filed by North Dakota Pipeline Company LLC, which I shall refer to as NDPL in my written testimony. I will also

sponsor certain exhibits in support of the Consolidated Application which are related to the design and construction activities of these facilities.

Q. Please identify which sections of the application you are sponsoring for the record?

A. I am offering testimony relation to sections A.3 of the Consolidated Application.

Q. Please describe the new and upgraded facilities that will be installed as part of the Sandpiper Pipeline Project.

A. The Sandpiper Pipeline Project will involve upgrading facilities at three existing NDPL Stations and a new station that will be constructed near Lakota, North Dakota in Nelson County.

The upgrades to the existing Beaver Lodge Station and Terminal in Williams County will include mainline, booster, and transfer pumps, leak detection meters, pump station building, two new electrical service buildings, firewater system pump building, and interconnecting station piping and values. In addition, two new 150,000 barrel tanks will be constructed.

The upgrades to the existing Stanley Station and Terminal in Mountrail County will include injection pumps, suction manifold, leak detection meters, electrical service building, tank fire foam building, firewater protection system and interconnecting pipe and valves. In addition, one 80,000 barrel tank and one 55,000 barrel tank will be constructed.

The upgrades to the existing Berthold Station and Terminal in Ward County will include common suction/fill manifold, relief manifold, leak detection meters, mainline and booster pumps, two electrical service buildings, pig receiver and launcher, and interconnecting pipe and valves. In addition, one 300,000 barrel tank will be constructed.

The new Lakota Station in Nelson County will include mainline pumps, pig launcher and receiver, electrical switchyard, and interconnecting station pipe and valves.

Q. What new land will be acquired for the station upgrades and the new station at Lakota?

A. 40 acres of land has been purchased adjacent to the existing Beaver Lodge Station and Terminal site. The new 40-acre tract of land is located directly south of County Road 8 in Section 5, Township 155 North, Range 95 West.

21 acres of land has been purchased directly east of the existing Stanley Station. The new 21-acre tract of land is located in Outlot 1 of the East ½ of the Southwest ¼ of Section 27, Township 156 North, Range 91 West.

NDPL has an option to purchase approximately 46 acres of land for the new greenfield Lakota Station. The new 46-acre tract of land is located in the East ½ of the Northwest ¼ of Section 4, Township 152 North, Range 60 West. The land purchase is scheduled to be completed in March, 2014.

Q. How was the site for the Lakota Station chosen?

A. Infrastructure Planning uses a hydraulics model for the pipeline to identify the milepost location that is optimal for pump stations with the goal of using existing infrastructure wherever possible. When the modelling determines that a new pumping station is needed, a site is chosen that minimizes impacts to landowners and the environment, has available power supply, and has good site access.

Q. How does NDPL's commitment to limit environmental impacts and conserve energy affect station design?

A. Energy conservation is a major objective for NDPL as energy/power costs represent the largest single recurring expense in pipeline operation. Managing energy costs, including conservation of energy usage, is a high priority in NDPL's operations. NDPL's energy conservation goal is to minimize power/energy unit costs through the implementation of internal programs directed at continuous improvement of energy utilization efficiency.

For new pump installations, NDPL purchases high efficiency pumps and motors at a premium initial cost in an effort to minimize long range energy requirements. Specifically, a

high polish is used on the pump impeller, and motors are custom designed for high efficiency.

The installation of variable frequency induction motor drives, which I will refer to in my testimony as VFD, is a program that has been in place for approximately 18 years. VFDs allow the pipeline operator to vary the pump rotation speed thereby controlling the pressure produced to match the desired flow rate. This eliminates the need to dissipate or waste pressure (energy) with pressure control valves. Ideally, under constant operating conditions, the pump would deliver constant pressures eliminating the need for pressure dissipation. Therefore, operating conditions play a key role in designing the pumping stations for optimum efficiency. VFDs will be specified to control the operating speed of the new mainline pumps at NDPL's Beaver Lodge, Berthold, and Lakota Station sites and additional injection pumps at Stanley Station.

Q. How much land will be converted to industrial use as a result of the station work?

A. Collectively, approximately 101 acres of land acquired at the Beaver Lodge, Stanley and the new Lakota Station locations would be converted from agricultural, open space, and/or herbaceous rangeland, and/or to industrial.

Q. What are NDPL's plans for noise surveys?

A. NDPL plans to perform pre- and post-construction noise surveys at its existing Beaver Lodge, Stanley, and Berthold Pump Stations, as well as at the new Lakota Pump Station.

Q. Please describe the visual impacts of the station upgrades and the new Lakota Station.

A. Temporary visual effects would exist during active construction at which time heavy equipment, open trenches, and spoil piles would change the colors and textures of the landscape. The duration of visual impacts would be short term as the reestablishment of vegetation on grasslands and agricultural land following construction would occur relatively quickly. The majority of the Project will result in below ground installation of pipeline, which will not be visible and will not permanently affect the gently rolling vista. Permanent impacts

on visual resources would include additional structures built in association with Beaver Lodge Station Expansion Area, Stanley Station Expansion Area,, and the new Lakota Pump Station. Beaver Lodge and Stanley Stations are already in existence, and located in rural agricultural areas where the additional structures would have a negligible visual effect on adjacent areas. The new Lakota Pump Station will be located approximately 1mile outside of the community of Lakota in a rural agricultural area. Visual impacts associated with this new facility will occur as the result of the conversion of agricultural land to industrial use. However, the visual effects at Lakota will be minimized by use of appropriate structures.

Q. How do you ensure the safety of the employees at the stations?

A. Safety begins with a thorough and professional design by an experienced engineering firm, followed by clear criteria on how the construction work is to be safely executed. In the case of Sandpiper, the engineering design ensures that it meets and/or exceeds all regulatory requirements and industry standards. Further, a Project Safety Plan has been developed that dictates specific safety expectations of the NDPL project team that's accountable for managing the contractor and its work. Our Major Projects team uses a Project Scorecard to itemize safety performance and activities. This data is reviewed with each contractor. In addition, work is being constantly monitored by safety inspection staff on behalf of both NDPL and the contractor.

Q. You mentioned that in choosing the locations of the facilities you rely on a hydraulic study. What do you rely on in choosing the design of the pump stations and the various materials used in the construction of the pump stations?

A. We have set very high standards for engineering and design to minimize impacts to the environment. These standards are followed in designing the facilities. In terms of procurement of the equipment, Enbridge has exacting requirements for quality and integrity. These requirements are conveyed to potential suppliers who then submit bids. In selecting vendors, we look at their history with Enbridge and evaluate the quality and integrity of facility equipment previously provided. As well, Enbridge personnel will inspect the equipment and test it to ensure that it is of the highest quality.

Q. What safety measures are built into the design of the pumping units?

A. Temperature, vibration, pressure, heat, and vapor are all continuously monitored. Any of these modes of detection can stop the pumping units if an abnormality is detected.

Q. What are you doing to maintain integrity and operational safety at Sandpiper stations and terminal facilities?

A. We aim to operate and maintain all of our facilities, including pump stations and terminals, in a safe, responsible manner. We accomplish this through our design standards; equipment and construction specifications; commissioning, operating and maintenance procedures; and targeted tankage, equipment and piping specifications. A team of subject-matter experts in Engineering Operations and Integrity guides a leak reduction program for the network of facilities throughout our liquids pipelines system, including pump stations and terminals.

Q. What measures are implemented to protect the surrounding environment if a release were to occur at a facility?

A. As part of the design of the facility, NDPL constructs a berm of sufficient size and depth to be able to contain 110% of the total volume flowing in the facility at the maximum flow rate. It is also designed to be able to contain this volume in an assumed rain storm which increases total volumes by an additional 10 percent. In the event of a release berms and the use of clay containment materials keeps crude contained within the facility.

Q. Will NDPL be hiring locally and utilizing local resources?

A. Based on the need for several crews, we'd expect various labor jobs to be sourced locally. We anticipate the contractors working on the Sandpiper facilities will be sourcing various supplies locally for example, gravel and washed rock will be needed for facility roads and grading. In addition, the local economy will be impacted through the use of housing and services by the workforce.

Q. When do you anticipate starting construction of the facilities associated with the Sandpiper project?

A. Civil work activities are scheduled to commence in May 2014 for those station facilities which have the longest lead time to complete. Such work will begin at existing station sites for the construction of new tanks and pumping stations.

It is estimated that all construction must be completed by January 2016 in order to complete testing and commission of the new pipeline and associated facilities, and placed Sandpiper Pipeline in-service date on March 31, 2016.

Q. Will NDPL comply with legal and other requirements governing the design, construction, installation, operation and maintenance of the Sandpiper Pipeline and associated facilities?

A. Yes NDPL will comply with all applicable federal state and local regulatory and maintenance of the Sandpiper Pipeline under the federal pipeline safety regulation specified in 49 Code of Federal Regulations Parts 194 and 195 and all applicable national technical standards.

Q. Will the Sandpiper Pipeline Project be constructed in compliance with the standards established by the National Electric Safety Code?

A. Yes.

Q. In your opinion, if the proposed Sandpiper Pipeline Project and associated facilities are designed and constructed as set forth in this Consolidated Application, as presented in your written testimony and discussed during the public hearings, will this pipeline be capable of being safely operated?

A. Yes

Q. Does this conclude your testimony?

A. Yes.