

**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF SOUTH DAKOTA**

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IN THE MATTER OF THE APPLICATION  
OF SCS CARBON TRANSPORT LLC FOR  
AN ENERGY FACILITY PERMIT TO  
CONSTRUCT THE SUMMIT CARBON  
SOLUTIONS PIPELINE

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**DIRECT TESTIMONY OF  
DANIEL PLUME**

**ON BEHALF OF**

**SCS CARBON TRANSPORT LLC**

**SCS CARBON TRANSPORT LLC EXHIBIT #**

February 7, 2022

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

A. Daniel Plume. 2321 N Loop Dr., Suite 221, Ames, IA 50010

**Q. Can you briefly describe your education and experience?**

A. Bachelor of Science, Mechanical Engineering. My professional career spans forty years and includes pipeline system operations management; joint venture management; major project management; project development; contract development and management; and business relationship management.

**Q. Please describe your duties with the Project.**

A. Director of Construction Services, managing and directing the construction program for the pipelines and facilities.

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

A. I participated in the preparation of the following sections of the application:

- Section 2.0 – Project Description;
- Section 5.0 – Environmental Information and Impact on Physical Environment
- Section 7.1 – Monitoring of Impacts (construction);
- Section 7.1.1 – Environmental Training;
- Section 7.1.2 – Environmental Inspection;
- Section 7.1.3 – Post-construction monitoring and maintenance programs;
- Appendix 3 – Environmental Construction Plan;
- Appendix 8 – Waterbody Crossings;
- Appendix 9 – Wetland Report;
- Appendix 10 – Threatened and Endangered Species Report;
- Appendix 12 – Unanticipated Discovery Plan

**Q. Can you briefly describe construction of the pipeline facilities?**

**A.** In South Dakota, there will be approximately 469.1 miles of pipelines of various diameters underground consisting of smaller gathering pipelines, consolidating to medium size pipelines (trunklines), and larger mainlines. The pipelines will have a construction footprint of up to 110 feet wide during construction and reverting to a 50-foot permanent easement upon completion and restoration. The pipeline will also require the construction of numerous valve and interconnect sites, and the construction of up to four pump stations along the pipeline routes.

**Q. What is the construction and operating timeline?**

**A.** SCS Carbon Transport LLC proposes to commence construction of the Project in South Dakota in the first quarter of 2023 and to complete construction in the second quarter of 2024. SCS Carbon Transport LLC proposes to place its pipeline in service by 2024.

**Q. Can you describe the typical drawings included in Appendix 2 ?**

**A.** Appendix 2 of the application contains typical plan and profile views of the construction right-of-way (ROW) for different situations found during construction. The Environmental Construction Plan (ECP) in Appendix 3 also contains some typical plan and profile drawings of the different methods to construct across wetlands and waterbodies, as well as other best management practices used during pipeline construction.

**Q. Are there plans for the valve sites?**

**A.** Yes. SCS Carbon Transport LLC plans to construct MLVs at each pump station, as well as 16 MLVs as intermediate MLVs, some capable of remote operation. When not located at a pump station, MLVs will be sectionalizing block valves constructed within a 50-foot-wide by 50-foot-long site located within the 50-foot-wide, permanently maintained pipeline ROW. These

intermediate valve sites will be located within a permanent aboveground easement obtained from landowners.

**Q. Are there pump station plans?**

**A.** Yes. There are four pump stations planned in South Dakota and they will be located in Minnehaha, Kingsbury, Spink, and McPherson Counties. Construction of pump stations would start with civil pad work, followed by foundation installation, pipe and electrical installation, and finally commissioning activities. Pump stations will have security fence around the perimeter. All pumps and major equipment will be installed within a shelter. Pump stations would be accessed using temporary access roads during construction and permanent access roads during operations.

**Q. Please describe the additional temporary work space requirements of the pipeline?**

**A.** The project will nominally seek 50 feet of permanent operating easement plus up to an additional 60 feet of temporary easement along the route. Additional workspace will also be required at various features and crossings such as other buried utilities, roads, streams, rail crossings, heavy side slope cuts, and such. The additional area will vary depending on the feature but some examples for medium diameter pipe sizes are: Bored highways and railroads - 75' x 30'; Horizontal Directional Drills - 200' x 100' along with Pull Sections Length plus 100' x 40'; minor roads - 100' x 25'; Waterbodies 100' x 40'; buried feature crossings - 100' x 25'.

**Q. Will restoration be required?**

**A.** Yes. Restoration of all workspaces will be completed upon installation in accordance with the Permit requirements and landowner agreements. Successful restoration and revegetation of the Project workspace is important for landowner relations, maintaining productivity and protecting the underlying soil from potential damage.

**Q. Where will the project store pipe and other equipment necessary for construction?**

**A.** Storage of pipe and equipment necessary for the construction of the Project will be required. There will be material, equipment and contractor yards located near the Project sites. These areas will also be restored upon project completion in accordance with the Permit requirements and landowner agreements.

**Q. How will the project access workspace to construct the pipeline?**

**A.** Public and private roads will be utilized to access the project sites. Some roads may require modification or improvements to facilitate safe access for construction equipment and personnel. The Project may require construction of new temporary roads to provide access during construction and potentially new permanent roads for future operational and maintenance access to the facilities. The Project will require 27 temporary access roads for construction and 23 permanent access roads for operations. Permanent access roads will provide access to 16 MLVs, five launcher-receivers, and pump stations. Access roads will be 30 feet wide and will be constructed by grading and applying gravel as required to provide a drivable surface and to prevent erosion. Temporary access roads will be removed, and the area restored to previous conditions after construction unless otherwise agreed upon with individual landowners.

**Q. Will the pipeline require the use of water during construction?**

**A.** Yes. The two largest uses of water associated with Project construction will be the water required for conducting hydrostatic tests during the final phases of construction and for dust control. Water used for hydrostatic testing of the pipeline, which may be over 25 million gallons in total, will be obtained from surface water resources. Hydrostatic testing will be conducted in accordance with the requirements of PHMSA pipeline safety regulations. Preliminarily identified water sources for hydrostatic tests are indicated in Table 12.

Water will be required for horizontal directional drilling (HDD). Water for the HDD operation is used to mix with naturally occurring drilling mud (e.g., bentonite clay) for drilling operation lubrication, hole stability and to remove drill cuttings. Water is used for hydrostatic testing. Water will also be used for dust suppression, and such will be discharged directly onto project site as needed. The ground may be sprayed by watering trucks or sprinklers to control the dust. Water will not be applied in quantities to cause run off from the ROW.

**Q. Will water be discharged after its use?**

**A.** Hydrostatic test water will be filtered and discharged either to natural drainage over the ground, or back to water sources, either being performed in accordance permit requirements and landowner agreements. Water may also be discharged from excavations, and such will be filtered through erosion control devices, sediment controls, and discharge monitoring and inspection in accordance with permits, regulations, and landowner agreements.

**Q. How else will hydrology be affected?**

**A.** Impacts to hydrology will be mitigated through the use of erosion control measures and best management practices to reduce the rate of water flow and prevent scouring from runoff.

**Q. Will the pipeline utilize deep well injection?**

**A.** No. Deep well injection will not be utilized in South Dakota.

**Q. Are any homes displaced along the project route?**

**A.** No.

**Q. What effects are anticipated on surrounding land from operation or construction of the pipeline?**

A. None are anticipated outside the construction footprint. The possibility of a temporary reduction in crop yield is contemplated on the temporary workspace utilized during construction, and the landowner will be compensated in accordance with the landowner agreements.

**Q. Did the project prepare an environmental construction plan?**

A. Yes, we did. It's Appendix 3 to the application and describes the best management practices that will be utilized during construction and our plan for use and restoration of the land under which the pipeline will exist.

**Q. Please describe the environmental construction plan.**

A. The ECP ensures that the project works with landowners to ensure that best practices for construction and restoration are known and shared and utilized across the footprint of the project. It contains many pages of known best practices for soil handling, methods for crossing waterbodies and wetlands, drain tile repair, and the reclamation of the land.

**Q. What are the anticipated impacts to roads?**

A. Public and private roads will be utilized to access the project sites. Some roads may require modification or improvements to facilitate safe access for construction equipment and personnel. The Project may require construction of new temporary roads to provide access during construction and potentially new permanent roads for future operational and maintenance access to the facilities. Most paved roads will be bored, and the pipe will be installed with trenchless methods resulting in no impact. Where the open cut method is used, the roads will be restored to their original condition or better.

SCS Carbon Transport LLC expects to negotiate road use agreements with counties and townships, and to have a single road bond with the PUC as required by state law.

**Q. What are the permanent impacts to land use?**

A. Where aboveground facilities exist, the land use will be solely for the operations of the pipeline system and the landowner will be compensated in accordance with the landowner agreements. All agricultural lands may return to their original use. In forested areas, the 50-foot permanent operating easement will remain clear of trees but will be re-seeded with ground vegetation. In all other areas the land may return to its original use with the exception that no permanent structures may be built on the 50-foot permanent operating easement, to facilitate safe pipeline operations.

**Q Does the project cross South Dakota Rural Water Systems?**

A. Yes.

**Q. How does the project impact those rural water systems and are any measures planned to counter those impacts?**

A. SCS Carbon Transport LLC will coordinate with each rural water system operator to identify and plan the crossing method for any facilities crossed by the Project. This would include meetings with each rural water system operator to understand the operating requirements of their system to properly design the best method to cross them and maintain safe water operations.

**Q. Does this conclude your written pre-filed testimony?**

A. Yes

Dated this 7<sup>th</sup> day of February 2022.

    /s/ Dan Plume    

Dan Plume