North Dakota Public Service Commission SCS Carbon Transport LLC Case No. PU-22-391 Response to Commission's Supplemental Information Request 3.1.1

January 29, 2024
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	DESIGN SPECIFICATIONS AND OPERATING
PROJECT FEATURE	PARAMETERS
Pipeline Design Specifications	
Pipe Size (outside diameter)	4.5 - to 24-inch outside diameter
Pipe Type	High-strength carbon steel (API 5L)
Nominal Wall Thickness in Inches	0.189- to 0.750-inch
Pipe Design Factor	0.72 ¹
Longitudinal or Seam Joint Factor	1.00
Specified Minimum Yield Strength	52,000 – 70,000 pounds per square inch (psi)
Tensile Strength	66,700 – 82,000 psi
Flow Rate	
Expected Normal Flow Rate	Up to 18.5 million metric ton per annum (MMTPA) of CO ₂
Maximum Design Flow Rate	962 million standard cubic feet per day (MMSCFD), which is 18.5 MMTPA of CO ₂
Operating Pressure	_
Operating Pressure	1,200 pounds per square inch gauge (psig) to 2,160 psig
Maximum Operating Pressure	The Maximum Operating Pressure as defined in Title 49 CFR 195 is 2,183 psig
Operating Temperature	
Operating Temperature	115 to 30 degrees Fahrenheit
Maximum Operating Temperature	120 degrees Fahrenheit
Description of associated facilities	Pump stations; mainline valves; launcher and receiver sites; temporary and permanent access roads
Product Capacity Information	
Planned Minimum and Maximum Design Capacity or Throughput	Minimum: 0 MMTPA Maximum: 18.5 MMTPA
Product Description	CO ₂

Notes

¹ Conventional pipeline installation will have a Design Factor 0.72. More conservative designs factors will be applied at road crossings (Design Factor 0.6), railroad crossings (Design Factor 0.5), and horizontal directional drills (HDDs) (Design Factor 0.5 or 0.6 depending on site specific drill design).