



DAKOTA GASIFICATION COMPANY
A BASIN ELECTRIC POWER COOPERATIVE SUBSIDIARY

PIPELINES

Dakota Gasification Company (Dakota Gas) operates a 205-mile pipeline to deliver oil field-grade carbon dioxide (CO2) to the Goodwater Unit, which is part of an oil field in Canada. In 2024, Dakota Gas put the Dakota Carbon Pipeline (DCP) CO2 pipeline system in service. This system delivers CO2 to six carbon sequestration wells approximately three miles north of the Dakota Gas facility. The product is mostly CO2 with small amounts of impurities such as hydrogen sulfide and hydrocarbons. These pipelines were constructed with 14-inch, 12-inch and 6-inch carbon steel pipe that is Fusion Bonded Epoxy (FBE) coated for its protection. The CO2 pipeline’s normal operating pressure is in the range of 1,700-2,600 pounds per square inch (PSI).

Dakota Gas owns and operates two synthetic natural gas (SNG) pipelines. A 35-mile pipeline delivers SNG from its Great Plains Synfuels Plant near Beulah, ND, to the Northern Border Pipeline at the Hebron, ND, metering station. The pipeline is a 24-inch carbon steel line that operates at a normal operating pressure of 1,300 PSIG. The second pipeline is a four-mile, 10-inch carbon steel pipeline that delivers SNG from the Synfuels Plant to Basin Electric’s nearby Antelope Valley Station.

Dakota Gas believes that maintaining the safety and integrity of the pipeline is crucial to prevent accidents, ensure operational efficiency, and avoid environmental damage. Dakota Gas has developed and implemented certain strategies and best practices to follow to keep the pipelines in safe working condition.

DESIGN AND CONSTRUCTION

Dakota Gas pipelines were constructed of high strength carbon steel designed to withstand the pressures, temperatures, and other factors they may face. All welds were inspected and x-rayed to ensure there were no welding flaws. After construction the pipelines were pressure tested to prove their integrity.

OPERATIONS AND MAINTENANCE

Dakota Gas Operator Qualification Program ensures that Dakota Gas personnel and contractors performing tasks on our pipelines are fully trained and qualified. Dakota Gas uses preventative maintenance to ensure that valves, pressure safety devices, and electrical equipment are maintained and properly functioning. Dakota Gas pipelines utilize cathodic protection systems in conjunction with FBE coating to prevent external corrosion. These

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PRODUCTS / DOT GUIDEBOOK ID# / GUIDE#:

Carbon Dioxide	1013	120
Synthetic		
Natural Gas	1971	115

**NORTH DAKOTA
COUNTIES OF OPERATION:**

Divide	Mercer
Dunn	Williams
McKenzie	

Changes may occur. Contact the operator to discuss their pipeline systems and areas of operation.

systems are tested annually to ensure they are meeting National Association of Corrosion Engineers (NACE) criteria. Dakota Gas performs aerial patrols of its CO2 pipeline every two weeks to monitor for leaks or potential construction activity along the pipeline right-of-way.

CONTROL ROOM MANAGEMENT

Dakota Gas pipelines are monitored 24 hours a day via a manned control room. Control room personnel continually monitor the pipeline system and assess changes in pressure and flow. Dakota Gas has a written Control Room Management plan used to provide controllers with necessary information, training, and processes. Furthermore, this plan defines methods to prevent controller fatigue, manage supervisory control and data acquisition (SCADA) systems, and manage control system alarms. Dakota Gas CO2 pipeline utilizes a real-time transient model leak detection system which assists controllers in identifying and locating potential leaks using pressure, temperature, and flow transmitters along



the pipeline. Remote control isolation valves placed along the pipeline allow the controllers to safely isolate the pipeline if an issue is detected.

INTEGRITY MANAGEMENT

Dakota Gas has developed and implemented an Integrity Management Plan (IMP) which focuses on the identification and mitigation of hazards to the pipeline systems. One of the key practices in this plan is the use of continual assessments to determine the integrity of the pipeline. Dakota Gas uses in-line inspection (ILI) tools to continually assess the pipeline. Another term for these tools is “smart pigs”. These smart pigs, equipped with magnetic and electromechanical sensors, traverse the entire length of the pipeline to determine if there is any metal loss or deformation in the pipe. Dakota Gas performs these assessments every five years at a minimum. If metal loss is identified and determined to affect the integrity of the pipe, Dakota Gas excavates and repairs the pipeline. In addition, Dakota Gas performs risk assessments and evaluates the program’s effectiveness on an annual basis.

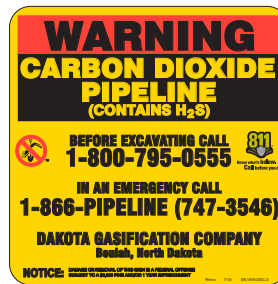
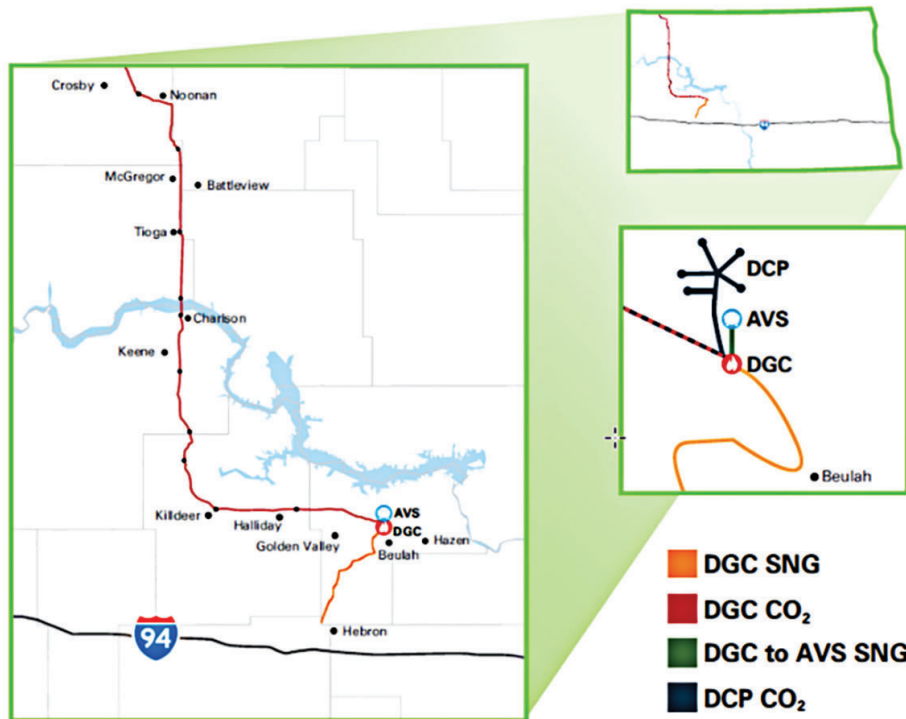
DAMAGE PREVENTION AND PUBLIC AWARENESS

Dakota Gas maintains a Public Awareness and Damage Prevention Program in accordance with state and federal guidelines. The purpose of this program is to prevent third party damage to our pipelines, and inform affected public of the location of our pipelines as well as increase the public’s awareness of steps to take in the event of any pipeline emergency. Pipeline markers, public education mailers, and sponsorship of excavators/emergency responder training are measures used to protect our pipelines. Dakota Gas participates in the Pipeline Association for Public Awareness (PAPA) and the North Dakota Pipeline Association (NDPA) to promote pipeline safety by providing information for excavators, state residents, businesses, emergency responders and public officials. Dakota Gas participates in the North Dakota One Call system by locating our pipeline anytime an excavation is planned near the right of way of our pipelines. If a Dakota Gas pipeline right of way is encroached, Dakota Gas representation will be on-site.

EMERGENCY MANAGEMENT

Dakota Gas has developed an Emergency Response Plan for each pipeline to contain, control and mitigate the various types of emergency situations that could occur at one of our facilities. Dakota Gas is part of the Local Emergency Planning Committee (LEPC)

and participates in area-wide emergency response drills with local emergency response personnel. We also utilize a reverse 911 system to notify members of the public of a pipeline emergency and inform them of the proper actions to take.



CONTACT NUMBERS AND ADDRESS

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