Attachment 6

DENBURY LAKE CHARLES PIPELINE LATERAL

16" CO_2 PIPELINE

Public Risk and Pipeline Design Narrative

DENBURY LAKE CHARLES 16" CO_2 PIPELINE LATERAL
PUBLIC RISK AND PIPELINE DESIGN

TABLE OF CONTENTS

PUBLIC RISK AND PIPELINE DESIGN

1.0 INTRODUCTION

This narrative describes aspects of the pipeline design, construction, operation, and maintenance with enhancements to minimize potential hazards to the public and to maintain system reliability. Operational procedures, design, and construction features reflecting accepted industry practices that will be used to avoid undue hazards and effects are also discussed.

2.0 PIPELINE SYSTEM DESCRIPTION

The Denbury CO2 Pipeline Lateral will consist of the following primary components: one 11.87-mile long, 16-inch diameter liquid carbon dioxide pipeline, and associated pipeline support facilities including valves for temporary pig launchers/receivers, main line isolation valves, and metering site equipment.

The transport of the CO2 originates within the Lake Charles Clean Fuels facility at a meter station to be operated and controlled by plant personnel. The inlet meter will consist of two 12" parallel orifice meter runs and automated isolation valves. The meter station will be used to measure the flow, composition, moisture content, pressure and temperature of the CO2 stream going into the pipeline from the plant compressor. This information is hard wired to a flow computer and then transmitted into the plant control system, which is monitored 24 hours per day, 7 days per week by trained operators. The measurement data will monitored by both LCCE and Denbury for purposes of pipeline leak detection and coordinated response to any upset condition that may arise.

Denbury ownership and operation of the CO2 pipeline begins downstream of the meter at a motorized 16" isolation valve with insulating flanges, which isolate the cathodic protection system within the plant from the system employed to protect the pipeline. Denbury assumes operating control at this flange, and all components and operations downstream of this point are Department of Transportation jurisdictional under 49 CFR 195. The motor operated isolation valve will be located within a fenced site at the plant north property boundary and be used to shut in the pipeline for maintenance or an emergency. Operation of the isolation valve can be accomplished both locally and remotely through the pipeline control center using satellite communication. The site also includes manually operated valves for use in maintenance activities.

Once the pipeline leaves the plant boundary, it will be routed through the adjacent industrial properties and under Bayou D'Inde Road to the north using a horizontal directional drill (HDD). The typical depth for a road crossing is at least 5 feet below the road bed and a river/stream crossing is least 20 feet below the road or stream/river bed (actual HDD depths depend on the length of the drill, maximum allowed curvature of the pipe based on diameter and wall thickness, and minimum clearance and depth required to avoid any obstructions). The pipeline will continue north to Bayou D'Inde where a 16" manually operated isolation valve will be installed within a 25 feet x 25 feet chain link fence. The valve site is equipped with smaller valves on either side of the isolation valve to allow venting of the CO2 in the event that the pipeline requires maintenance that cannot be completed with the pipeline under pressure. The pipeline will cross under Bayou D'Inde using the HDD installation method. Another pipeline isolation valve station configured as described above will be installed north of the bayou.

After crossing Bayou D'Inde, the pipeline route will progress north using conventional trenched construction methods and then cross under Interstate 10 using HDD installation method. The route continues through a mixed commercial and residential area for approximately 1 mile located between Interstate 10 and State Highway 90. The pipeline will be trenched in place and be buried with at least 3 feet of cover or 4 feet near any buildings located within 50 feet of the pipeline. The pipeline will cross under State Highway 90 using a horizontal bore. The pipeline will then parallel the Kansas City Southern (KCS) Railroad ROW and tracks for approximately 4.3 miles through a largely rural area. Additional pipeline isolation valves will be installed in this section and be located on either bank of the Sabine River Diversion Canal with plans to automate one of these valves to allow remote operation in the event of a pipeline emergency. An automated or motorized valve site foot print expands to 40 feet x 25 feet to allow installation of the valve and an accompanying building for satellite and communication controls equipment.

The route will also cross Houston River Road and the Houston River using the HDD installation method. Pipeline isolation valves will be located on either side of the river near Houston River Road and to the north at a site adjacent to the KCS railroad tracks and access road. Neither valve is planned for automation due to the close proximity to other planned automated valves at the Sabine River Diversion Canal and the pipeline end point less than 2.5 miles to the northwest.

Once the route diverts away from the KCS railroad, it will then parallel an existing power transmission corridor for approximately 1.75 miles. Construction of the pipeline in this portion of the route will include installation of an alternating current (AC) mitigation technology in the trench to protect from stray current from the power transmission lines that could impact the integrity of the steel pipe. The pipe will be buried with at least 3 feet of cover, as is expected for the majority of the pipeline route.

The route will turn westward once crossing under Bankens Road, which will be horizontally bored at a depth at least 5 feet below the road bed. The route will parallel the existing Green Pipeline and terminate inside the Lake Charles Pump Station where the custody measurement station will be installed.

The custody meter station will measure the amount of CO2 received from Leucadia prior to entering the Green Pipeline. downstream of the pumps at the station. The custody meter site will be configured similar to the plant measurement station and include an over pressure protection valve to protect the meter skid and piping. The meter skid will consist of two 12-inch senior orifice fittings, 16-inch isolation valves, motorized valve actuators with remote communication and control, pressure and temperature transmitters, a flow computer, CO2 sampling and gas chromatograph, and wiring to the pipeline control system. The data gathered by the meter station will then be transferred by satellite to the Denbury control center for monitoring and shared with the Lake Charles Clean Fuels to help facilitate effective pipeline operation and communication.

3.0 INDUSTRY RELIABILITY AND SAFETY OVERVIEW

This section provides a brief overview of the potential hazards, safety standards, and impacts on public safety associated with carbon dioxide pipelines.

3.1 Hazards

Carbon dioxide is colorless and tasteless. It is relatively odorless in low concentrations but has a musty smell in at greater concentrations. It is nontoxic, but is classified as an asphyxiant due to its displacement of oxygen in confined spaces or large concentrations. Extended exposure to

CO_2 in high concentrations can lead to the following symptoms: headache, dizziness, restlessness, breathing difficulty, sweating, malaise, increased heart rate, increased blood pressure, coma, asphyxia, and convulsions.

Unconfined mixtures of carbon dioxide in air are not explosive due to the properties of carbon dioxide. The specific gravity of gaseous carbon dioxide is 1.52 and heavier than air at atmospheric temperatures, thus potentially settling near the ground in low lying areas under colder conditions. Wind and increasing ambient temperatures will disperse carbon dioxide over time.

3.2 Pipeline Incident Data

Operating experience records for hazardous liquid and carbon dioxide pipelines have been maintained for more than 60 years. Construction, operations, and maintenance expertise have provided regulators and the industry with the opportunity to identify specific causes of pipeline failure and to address those through appropriate design, construction, operation, and maintenance practices. The primary categories of failure causes defined by the U.S. Department of Transportation (USDOT) Office of Pipeline Safety (OPS) are:

Outside force or third party damage;
Corrosion (internal and external);
Construction/material defects; and
Operator error or actions.

3.3 Impact on Public Safety

On a per mile basis, CO_2 pipelines have experienced much fewer incidents than natural gas or other hazardous liquid pipelines. Of the incidents that have occurred over the years, public impacts have been relatively minimal and include few injuries and monetary impacts due to environmental damage. Specific effects of past and potential future incidents include:

- CO_2 gas release to atmosphere only
- Exposure of the public, habitat, or species to CO_2 at varying concentrations
- Operational impacts with service deficiencies or interruption

4.0 PROJECT COMPLIANCE WITH APPLICABLE REGULATORY REQUIREMENTS

The proposed pipeline will be designed, constructed, operated, and maintained in accordance with USDOT minimum federal safety standards in 49 CFR Part 195, “Transportation of Hazardous Liquids by Pipeline”. The regulations are intended to ensure adequate protection for the public from hazardous liquid and carbon dioxide pipeline failures. Part 195 specifies material selection and qualification, minimum design requirements, and protection from internal, external, and atmospheric corrosion.

Some key provisions of the Part 195 regulations are summarized below:

- System materials and design (49 CFR 195 Subpart C – *Design Requirements)*
- Proper construction (49 CFR 195 Subpart D – *Construction, and* Subpart E – *Pressure Testing*

- Thorough and adequate inspection, testing, maintenance and repair (49 CFR 195 Subpart F – *Operation and Maintenance*, 195.402 – *Procedural manual for operations, maintenance, and emergencies*, and 195.442 – *Damage Prevention Program*)
- Operations conducted by trained and qualified workers (49 CFR 195 Subpart G – *Qualification of Pipeline Personnel*
- Identification and mitigation of risks (195.452 - Pipeline Integrity Management)
- Coordination and preparation for emergency response (195.402 – *Procedural manual for operations, maintenance, and emergencies,* 195.403 – *Emergency Response Training*)

In addition to the provisions outlined above, many industry standards are incorporated by reference into 49 CFR Part 195, and are therefore regulatory requirements. These standards provide specifications for materials, fabrication, construction, pipe transportation, and corroded pipe analysis, which contribute to the safety of the pipeline system, and will be used in the design, operation, and maintenance of the proposed pipeline.

4.1 High Consequence Areas and Integrity Management

In accordance with the federal requirement under 49 CFR 195.452 Pipeline Integrity Management in High Consequence Areas (HCAs), Denbury will add the proposed 16-inch CO2 pipeline to its established plan titled *CO2 Integrity Management Program*. Denbury's integrity management plan meets 49 CFR 195.452 and establishes methodology for identifying HCAs, risk assessment of individual line segments, integrity assessment intervals, approved methods of assessment, criteria for prioritizing and repairing anomalies found during assessments, and documentation of all activities related to integrity management.

Part 195 has established pipeline integrity management regulations for pipelines in High Consequence Areas. High Consequence Area (HCA) means:

> (1) A commercially navigable waterway, which means a waterway where a substantial likelihood of commercial navigation exists;
>
> (2) A high population area, which means an urbanized area, as defined and delineated by the Census Bureau, that contains 50,000 or more people and has a population density of at least 1,000 people per square mile;
>
> (3) Other populated area, which means a place, as defined and delineated by the Census Bureau, that contains a concentrated population, such as and incorporated or unincorporated city, town, village, or other designated residential or commercial area;
>
> (4) An unusually sensitive area, as defined in section 195.6.

These populated and sensitive areas are published by PHMSA and used in the HCA identification process required of each natural gas and hazardous liquid pipeline operator.

4.2 Affected HCA Identification

The affected HCAs, as defined above, have been identified using data released by PHMSA and CO2 dispersion modeling to determine the extent of possible impacts due to a pipeline release. Denbury contracted with American Innovations to perform the dispersion analysis utilizing a Det Norske Veritas proprietary software called Process Hazard Analysis Software Tool (PHAST) Version 6.6. PHAST is a fully integrated software package that allows detailed hazard assessment of toxic and flammable substances.

The dispersion modeling objective is to determine the worst case dispersion distance for the anticipated maximum pipeline flow rate and pressure. This information is used in developing safety response plans and compliance with integrity management requirements.

4.2.1 Risk Analysis Assumptions

The PHAST software considered the following in determining dispersion distances from a potential release:

- Full pipeline break or guillotine rupture, which is considered a worst case release
- 16 inch pipe diameter
- 0.375 minimum pipe wall thickness
- CO2 temperature is 110F; density is 1.842 kg/m^3.
- The CO2 concentration is normalized to 100%.
- The height for concentration output is 1m (3.281 ft)
- Pipe lengths - lengths between isolation valves and quantity of material between eight (8) isolation valves
- Analysis of releases at the pipeline beginning, 25%, midpoint, 75%, and end point.
- Time to isolate flow into the pipeline and the release location is 15 minutes.
- Maximum pipeline operating pressure – 2,360 psig for a blocked discharge condition.
- Dispersion distance represents extent of 40,000 ppm concentration of CO2.
- Average meteorological conditions obtained from the National Oceanic and Atmospheric Administration (NOAA) database for the City of Lake Charles, Louisiana
    - Low temperature (41.2F) with 8.3 mph average wind speed (LTAW)
    - High temperature (91.3F) with 8.3 mph average wind speed (HTAW)

A rupture can happen at any point along the pipeline. The location of a rupture relative to the source affects the dispersion distance due to the volumes of CO2 contributed both upstream from the source and downstream of a rupture site from the pipeline itself. If a rupture is at the beginning of the pipeline then the mass available is the upstream pump rate and the inventory with the pipe from the downstream side. If the release is in the middle of the pipeline, there is an equal amount of product inventory available from the upstream and downstream ends, which may or may not result in the worst case. A pipeline rupture at the end of the pipe section has the maximum product available, but the pressure at this point will typically be lower compared to the upstream end of the pipeline. To determine which break point along the pipeline gives the worst-case scenario (maximum dispersion distance), different break point distances from the source were used in combination with other parameters.

The response time is the time to detect and isolate the pipeline when a rupture occurs. Isolation of the pipeline can be with a check valve, manually operated valve or a remotely operated valve.

When a CO2 pipeline rupture occurs, the largest dispersion distance is established within moments of initiation of the rupture when the pressure is greatest and the mass flow rate of CO2 into the rupture site is highest.

Calculated dispersion distances are applied equally to both sides of the line, assuming wind direction will push the CO2 plume to one side of the pipeline or the other and create a dispersion corridor or buffer following the centerline of the pipeline.

For CO_2, 40,000 ppm (0.04 fraction) is the concentration that has been established as the Immediately Dangerous to Life and Health (IDLH) concentration for CO_2 published by the National Institute for Occupational Health and Safety (NIOSH). This value was selected based on the ability for someone exposed to this concentration to: 1) Escape without loss of life or immediate or delayed irreversible health effects. (Per NIOSH, 30 minutes is considered the maximum time for escape without supplied air); and 2) prevention of severe eye or respiratory irritation or other reactions that would hinder escape.

4.2.2 Risk Analysis Results

The point release from the guillotine failure at a 50% break distance, modeled to a CO_2 concentration of 40,000 ppm, had a distance higher than the other break point scenario results. This pipeline segment was then modeled at two (2) different meteorological conditions based on pipeline location to quantify the effects of wind speed on dispersion of the CO_2. It was found that the high temperature with average wind speed had the largest distance to a CO_2 concentration of 40,000 ppm. (Refer to Table 2 below).

The results of the analysis indicate a maximum dispersion distance of 925 feet for IDLH conditions occurs near the midpoint of the pipeline under the high temperature average wind condition (refer to Table 2 below). The minimum dispersion distance is 707 ft under low temperature average wind condition near the end point of the line. The distance of 925 feet was selected as the worst case and utilized to establish a possible exposure footprint for the entire length of the pipeline lateral and subsequently to determine the segments of the pipeline that have potential to affect HCAs.

Table 2: Meteorological Conditions - Exposure Distance

Pipeline Component	Break Point	Break Distance (feet)	HTAW (40,000 ppm Exposure Distance)	LTAW (40,000 ppm Exposure Distance)
16" Lake Charles Line	Begin	20	781	750
16" Lake Charles Line	25%	15,668	872	836
16" Lake Charles Line	50%	31,336	925	886
16" Lake Charles Line	75%	47,004	837	802
16" Lake Charles Line	End	62,673	735	707

Due to the high mass flow rate at the time of rupture, the vapor cloud travels the maximum distance within 7.3 seconds as shown in Figure 2 *CO_2 Concentration vs. Maximum Plume Distance and Time.* The mass expelled from the rupture site will continue to add to the vapor cloud until the valves are completely shut, but this additional mass will not increase the vapor cloud distance due to the decreased pressure in the pipeline. Valve closure speeds and response times have little effect in reducing maximum distance; however, closure times do directly limit the duration of the public exposure and the amount of CO_2 volume released to the rupture site.

Figure 1: Time vs. Mass Flow Rate and Expelled Mass

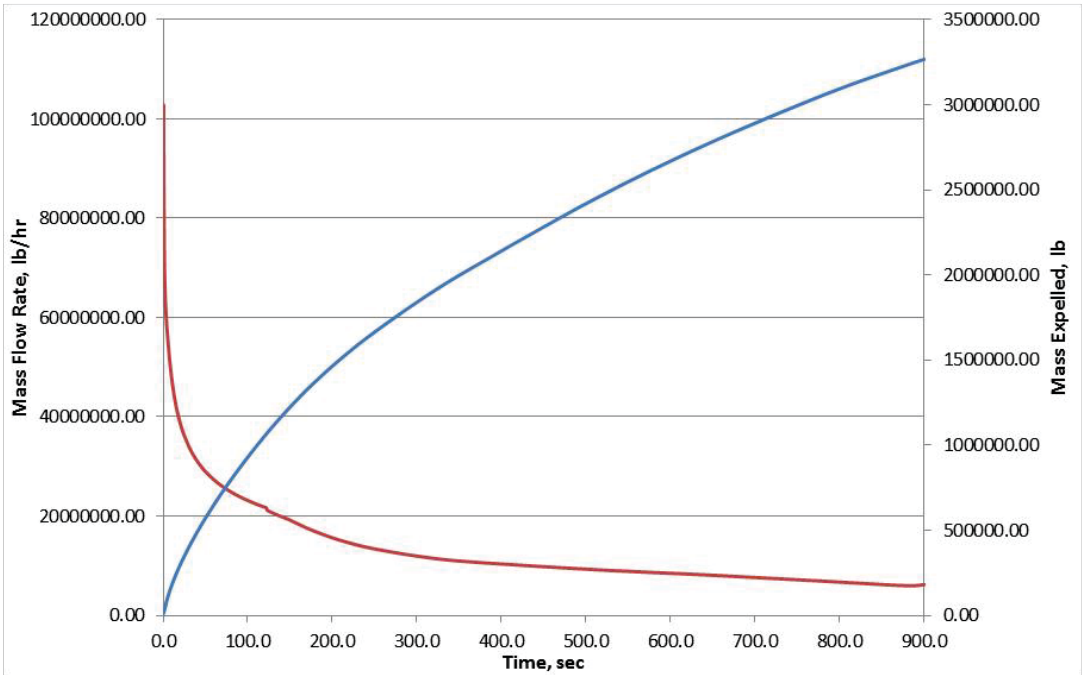
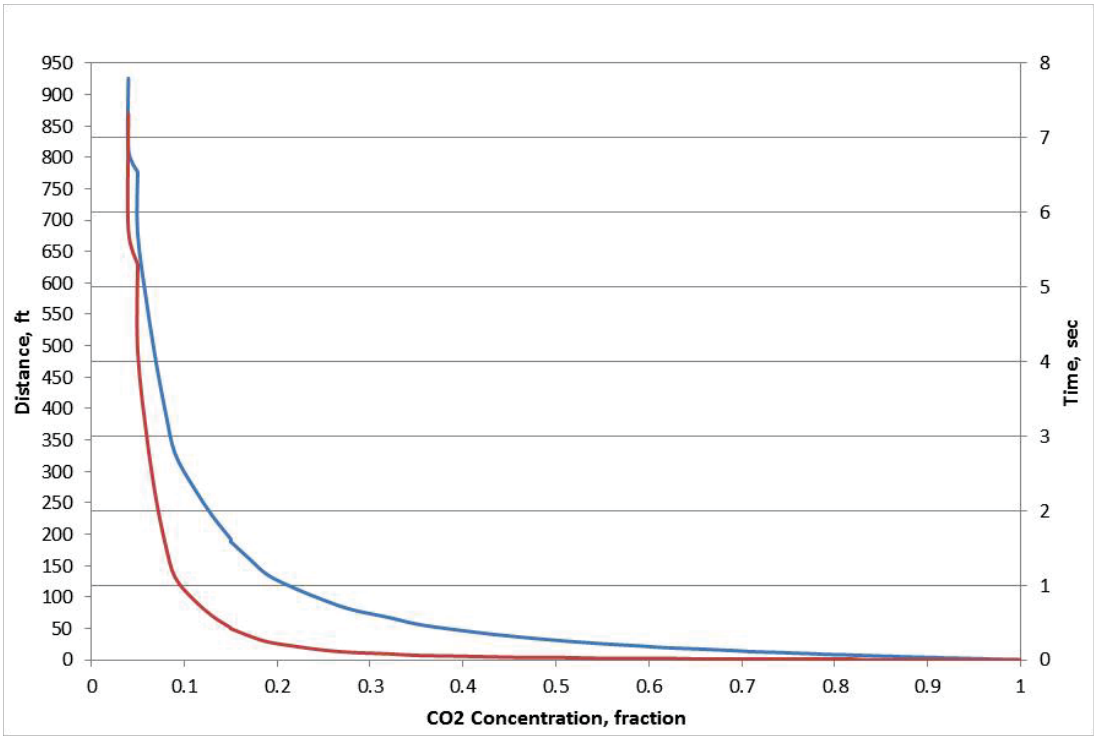


Figure 2: CO2 Concentration vs. Maximum Plume Distance and Time



4.2.3 HCA Identification

Using a 925 foot worst case dispersion corridor, the HCAs identified for the 16-inch line highly populated areas to the north and west of the pipeline near Interstate Highway 10. Approximately 2.26 miles of the route have potential to affect portions of this highly populated area. The remainder of the route is predominantly rural and not identified as an HCA by the US Department of Transportation, which consults recent census data to establish HCA footprints. A release of CO2 can affect other areas outside of officially designated HCAs, and these are identified and addressed using mitigation measures discussed below.

4.3 Risk Mitigation Measures

The design and construction of the Denbury CO2 pipeline lateral include the following elements to mitigate risks to the pipeline and surrounding HCA's.

- Selection of the pipeline route to minimize contact with HCA's where possible. Much of the route follows established utility corridors and traverses large undeveloped areas.
- Installing isolation valves on either side of navigable waterways >100ft in width. Waterways meeting this criterion along the pipeline route include Bayou D'Inde, the Houston River, and a Sabine River Diversion Canal. The longest section of pipeline between isolation valves is approximately 4 miles.
- Installing motor operators on strategic valves to facilitate remote closure and faster response time, typically 1-3 minutes after initiation of a closure command. Denbury operations personnel will also be located within approximately 15 minutes travel time to each valve on the pipeline.
- Hydrostatically pressure testing of all pipe and fittings in the pipeline to 125% of the maximum operating pressure. The predicted test pressure will be 2,950 psig based on the current pipeline design.
- Installing heavier wall thickness and abrasion-resistant coated pipe for all horizontal directionally drilled (HDD) installations. Pipe installed in HDDs will be designed with a 0.6 design factor, meaning that the maximum operating pressure of this pipe will be less than 60% of the pipe's specified minimum yield strength. The remainder of the pipeline will use a 0.72 design factor, irrespective of location designation.
- Incorporating inspection tool launchers and receivers into the design to allow for "smart pigs" to be run in the pipeline. Smart pigs traverse the entire length of the pipeline and record the condition of the pipe wall.
- Running a caliper or deformation inspection tool after all pipeline construction is complete to check for and allow for removal of any dents or out-of-round pipe.
- Selecting pipe steel with high impact properties to help resist outside force damage and high toughness to mitigate potential risk of ductile fracture of the pipe.
- Installing and maintaining pipe coatings and cathodic protection in accordance with DOT 49 CFR195 regulations. Pipe coatings will include 14-16 mils of fusion bond epoxy plus an additional 40 mils of abrasion-resistant coating like Powercrete for bored or horizontally drilled sections. Cathodic protection will include an industry-standard application of a low voltage charge to the pipeline to counter the positive ions created by the corrosion process.
- Burying all pipe with a minimum of 3 feet of cover or at least 4 feet of cover for any locations where the pipe is within 50 feet of a residence or business. There are currently less than 10 residences or businesses within 50 feet of the pipeline rights of way. The pipeline will be buried with at least 4 feet of cover adjacent to these structures.
- Establishing and maintaining liaison with appropriate fire, police, and public officials to

coordinate mutual assistance in responding to emergencies. The operator will also establish and maintain a continuing public awareness program in accordance with DOT 49 CFR 195 regulations to enable emergency response officials, the public, government officials, and those engaged in excavation activities to recognize a pipeline emergency and report it to appropriate public officials.

- Incorporating the pipeline and valves into a remote monitoring and control system.

5.0 CONSTRUCTION AND OPERATING MITIGATION MEASURES

The hazardous liquids pipeline industry, in general, has an excellent record of public safety. Pipeline system design, construction, operation, and maintenance follow strict industry practices, standards, and regulations to ensure public safety and reliability and to minimize the possibilities and effects of system failure. In the event of an incident, emergency response and contingency plans provide for a response to each of these circumstances. Prevention and mitigation measures for both the construction and operations phase of the Denbury Lake Charles lateral are discussed below.

5.1 Construction Phase

The pipeline will be constructed, operated and maintained in accordance with applicable Federal, state and local laws and regulations including but not limited to the DOT regulations in 49 CFR Part 195. In addition, construction specifications developed for installation of the pipeline will incorporate the requirements of all construction permits and Denbury engineering specifications, as well as project-specific plans and procedures for unique construction techniques.

Denbury will maintain an established safety program designed to minimize incidents and lost time injuries, and to protect the public near the Pipeline. Denbury will conduct group safety training sessions for inspection crews and construction contractor personnel before construction and each morning before construction activities begin. The construction contractor will also be required to have a safety representative onsite during construction. All personnel working on the right-of-way (ROW) during construction or operation and maintenance activities must at a minimum wear hard hats, safety glasses, and steel-toed shoes. Denbury requires that construction contractors perform all construction activities in a safe manner, including the operation of all construction equipment, all labor activities, and complying with the Occupational Safety and Health Administration's (OSHA's) excavation safety standards.

The Denbury Lake Charles lateral will be constructed of carbon steel manufactured in accordance with American Petroleum Institute (API) 5L, Grade X70, PSL 2 specifications, with an electric resistance welded (ERW) longitudinal weld seam. All pipe and appurtenances installed below grade will be coated with fusion-bonded epoxy or an equivalent protective coating, and painted with an industrial epoxy paint system for above grade installation. Buried pipeline joints will be coated with field-applied epoxy coatings. An impressed current cathodic protection system will be installed to further protect the integrity of the pipeline.

The proposed pipeline will be buried a minimum depth of 3 feet in all areas except at stream crossings where the burial depth will be at least 5 feet or greater under the stream/canal/river bottom (specific permit requirements will dictate exact burial depth for some crossings). Warning signs will be placed at road crossings and at other strategic spots along the pipeline route that will include identification and ownership information, including emergency contact telephone numbers.

The end point inspection tool launcher/receiver traps and intermediate valve stations will be located within security-fenced areas to prevent unauthorized access to the facilities. Buildings will be made of non-combustible materials. Electrical equipment and wiring will be installed in conformance with applicable sections of the National Electric Code, National Fire Protection Association (NFPA)-70.

The pipeline will be hydrostatically tested to prove its structural integrity before CO2 is introduced into the line and it commences operation. Testing will be performed and documented in accordance with 49 CFR Part 195.

Denbury will take further safety precautions regarding foreign utility lines that may be crossed during construction. Denbury will send letters to the owners of all known, reported, or otherwise documented lines within the proposed work areas along with drawings showing the location of the owners' respective lines. In the letters, Denbury will request a written response to the following inquiries:

- Size, type, and pressure
- Verification of the location and depth of cover
- ROW width
- Information concerning other pipelines immediately adjacent to or intersecting the new pipeline that were identified
- Special construction requirements
- Names, addresses, telephone numbers, and lead time of personnel to contact before construction begins

During construction, the contractor will complete the One Call notification to allow operators of foreign pipelines and utilities to probe and mark each line. Each foreign utility line will be carefully exposed before trenching.

Before construction, Denbury will notify all appropriate local officials and agencies concerning the schedule of upcoming construction activities. Where necessary, arrangements for detours and warning signs will be made for roads that will be impacted.

5.2 Operations Phase

Denbury maintains an operations and maintenance manual containing written procedures for normal operations and maintenance and abnormal operations and emergencies in accordance with DOT 49 CFR 195 regulations. This manual includes requirements for preventive maintenance and patrols of facilities, as well as procedures to be followed in the event of an accident or natural catastrophe. This manual is made available to all affected operations personnel.

Periodic training sessions and review of operating procedures and emergency procedures will be conducted for affected operations employees. This training will include the safe operation of all pipeline system equipment, hazardous material handling procedures, public liaison programs, emergency response actions and coordination, and general operating procedures.

Measures will be implemented to protect the public and exclude unauthorized persons from hazardous areas along the pipeline. All above ground facilities including block valves, scraper traps and delivery points will have perimeter chain link fencing with multiple-strand barbed wire

at the top. Valves and access gates will be locked at unmanned locations. Signage at facilities will include statements such as “Authorized Personnel Only”. On the right-of-way, pipeline warning signs complying with DOT regulations will be placed at all road, railroad and waterway crossings and at other locations of public access. Besides warning of the pipeline’s location, the signs will direct the public to call the Operations Control Center and the local one-call notification center at least 48 hours before commencing any excavation near the pipeline. Additionally, aerial patrols will give immediate phone notification to dispatch operations personnel of any apparent activity by the public near the pipeline that could be an endangerment to people and the pipeline.

Standard procedures will be implemented for temporary marking of the pipeline for third party contractors and utilities, and for obtaining adequate marking and location information of foreign lines and utilities prior to commencing maintenance work. Standard procedures will be implemented for maintenance activities such as lock-out / tag-out procedures, checking for low-oxygen atmospheres when the pipeline is opened, procedures for excavating pipelines and utilities, traffic control, and procedures that will ensure compliance with pertinent OSHA regulations.

5.3 Right-of-Way Inspections

Regularly scheduled aerial patrols of all Lake Charles lateral facilities will be performed along with scheduled preventive maintenance. Periodic vehicle patrol will also be used. Any unusual situation or condition will be reported and investigated immediately.

Denbury is also a member of the local Louisiana “One Call” System pre-excavation notification organization. Through this system, contractors provide notification to a central agency of proposed excavations, which in turn notifies the operator of the excavation locations. If facilities are located in the area of proposed contractor activity, they will be marked in the field, and a representative of the operator will be present during excavation to ensure that the facility is not compromised.

5.4 Monitoring and Control

An operations control center will monitor system pressures, flows, and customer deliveries. Further, the control center is manned 24 hours per day, 365 days per year. The operator will have remote operation control of specific mainline valves.

A Supervisory Control and Data Acquisition (SCADA) system, in the operations control center, will provide for pipeline control and monitoring at all times. Remote Terminal Units (RTU’s) for the SCADA system will be present at the end point stations and specific block valves along the system. If system pressures fall outside a predetermined range, an alarm will be activated and notice will be transmitted to the operations control center. The alarm will include notice if pressures at a station are not within an acceptable range. The operator will take corrective action and/or dispatch personnel to investigate the situation. Denbury personnel will provide quick response to emergencies and direct safety operations as necessary.