

**Kemper County Storage Complex**  
**Proposed Injection Wells MPC 19-2 and MPC 32-1**  
**Mississippi Power Company**  
**Application Narrative**  
**40 CFR 146.82(a)**

**Facility Information**

Facility Name: Kemper County Storage Complex

Well Names: MPC 19-2 and MPC 32-1

Facility Contact: Mississippi Power Company

Environmental Affairs

P.O. Box 4079

Gulfport, MS 39502-4079

Well Locations: Kemper County, Mississippi

MPC 19-2:

Latitude: 32.6130560, Longitude: -88.8061110

MPC 32-1:

Latitude: 32.5908015, Longitude: 88.7792582

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## List of Acronyms/Abbreviations

AoR	Area of Review
CCUS	Carbon capture, utilization, and storage
CO <sub>2</sub>	Carbon dioxide
CMG	Computer Modelling Group
DOE	Department of Energy
ECO <sub>2</sub> S	Establishing An Early Carbon Dioxide Storage
EPA	Environmental Protection Agency
ERRP	Emergency and Remedial Response
ft	feet
KCSC	Kemper County Storage Complex
mg/L	milligrams per liter
MMt	Millions of Metric tons
MPC	Mississippi Power Company
PISC	Post-Injection Site Care
psi	Pounds per square inch
psia	Pounds per square inch absolute
psig	Pounds per square inch gauge
RCA	Routine Core Analysis
SS	Sub- Sea
Tonnes	Metric tons
TVD	True Vertical Depth
UIC	Underground Injection Control
USDW	Underground Source of Drinking Water

## A. Project Background and Contact Information

### GSDT Submission - Project Background and Contact Information

**GSDT Module:** Project Information Tracking

**Tab(s):** General Information tab; Facility Information and Owner/Operator Information tab

Please use the checkbox(es) to verify the following information was submitted to the GSDT:

Required project and facility details [**40 CFR 146.82(a)(1)**]

### A.1. The Project

This Project, supported by the U.S. Department of Energy-National Energy Technology Laboratory (DOE-NETL), hosted by Mississippi Power Company (MPC) and Southern Company, and managed by the Southern States Energy Board (SSEB) and Advanced Resources International, Inc. (ARI), is working towards the development of a regional CO<sub>2</sub> Storage Complex in Kemper County, Mississippi. The property is located directly adjacent to MPC's Plant Ratcliffe and the local geology has demonstrated excellent CO<sub>2</sub> storage and confinement characteristics <sup>1</sup>.

Post-combustion CO<sub>2</sub> will be captured from MPC's natural gas power generation unit at Plant Ratcliffe (**Figure 1**) and transported via pipeline to the Kemper County Storage Complex (**Figures 2 and 3**), where it will be injected via two Class VI permitted wells. Prior to injection, compressor stations will be used to condense the transported CO<sub>2</sub> into liquid phase at the wellhead where it will then flash to the supercritical state as it travels down the injection wellbore and will be injected into the reservoir as a supercritical fluid. As such, references to CO<sub>2</sub> within the reservoir should be assumed to be in the supercritical state. No depth waiver or aquifer exemption is requested for this project since the proposed injection zone is greater than 4,000 ft deep and the reservoir fluid has been determined to be saline in nature, with total dissolved solids (TDS) greater than 25,000 mg/L. Fit-for-purpose monitoring protocols have been laid out to allow the project team to track the progress of the injected CO<sub>2</sub> and development of pressure plumes through well-based observation, thereby providing data inputs to numerical models to allow continuous interpretation of the flow profile development to ensure containment of the injectant.

<sup>1</sup> Pashin, J. C., Achang, M., Martin, S., Urban, S. K., & Wethington, C. L. R. (2020). Commercial-scale CO<sub>2</sub> injection and optimization of storage capacity in the southeastern United States (Project ECO2S, Kemper County energy facility, Mississippi): US Department of Energy. *National Energy Technology Laboratory Final Report (funded through the Southern States Energy Board and Advanced Resources International)*, contract DE-FE001055.

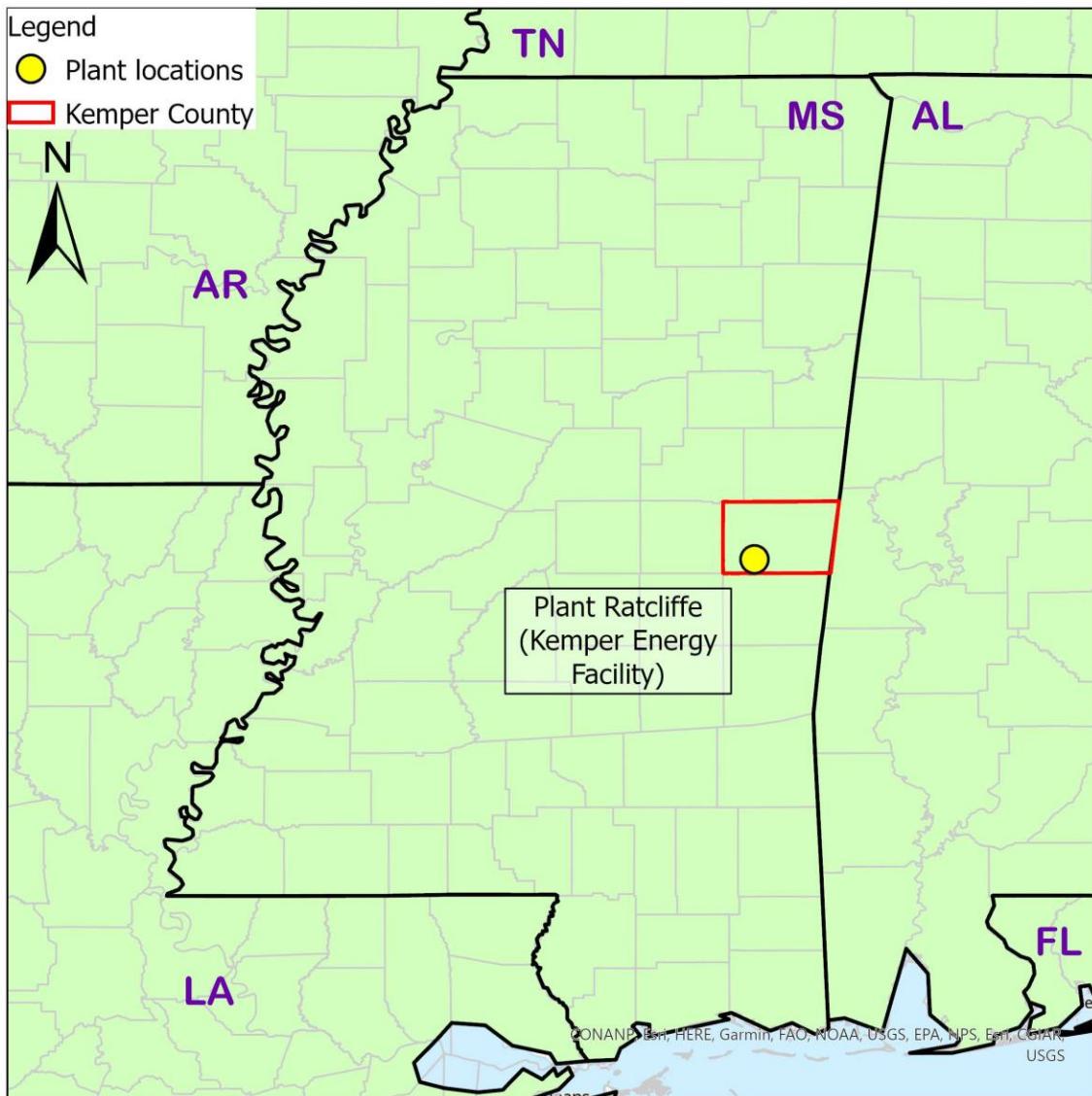


Figure 1. Regional View of Plant Ratcliffe and Kemper County, Mississippi.

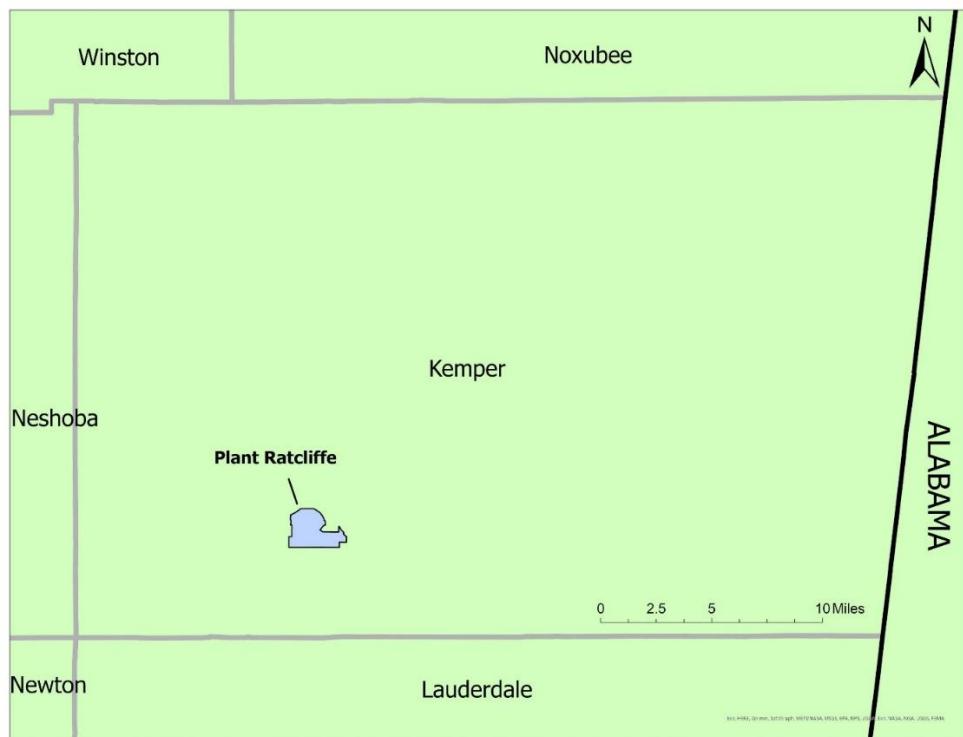


Figure 2. Location of the Plant Ratcliffe in Kemper County, Mississippi.

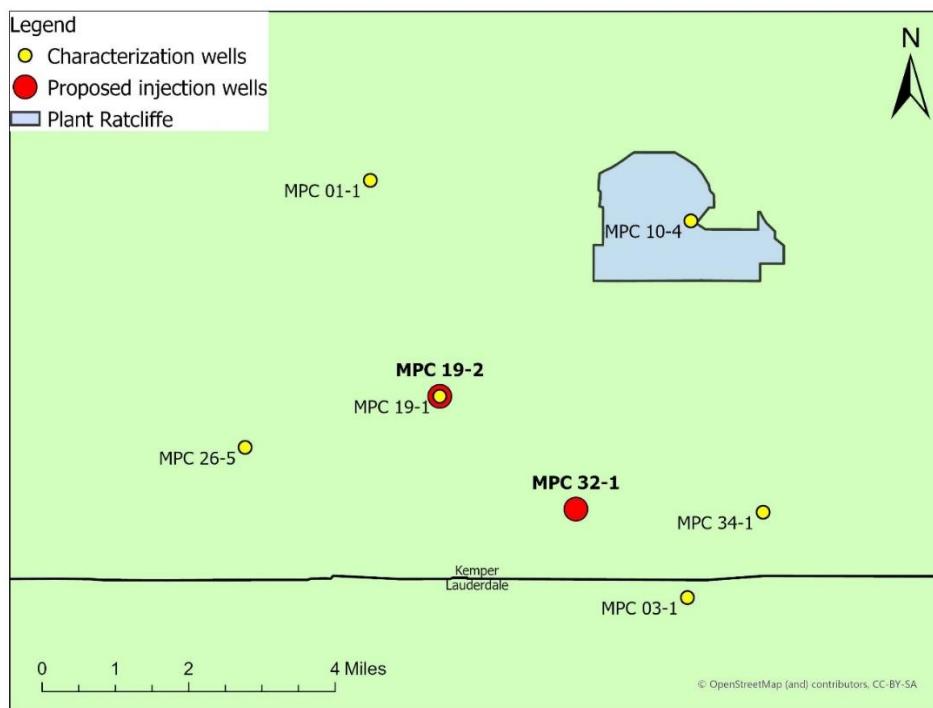


Figure 3. Kemper County Storage Complex. Showing Project Characterization and Proposed Injection Well Locations.

The Kemper County Storage Complex will provide safe, secure, and long-term CO<sub>2</sub> storage for a substantial portion of Southern Company's CO<sub>2</sub> emissions from power plants. In future years, the Storage Complex could also provide a viable storage option for CO<sub>2</sub> captured from additional power plants and other industrial sources in the region. Further, given the significant number of coal-fired generators still operated by Southern Company, the Project is in a unique position to provide the industry with real solutions to support its carbon management reduction goals.

The primary goals of the Project are to:

- A. Reduce CO<sub>2</sub> emissions from Southern Company facilities to help the site hosts meet their commitment to a low-carbon future,
- B. Geologically store more than 50 million tonnes of CO<sub>2</sub> over 30 years, and
- C. Monitor the subsurface CO<sub>2</sub> movement to ensure safe, secure, and long-term geological storage.

## **A.2. Proposed CO<sub>2</sub> source and mass/volume of injection**

The sources of CO<sub>2</sub> for the Project originate from the MPC generation unit at Plant Ratcliffe (**Figure 1**). Plant Ratcliffe is estimated to provide 0.7 - 0.9 million tonnes of captured CO<sub>2</sub> per year and is located adjacent to the Kemper County Storage Complex. The two injection wells will be capable of storing 7,946 tonnes / day, which is roughly equivalent to 90% of the total emissions from Plant Ratcliffe over 30 years.

## **A.3. Project timeframe**

In 2019, Southern Company announced their commitment to transitioning its power generation-fleet to a low-carbon future, including a goal of "a 50 percent reduction in carbon emissions (from 2007 levels) by 2030 and meeting a long-term goal of low- to no-carbon operations by 2050" <sup>2</sup>. A major component of Southern Company's CO<sub>2</sub> emissions reduction strategy includes implementing carbon capture and geologic storage, which removes CO<sub>2</sub> from the atmosphere and stores it underground in geological formations to reduce carbon emissions over time.

The characterization phase of the Project began in 2017 with the drilling of three characterization wells in the Kemper County Storage Complex (MPC 10-4, MPC 26-5, and MPC

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<sup>2</sup> Southern Company (2020). Implementation and action toward net zero.

34-1; **Figure 3**). Three more characterization wells were drilled over 2020 and 2021 (MPC 01-1, MPC 03-1, and MPC 19-1).

Two proposed injection wells will be permitted at the Kemper County Storage Complex: the first proposed injection well (MPC 19-2) will be on the same pad as the MPC 19-1, and the second proposed injection well (MPC 32-1) will be located approximately 2 miles to the southeast. The two proposed injection wells will accommodate the proposed volume of CO<sub>2</sub> provided from the natural gas combustion at MPC's Plant Ratcliffe.

In parallel to the injection site development, studies are currently ongoing to develop front-end engineering designs for the carbon capture facilities and transportation infrastructure. To pull this multi-faceted Project together, it is anticipated that the 30-year injection period will start in 2025, end in 2055, and be followed by a 20-year post-injection site care period, taking the Project to 2075.

#### **A.4. Partners/Collaborators/Stakeholders**

MPC and Southern Company have made major, corporate-level commitments toward the development of the Kemper County Storage Complex. MPC will serve as the project owner and will assume liability of the project development, finance, and operation, with support from federal- and state-level agencies.

The Project will be carried out entirely within the State of Mississippi and focused on Kemper and Lauderdale counties. No tribal or territory boundaries will be impacted per 40 CFR 146.82(a)(20). Key contacts are:

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## B. Geological Site Characterization

The Geological Site Characterization document comprises a collection of work that reflects the characterization efforts undertaken by the project team to evaluate and understand the subsurface conditions present at the Kemper County Storage Project and their suitability for CO<sub>2</sub> storage. The contents of this document satisfy the requirements outlined in **40 CFR 146.83**. In order to accurately characterize and evaluate the storage potential of the subsurface within the designated project area six deep stratigraphic characterization wells were drilled in the area surrounding Mississippi Power Company's Plant Ratcliffe. A suite of geophysical logs was collected from each well, including gamma ray, resistivity, neutron porosity, density porosity, and dipole sonic. These logs were utilized to generate a series of maps and cross sections for subsurface structural evaluation and to provide details on lateral extent and potential changes in formation thickness across the Kemper County Storage Complex .

Along with the geophysical logs, approximately 280 feet of core were extracted from the deep stratigraphic characterization wells. The core was pulled from intervals covering both the identified storage reservoir of the Paluxy Formation as well as the confining zone which has been identified as the Tuscaloosa Marine Shale, along with several other secondary reservoir and caprock intervals identified as the Dantzler sand and Big Fred sand members of the Washita-Fredericksburg interval (potential secondary reservoirs) which are separated by undifferentiated shale units within the Washita-Fredericksburg interval that may act as secondary confining zones within the Kemper County Storage Complex. The results of the core analysis carried out for the project are presented and discussed in the document.

Within the Geological Site Characterization document, details of the regional and local geology, hydrogeology, and structural setting of the Kemper County Storage Complex are presented. A series of maps and cross-sections are used to identify and the stratigraphic units evaluated as part of the total storage complex. These highlight the gentle regional formation dip across the project area as well as the consistency of formation thickness and lateral extent and, lastly, demonstrate the lack of significant structural features (i.e., anticline, syncline, faults, etc) that would impact CO<sub>2</sub> lateral migration and provide possible migration pathways for the injected CO<sub>2</sub> out of the injection zone.

The Site Suitability for the Kemper County Storage Complex is further demonstrated with discussions on the local and regional hydrogeology, geochemical and petrophysical relationships, and evaluation of the regional seismic history. Underground Sources of Drinking Water (USDWs) have been identified with the deepest being the Eutaw-McShan aquifer located in the McShan

Member of the Eutaw Formation. The petrophysical and geochemical properties of the Paluxy Formation and Tuscaloosa Marine Shale are discussed to demonstrate the suitability of the reservoir and sealing formations to contain CO<sub>2</sub> as well as understand the potential for geochemical reactions that may take place as the injected CO<sub>2</sub> enters and migrates through the reservoir. Data on the seismic history of the region is also presented and used to demonstrate that the region surrounding the Kemper County Storage Complex is not seismically active and all historically recorded events are of low magnitude and do not pose a risk to the planned operations.

## C. AoR and Corrective Action

### AoR and Corrective Action GSDT Submissions

**GSDT Module:** AoR and Corrective Action

**Tab(s):** All applicable tabs

Please use the checkbox(es) to verify the following information was submitted to the GSDT:

- Tabulation of all wells within AoR that penetrate confining zone [**40 CFR 146.82(a)(4)**]
- AoR and Corrective Action Plan [**40 CFR 146.82(a)(13) and 146.84(b)**]
- Computational modeling details [**40 CFR 146.84(c)**]

The information and files submitted in the AoR and Corrective Action plan satisfy the requirements of **40 CFR 146.84(b)**. This plan addresses how the Area of Review (AoR) will be delineated and uses corrective action techniques to address all deficient artificial penetrations and other features that compromise the integrity of the confining zone above the injection zone. The AoR is created to encompass the entire region surrounding the Kemper County Storage Complex where USDWs may be endangered by injection activity. The AoR is delineated by the lateral and vertical migration extent of the CO<sub>2</sub> plume, formation fluids and pressure front in the subsurface. A computational model was built to model the subsurface injection of CO<sub>2</sub> into the Paluxy Formation in the Kemper County Storage Complex. The GEM simulator is used to assess the development of the CO<sub>2</sub> plume, the pressure front, and the long-term fate of the injection. The AoR is delineated by the full lateral and vertical extent of the CO<sub>2</sub> plume in the subsurface, and used to monitor where USDW's may be compromised by injection activity. Details of the computational modelling, assumptions that are made, and the site characterization data that the model is based on satisfies the requirements of **40 CFR 146.84(c)**.

A list of wells that penetrate the confining zone is included to satisfy the requirements of **40 CFR 146.82(a)(4)**. This shows that all deficient artificial penetrations in the AoR that could

serve as conduits for fluid flow out of the injection zone are properly managed through designated corrective action methods.

## D. Financial Responsibility

### Financial Responsibility GSDT Submissions

**GSDT Module:** Financial Responsibility Demonstration

**Tab(s):** Cost Estimate tab and all applicable financial instrument tabs

Please use the checkbox(es) to verify the following information was submitted to the GSDT:

Demonstration of financial responsibility [**40 CFR 146.82(a)(14) and 146.85**]

The Financial Responsibility plan demonstrates the financial responsibility for corrective action on wells in the AoR, injection well plugging, PISC and site closure, and emergency and remedial response according to 40 CFR 146.85. Specifically for the Kemper County Storage Complex, no corrective action is anticipated as there are no penetrations into the confinement zone except for the project wells. Injection well plugging costs are given according to the Injection Well Plugging Plan and PISC and Site Closure costs are presented in cashflow tables within the Financial Responsibility Plan according to the testing and monitoring strategy outlined in the Testing and Monitoring Plan. The Emergency and Remedial Response Plan covers the costs of one (1) leakage event throughout the project life. For more details, refer directly to the Financial Responsibility Plan where the financial instrument(s) are outlined, and costs are presented in more detail on a per tonne and total cost basis.

## E. Injection Well Construction

The Injection Well Construction plan is designed to meet and exceed the EPA Class VI standards for casing design, cement, and wellhead [40 CFR 146.86(a)]. In addition, the injection well design is sufficient to accommodate the mass flow rate of CO<sub>2</sub> that will be delivered to the storage site. The operating flow rate of 75 MMSCF/D or 3,973 tonnes/day shall be accomplished through 4 ½-inch corrosion-resistant tubing with an average wellhead pressure (WHP) of 1,200 psia. Corrosion-resistant materials shall be used throughout the CO<sub>2</sub> flow stream, including the wellhead, tubing, packer, and cement in the injection zone. Details are provided on the construction of the injection well, including safety factors, casing selection, and material properties.

## F. Pre-Operational Logging and Testing

### Pre-Operational Logging and Testing GSDT Submissions

**GSDT Module:** Pre-Operational Testing

**Tab(s):** Welcome tab

Please use the checkbox(es) to verify the following information was submitted to the GSDT:

Proposed pre-operational testing program [**40 CFR 146.82(a)(8) and 146.87**]

The pre-operational testing and logging plan is designed to establish an accurate baseline dataset of pre-injection site conditions as well as verify depths and physical characteristics of geologic formations germane to the injection and confining zones, and ensure that injection well construction satisfies requirements outlined in section 146.86.

During the drilling and construction phase of the project, appropriate log suites, surveys, and tests will be deployed to verify the depth, thickness, porosity, permeability, and lithology of pertinent geologic formations, as well as the salinity of formation fluids within them.

Deviation checks will be performed during drilling at frequent intervals to keep track of the borehole location in the subsurface and serve as a reference for steering purposes in order to achieve as near to vertical wellbore as possible. These checks will also assist in assuring that avenues for vertical fluid movement are not created in the form of diverging holes while drilling.

Resistivity, spontaneous potential, and caliper logs will be run before casing is run. A cement bond log along with variable density and temperature logs will be run to evaluate radial cement quality once the casing is cemented in place.

At minimum, resistivity and spontaneous potential logs, along with porosity, caliper, gamma ray, and fracture finder logs will be run prior to the installation of the long string casing. Cement bond, variable density, and temperature logs will also be run after long string casing is cemented in place to verify the quality of the cement job.

Internal and external mechanical integrity of the injection wells will be tested to demonstrate the absence of leaks in the wellbore that could result in migration of CO<sub>2</sub> out of the injection zone. An annular pressure test will be performed within 24 hours of cementing casing.

Core samples have been taken of the confining and injection zones while drilling the characterization and observation wells. Analysis of these cores was coupled with analysis of well logs as part of the geologic site characterization study. Results demonstrated consistency of key aspects of the subsurface geology, including presence, thickness, porosity, and permeability of the reservoir across the AoR.

Fluid samples were collected from the injection zone in a well approximately 4 miles from the planned injection location. Fluid sample analysis established baseline measurements for fluid temperature, pH, conductivity, reservoir pressure, and static fluid level of the injection zone.

Upon completion and before operation, hydrogeologic characteristics of the injection zone will be determined by performing a composite injectivity evaluation test in the injection interval to determine the large-scale transmissivity through the reservoir.

## **G. Well Operation**

The Well Operation plan describes the procedure to safely inject CO<sub>2</sub> into the injection zone (Paluxy Formation) sourced from MPC's Plant Ratcliffe facilities while adhering to requirements at 40 CFR 148.88. The design basis for the capture facility is 80-90% availability (i.e., 292-329 days/year), and thus the daily CO<sub>2</sub> flow rate of the operational system is 3,973 tonnes/day (1.45 million tonnes/year). Liquid CO<sub>2</sub> will be injected at the wellhead at an average pressure of 1,200 psia and an average temperature of 65 °F. The injection well will operate below 90% of the fracture pressure of the reservoir. To ensure compliance, MPC will utilize continuous monitoring devices, alarms, and automatic shut-off devices. For more details, please refer to the Well Operation plan.

## **H. Testing and Monitoring**

### **Testing and Monitoring GSDT Submissions**

**GSDT Module:** Project Plan Submissions

**Tab(s):** Testing and Monitoring tab

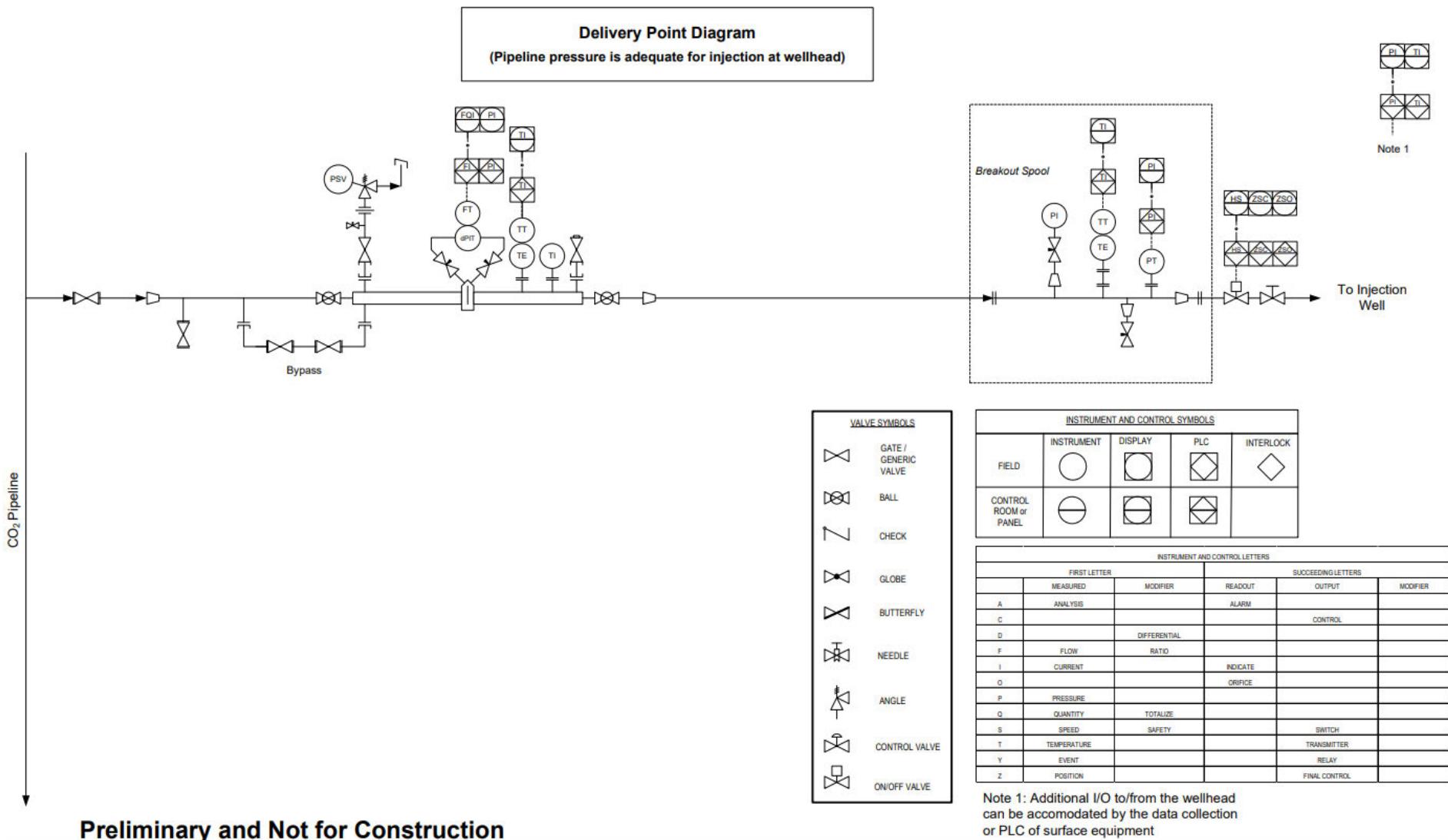
Please use the checkbox(es) to verify the following information was submitted to the GSDT:

Testing and Monitoring Plan **[40 CFR 146.82(a)(15) and 146.90]**

The Testing and Monitoring Plan describes how Mississippi Power Company (MPC) will monitor the Kemper County Storage Complex site, pursuant to 40 CFR 146.90, for the duration of the injection phase of this project. This plan will serve to demonstrate that the well is operating as planned, that the sequestered Carbon Dioxide (CO<sub>2</sub>) plume and pressure front are moving as predicted and ensure that the CO<sub>2</sub> plume does not become a contamination risk to underground sources of drinking water (USDWs). Monitoring data collected will also be used to validate and adjust geological models used to predict the movement of CO<sub>2</sub> within the storage zone to support AoR re-evaluations.

Analysis of the CO<sub>2</sub> stream will be conducted at a frequency sufficient to generate data that is representative of its physical and chemical characteristics.

Continuous recording devices will be installed and used to monitor injection parameters including pressure, rate, and volume pursuant to 40 CFR 146.88(e). Annular pressure between tubing and long string casing, as well as the annulus fluid volume added will also be monitored. The CO<sub>2</sub> stream at the injection well will be equipped with instrumentation to monitor the pressure and temperature of the CO<sub>2</sub> at the surface and the amount of CO<sub>2</sub> that is injected. There are many suppliers of instrumentation for pressure and temperature of the process. Examples of Rosemount instruments for pressure are model 3051 and for temperature are model 3144. For flow measurement, common methods of mass measurement for CO<sub>2</sub> streams are an orifice meter or Coriolis meter. A Coriolis meter is a direct mass measurement, density of the fluid measured by the meter. The mass measurement from the orifice meter is calculated from the density correlation built into the flow computer associated with the meter. Shutoff devices on the well or on the surface piping can be controlled by local instrumentation or from operational control center. The process flow diagram (PFD) of the surface piping from CO<sub>2</sub> pipeline to injection well with the continuous recording devices, alarms, and shut-off devices is illustrated by the schematic below.



**Preliminary and Not for Construction**

**Figure 4. Wellpad Injection Connection Diagram**

Well materials will be monitored and assessed on a quarterly basis for loss of mass, thickness, cracking, pitting, or other signs of corrosion. Sample material coupons will be placed in contact with the CO<sub>2</sub> stream and/or the CO<sub>2</sub> stream will be routed through a loop constructed from the same material used in well construction. Materials analysis will be compared with standards outlined in section 146.86(b) to ensure that all physical parameters continually meet or exceed minimum requirements for material strength and performance. The general guidelines for testing and monitoring are summarized as follows:

- Groundwater quality and chemistry will be monitored frequently above the confining zone for any changes that may be resultant from CO<sub>2</sub> movement from the reservoir through the confining zone.
- An external mechanical integrity test as outlined by section 146.89(c), will be performed at least annually until the injection well is plugged, or more frequently if requested by the Director.
- A pressure fall-off test will be performed at minimum once every five years or as often as is requested by the Director.
- The spatial nature and extent of the CO<sub>2</sub> plume, along with the presence or absence of pressure within the plume front margin will be monitored.

This testing and monitoring plan will be reviewed periodically, at minimum every 5 years. The plan will be adjusted accordingly to meet any changes to the facility or site conditions over time. Amended plans will be sent to the Director for approval as outlined in the permit modification requirements in sections 144.39 or 144.41 as appropriate.

## I. Injection Well Plugging

### Injection Well Plugging GSDT Submissions

**GSDT Module:** Project Plan Submissions

**Tab(s):** Injection Well Plugging tab

Please use the checkbox(es) to verify the following information was submitted to the GSDT:

Injection Well Plugging Plan [**40 CFR 146.82(a)(16) and 146.92(b)**]

The mechanical integrity of the well must be demonstrated after CO<sub>2</sub> injection and prior to the plugging of the well to ensure no pathway has been established between the injection zone and the underground sources of drinking water (USDWs) or ground

surface according to **40 CFR 146.82(a)(16)** and **40 CFR 146.92(b)**. Mechanical integrity testing requires a temperature log, noise log, or an activated-oxygen log to be run in the well. MPC will utilize a temperature log that will be run over the entire depth of the injection well to ensure fluid is not migrating outside of the injection zone. Further, this data will be compared to the pre-injection and operational phases of the project. Bottomhole pressure measurements will be recorded during the project, and the post-injection bottomhole pressure will be utilized to select a brine weight to maintain well control during logging activities. Additionally, this data will inform the cement weight for plugging operations. MPC will utilize full wellbore cement coverage to ensure containment of injection fluids and protection of USDWs. The injection well will be plugged with corrosion-resistant (EverCRETE or similar) cement across the injection zone and above the confinement zone and Class A cement from that point to surface. Following plugging, the casing will be cut off below ground surface and have a steel cap welded across the top. For more specific information, please refer to the *Injection Well Plugging Plan*.

## **J. Post-Injection Site Care (PISC) and Site Closure**

### **PISC and Site Closure GSDT Submissions**

**GSDT Module:** Project Plan Submissions

**Tab(s):** PISC and Site Closure tab

Please use the checkbox(es) to verify the following information was submitted to the GSDT:

PISC and Site Closure Plan [**40 CFR 146.82(a)(17) and 146.93(a)**]

**GSDT Module:** Alternative PISC Timeframe Demonstration

**Tab(s):** All tabs (only if an alternative PISC timeframe is requested)

Please use the checkbox(es) to verify the following information was submitted to the GSDT:

Alternative PISC timeframe demonstration [**40 CFR 146.82(a)(18) and 146.93(c)**]

This chapter presents an overview of the Post-Injection Site-Care (PISC) and Site-Closure plan for the Kemper County Storage Complex pursuant to 40 CFR 146.82(a)(17) and 146.93(a). The PISC phase will begin when all CO<sub>2</sub> injection ceases and ends with site closure. Class VI Rule requires the demonstration of protection of USDWs throughout the PISC phase, and of non-endangerment for site closure. This plan describes the post-injection modeling that was completed to determine the pressure differential, position of the CO<sub>2</sub> plume, and to predict CO<sub>2</sub> migration. Additionally, there is a detailed description of the post-injection monitoring plan and the site-closure plan. Post-injection computational modeling was completed to predict CO<sub>2</sub>

migration, determine pre- and post-injection pressure differentials and the overall Area of Review (AoR) of the Kemper County Storage Complex. The numerical reservoir model used for calculating the AoR was also used for the post-injection site-care, and site-closure analysis.

The predicted positions of the CO<sub>2</sub> storage zone and pressure front at the end of 30 years of injection, 10 years after injection, and 20 years after injection were simulated in the model. The simulation indicates that the CO<sub>2</sub> plume would remain within 2.5 miles from the injection well at the time of site closure. Most of the CO<sub>2</sub> mass is concentrated around the injection well with some thin streaks of CO<sub>2</sub> extending further away to the northeast of the injection wells in the up-dip direction. Based on the model, it is estimated that there is not sufficient hydrostatic pressure in the injection zone to push fluids into or interact with the lowermost USDW, which is the Eutaw-McShan located in the McShan Member of the Eutaw Formation.

## K. Emergency and Remedial Response

### Emergency and Remedial Response GSDT Submissions

**GSDT Module:** Project Plan Submissions

**Tab(s):** Emergency and Remedial Response tab

Please use the checkbox(es) to verify the following information was submitted to the GSDT:

Emergency and Remedial Response Plan [**40 CFR 146.82(a)(19) and 146.94(a)**]

The Emergency and Remedial Response Plan (ERRP) details actions that Mississippi Power Company (MPC) shall take to address movement of the injection fluid or formation fluid in a manner that may endanger an underground source of drinking water (USDW) during the construction, operation, or post-injection site care periods, pursuant to **40 CFR 146.82(a)(19) and 146.94(a)**. Examples of potential risks include: (1) injection or monitoring well integrity failure, (2) injection well monitoring equipment failure, (3) natural disaster, (4) fluid leakage into a USDW, (5) CO<sub>2</sub> leakage to USDW or land surface, or (6) an induced seismic event. In the case of one of the listed risks, site personnel, project personnel, and local authorities will be relied upon to implement this EERRP. MPC will communicate to the public about any event that requires an emergency response to ensure that the public understands what happened and whether there are any environmental or safety implications. This will include a detailed description of what happened, any impacts to the environment or other local resources, how the event was investigated, what actions were taken, and the status of the remediation. The EERRP will need to be reviewed at least once every five years following its approval, within one year of an

area of review (AoR) reevaluation, within the timeframe indicated by the UIC Program Director following any significant changes to the injection process or the injection facility, or an emergency event, or as required by the permitting agency. Periodic training will be provided to well operators, plant safety and environmental personnel, the plant manager, plant superintendent, and corporate communications to ensure that the responsible personnel have been trained and possess the required skills to perform their relevant emergency response activities described in the EERP.

## **L. Other Information**

*No additional information*