# **CLOSURE PLAN**

# 30 TAC 352.1211 [40 CFR 257.102(b)]

FGD Stack Out Area

Pirkey Power Plant Hallsville, Texas

Initial: October, 2016 Revision 1: May 1,2023 Revision 2: January 29, 2025

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# CLOSURE PLAN 30 TAC 352.1211 [40 CFR 257.102(b)] PIRKEY POWER PLANT FGD STACK OUT AREA

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I certify to the best of my knowledge, information, and belief that the information contained in this closure plan meets the requirements of 30 TAC 352.1211 (40 CFR § 257.102)

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# **ATTACHMENTS**:

- Soil Sampling and Analysis Plan
  - Figure 1: Site Location Map
  - Figure 2: CCR Unit Location Map
  - Figure 3: Stack Out Area Sampling Grid

Revision January 2025:

Added Section 4.1 and attached the Sampling and Analysis Plan.

#### 1.0 OBJECTIVE

This report was prepared by AEP- Geotechnical Engineering Services (GES) section to fulfill requirements of CFR 257.102(b) for Closure Plans of Existing CCR Units.

#### 2.0 DESCRIPTION OF THE CCR UNIT

The Henry W. Pirkey Power Station is located at 2400 FM 3251 and south of Hallsville, Texas. It is owned and operated by Southwest Electric Power Company (SWEPCO). The facility operates a FGD Stack Out Pad Area to collect and temporarily store the CCR materials until they can be hauled to the Plant's Landfill facility.

The Pirkey FGD Stack Out Area is a Class 2, Industrial Solid Waste Facility and designated as a waste pile per the Texas Commission on Environmental Quality (TCEQ).

The FGD Stack Out Area is located directly adjacent to and west of the main plant area. The FGD Stack Out Area receives a mixture of fly ash and scrubber sludge material that is deposited by a radial stacker equipment. The FGD Stack Out Area is approximately 5 acres and has a storage capacity of 18.6 acre-feet or 30,000 cubic yards. The FGD Stack Out Area gently grades into an existing surge pond.

# 3.0 DESCRIPTION OF CLOSURE PLAN 30 TAC 352.1221 [257.102(b)(1)(i)]

[A narrative description of how the CCR unit will be closed in accordance with this section]

Closure of the Pirkey FGD Stack Out Area will be by removal of the CCR material and re-grading the area for positive drainage.

# **4.0** CLOSURE BY REMOVAL 30 TAC 352.1221 [257.102 (b)(1)(ii)]

[If closure of the CCR unit will be accomplished through removal of CCR from the CCR unit, a description of the procedures to remove the CCR and decontaminate the CCR unit in accordance with paragraph (c) of this section.]

Closure by removal of CCR will include removal of all CCR from the CCR unit. The removal of all CCR from the CCR unit and any areas subsequently determined to have been affected by releases from the CCR unit will be accomplished by excavation of the CCR material, then hauling and placing of the material in the onsite Pirkey Landfill. The procedures for removal or decontamination of any areas affected by releases from the CCR unit to the underlying and surrounding soils will be determined by visual evaluation until all the CCR materials are removed. After all the CCR materials has been removed, an additional 12 inches of native soil will be removed. Following removal of the final quantities of CCR, the stack out area will be graded and modified as necessary to maintain positive drainage.

#### 4.1 SOIL SAMPLING AND TESTING

In order to confirm and verify that the subsurface soils are free from any release or contamination due to the storage of the CCR materials in the FGD Stack Out Area, soil samples will be collected, and laboratory tests performed. All the CCR and additional 1-foot of native soils has been removed from the FGD Stack Out Area. A detailed scope is provided in the Soil Sampling and Analysis Plan attached for reference.

# **4.2** CLOSURE PERFORMANCE STANDARDS 30 TAC 352.1211 [40 CFR 257.102 (c)]

[An owner or operator may elect to close a CCR unit by removing and decontaminating all areas affected by releases from the CCR unit. CCR removal and decontamination of the CCR unit are complete when constituent concentrations throughout the CCR unit and any areas affected by releases from the CCR unit have been removed and groundwater monitoring concentrations do not exceed the groundwater protection standard established pursuant to §257.95(h) for constituents listed in appendix IV to this part.]

Closure of the CCR unit will be completed when all CCR in the unit and any areas affected by releases from the CCR unit have been removed and groundwater monitoring demonstrates that all concentrations of the assessment monitoring constituents listed in appendix IV to part 257 do not exceed either statistically equivalent background levels or MCLs for two consecutive sampling events using the statistical procedures in § 257.93(g).

# **5.0** ESTIMATE OF MAXIMUM CCR VOLUME 30 TAC 352.1211 [40 CFR 257.102 (b)(1)(iv)]

[An estimate of the maximum inventory of CCR ever on-site over the active life of the CCR unit.]

The estimated maximum CCR volume on-site is 30,000 Cubic Yards for the FGD Stack Out Area.

# **6.0** ESTIMATE OF LARGEST AREA OF CCR REQUIRING COVER 30 TAC 352.1211 [40 CFR 257.102 (b)(1)(v)]

[An estimate of the largest area of CCR unit ever requiring a final cover

The FGD Stack Out Area will be closed by removal of CCR materials as such this section is not applicable.

# 7.0 CLOSURE SCHEDULE 30 TAC 352.1211 [40 CFR 257.102(b)(1)(vi)]

[A schedule for completing all activities necessary to satisfy the closure criteria in the section, including an estimate of the year in which all closure activities for the CCR unit will be completed. The schedule should provide sufficient information to describe the sequential steps that will be taken to close the CCR unit, including identification of major milestones such as coordinating with and obtaining necessary approvals and permits from other agencies, the dewatering and stabilization phases of the CCR surface impoundment closure, or installation of the final cover system, and the estimated timeframes to complete each step or phase of the CCR unit closure.

The generating unit had ceased operation in March 2023. The following schedule is related to the work necessary to complete final closure activities of the Stack Out Area.

## **Tentative Schedule of Closure Activities**

Activity	Start-to-Completion Dates
Prepare Design/Drawings for Closure	May-July 2023
Award Construction Contract for Closure	July-August 2023
Install Erosion and Sediment Control	August-September 2023
Initiate Closure Activities	August-October 2023
Prepare Construction Certification Report	December 2023
Soil Sampling	January 2025

# **ATTACHMENTS**



American Electric Power/Southwestern Electric Power Company

# Soil Sampling and Analysis Plan – Flue Gas Desulfurization Stack Out Area

Henry W. Pirkey Power Plant 2400 FM 3251 Hallsville, Harrison County, Texas

January 2025

# Soil Sampling and Analysis Plan – Flue Gas Desulfurization Stack Out Area

Henry W. Pirkey Power Plant 2400 FM 3251 Hallsville, Harrison County, Texas

January 2025

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Figure 2. Coal Combustion Residual (CCR) Unit Location Map

Figure 3. FGDSA Sampling Grid

# **Acronyms and Abbreviations**

AEP American Electric Power Company

CCR Coal Combustion Residue

CFR Code of Federal Regulations

COC Chemical of Concern

CQA Construction Quality Assurance

DPT Direct Push Technology

EBAP East Bottom Ash Pond

EPA Environmental Protection Agency

FGDSA Flue Gas Desulfurization Stack out Area

Ft bgs Feet Below Ground Surface

GWPS Groundwater Protection Standard

HASP Health and Safety Plan

JSA Job Safety Analysis/Analyses

NELAP National Environmental Laboratory Accreditation Program

pCi/g Picocuries/gram

PCL Protective Concentration Level

RALs Residential Assessment Levels

SAP Sampling and Analysis Plan

SPLP Synthetic Precipitation Leaching Procedure

SWEPCO Southwestern Electric Power Company

TAC Texas Administrative Code

TCEQ Texas Commission on Environmental Quality

TRRP Texas Risk Reduction Program

USCS Unified Soil Classification System

WBAP West Bottom Ash Pond

# 1 Introduction

Southwestern Electric Power Company (SWEPCO), a subsidiary of American Electric Power (AEP), owns and operated the Henry W. Pirkey Power Plant (the Plant), located at 2400 FM 3251 in Harrison County, approximately five miles southeast of Hallsville, Texas and approximately eight miles southwest of Marshall, Texas (**Figure 1**). The Plant operated from 1985 to 2023 and consists of four coal combustion residuals (CCR) waste management units (West Bottom Ash Pond, East Bottom Ash Pond, Flue Gas Desulfurization Stack out Area [FGDSA], and Landfill) (Arcadis, 2016). A site plan showing the Plant and CCR units is provided as **Figure 2**.

Arcadis U.S., Inc. (Arcadis), on behalf of AEP, has prepared this Soil Sampling and Analysis Plan (SAP) to support closure of the FGDSA. As part of closure, SWEPCO must demonstrate that the unit has been adequately decontaminated for the list of constituents in 40 CFR 257 Appendix IV and this SAP covers the collection and analysis of soil samples to make this demonstration.

This SAP will be provided to the Texas Commission on Environmental Quality (TCEQ) for review. After receiving TCEQ's concurrence to proceed with sampling, the SAP will be implemented and a report summarizing the sampling results and justifying this approach will be prepared and submitted to the TCEQ as part of the FGDSA closure package. The soil SAPs for the EBAP and WBAP are provided under separate covers.

# 2 Unit Description

The base of the FGDSA was constructed in 1983 and 1984 with a compacted clay liner and was placed into operation in 1985. The FGDSA was approximately 650 feet by 450 feet with a surface area of 7 acres. However, the CCR piles in the FGDSA were located no closer than approximately 50 feet from the perimeter, therefore, the effective storage area of the FGDSA is approximately 550 feet by 350 feet with an area of approximately 4 acres and has a storage capacity of approximately 18.6 acre-feet or 30,000 cubic yards. The FGDSA received stabilized FGD sludge, and it was stockpiled in the area using a radial stacker with an approximately 3 foot wide by 120 foot long conveyor belt. This provided temporary storage of the stabilized sludge until it was removed using front-end loaders or similar equipment and placed in trucks to be disposed of at the on-site Landfill CCR Unit near the south end of the plant (Arcadis, 2016).

A groundwater monitoring system was developed for the FGDSA in 2017, and assessment monitoring was initiated in March of 2017 and continues today.

# 3 Summary of Closure Activities

As required in 40 Code of Federal Regulation (CFR) §257.101(a)(1) (30 TAC 352), the owner or operator of an existing unlined CCR surface impoundment must close the CCR unit. AEP submitted the Intent to Initiate Closure Notification in accordance with §352.1221(a) to the TCEQ on September 1, 2023. A Closure Plan for the FGDSA was prepared in accordance with 40 CFR §257.102(b) in October 2016 and revised in May 2023. As stated in the Closure Plan, the FGDSA was to be closed by CCR removal in accordance with §257.102(c).

AEP discontinued sluicing CCR to the FGDSA and sending miscellaneous non-CCR wastewater streams to the FGDSA in March 2023. Per 40 CFR §257.102(c) and 30 TAC §352.1221, part of the closure by removal process

involves removing and decontaminating all areas affected by releases from the CCR unit. In order to achieve this goal, AEP determined that in addition to removal of the CCR, an additional 12 inches (minimum) of existing soil beneath the pond would be excavated.

Removal of CCR and an additional one foot of underlying soil from the FGDSA has been completed. A construction as-built drawing showing the contours of the bottom of the FGDSA after CCR and additional soil removal was prepared by the Construction Quality Assurance (CQA) contractor (Akron, 2023).

A closure certification report for the FGDSA, dated November 21, 2023, was submitted to the TCEQ for review and approval (Akron, 2023). However, the TCEQ informed AEP in a June 10, 2024 teleconference, that soil sampling for the 40 §257 Appendix IV constituents was required to demonstrate that the unit was adequately decontaminated. TCEQ approval is therefore pending completion of the soil sampling and analyses described herein. The report summarizing the soil sampling activities will be certified by a Texas Professional Engineer (P.E.) and submitted with the Closure Certification Report for TCEQ approval. The objective of the proposed soil sampling strategy in Section 4 is to provide this demonstration.

# 4 Soil Sampling Strategy and Methodology

As stated previously, the FGDSA had an area of approximately 7 acres. However, the CCR piles in the FGDSA were located no closer than approximately 50 feet from the perimeter, therefore, the effective storage area of the FGDSA was an area of approximately 4 acres. The objective of the soil sampling is to collect samples from native soil underlying the effective storage area of the former FGDSA to demonstrate that CCR and soil removal activities performed during the FGDSA closure were adequate to decontaminate the area.

# 4.1 Pre-Sampling Activities

A site-specific Health and Safety Plan (HASP) and relevant task-specific Job Safety Analyses (JSA) will be prepared for the project, prior to mobilizing personnel to the site. Arcadis will work with AEP to incorporate any AEP-specific health and safety requirements into the plan. The HASP will be reviewed and signed off on by the onsite Arcadis field scientist/geologist, who will then review it during an initial health and safety meeting with subcontractors (utility locator, driller, surveyor). Daily tailgate safety meetings will be conducted and documented in the field notes.

Arcadis will mobilize to the site to measure out a one-acre grid on the FGDSA (**Figure 3**). Each grid block will be assigned an identifier (e.g., A1, B1, etc.). A sample location will be selected randomly using a random number generator within each grid block and marked in the field with a stake. Therefore, it is estimated that 4 soil borings will be advanced within the FGDSA. Arcadis will work with a surveyor from AEP's CQA contractor, Akron Consulting Company, LLC (Akron), to establish the grid, survey the sample locations, and determine the depth at which native soil will be encountered in the FGDSA. The sample identification number and depth to native soil at each location will be marked on the sample location marker. If the original sample location must be relocated due to site conditions (e.g., inaccessibility, obstructions, etc.), the random number generator will be used to select another location within the grid.

Prior to initiating any intrusive work, the presence of subsurface and overhead utilities will be investigated. In accordance with the Arcadis Utility Location and Clearance Standard, the following will be completed:

Plant-specific excavation/digging permit prior to any sampling activities.

- After sample locations have been marked in the field, Arcadis or its drilling contractor will notify Texas 811 a
  minimum of 48 hours in advance of commencing intrusive activities at the site and identify any potential
  subsurface utility conflicts with proposed sampling locations.
- In addition, Arcadis will review any prior utility clearance for the unit or available drawings showing underground utilities in the sampling areas.
- If the prior utility clearance information or drawings showing underground utilities in the sampling area are not
  available, the soil boring locations will be cleared for subsurface utilities to a minimum depth of 5 feet below
  ground surface (ft bgs) utilizing a hand auger as a soft-dig utility clearance technique. If any obstruction is
  identified, the soil boring location will be field adjusted.

# 4.2 Sampling Methodology

Drilling will be performed by a Texas licensed drilling company with oversight by a field scientist or field geologist. Soil sampling will be performed using a track-mounted Direct-Push Technology (DPT) rig. The DPT rig will be positioned over the proposed sampling location in the grid block to advance the soil sampler through the fill material to the top of the native soil. The soil will be continuously logged by a field scientist or geologist for lithologic characteristics according to the Unified Soil Classification System (USCS). The field scientist/geologist will note general visual and olfactory observations, soil types and horizons, and depth to native soil.

Once native soil is reached beneath the clean fill material, a discrete grab sample will be collected from the upper one foot by the field scientist/geologist. The field scientist/geologist will ensure that adequate sample volume is collected for analysis of total 40 §CFR 257 Appendix IV constituents and possible analysis using the Synthetic Precipitation Leaching Procedure (SPLP), if needed for data evaluation purposes. In addition to the initial sample collected from the upper foot, two additional vertical delineation samples will be collected from estimated depths of 1-2 and 2-3 feet. The additional samples will be placed on hold and analyzed only if needed.

Soil samples will be placed in clean sampling jars provided by the laboratory and labeled with the sample number (Grid Designation-Sample Depth-Date), sampler's initials, sample time, and requested analyses. The field scientist/geologist will wear a new pair of nitrile gloves for each sample collected. The samples will be placed in a cooler with ice and sent to the laboratory under proper chain of custody.

# 4.3 Investigation-Derived Waste Management

Soil cuttings generated during drilling will be placed back in the borehole, and the boreholes will be filled with bentonite. A decontamination pad will be constructed within the footprint of the FGDSA. The soil sample tubes will be decontaminated between collection of soil samples and downhole equipment in contact with soil will be decontaminated between soil sample locations. The drillers will use the onsite potable water source to decontaminate the downhole equipment and samplers using a high-pressure water washer or other suitable equipment. No soap will be used, and the pad will be constructed to prevent erosion and run-off from the pad. Accumulated water will be allowed to evaporate or will be drummed and characterized for proper disposal. General trash (e.g., used gloves, plastic liners, paper products, disposable sampling equipment, etc.) will be collected, containerized, and managed with general facility trash.

# 5 Sample Analysis

All 4 initial soil samples collected from the FGDSA will be submitted to a National Environmental Laboratory Accreditation Program [NELAP] accredited laboratory for analysis of the Appendix IV to 40 CFR 257constituents, as follows:

- Antimony
- Arsenic
- Barium
- Beryllium
- Cadmium
- Chromium
- Cobalt
- Fluoride

- Lead
- Lithium
- Mercury
- Molybdenum
- Selenium
- Thallium
- Radium 226 and 228 combined

Each of the 4 initial soil samples collected at the FGDSA will be analyzed for the metal constituents listed above. Arcadis will work with the laboratory to ensure that the detection limits are below the comparative criteria (i.e., the residential soil-to-groundwater (GWSoillng)Tier 1 Protective Concentration Level (PCLs) and/or Texas-Specific Background concentration for metals, whichever is higher). Fluoride and lithium do not have Tier 1 PCLs for the GWSoillng pathway; therefore, they will only be analyzed using SPLP.

Radium also does not have a Tier 1 PCL for the <sup>GW</sup>Soil<sub>Ing</sub> pathway, however, EPA has established a radium level of 5 picoCuries per gram (pCi/g) as a protective health-based level for cleanup of soil (EPA, 2014). If there are exceedances of the EPA established radium level, select samples will be run for SPLP. During a teleconference on June 10, 2024, between AEP and the TCEQ regarding soil sampling for closure, TCEQ agreed that fewer samples could be collected for radium 226/228; therefore, 50% of the initial soil samples will be analyzed for radium 226/228 combined.

If there are metal exceedances of the Tier 1 Residential <sup>GW</sup>Soil<sub>Ing</sub> PCL, Tier 2 PCLs may be calculated using the site-specific average pH concentration of 5.8 as presented in the Affected Property Assessment Report for the Trash Landfill A, Trash Landfill B, and Trash Landfill C dated July 24, 2023 (Arcadis, 2023). Otherwise, SPLP analysis will be performed when the total concentration results for a constituent exceed the Tier 1 <sup>GW</sup>Soil<sub>Ing</sub>. The SPLP results will be compared to the Appendix IV site-specific CCR GWPS.

# 6 Data Evaluation

Arcadis will implement the general procedures for data evaluation and usability assessment as defined in the TCEQ Regulatory Guidance for Review and Reporting of Chemicals of Concern (COC) Concentration Data RG-366/TRRP-13 to validate data received from the analytical laboratory. Validated data will then be compared to assessment levels to determine whether the unit has been adequately decontaminated. The procedure for evaluation metal results and radium results are discussed in the following section.

## 6.1 Evaluation of Results

Total metal concentrations will be evaluated to determine if an of the Appendix IV COC concentrations exceed the <sup>GW</sup>Soil<sub>Ing</sub> PCLs. If the Texas-Specific Background concentration for a metal is greater than the <sup>GW</sup>Soil<sub>Ing</sub> PCL, the background concentration becomes the PCL. Determination of successful decontamination will be as follows:

- If the Appendix IV COC concentrations are equal to or less than their respective Tier 1 GWSoiling PCLs, 5 pCi/gram for Radium, and the site-specific GWPS for fluoride or lithium, decontamination has been confirmed in that area.
- If any Appendix IV COC exceeds their respective Tier 1 <sup>GW</sup>Soil<sub>Ing</sub> PCLs, a Tier 2 PCL may be calculated, and the analytical results may be compared to the Tier 2 PCLs and if the Appendix IV COC are equal to or less than their respective Tier 2 PCL, decontamination has been confirmed in that area.
- If a COC exceeds the respective Tier 1 or Tier 2 PCL, or if the Tier 2 PCL is not used, the soil sample will be analyzed using SPLP. The SPLP results will be compared to the site-specific GWPS. If the SPLP results are equal to or less than the GWPS, decontamination has been confirmed in that area.
- After the above evaluation sequence, if it is decided that one or more metal exceedances of a comparative
  criterion cannot be resolved, Arcadis will request that the laboratory analyze the next shallowest vertical
  delineation sample from the location where the exceedance(s) occurred for that COC(s) to perform vertical
  delineation. The results will then follow the above sequence of PCL comparison until the vertical extent has
  been delineated. Horizontal delineation will also be completed, as needed.
- If additional step out locations are needed to achieve vertical or horizontal delineation, Arcadis will revisit the sampling grid to collect appropriate samples.
- Based on the results, AEP will evaluate the need for any additional decontamination activities of the area.

# 7 Report Preparation and Certification

Arcadis will prepare a report summarizing the results of the soil sampling at the FGDSA. The report will be certified by a Texas-licensed P.E. and will include:

- A justification for the sampling approach.
- A summary of the soil sampling activities performed to support the closure of the CCR unit and how these
  activities were performed in accordance with the SAP.
- Discussion of any deviations from the SAP and rationale for those deviations.
- Figures depicting sampling locations, and sample results.
- Data summary tables for metals and radium-226/228, including comparative criteria and SPLP results (as applicable).
- Calculations for Tier 2 PCLs (as applicable).
- Comparison of the analytical results to the site-specific GWPS, as applicable.
- Appendices containing laboratory reports, data usability evaluations/data validation reports, any other reports
  or correspondence that support the FGDSA closure.

# 8 References

AEP. 2023. Closure Plan, FGD Stack Out Area, Pirkey Power Plant, Hallsville, Texas. May.

Akron Consulting. 2023. FGD Stackout Area CCR Removal Certification, H.W. Pirkey Power Plant, Hallsville, Harrison County, Texas. November 21.

Arcadis. 2023. Affected Property Assessment Report for the Trash Landfill A, Trash Landfill B, and Trash Landfill C. July 24

Arcadis. 2016. Stack Out Area - CCR Location Restriction Evaluation. July 6.

Environmental Protection Agency (EPA). 40 CFR 257. Criteria for Classification of Solid Waste Disposal Facilities and Practices.

EPA. 2014. Document Display | NEPIS | US EPA

TCEQ. 2024. Teleconference with AEP. June 10.

TCEQ. 30 TAC 350. Texas Risk Reduction Program.

TCEQ. 30 TAC 352. Coal Combustion Residuals Waste Management

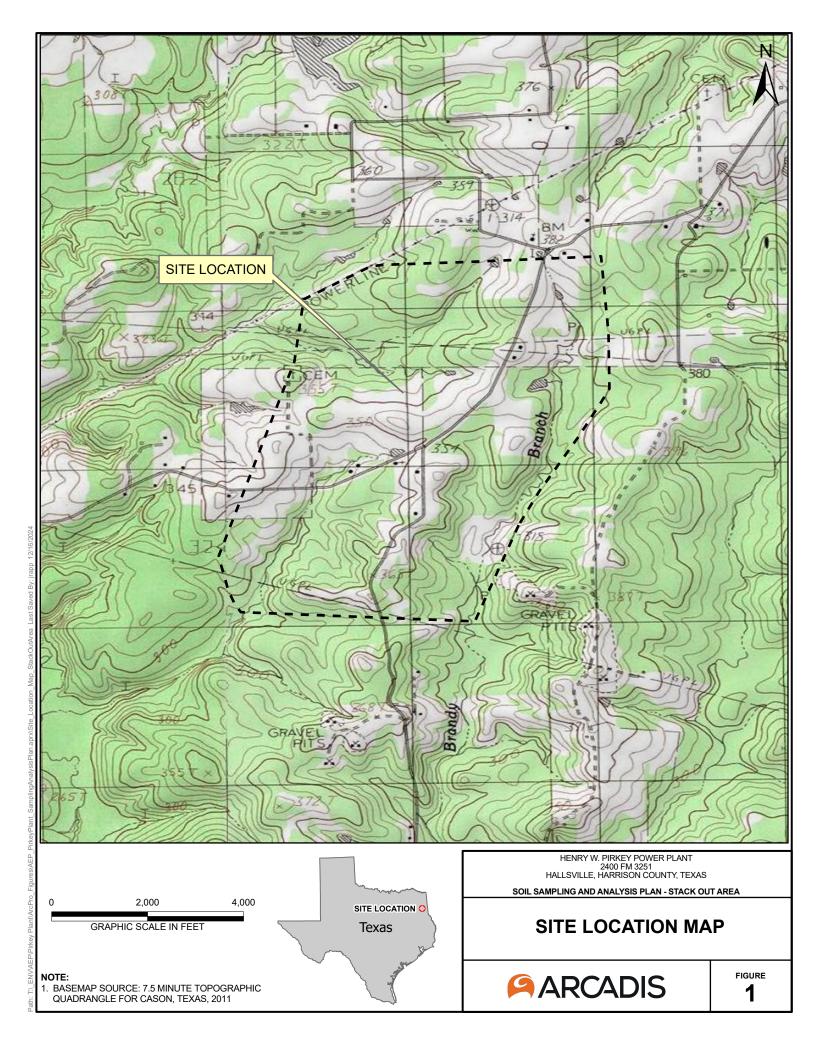
# **Figures**

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COAL COMBUSTION RESIDUAL (CCR) UNIT

1,500 3,000 GRAPHIC SCALE IN FEET

NOTE:
1. BASEMAP SOURCE: GOOGLE EARTH PRO, DECEMBER 2023

HENRY W. PIRKEY POWER PLANT 2400 FM 3251 HALLSVILLE, HARRISON COUNTY, TEXAS

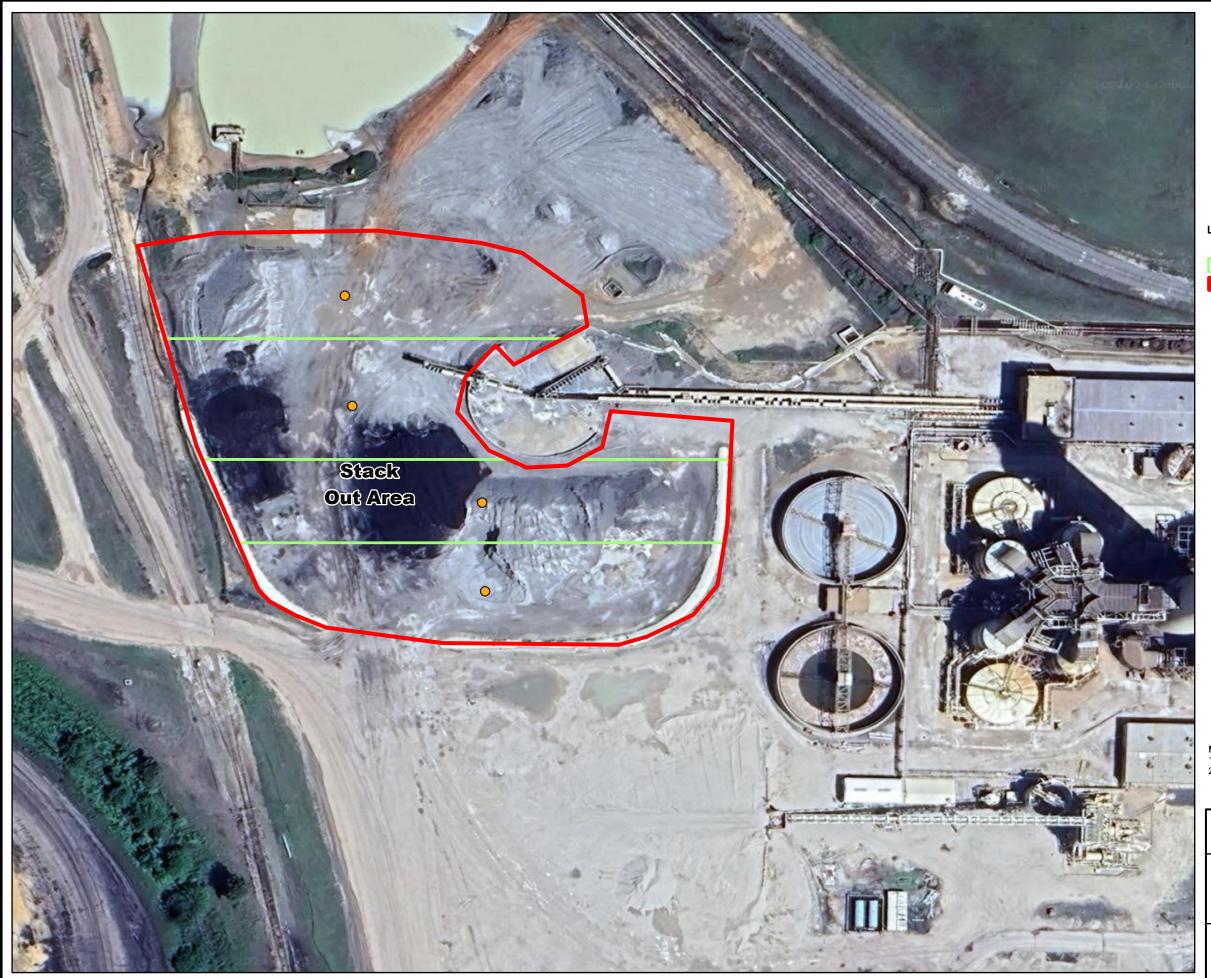
SOIL SAMPLING AND ANALYSIS PLAN - STACK OUT AREA

COAL COMBUSTION RESIDUAL (CCR) UNIT LOCATION MAP



FIGURE

2





#### **LEGEND**

PROPOSED WELL LOCATION

1-ACRE SAMPLING GRID

COAL COMBUSTION RESIDUAL (CCR) UNIT

GRAPHIC SCALE IN FEET

NOTES:

1. BASEMAP SOURCE: GOOGLE EARTH PRO, DECEMBER 2023
2. SAMPLE LOCATIONS WILL BE SELECTED RANDOMLY USING A RANDOM NUMBER GENERATOR WITHIN EACH GRID.

HENRY W. PIRKEY POWER PLANT 2400 FM 3251 HALLSVILLE, HARRISON COUNTY, TEXAS

SOIL SAMPLING AND ANALYSIS PLAN A- STACK OUT AREA

STACK OUT AREA SAMPLING GRID



FIGURE