Consulting
Engineers and
Scientists

GEI Consultants

FGD Stackout Pad Area

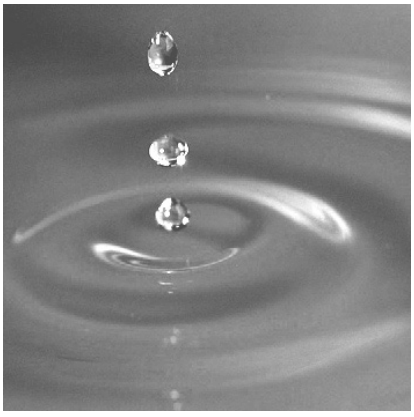
2025 Annual Landfill Inspection Report

H.W. Pirkey Power Plant, Hallsville, Texas

Submitted to:
American Electric Power Service Corporation
1 Riverside Plaza
Columbus, OH 43215

Submitted by:
GEI Consultants, Inc.
5646 Milton Street, Ste 500
Dallas, Texas 75206
469.868.7639

August 30, 2025
Project 2501323
AEP Document ID: GEVR-25-003



William Walton, PE (TX)
Senior Vice President

Megan Jehring, PE
Senior Engineer

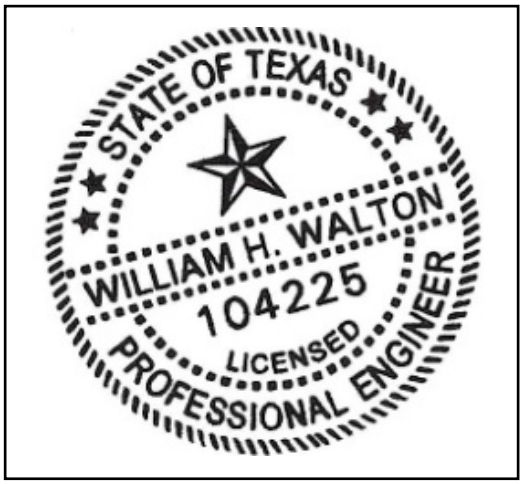
2025 Annual Inspection Report

FGD Stackout Pad Area
Pirkey Power Plant
AEP Document ID: GEVR-25-003

Signature

William Walton, PE
Senior Vice President
GEI Consultants, Inc.

August 30, 2025
Date



I certify, to the best of my knowledge, that the information provided in this report satisfies the requirements of 40 CFR 257.84(b).

Table of Contents

1. Introduction 2

2. Description of FGD Stackout Pad Area 3

3. Review of Available Information (257.84(b)(1)(i)) 4

4. Inspection (257.84(b)(1)(ii)) 5

4.1 Changes in Geometry Since Last Inspection (257.84(b)(2)(i)) 7
4.2 Volume (257.84(b)(2)(ii)) 7
4.3 Definitions of Visual Observations and Deficiencies **Error! Bookmark not defined.**
4.4 Visual Inspection (257.84(b)(1)(ii)) 7
4.5 Changes that Effect Stability or Operation (257.84(b)(2)(iv)) 8

5. Summary Findings Error! Bookmark not defined.

5.1 General Notes and Maintenance Considerations 8
5.2 Items to be Monitored 8
5.3 Items to be Addressed 8
5.4 Deficiencies (257.84(b)(2)(iii)) 9

Figures

Figure 1 – Site Location Map
Figure 2 – Facility Plan
Figure 3 – Site Plan

Appendices

Appendix A – Photolog

JRP
B:\Working\AEP\2501323 AEP 2025 Dam & Landfill Inspections\06_DRAFT INSPECTION REPORTS\07Pirkey\Pirkey FGD Stackout Pad\2025 Pirkey CCR FGD Pad.docx

1. Introduction

GEI Consultants, Inc. (GEI) was retained by AEP to implement the 2025 Inspection and Maintenance Program at AEP facilities and to provide the H.W. Pirkey Plant with an evaluation of the CCR FGD Stackout Pad to fulfill requirements of 30 TAC 352.841 (40 CFR 257.84). As part of the evaluation, GEI's Pedro Amaya, PE and Megan Jehring, PE performed the 2025 inspection for the CCR FGD Stackout Pad Area. Mr. Jeremy C Hebert, Mr. Joe Mars, Ms. Amanda Gann, and Mazin Al-Zou'bi, PE of AEP's Engineering participated in the inspection and provided contextual background. This report was prepared by Megan Jehring, PE and Bill Walton, PE of GEI and serves as a summary of the inspection and an assessment of the facility's general conditions.

The inspection was performed on May 14, 2025. Weather conditions were hazy with high temperatures reaching approximately 90 degrees Fahrenheit. It was reported that 0.70 inches of rainfall was recorded at the regional weather station in the seven days leading up to the inspection.

2. Description of FGD Stackout Pad Area

The H.W. Pirkey Power Plant is in southern Harris County, approximately six miles southeast of Hallsville, Texas, as shown in Figure 1 – Site Location Map. The facility arrangement is provided on Figure 2 – Facility Plan. In November 2023, the FGD Stackout Pad Area was excavated to remove all the FGD materials and an additional 1-foot of native soil subgrade. Closure of the FGD Stackout Pad Area is pending groundwater monitoring results.

Prior to closure, the FGD Stackout Pad Area was located west of the main plant and was an existing Coal Combustion Residuals (CCR) Unit that is subject to 40 CFR 257.84 Inspection Requirements for CCR Landfills. The FGD Stackout Pad Area was designed to temporarily hold a stockpile of CCR material until it is hauled to an on-site landfill for permanent disposal. A radial arm stacker was used to deposit the CCR material on the ground surface within the footprint of the FGD Stackout Pad Area. A stone berm with a geomembrane cover exists around the perimeter of the FGD Stackout Pad Area to contain contact water. All contact water drained by gravity to the lower surge pond or auxiliary surge pond for circulation back to the plant. A truck wash station existed that was used for washing the tires of dump trucks that drive into the FGD Stackout Pad Area.

Photographs taken during the inspection are included in Appendix A - Photolog. Each photograph that was captured during the inspection was tagged as either a general site observation, recommended for monitoring, or recommended as an item to be addressed. Our inspection did not identify any items to be monitored or addressed in the FGD Stackout Pad Area. The site observations are presented on Figure 3 – Site Plan.

3. Review of Available Information (257.84(b)(1)(i))

A review of available information regarding the status and condition of the FGD Stackout Pad Area which includes files available in the operating record, such as design and construction information, previous periodic structural stability assessments, previous 7-day inspection reports, and previous annual inspections has been conducted. Based on the visual inspection and a review of the data available, there were no visual indications of actual or potential structural integrity or adverse conditions.

4. Summary of the Inspection Terms

The summary of the visual observations presented herein uses terms to describe the general appearance or condition of an observed item, activity, or structure. Their meaning is understood as follows:

Good: A condition or activity that is generally better or slightly better than what is minimally expected or anticipated from a design or maintenance point of view.

Fair/Satisfactory: A condition or activity that generally meets what is minimally expected or anticipated from a design or maintenance point of view.

Poor: A condition or activity that is generally below what is minimally expected or anticipated from a design or maintenance point of view.

Minor: A reference to an observed item (e.g., erosion, seepage, vegetation, cracks, concrete surface etc.) where the current maintenance condition is below what is normal or desired, but which is not currently causing concern from a structure safety or stability point of view.

Significant: A reference to an observed item (e.g., erosion, seepage, vegetation, cracks, concrete surface etc.) where the current maintenance program has neglected to improve the condition. Usually, conditions that have been identified in previous inspections, but have not been corrected.

Excessive: A reference to an observed item (e.g., erosion, seepage, vegetation, cracks, concrete surface etc.) where the current maintenance condition is below or worse than what is normal or desired, and which may have affected the ability of the observer to properly evaluate the structure or area being observed or which may be a concern from a structure safety or stability point of view

In addition, a "deficiency" is some evidence that a dam or embankment has developed a problem that could impact its structural integrity. There are four general categories of deficiencies. These four categories are described below:

1. Uncontrolled Seepage

    a. Uncontrolled seepage is seepage that is not behaving as the design engineer has intended. An example of uncontrolled seepage is seepage that comes through or around the embankment and is not picked up and safely carried off by a drain. Seepage that is collected by a drain can still be uncontrolled if it is not safely collected and transported, such as seepage that is not clear. Seepage that is unable to be measured and/or observe it is considered uncontrolled seepage. [Wet or soft areas are not considered as uncontrolled seepage but can lead to this type of deficiency. These areas should be monitored frequently.]

2. Displacement:

    a. Displacement of the embankment is large scale movement of part of the dam. Common signs of displacement are cracks, scarps, bulges, depressions, sinkholes and slides.

3. Blockage of Control Features:

    a. Blockage of Control Features is the restriction of flow at spillways, decant or pipe spillways, or drains.

4. Erosion:

    a. Erosion is the gradual movement of surface material by water, wind or ice. Erosion is considered a deficiency when it is more than a minor routine maintenance item.

5. Inspection (257.84(b)(1)(ii))

5.1 Changes in Geometry Since Last Inspection (257.84(b)(2)(i))

No modifications have been made to the overall geometry of the FGD Stackout Pad Area since the previous annual inspection.

As part of the closure-by-removal the FGD Stackout Pad Area was excavated to remove all the FGD materials and an additional 1-foot of native soil subgrade. This operation was completed in November 2023. Closure of the FGD Stackout Pad Area is pending groundwater monitoring results.

5.2 Volume (257.84(b)(2)(ii))

At the time of the inspection, all the FGD materials had been removed from the Stackout Pad Area and disposed of at the onsite landfill.

5.3 Visual Inspection (257.84(b)(1)(ii))

A visual inspection of the FGD Stackout Pad Area was conducted to identify any signs of integrity distress of the FGD Stackout Pad Area and associated structures. Specific items inspected included structural elements, the perimeter berm, and drainage features/patterns. Overall, the unit is in good condition. The FGD Stackout Pad Area was closed by removing all CCR and an additional one foot of the subgrade. Closure is pending groundwater quality results.

At the time of the inspection the exposed Stackout Pad Area subgrade had small patches of vegetation and some soft/wet areas where silt had accumulated as shown in Photo No. 1.

The upstream slope was in good condition, but minor rills had formed as the slopes were not vegetated as shown in Photo No. 1 and 2. The downstream slope was in good condition with healthy vegetation as shown in Photo No. 3. The gravel perimeter berm / crest appeared to be in good condition as shown in Photo No. 4. The drainage features were clear of obstructions.

5.4 Changes that Effect Stability or Operation (257.84(b)(2)(iv))

Based on visual inspection and interviews with site personnel there were no changes to the Stackout Pad Area since the last inspection that would affect the stability of the facility.

5.5 General Notes and Maintenance Considerations

The following general maintenance items are provided for consideration to maintain the FGD Stackout Pad Area.

1. In general, the FGD Stackout Pad Area is in good condition. The Plant is performing regular maintenance and inspections as required.

2. The FGD stackout Pad Area is no longer in service because of the Pirkey Plant decommissioning its coal fired generators. CCR and 1-foot of subgrade material was removed in accordance with the FGD Stack-out Area Closure Plan. The FGD Stackout Pad Area closure is pending groundwater quality results.

3. Continue with the regular maintenance of the area with repair of significant erosion rills.

4. Consider re-seeding/mulching/fertilizing the area to promote vegetation growth to limit erosion and sediment transport.

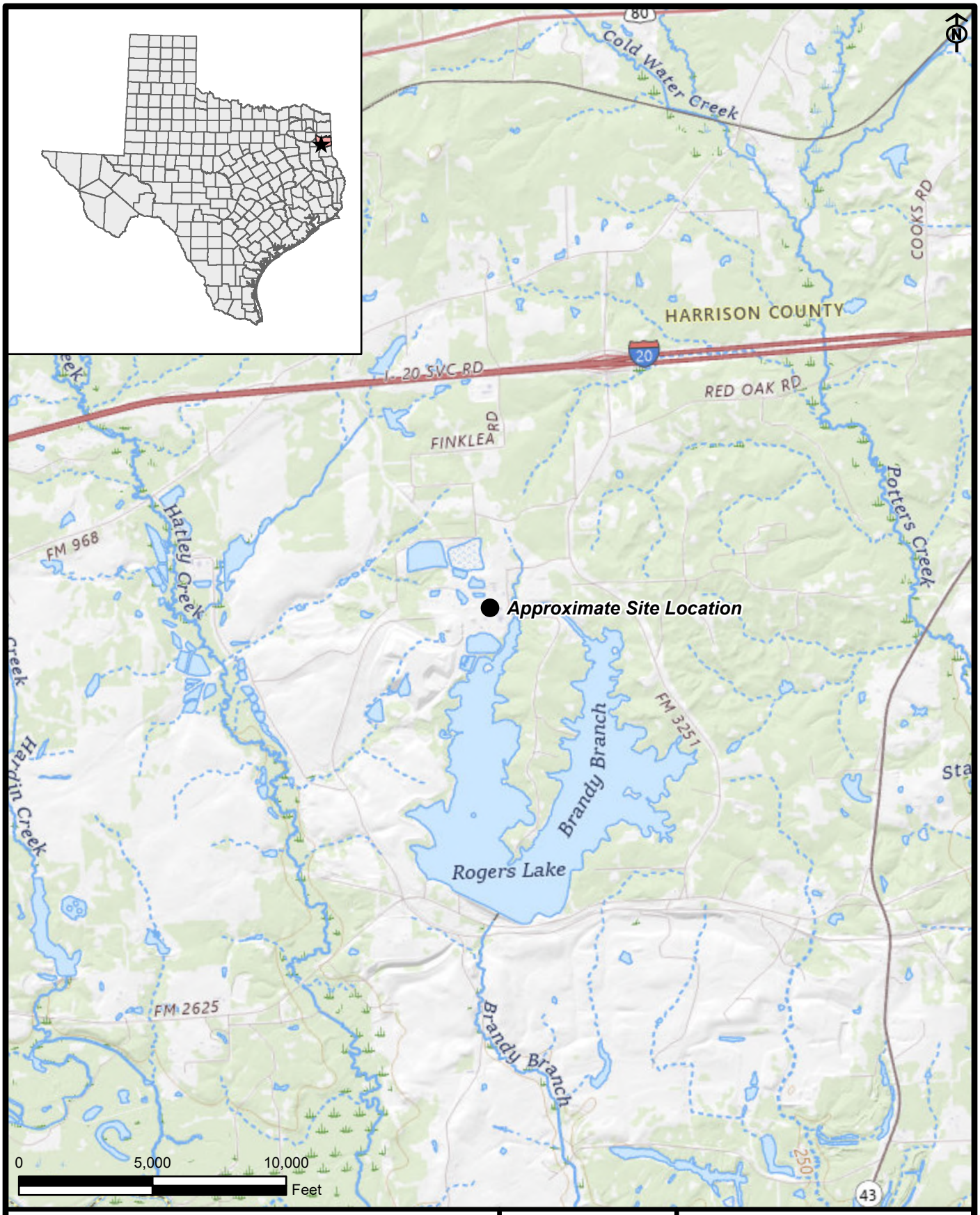
5.6 Items to be Monitored

- No items to be addressed.

5.7 Items to be Addressed

- No items to be addressed.

Figure 1 – Site Location Map



2025 Pirkey FGD Pad Inspection Report
Pirkey Power Plant
Hallsville, Texas

American Electric Power Service Corporation
Columbus, OH 43215

GEI Consultants

Project 2305686

SITE LOCATION MAP

May 2025

Fig. 1

Path: B:\Working\AEP\2305686 2024 Dam & Landfill Field Insps\05_GIS\ArcGIS_Pro\2305686 2024 Dam & Landfill Field Insps.aprx

Figure 2 – Facility Plan

2025 Pirkey FDG Pad Inspection Report
Pirkey Power Plant
Hallsville, Texas

American Electric Power Service Corporation
Columbus, OH 43215

GEI Consultants

Project 2501323

FACILITY PLAN

May 2025

Fig. 2

Path: B:\Working\AEP\2501323 AEP 2025 Dam & Landfill Inspections\05_GIS\07Pirkey\Figures

Figure 3 – Site Plan

LEGEND:

- General Observation
- Stackout Area

NOTES:

1. Aerial image obtained from USDA NAIP. Image captured spring of 2021.
2. Points shown represent site conditions during time of inspection. Conditions may change overtime, accuracy is not guaranteed. Map should not be used for measurement.

0 200 400 Feet

2025 FGD Pad Inspection Report
Pirkey Power Plant
Hallsville, Texas

American Electric Power Service Corporation
Columbus, OH 43215

GEI Consultants

Project 2501323

SITE PLAN

May 2025 Fig. 3

Path: B:\Working\AEP\2501323 AEP 2025 Dam & Landfill Inspections\05_GIS\07Pirkey\Figures

Appendix A – Photolog

Photographic Log

Project: Pirkey Power Plant, FGD Pad Inspection
Client: American Electric Power **GEI Project:** 2501323

PHOTOGRAPH NO: 1	DATE: May 14, 2025 8:54 AM	LATITUDE: 32.46231964	LONGITUDE: -94.4878527
DIRECTION: 44°	SITE LOCATION: HALLSVILLE, TEXAS		
DESCRIPTION: Upstream Slope. General Photo, Typical Conditions.			
PHOTO BY: GEI CONSULTANTS, INC.			

PHOTOGRAPH NO: 2	DATE: May 14, 2025 9:05 AM	LATITUDE: 32.46189872	LONGITUDE: -94.48653721
DIRECTION: 217°	SITE LOCATION: HALLSVILLE, TEXAS		
DESCRIPTION: Upstream Slope. General Photo, Typical Conditions.			
PHOTO BY: GEI CONSULTANTS, INC.			

Photographic Log

Project: Pirkey Power Plant, FGD Pad Inspection
Client: American Electric Power **GEI Project:** 2501323

PHOTOGRAPH NO: 3	DATE: May 14, 2025 9:12 AM	LATITUDE: 32.46226834	LONGITUDE: -94.4857971
DIRECTION: 243°	SITE LOCATION: HALLSVILLE, TEXAS		

DESCRIPTION:

Downstream Slope. General Photo, Typical Conditions.

Vegetation was not recently maintained or mowed due to limited equipment access following recent rain events.

PHOTO BY:

GEI CONSULTANTS, INC.

PHOTOGRAPH NO: 4	DATE: May 14, 2025 9:23 AM	LATITUDE: 32.46250751	LONGITUDE: -94.48798345
DIRECTION: 250°	SITE LOCATION: HALLSVILLE, TEXAS		

DESCRIPTION:

Upstream Slope. General Photo, Typical Conditions.

Vegetation was not recently maintained or mowed due to limited equipment access following recent rain events.

PHOTO BY:

GEI CONSULTANTS, INC.

5.8 Deficiencies (257.84(b)(2)(iii))

There were no visual signs of structural integrity issues or disruptive conditions that were present at the time of the inspection that would require additional investigation or remedial action. There were no deficiencies noted during this inspection or during any of the 7-day inspections. A deficiency is defined as either:

1. Uncontrolled seepage (leachate outbreak),
2. Displacement of the embankment,
3. Blockage of control features, or
4. Erosion, more than minor maintenance.

If you have any questions regarding this report, please contact AEP-Geotechnical Engineering Mazin M Al-Zou'bi (Phone: 740-789-6938, email:mal-zoubi@aep.com) or Daniel Pizzino dwpizzino@aep.com.