Periodic Structural Stability Assessment

Date:	September 17, 2026
Document:	Periodic Structural Stability Assessment – 40 CFR 257.73(d) & 30 TAC§ 352.731
Plant:	Pirkey Power Plant
Unit:	West Bottom Ash Pond

As of May 5, 2023, the Pirkey Power Plant – West Bottom Ash Pond was closed by removal in accordance with 40 CFR 257.102(c)(1) and 30 TAC §352.1221(a) and the facility's Written Closure Plan.

Since closure by removal is complete, the facility no longer meets the definition of a CCR surface impoundment, and therefore the Structural Stability Assessment required under 40 CFR 257.73(d) and 30 TAC §352.731 is no longer applicable.

The Closure Completion Notification for Closure by Removal is attached for reference. This posting constitutes the final publication of this document; no further postings will be made.

Closure Completion Notification for Closure by Removal

May 5, 2023
Closure Completion Notification
Henry W. Pirkey Plant
West Bottom Ash Pond

On May 5, 2023, the Henry W. Pirkey, West Bottom Ash Pond was closed by removal in accordance with 40 CFR 257.102 and the most recent Written Closure Plan. This notification is being placed in the operating record in accordance with 40 CFR 257.102(h). This notification being made to demonstrate compliance with 40 CFR 257.103(f)(2) which allowed Pirkey West Bottom Ash Pond to receive CCR and non-CCR wastestreams after April 11,2021.

The State of Texas received partial delegation from USEPA on June 1, 2021. Parts of 40 CFR 257.103 were subsequently modified by USEPA Rulemaking and were not included. Thus, these provision remains under USEPA jurisdiction. However, 40 CRF 257.102 Criteria for Conduction the Closure and Retrofit of CCR Units has been delegated. Therefore, final review and approval of closure will be determined by TCEQ.

CLOSURE CERTIFICATION BY QUALIFIED PROFESSIONAL ENGINEER

I certify that the Pirkey Power Plant's West Bottom Ash Pond has been closed in accordance with the most recent written closure plan specified by paragraph 40 CFR §257.102(b) and 30 TAC §352.1221, and the requirements of section 40 CFR §257.102 and 30 TAC §352.1221.



David Anthony Miller

Printed Name of Licensed Professional Engineer

David Anthony Miller

Signature

112498	Texas	05.05.2023
License Number	Licensing State	Date

West Bottom Ash Pond CCR Removal Certification
H.W. Pirkey Power Plant

The CCR Removal Certification for the H.W. Pirkey Power Plant West Bottom Ash Pond was prepared by Akron Consulting, LLC (TBPE Firm #14014). This Certification/Statement of Professional Opinion is limited to the information available to Akron at the time the report was written. On the basis of and subject to the foregoing, it is my professional opinion as a Professional Engineer licensed in the State of Texas, that the report has been prepared in accordance with good and accepted engineering practices as exercised by other engineers practicing in the same discipline(s), under similar circumstances and at the time and in the same locale. It is my professional opinion that the removal of the CCR material in the West Bottom Ash Pond was performed in accordance with the current requirements of 40 CFR § 257.102 (30 TAC 352.1221) and Section 4.0 of the most recent written Closure Plan.

The use of the words "certification" and/or "certify" in this document shall be interpreted and construed as a Statement of Professional Opinion, and is not and shall not be interpreted or construed as a guarantee, warranty or legal opinion. This certification in no way relieves the Owner or Operator of the facility of his/her duty to fully implement the other requirements outlined in the entire section of 40 CFR § 257.

Engineer: Lane D. Roberts

Registration Number: 105135

State: Texas

Date: 12/30/2022



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STRUCTURAL STABILITY ASSESSMENT
PERIODIC 5-YR REVIEW

30 TAC 352.731 (40 CFR 257.73(d))

East and West Bottom Ash Pond

Pirkey Plant
Hallsville, Texas

October, 2021

Prepared for: Southwest Electric Power Company (SWEPCO) - Pirkey Plant

Hallsville, Texas

Prepared by: American Electric Power Service Corporation

1 Riverside Plaza

Columbus, OH 43215



Document No. GERS-21-033

Structural Stability Assessment
Periodic 5-Yr Review
CFR 257.73(d)
Pirkey Plant
East and West Bottom Ash Pond

PREPARED BY Brett A. Dreger DATE 9/30/2021

Brett A. Dreger, P.E.

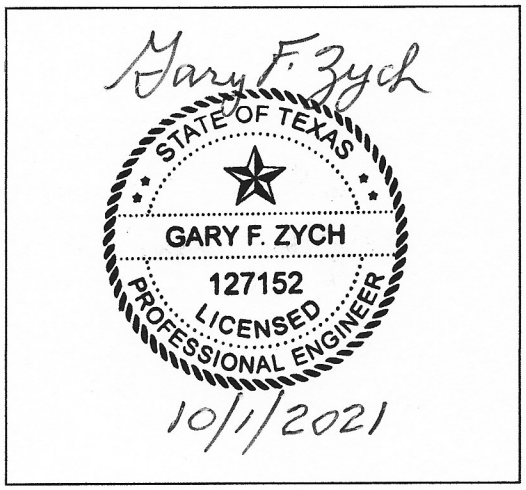
REVIEWED BY DATE 09-30-2021

Shah S. Baig, P.E.

APPROVED BY Gary Zych DATE 10/1/2021

Gary Zych, P.E.

Manager – AEP Geotechnical Engineering



I certify to the best of my knowledge, information and belief that the information contained in this structural stability assessment meets the requirements of (40 CFR 257.73(d)

Table of CONTENTS

1.0 OBJECTIVE 257.73(d) 4
2.0 NAME AND DESCRIPTION OF CCR SURFACE IMPOUNDMENT 4
3.0 STABLE FOUNDATION AND ABUTMENTS 257.73(d)(1)(i) 5
4.0 SLOPE PROTECTION 257.73(d)(1)(ii) 5
5.0 EMBANKMENT CONSTRUCTION 257.73 (d)(1)(iii) 6
6.0 VEGETATION CONTROL 257.73 (d)(1)(iv) 7
7.0 SPILLWAY SYSTEM 257.73(d)(1)(v) 7
8.0 BURIED HYDRAULIC STRUCTURES 257.73 (d)(1)(vi) 8
9.0 SUDDEN DRAWDOWN 257.73 (d)(1)(vii) 8

1.0 OBJECTIVE 257.73(d)

This report was prepared by AEP- Geotechnical Engineering Services (GES) section to fulfill requirements of 30 TAC 352.731 (40 CFR 257.73(d)) and document whether the design, construction, operations, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering practices. This is the first periodic 5-year review of the initial assessment as per the rule.

Note: There has not been any changes to the diking structures or the discharge weir boxes and discharge pipes passing through the dikes since the initial assessment.

2.0 NAME AND DESCRIPTION OF CCR SURFACE IMPOUNDMENT

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 two surface impoundments for storing CCR materials called the East Bottom Ash Pond (East BAP) and the West Bottom Ash Pond (West BAP).

The East BAP is located directly adjacent to and east of the West BAP. The East BAP receives sluiced bottom ash and has a surface area of 30.9 acres and a storage capacity of 188 acre-feet. The pond is almost entirely incised, with a reported maximum embankment height of 4 feet.

The West BAP, which also receives sluiced bottom ash, is located northwest of the main plant and shares its eastern border with the western border of the East BAP. The West BAP receives sluiced bottom ash and has a surface area of 30 acres and a storage capacity of 188 acre-feet. The maximum embankment height is 25 feet. Design documents indicate that the main upstream embankment slopes are 3 feet horizontal to 1 foot vertical (3:1 H:V); while the main downstream slopes are 2.5:1 H:V.

3.0 STABLE FOUNDATION AND ABUTMENTS 257.73(d)(1)(i)

[Was the facility designed for and constructed on stable foundations and abutments? Describe any foundation improvements required as part of construction.]

The foundaion materials for the East BAP are native soils which consist of stiff to very stiff sandy lean clay (CL) and sandy fat clay (CH) with intermittent layers of medium dense to dense silty sand (SM) and clayey sand (SC). Atterberg Plasticity Indices of tested soils ranged between a low of 16 to a high of 39. Based on the subsurface investigation and engineering properties of the subsurface soils, it is concluded that the East Bottom Ash Pond dikes are supported on a stable foundation base.

The foundation materials for the West BAP are native soils which consist primarily of medium dense to very dense clayey sand (SC) with layers of of dense clayey gravel (GC) and very dense silty clayey sand (SC-SM). Atterberg Plasticity Indices of tested soils ranged between a low of 9 to a high of 46. Based on the subsurface investigation and engineering properties of the subsurface soils, it is concluded that the West Bottom Ash Pond dikes are supported on a stable foundation base.

Operation of the impoundment is performed so as to not adversely affect the foundation and abutments. As required by the CCR rules the East and West Bottom Ash Ponds are inspected at least every 7 days by a qualified person. Also as a requirement of the CCR rules, the impoundment is also inspected annually by a professional engineer. Maintenance items are addressed as they are discovered as a part of those inspections.

4.0 SLOPE PROTECTION 257.73(D)(1)(II)

[DESCRIBE THE SLOPE PROTECTION MEASURES ON THE UPSTREAM AND DOWNSTREAM SLOPES.]

The east and west CCR impoundments have a layer of bottom ash on the interior slopes of the ash ponds that provide protection from erosion and wave action. The exterior slopes consist of vegetative cover. Any erosion that may occur is repaired within a timely period.

5.0 EMBANKMENT CONSTRUCTION 257.73 (d)(1)(iii)

[Describe the specifications for compaction and/or recent boring to give a relative comparison of density.]

The East BAP is primarily incised into native soils with an embankment height of approximately 4 feet (AMEC, 2010). The East BAP embankments are constructed of compacted clay on a 3:1 slope (3 feet horizontal, 1 foot vertical) (Sargent & Lundy, 1983). The soils are primarily stiff to very stiff sandy lean clay (CL) and sandy fat clay (CH) with intermittent layers of medium dense to dense silty sand (SM) and clayey sand (SC). The elevation of the top of embankment around the perimeter of the East BAP is approximately 357 feet amsl, and the normal operating level is approximately 354 feet amsl (Johnson & Pace, May 2011). The interior bottom elevation of the East BAP is approximately 347 feet amsl (Sargent & Lundy, 1983; Johnson & Pace, June 2011). Based on the subsurface investigation and the engineering properties of the subsurface soils, it is concluded that the East bottom Ash Pond embankments are adequately constructed.

The West BAP embankments have maximum height of approximately 25 feet and are constructed of compacted clay on a slope ranging from 2.5:1 (2.5 feet horizontal, 1 foot vertical) to 3:1 (Sargent & Lundy 1983). The elevation at the top of the embankment around the perimeter of the West BAP is approximately 357 feet amsl, and the normal operating level is approximately 354 feet amsl (Johnson & Pace, 2011). The embankment fill materials are primarily stiff to very stiff lean clay (CL) and/or fat clay (CH), overlying native soils consisting of primarily dense to very dense clayey sand (SC) with layers of dense gravel (GC) and very dense silty clayey sand (SC-SM). The interior bottom elevation of the West BAP is approximately 347 feet amsl (Sargent & Lundy, 1983; Akron Consulting, 2012). Based on the slope stability evaluation and the engineering properties of the subsurface soils, it is concluded that the West Bottom Ash Pond embankments are adequately constructed.

6.0 VEGETATION CONTROL 257.73 (d)(1)(iv)

[Describe the maintenance plan for vegetative cover.]

The vegetative slopes/areas are mowed to facilitate inspections and maintain the growth of the vegetative layer; and prevent the growth of woody vegetation.

7.0 SPILLWAY SYSTEM 257.73(d)(1)(v)

[Describe the spillway system and its capacity to pass the Inflow Design Flood as per its Hazard Classification.]

Hydrology and Hydraulic Analysis which includes calculations for each spillway structure are included in Inflow Design Flood Control Plan. The Inflow Design Flood for the East and West Bottom Ash Ponds is the 100-year storm event.

The surface water elevation in the East BAP is controlled by a weir box and a manually operated gate valve installed on a 36-inch diameter discharge pipe at the southwest corner of the pond. Clear water overflow from the East BAP discharges through the 36-inch diameter pipe into a 2.7 acre Clearwater Pond located directly south of the East BAP. Water in the Clearwater Pond is either pumped (re-circulated) back into the boiler ash hopper, the FGD make up system or pumped back to the Sabine mine for beneficial reuse as dust suppression water.

The surface water elevation in the West BAP is controlled by a weir box and a manually operated gate valve installed on a 36-inch-diameter discharge pipe at the southeast corner of the pond. Clear water overflow from the West BAP discharges through the 36-inch diameter pipe into a 2.7 acre Clearwater Pond located southeast of the West BAP. Water in the Clearwater Pond is either pumped (re-circulated) back into the boiler ash hopper, the FGD make up system or pumped back to the Sabine mine for beneficial reuse as dust suppression water.

Based on the Hydrology and Hydraulic analysis the East and West BAP's spillway system can handle the 100-year storm event.

8.0 BURIED HYDRAULIC STRUCTURES 257.73 (d)(1)(vi)

[Describe the condition of the sections of any hydraulic structure that in buried beneath and/or in the embankment.]

Clear water overflow from the East BAP discharges through a 36-inch diameter corrugated steel pipe that passes into a 2.7 acre Clearwater Pond located directly south of the East BAP. The 36-inch diameter corrugated steel pipe passes under the embankment that separates the East Bottom Ash Pond from the clear water pond. In 2012 when the clear Water pond was completely drained exposing the outfall end of the pipe, the 36 CMP appeared to be in stable and functional condition.

Clear water overflow from the West BAP discharges through a 36-inch diameter corrugated steel pipe that passes into a 2.7 acre Clearwater Pond located directly southeast of the West BAP. The 36-inch diameter corrugated steel pipe passes under the embankment that separates the West Bottom Ash Pond from the clear water pond. In 2012 when the clear water pond was completely drained exposing the outfall end of the pipe, the 36 CMP appeared to be in stable and functional condition.

There are no signs of settlement or sinkholes on the ground surface above the pipes. The discharge pipes have not shown signs of excess corrosion or deterioration based on exterior visual inspections since the initial assessment.

9.0 SUDDEN DRAWDOWN 257.73 (d)(1)(vii)

[If the downstream slope is susceptible to inundation, discuss the stability due to a sudden drawdown.]

The downstream slopes of the Bottom Ash Pond dikes will not be inundated from any adjacent water bodies. There have not been any changes to the downstream slope areas of the Bottom Ash Ponds since the initial assessment.