Submitted to
Southern Indiana
Gas & Electric Company
(SIGECO)
dba CenterPoint Energy
Indiana South (CEIS)
211 Northwest Riverside
Drive, Evansville, IN 47708

Submitted by
AECOM
13640 Briarwick Drive
Austin, Texas 78729
August 17, 2023

CCR Certification:
Hazard Potential Classification
§257.73 (a)(2)

for the

Lined CCR Pond

at the

A.B. Brown Generating Station

Revision 0

Table of Contents

Tables

Appendices

Executive Summary

This Coal Combustion Residuals (CCR) Hazard Potential Classification for the Lined CCR Pond at the Southern Indiana Gas & Electric Company (SIGECO), dba CenterPoint Energy Indiana South, A.B. Brown Generating Station has been prepared in accordance with the requirements specified in the USEPA CCR Rule under 40 Code of Federal Regulations §257.73 (a)(2). The CCR Rule required that the specified documentation, assessments and plans for a new CCR surface impoundment be prepared by its initial receipt of waste. Pursuant to that requirement, this initial Hazard Potential Classification was completed and issued to SIGECO on August 17, 2023 for placement in the facility operating record prior to the impoundment's first receipt of waste, scheduled for no later than September 1, 2023.

This Hazard Classification meets the regulatory requirements as summarized in **Table ES-1.**

Table ES-1 – Certification Summary

Report Section	CCR Rule Reference	Requirement Summary	Requirement Met?	Comments
Hazard Potential Classification				
3	§257.73 (a)(2)	*An initial hazard potential classification assessment is required for each CCR unit of High, Significant or Low.*	Yes	An Initial Hazard Assessment has been prepared based on conditions of the CCR unit as of August 17, 2023, prior to the scheduled first receipt of waste no later than September 1, 2023.

The Lined CCR Pond is a surface impoundment classified as a Significant hazard as described in the CCR Rule. Documentation to support this classification is included within this report.

1 Introduction

1.1 Purpose of This Report

The purpose of the Hazard Potential Classification (Hazard Potential Classification) is to document the classification requirements specified in Code of Federal Regulations (CFR) §257.73 (a)(2) have been met to support the certification required under each of those regulatory provisions for the A.B. Brown Generating Station (Brown) Lined CCR Pond. The Lined CCR Pond is a new coal combustion residual (CCR) surface impoundment as defined by 40 CFR §257.53. The CCR Rule requires that the specified documentation and assessments for a new CCR surface impoundment be prepared prior to its initial receipt of waste. This Initial Hazard Potential Classification assessment was issued to SIGECO on August 17, 2023 for placement in the facility operating record prior to the impoundment's first receipt of waste, scheduled for no later than September 1, 2023..

The Lined CCR Pond is an interconnected new CCR surface impoundment, which consists of a north pool and a south pool. The following table summarizes the documentation required within the CCR Rule and the sections that specifically respond to those requirements of this assessment.

Table 1-1 – CCR Rule Cross Reference Table

Report Section	Title	CCR Rule Reference
2	Hazard Potential Classification	§257.73 (a)(2)(i)

1.2 Brief Description of Impoundment

The Brown station is a coal-fired power plant located approximately 10 miles east of Mount Vernon in Posey County, Indiana and is owned and operated by Southern Indiana Gas & Electric Company (SIGECO), dba CenterPoint Energy Indiana South. The station is situated just west of the Vanderburgh-Posey County line and north of the Ohio River with the Lined CCR Pond positioned on the south side of the generating station, just west of the site's coal pile.

The Lined CCR Pond is scheduled for commissioning in August 2023. The south pool of the impoundment was constructed partially over the former South Side Runoff Pond (SSRP), which was initially constructed along with the plant in 1978. The north pool of the impoundment is incised and was constructed by excavation into the existing topography north of the SSRP. The Lined CCR Pond utilizes the existing earthen dike of the former SSRP on its south and west sides. Currently, the north pool and the south pool act as one CCR unit referred to as the Lined CCR Pond, which has a total water area of approximately 1.9 acres, and a storage of 10.1 acre-feet at normal pool.

The Lined CCR Pond earthen dike is approximately 630 feet long, 9.5 feet high, and has side slopes varying from 2 to 1 to 2.5 to 1 (horizontal to vertical) covered with grassy vegetation. The dike's crest elevation is 391.5 feet[1] and

[1] Unless otherwise noted, all elevations in this report are in the NAVD88 datum.

has a crest width of 15 feet. A Site Location Map showing the area surrounding the station is included as **Figure 1** of **Appendix A**. **Figure 2** in **Appendix A** presents the Brown Site Map.

2 Hazard Potential Classification

2.1 Method of Analysis

AECOM reviewed the most recent local topography surrounding the partially incised unit. Analysis was completed for the probable flow path upon failure of the pond's dike based on the topographic features surrounding the pond.

2.2 Dam Breach Topographic Review

Appendix A, Figure 3 shows the location of the above ground portions of the Lined CCR Pond dike. Upon failure of the dike, the flow path would follow the local topography surrounding the site and follow the path of the unnamed tributary to the Ohio River. No residences are located directly adjacent to the dam or are located within the downgradient release pathway. Review of the area suggests that loss of life would not be considered probable upon failure, but the close proximity to the Ohio River may cause an environmental and economic impact.

3 Conclusions

Regulatory Citation: 40 CFR §257.73 (a)(2) Period hazard potential classification assessments.

- *(i) The owner or operator of the CCR unit must conduct initial and periodic hazard potential classification assessments of the CCR unit … The owner or operator must document the hazard potential classification of each CCR unit as either a high hazard potential CCR surface impoundment, a significant hazard potential CCR surface impoundment, or a low hazard potential CCR surface impoundment. The owner or operator must also document the basis for each hazard potential classification.;*

Background and Assessment

CCR units are designated as one of three classes depending on likelihood of losses resulting from mis-operation or failure.

1. High hazard potential CCR surface impoundments are likely to cause loss of human life upon failure. The CCR Rule design storm for a High hazard potential facility is the full Probable Maximum Flood (PMF).
2. Significant hazard potential CCR surface impoundments are likely to cause economic loss, environmental damage, disruption of lifeline facilities, or other impacts; but not loss of life. The CCR Rule design storm for a Significant hazard potential facility is the 1000-year event.
3. Low hazard potential CCR surface impoundments are not likely to cause loss of life or significant economic or environmental losses. The design storm for a Low hazard potential facility is the 100-year event.

Likelihood of loss of human life is primarily discussed within this report, which is the deciding factor between Hazard Potential Classifications of Significant and High. Loss of life is not deemed probable based on the local topography. The Lined CCR Pond does not qualify for a Low hazard potential due to its proximity to an adjacent industry rail staging area and the possibility of economic loss, as well as its proximity to the Ohio River and the possibility of environmental loss.

Conclusion and Recommendation

Based upon the analyses completed by AECOM, we designate the Hazard Potential Classification of the Lined CCR Pond at the Brown station impoundment facility as “Significant” in regards to the requirement in §257.73 (a)(2).

4 Certification

This Certification Statement documents that the Lined CCR Pond at the A.B. Brown Generating Station meets the Hazard Potential Classification requirements specified in 40 CFR §257.73 (a)(2). The Lined CCR Pond is a new CCR surface impoundment as defined by 40 CFR §257.53. The CCR Rule requires that the specified documentation and assessments for a new CCR surface impoundment be prepared prior to its initial receipt of waste. This initial assessment is due prior to the initial receipt of waste, which is scheduled for no later than September 1, 2023.

CCR Unit: Southern Indiana Gas & Electric Company; A.B. Brown Generating Station; Lined CCR Pond

I, Jay Mokotoff, being a Registered Professional Engineer in good standing in the State of Indiana, do hereby certify, to the best of my knowledge, information, and belief that the information contained in this certification has been prepared in accordance with the accepted practice of engineering. I certify, for the above referenced CCR Unit, that the Hazard Potential Classification dated August 17, 2023 meets the requirements of 40 CFR § 257.73 (a)(2).

Jay Mokotoff
Printed Name

08-17-2023
Date

5 Limitations

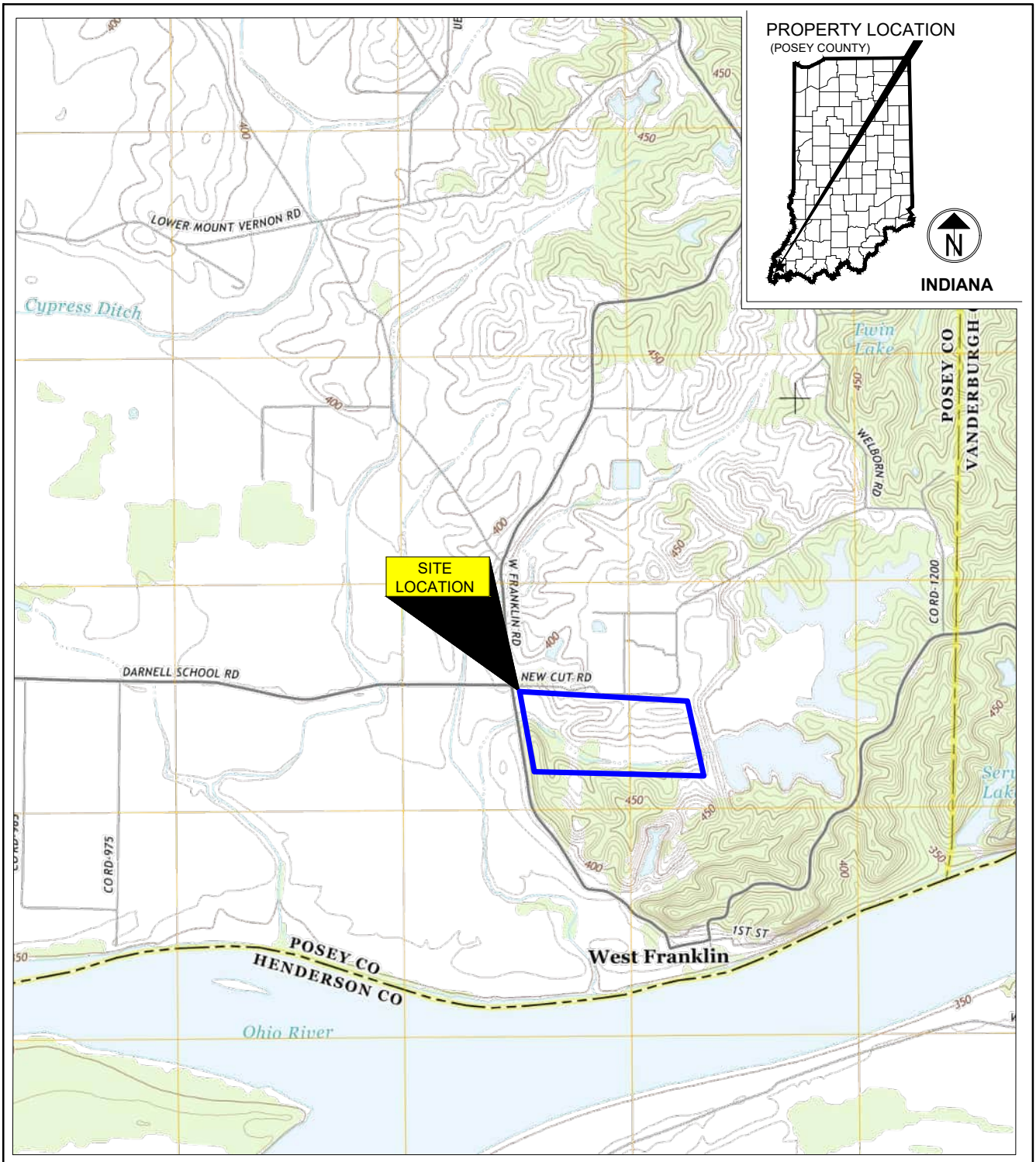
Background information, design basis, and other data which AECOM has used in preparing this report have been furnished to AECOM by SIGECO. AECOM has relied on this information as furnished, and is not responsible for the accuracy of this information. Our recommendations are based on available information from previous and current investigations. These recommendations may be updated as future investigations are performed.

The conclusions presented in this report are intended only for the purpose, site location, and project indicated. The recommendations presented in this report should not be used for other projects or purposes. Conclusions or recommendations made from these data by others are their responsibility. The conclusions and recommendations are based on AECOM's understanding of current plant operations, maintenance, stormwater handling, and ash handling procedures at the station, as provided by SIGECO. Changes in any of these operations or procedures may invalidate the findings in this report until AECOM has had the opportunity to review the findings, and revise the report if necessary.

This hazard potential classification analysis was performed in accordance with the standard of care commonly used as state-of-practice in our profession. Specifically, our services have been performed in accordance with accepted principles and practices of the engineering profession. The conclusions presented in this report are professional opinions based on the indicated project criteria and data available at the time this report was prepared. Our services were provided in a manner consistent with the level of care and skill ordinarily exercised by other professional consultants under similar circumstances. No other representation is intended.

Appendix A
Figures

Figure 1 – Location Map
Figure 2 – Site Map
Figure 3 – Discharge Path Map



AECOM

AB BROWN GENERATING STATION

POSEY COUNTY, IN

FIGURE 1 - LOCATION MAP

DRAWN BY:	CHECKED BY:	PROJECT No:	DATE:	FIGURE No:
JET	DMB	60442676	5/16/23	1

Z:\Cleveland-USCLV01\DCS\Projects\V\Vectren Corporation\60442676_ABBClosure\400-Technical\454_Lined Pond\CCR Certification Letters\Closure Plan - IDEM\Figures\Figure 1 - Site Location Map_CLOSURE -12-21-18.

LEGEND

LINED CCR POND BOUNDARY

N

0 100 200 300

GRAPHIC SCALE (IN FEET)

AECOM

PROJECT

Lined CCR Pond
Hazard Classification

A.B. BROWN GENERATING STATION
8511 Welborn Rd
Mount Vernon, IN 47620

CenterPoint Energy

CLIENT

SIGECO DBA CENTERPOINT ENERGY INDIANA SOUTH
P.O. Box 209
Evansville, IN 47702
800.227.1376 tel
http:///www.centerpointenergy.com

CONSULTANT

AECOM Process Technologies
9400 Amberglen Boulevard
Austin, Tx 78729
512.454.4797 tel 512.419.6004 fax
www.aecom.com

REGISTRATION

ISSUE/REVISION

I/R	DATE	DESCRIPTION

KEY PLAN

PROJECT NUMBER

60583533

SHEET TITLE

FIGURE 2 - SITE MAP

SHEET NUMBER

2

Project Management Initials: Designer:___ Checked:___ Approved:___ ARCH D 24" x 36"

Last saved by: DREW BROWNING(2023-08-09) Last Plotted: 2023-08-09
Filename: C:\USERS\DREW.BROWNING\ONEDRIVE - AECOM\DESKTOP\FIGURE 2\FIGURE 2_ABB_SITE MAP.DWG

Printed on ___% Post-Consumer Recycled Content Paper

LEGEND

- LINED CCR POND BOUNDARY
- EMERGENCY OVERFLOW / BREACH DISCHARGE PATH

N

0 200 400 600

GRAPHIC SCALE (IN FEET)

Project Management Initials: Designer: ___ Checked: ___ Approved: ___ ARCH D 24" x 36"

Last saved by: DREW.BROWNING(2023-08-09) Last Plotted: 2023-08-09
Filename: C:\USERS\DREW.BROWNING\ONEDRIVE - AECOM\DESKTOP\FIGURE 2\FIGURE 3_DISCHARGE PATH MAP.DWG

Printed on ___% Post-Consumer Recycled Content Paper

AECOM

PROJECT

Lined CCR Pond
Hazard Classification

A.B. BROWN GENERATING STATION
8511 Welborn Rd
Mount Vernon, IN 47620

CenterPoint Energy

CLIENT

SIGECO DBA CENTERPOINT ENERGY INDIANA SOUTH
P.O. Box 209
Evansville, IN 47702
800.227.1376 tel
http://www.centerpointenergy.com

CONSULTANT

AECOM Process Technologies
9400 Amberglen Boulevard
Austin, Tx 78729
512.454.4797 tel 512.419.6004 fax
www.aecom.com

REGISTRATION

ISSUE/REVISION

I/R	DATE	DESCRIPTION

KEY PLAN

PROJECT NUMBER

60583533

SHEET TITLE

FIGURE 3 - DISCHARGE PATH MAP

SHEET NUMBER

3

9400 Amberglen Boulevard
Austin, Texas 78729
1-512-454-4797

About AECOM

AECOM (NYSE: ACM) is a global provider of professional technical and management support services to a broad range of markets, including transportation, facilities, environmental, energy, water and government. With approximately 45,000 employees around the world, AECOM is a leader in all of the key markets that it serves. AECOM provides a blend of global reach, local knowledge, innovation, and collaborative technical excellence in delivering solutions that enhance and sustain the world's built, natural, and social environments. A Fortune 500 company, AECOM serves clients in more than 100 countries and has annual revenue in excess of $6 billion.