



Stantec Consulting Services Inc.
10200 Alliance Road, Suite 300
Cincinnati OH 45242-4754

September 15, 2025

Indiana-Kentucky Electric Corporation
3932 U.S. Route 23
P.O. Box 468
Piketon, Ohio 45661

**RE: Retrofit Plan
West Boiler Slag Pond (CCR Unit)
EPA Final Coal Combustion Residuals (CCR) Rule
Clifty Creek Station
Madison, Jefferson County, Indiana**

1.0 PURPOSE

As described in 40 CFR §257.102(k), an owner or operator of a CCR unit is required to demonstrate that certain measures will be adopted to retrofit a CCR unit. This letter documents Stantec's certification of the Retrofit Plan for Indiana-Kentucky Electric Corporation (IKEC) Clifty Creek Station's West Boiler Slag Pond complies with requirements in the EPA Final CCR Rule 40 CFR §257.102(k)(2)(i).

2.0 SUMMARY OF FINDINGS

The attached plan documents the retrofit measures that meet the requirements specified in 40 CFR §257.102(k).

3.0 QUALIFIED PROFESSIONAL ENGINEER CERTIFICATION

I, Jacqueline S. Harmon, being a Professional Engineer in good standing in the State of Indiana, do hereby certify, to the best of my knowledge, information, and belief:

1. that the information contained in this certification is prepared in accordance with the accepted practice of engineering;
2. that the information contained herein is accurate as of the date of the attached plan and the date of my signature below;
3. that the Retrofit Plan for the IKEC Clifty Creek Station's CCR Unit meets the requirements described in 40 CFR §257.102(k)(2)(i).

Reference: Retrofit Plan

SIGNATURE *Jacqueline S. Harmon* DATE 9/15/2025

ADDRESS: Stantec Consulting Services Inc.
10200 Alliance Road, Suite 300
Cincinnati, OH 45242

TELEPHONE: (513) 842-8200

ATTACHMENT: Retrofit Plan





Retrofit Plan

West Boiler Slag Pond
Clifty Creek Station



Prepared for:
Indiana-Kentucky Electric Corporation

Date:
September 15, 2025

Prepared by:
Stantec Consulting Services Inc.

Project/File:
173411098

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1 Introduction

This EPA Final Coal Combustion Residuals (CCR) Rule retrofit plan contains the current plan and is subject to change. This document describes the CCR retrofit activities at Indiana-Kentucky Electric Corporation's (IKEC's) Clifty Creek Station to ensure that West Boiler Slag Pond (WBSP) will be retrofitted in accordance with the CCR requirements of 40 CFR §257.101(a) and §257.102(k). This retrofit basin will exist within the WBSP, an area where CCR has been historically managed and stored and is monitored by a certified groundwater monitoring well system. The remainder of the WBSP will be closed in accordance with its current closure and post-closure plan (Stantec, September 2023).

2 Written Retrofit Plan - 40 CFR §257.102(k)(2)

40 CFR 257.102(k)(2). *Written retrofit plan—(i) Content of the plan. The owner or operator must prepare a written retrofit plan that describes the steps necessary to retrofit the CCR unit consistent with recognized and generally accepted good engineering practices. The written retrofit plan must include, at a minimum, all of the following information:*

(A) A narrative description of the specific measures that will be taken to retrofit the CCR unit in accordance with this section.

(B) A description of the procedures to remove all CCR and contaminated soils and sediments from the CCR unit.

(C) An estimate of the maximum amount of CCR that will be removed as part of the retrofit operation.

(D) An estimate of the largest area of the CCR unit that will be affected by the retrofit operation.

(E) A schedule for completing all activities necessary to satisfy the retrofit criteria in this section, including an estimate of the year in which retrofit activities of the CCR unit will be completed.

2.1 Retrofit Narrative - 40 CFR §257.102(k)(2)(i)(A and B)

Historically, the WBSP has functioned as a settling facility, managing process flows from the station and over 500 acres of stormwater received from watershed acreage beyond the IKEC property. The WBSP is being closed by removal in accordance with the requirements found in the EPA CCR Rule. When possible, beneficial reuse of the CCRs is planned.

Significant permitting and construction steps were taken to prepare for closure of the WBSP:

- Permitting was completed allowing diversion of stormwater through two existing outfalls and one new outfall.
- Design and construction of a boiler slag handling system (BSHS) to divert process flows.



Retrofit Plan

2 Written Retrofit Plan - 40 CFR §257.102(k)(2)

- Design and construction of a low-volume waste treatment system (LVWTS) consisting of two lined ponds to manage process flows from the station, leachate from the CCR landfill, and stormwater within the WBSP during closure activities.
- Design and construction of stormwater drainage improvements towards the existing outfalls, reducing stormwater flows to the WBSP to those flows that fall within the pond and the immediate vicinity.

IKEC ceased placing CCR and non-CCR wastestreams into the WBSP in October 2023 under the requirements of §257.103(f)(1)(vi)(A), transitioning the WBSP to an inactive unlined CCR surface impoundment as determined under 40 CFR §257.71(a). Subsequently, IKEC issued a notice of intent to close as required under §257.102(g). Approximately one acre of the WBSP will be closed in accordance with §257.102(d) by leaving the CCR in place. The remainder will be closed by removal in accordance with §257.102(c).

At any time after the initiation of closure under §257.101(a)(4), IKEC may elect to initiate a retrofit of the CCR unit in accordance with the requirements of §257.102(k). See §257.101(a)(4). In September 2025, IKEC elected to retrofit approximately 2.5 acres of the WBSP within the closure-by-removal footprint as a process basin to manage bottom ash from the station. To retrofit a process basin within the WBSP under 40 CFR §257.102(k), IKEC will remove CCR-contaminated soils and sediments from the CCR surface impoundment and comply with the requirements in §257.72 (liner design criteria).

The WBSP footprint is being dried, stabilized, and dewatered. Within the retrofit footprint, CCRs will be removed based on visual verification with an additional six inches of over-excavation to facilitate CCR removal, while maintaining a five-foot isolation above the uppermost aquifer. Any CCR material not used for offsite beneficial use will be sent to the on-site CCR landfill. Stormwater drainage improvements will be implemented during final closure grading to manage flows through an NPDES-permitted outfall.

Structural soil fill will be placed in controlled, compacted lifts to create the new basin's surrounding dike. The basin interior will include installation of an alternative composite liner that meets §257.70(c)(1). From bottom to top, the liner cross section will be:

- Prepared subgrade,
- Geosynthetic clay liner,
- 30-mil flexible linear low-density polyethylene (LLDPE),
- A separation geotextile, and
- A granular marker layer.

2.2 Estimate of Maximum Amount of CCR to be Removed - 40 CFR §257.102(k)(2)(i)(C)

The CCR thickness within the retrofit area ranges from zero to five feet. An estimated 10,100 cubic yards of CCRs remain for removal in the proposed 2.5-acre footprint. An additional approximately 2,000 cubic yards of soil will be removed to meet closure by removal criteria as defined in the WBSP closure plan; however, the total volume of soil may increase in order to appropriately removed contact soils.



2.3 Estimate of Largest Area of WBSP Affected by Retrofit - 40 CFR §257.102(k)(2)(i)(D)

The lined retrofit will be 2.5 acres for the basin and lined laydown area. Access roads and erosion and sediment controls measures surrounding the retrofit will be within the closure-by-removal footprint and considered part of the grading for closure activities.

2.4 Schedule - 40 CFR §257.102(k)(2)(i)(E), §257.102(k)(2)(ii)

No later than the date the owner or operator initiates the retrofit of a CCR unit, the owner or operator must prepare a notification of intent to retrofit a CCR unit (§257.105(k)(5)). The owner or operator has completed the notification when it has been placed in the facility's operating record as required by §257.105(j)(5).

No later than 60 days prior to date of initiating retrofit activities, IKEC must prepare the initial written retrofit plan consistent with the requirements specified in § 257.102(k)(2). For purposes of subpart 257, initiation of retrofit activities has commenced if IKEC has ceased placing waste in the unit and completes any of the following actions or activities:

- Taken any steps necessary to implement the written retrofit plan,
- Submitted a completed application for any required state or agency permit or permit modification, or
- Taken any steps necessary to comply with any state or other agency standards that are a prerequisite, or are otherwise applicable, to initiating or completing the retrofit of a CCR unit.

IKEC has completed the written retrofit plan when the plan, including the certification required by §257.102(k)(2)(iv), has been placed in the facility's operating record as required by §257.105(j)(1).

Construction of the lined retrofit basin will be completed by December 2025.

2.5 Amendment of the Retrofit Plan - 40 CFR §257.102(k)(2)(iii)

IKEC may amend the initial or any subsequent written retrofit plan at any time. An amendment is required when:

- There is a change in the operation of the WBSP would substantially affect the written retrofit plan in effect or
- If before or after retrofit activities have commenced, unanticipated events necessitate a revision of the written retrofit plan.

IKEC must amend the retrofit plan at least 60 days prior to a planned change in the operation of the facility or CCR unit, or no later than 60 days after an unanticipated event requires the revision of an existing written retrofit plan. If a written retrofit plan is revised after retrofit activities have commenced for a CCR unit, the owner or operator must amend the current retrofit plan no later than 30 days following the triggering event.



Retrofit Plan

2 Written Retrofit Plan - 40 CFR §257.102(k)(2)

A written certification from a qualified professional engineer is provided noting that the activities outlined in the written retrofit plan, including any amendment of the plan, meet the requirements of §257.102. Upon completion, a written certification from a qualified professional engineer will be provided noting that the retrofit activities have been completed in accordance with the retrofit plan specified in paragraph §257.102(k)(2) and the requirements of §257.102.

2.6 Completion of the Retrofit Plan- 40 CFR §257.102(k)(6)

Retrofit activities within the WBSP will be completed within the same time frames and procedures specified for the closure of a CCR surface impoundment in §257.102(f) or, where applicable, §257.103. Closure by removal activities for the WBSP are scheduled for completion by October 2027.

Within 30 days of completing the retrofit activities specified in §257.102(k)(1), IKEC will prepare a notification of completion of retrofit activities. The notification will include certification from a qualified professional engineer as required by §257.102(k)(4). IKEC will complete the notification when it has been placed in the Clifty Creek Station's operating record as required by §257.105(j)(6).

At any time after the initiation of the WBSP retrofit, IKEC may cease the retrofit and initiate closure of the CCR unit in accordance with the requirements of §257.102.

IKEC will comply with the retrofit recordkeeping requirements specified in §257.105(j), the retrofit notification requirements specified in §257.106(j), and the retrofit internet requirements specified in §257.107(j).



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Stantec Consulting Services Inc.
10200 Alliance Road, Suite 300
Cincinnati OH 45242-4754
stantec.com