



**OHIO VALLEY ELECTRIC CORPORATION**

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WRITER'S DIRECT DIAL NO:  
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September 29, 2023

**Delivered Electronically**

Mr. Brian Rockensuess  
Commissioner  
Indiana Department of Environmental Management  
100 N. Senate Avenue  
Mail Code 50-01  
Indianapolis, IN 46204-2251

**Re: Indiana-Kentucky Electric Corporation- Clifty Creek Station  
Revision to the West Boiler Slag Pond Closure and Post-Closure  
Plan**

Dear Mr. Rockensuess:

As required by 40 CFR 257.106(i)(4), Indiana-Kentucky Electric Corporation is providing notification to the Commissioner of the Indiana Department of Environmental Management (IDEM) that a revision has been made to the Clifty Creek Station West Boiler Slag Pond Closure Plan. The newly revised plan will be placed in the facility's operation record as well as the publicly accessible internet site, which can be viewed at <http://www.ovec.com/CCRCompliance.php>

If you have any questions, or require any additional information, please call me at (740) 289-7259, or you can contact Tim Fulk at (740) 897-7768.

Sincerely,

A handwritten signature in black ink that reads "Jeremy Galloway".

Jeremy Galloway  
Environmental Specialist

JDG: tlf



September 26, 2023  
Revision 1

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

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

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## **1.0 PURPOSE**

As described in 40 CFR §257.102 and §257.104, an owner or operator of a CCR unit is required to demonstrate that certain measures will be adopted to close and maintain the facility. This letter documents Stantec's certification of the Closure and Post-Closure 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(b) and §257.104(d).

## **2.0 SUMMARY OF FINDINGS**

The attached plan documents the closure and post-closure measures that meet the requirements specified in 40 CFR §257.102(b) and §257.104(d).

## **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 Closure and Post-Closure Plan for the IKEC Clifty Creek Station's CCR Unit meets the requirements described in 40 CFR §257.102(b) and §257.104(d).

September 26, 2023

Page 2 of 2

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

SIGNATURE *Jacqueline S. Harmon*

DATE 9/26/2023

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

TELEPHONE: (513) 842-8200

ATTACHMENT: Closure and Post-Closure Plan





## **CLOSURE AND POST-CLOSURE PLAN**

West Boiler Slag Pond

Clifty Creek Station  
Madison, Jefferson County, Indiana

September 26, 2023

Revision 1

Prepared for:

Indiana-Kentucky Electric Corporation  
Piketon, Ohio



Prepared by:

Stantec Consulting Services Inc.  
Cincinnati, Ohio

## Closure and Post-Closure Plan

<b>Revision Date</b>	<b>Description of Revision</b>
October 11, 2016	Revision 0 – Initial Submittal
February 7, 2020	Closure Plan, Phase 1 (Addendum 1, state permit submittal)
June 16, 2021	Closure Plan, Phases 2-4 (state permit submittal)
September 26, 2023	Revision 1 – Revised Closure Activities
Revisions will be logged according to qualified professional engineer certification.	



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# 1 Introduction

This EPA Final Coal Combustion Residuals (CCR) Rule closure and post-closure plan contains the current plan and is subject to change. This document describes the CCR closure and post-closure activities at Indiana-Kentucky Electric Corporation's (IKEC's) Clifty Creek Station to ensure that West Boiler Slag Pond (WBSP) will be closed and maintained in accordance with the CCR closure and post-closure requirements of 40 CFR §257.102 and §257.104, respectively. This unit exists within an area where CCR has been historically managed and stored and is monitored by a certified groundwater monitoring well system. It will be closed in accordance with this closure and post-closure plan.

## 2 Written Closure Plan – 40 CFR 257.102(b)(1)

**40 CFR 257.102(b).** *Written Closure Plan – (1) Content of the Plan. The owner or operator of a CCR unit must prepare a written closure plan that describes the steps necessary to close the CCR unit at any point during the active life of the CCR unit consistent with recognized and generally accepted good engineering practices. The written closure plan must include, at a minimum, the information specified in paragraphs (b)(1)(i) through (vi) of this section.*

(i) *A narrative description of how the CCR unit will be closed in accordance with this section.*

(ii) *If closure of the CCR unit will be accomplished through the 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.*

(iii) *If closure of the CCR unit will be accomplished by leaving CCR in place, a description of the final cover system, designed in accordance with paragraph (d) of this section, and the methods and procedures to be used to install the final cover. The closure plan must also discuss how the final cover system will achieve the performance standards specified in paragraph (d) of this section.*

(iv) *An estimate of the maximum inventory of CCR ever on-site over the active life of the CCR unit.*

(v) *An estimate of the largest area of the CCR unit ever requiring a final cover as required by paragraph (d) of this section at any time during the CCR unit's active life.*

(vi) *A schedule for completing all activities necessary to satisfy the closure criteria in this section, including an estimate of the year in which all closure activities for the CRR 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 and obtaining necessary approvals and permits from other agencies, the dewatering and stabilization phase of CCR surface impoundment closure, or installation of the final cover system, and the estimated timeframes to complete each step or phase of CCR unit closure.*



## Closure and Post-Closure Plan

### Written Closure Plan – 40 CFR 257.102(b)(1)

## 2.1 Closure Activities - §257.102(b)(1)(i)

Historically the WBSP has acted 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 will be closed by removal in accordance with the requirements found in the EPA CCR Rule. When possible, beneficial reuse of the CCRs is proposed.

To prepare for closure of the WBSP, significant permitting and construction steps have been taken:

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

Once flows to the WBSP have been diverted and beneficial use of the boiler slag has ceased, closure will be initiated for the surface impoundment. The WBSP footprint will be dried, stabilized, and free of water residue. CCRs will be removed based on visual verification with an additional six inches of overexcavation to facilitate CCR removal. 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 a NPDES-permitted outfall.

The existing gypsum loadout facility located in the southeast corner of the WBSP was previously closed in place in accordance with a state permit. The intent is to leave the facility in place during WBSP closure. The facility cap out slopes will receive a final cap system with erosion protection.

## 2.2 Closure Type - Closure by Removal – §257.102(b)(1)(ii)

The majority of the closure will be accomplished by removal of the CCRs. The closure design elements will meet the CCR closure by removal performance standards outlined in 40 CFR 257.102(c) and described in Section 3.0.

## 2.3 Closure Type - Closure In-Place – §257.102(b)(1)(iii)

The existing gypsum loadout facility will be closed in place to allow continued operation. Regrading for the purpose of recontouring and creating positive drainage in support of the final cover system will occur. A final cover system will be placed over the facility out slopes. The final cover system and closure design



## Closure and Post-Closure Plan

### Written Closure Plan – 40 CFR 257.102(b)(1)

elements will meet the CCR closure in-place performance standards outlined in 40 CFR 257.102(d) and described in Section 3.0.

#### 2.4 Maximum CCR Inventory - §257.102(b)(1)(iv)

Based on available WBSP records, the estimated maximum inventory of CCR ever on-site is approximately 3,600 acre-feet or 5.8 million cubic yards.

#### 2.5 Largest Area Requiring Removal and Final Cover - §257.102(b)(1)(v)

Based on available records, the estimated largest area requiring closure by removal and final cover combined, during the active life is approximately 75 acres.

#### 2.6 Schedule of Closure Activities - §257.102(b)(1)(vi)

The following sequential steps necessary for completing the closure activities of 40 CFR 257.102 and their estimated scheduled completion dates are provided in Table 1.

**Table 1 Estimated Schedule of Closure Activities**

	Closure Activity	Start Date (day)
	Outfall permit modifications	complete
	Construction of BSHS and LVWTS	complete
	Stormwater drainage improvements to divert flows to the WBSP	complete
1.	Coordinating with and obtaining necessary approvals and permits from regulatory agencies; provide notice of intent to close; revised design to recontour and create positive drainage in support of the final conditions	1
2.	Dewatering, stabilization, and regrading of surface impoundment	61
3.	Excavation of CCR for beneficial reuse or to on-site landfill	365
4.	Construction of gypsum loadout facility final cover system	1095
5.	Completion of closure	1825
6.	Completion of post-closure care period	Add 30 years to completion of closure

#### 2.7 Estimated Year of Closure Completion - §257.102(b)(1)(vi)

The estimated year for completion of closure activities is 2028.



## Closure and Post-Closure Plan

### CCR Closure Performance Standards – 40 CFR 257.102(c) and 257.102(d)

## 2.8 Request for Time Extension

If it is estimated that the time required to complete closure will exceed the regulatory timeframes allowed under 40 CFR § 257.102(f), site-specific information, factors, and considerations will be provided to support any time extensions requested.

## 2.9 Amendment of Closure Plan - §257.102(b)(3)

The owner or operator may amend the closure plan at any time and must do so at least 60 days prior to any planned change in the operation of the CCR unit that would substantially affect the written closure plan in effect. The closure plan must also be amended no later than 60 days after unanticipated events necessitate a revision of the written closure plan (30 days after if the triggering event takes place after closure activities have commenced). The amended closure plan requires a new certification from a qualified professional engineer that it meets the requirements of 40 CFR 257.102.

## 3.0 CCR Closure Performance Standards – 40 CFR 257.102(c) and 257.102(d)

**CCR Closure by Removal Standards – 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 standards established pursuant to section 257.95(h) for constituents listed in appendix IV to this part.*

**CCR Closure In-Place Performance Standards – 40 CFR 257.102(d).** *Closure performance standard when leaving CCR in place —*

(1) *The owner or operator of a CCR unit must ensure that, at a minimum, the CCR unit is closed in a manner that will:*

(i) *Control, minimize or eliminate, to the maximum extent feasible, post-closure infiltration of liquids into the waste and releases of CCR, leachate, or contaminated run-off to the ground or surface waters or to the atmosphere;*

(ii) *Preclude the probability of future impoundment of water, sediment, or slurry;*

(iii) *Include measures that provide for major slope stability to prevent the sloughing or movement of the final cover system during the closure and post-closure care period;*

(iv) *Minimize the need for further maintenance of the CCR unit; and*

(v) *Be completed in the shortest amount of time consistent with recognized and generally accepted good engineering practices.*



## Closure and Post-Closure Plan

### CCR Closure Performance Standards – 40 CFR 257.102(c) and 257.102(d)

#### 3.1 CCR Closure by Removal Standards - §257.102(c)

A majority of the WBSP will be closed by removal (except for the gypsum loadout facility, which will be closed in place). CCRs will be removed based on visual verification with an additional six inches of overexcavation to ensure decontamination. Regrading for the purpose of recontouring and creating positive drainage in support of the closed unit will occur after CCR removal.

A certified groundwater monitoring well system exists at the WBSP. Groundwater monitoring will continue following closure activities to define when decontamination of the CCR unit is complete.

#### 3.2 CCR Closure In-Place Performance Standards - §257.102(d)

##### 3.2.1 CONTROL OF INFILTRATION AND RELEASES - §257.102(D)(1)(I)

The gypsum loadout facility will be closed in place. IKEC will control, minimize, or eliminate, to the maximum extent possible, post-closure infiltration of liquids into the waste and releases of CCR, leachate, or contaminated run-off to the ground or surface waters or to the atmosphere, through the design of a site grading plan, construction of an engineered cap system, and the establishment of a stormwater management system in accordance with accepted engineering practices and the CCR regulations.

The 2.6-acre cap system will be designed to control the infiltration of precipitation into the closed unit according to acceptable, permeability compliance limits. The cap system will also act to cover, control, and prevent the release of CCR material from the closed unit into surface waters and the atmosphere. The designed grading plan and stormwater management system promotes positive drainage and controls infiltration into the CCR materials. The cap cover is designed to prevent the exposure of CCR material to the atmosphere.

Perimeter stormwater ditches will be graded at 1 to 2 percent to promote drainage to the new stormwater outfall to the Ohio River. All drainage structures have been designed to accommodate at least a 25-year, 24-hour storm event.

To prevent “contact” water from leaving the site, new outfalls will not be made available for use until the drainage area for that outfall has the final cap completed. An internal sump is included in the existing gypsum loading facility to manage flows from the facility.

Where pipes penetrate the geosynthetic cover system, the geosynthetics will be battened to concrete collars around the pipes to prevent “contact” water from entering the perimeter ditches and outfalls.

##### 3.2.2 PREVENTION OF FUTURE IMPOUNDMENT OF WATER, SEDIMENT, OR SLURRY - §257.102(d)(1)(ii)

IKEC will control the future impoundment of water or sediment at the closed CCR unit through the design and construction of a site grading plan and an engineered cap system, and the establishment of a stormwater management system in accordance with accepted engineering practices. The designed



## Closure and Post-Closure Plan

### CCR Closure Performance Standards – 40 CFR 257.102(c) and 257.102(d)

grading plan and stormwater management system will promote positive surface drainage on the site to minimize the ponding of water.

#### **3.2.3 SLOPE STABILITY MEASURES - §257.102(d)(1)(iii)**

IKEC will evaluate the static and seismic slope stability of the 2.6-acre final cover system to assess the potential for sliding in the closure cap system and determine the minimum required interface strength for use in performance-based specifications. Preconstruction testing of the cover materials will be conducted to verify that all materials meet the minimum interface strength requirements established by stability analyses.

#### **3.2.4 CCR UNIT MAINTENANCE - §257.102(d)(1)(iv)**

IKEC will mitigate against the need for further maintenance of the CCR unit through compliance with post-closure care activities. Regularly scheduled inspections to evaluate post-closure conditions and to verify preventive maintenance activities of the unit will reduce the need for additional maintenance. Post-closure monitoring and maintenance activities are addressed in Section 4.1.

#### **3.2.5 COMPLETION OF CLOSURE - §257.102(d)(1)(v)**

Closure will be completed in a manner consistent with recognized and generally accepted good engineering practices and in compliance with timeframes specified within the EPA CCR Rule.

#### **3.2.6 DRAINAGE AND STABILIZATION OF SURFACE IMPOUNDMENTS - §257.102(d)(2)**

**40 CFR 257.102(d)(2).** *Drainage and stabilization of CCR surface impoundments.*

*The owner or operator of a CCR surface impoundment or any lateral expansion of a CCR surface impoundment must meet the requirements of paragraphs (d)(2)(i) and (ii) of this section prior to installing the final cover system required under paragraph (d)(3) of this section.*

(i) *Free liquids must be eliminated by removing liquid wastes or solidifying the remaining wastes and waste residues.*

(ii) *Remaining wastes must be stabilized sufficient to support the final cover system.*

Free liquids will be eliminated by removing liquid wastes or solidifying the remaining wastes and waste residues, and remaining waste will be stabilized sufficient to support the final cover system. The operational drawdown and dewatering of the WBSP will be in accordance with the facility's Indiana NPDES permit. Following drawdown, the CCR material will be stabilized to allow for equipment access to perform grading and to support the final cover system.



## Closure and Post-Closure Plan

### CCR Closure Performance Standards – 40 CFR 257.102(c) and 257.102(d)

#### 3.2.7 FINAL COVER SYSTEM DESIGN - §257.102(D)(3)

**40 CFR 257.102(d)(3).** *Final cover system. If a CCR unit is closed by leaving CCR in place, the owner or operator must install a final cover system that is designed to minimize infiltration and erosion, and at a minimum, meets the requirements of paragraph (d)(3)(i) of this section, or the requirements of the alternative final cover system specified in paragraph (d)(3)(ii) of this section.*

(i) *The final cover system must be designed and constructed to meet the criteria in paragraphs (d)(3)(i)(A) through (D) of this section. The design of the final cover system must be included in the written closure plan required by paragraph (b) of this section.*

- (A) *The permeability of the final cover system must be less than or equal to the permeability of any bottom liner system or natural subsoils present, or a permeability no greater than  $1 \times 10^{-5}$  cm/sec, whichever is less.*
- (B) *The infiltration of liquids through the closed CCR unit must be minimized by the use of an infiltration layer that contains a minimum of 18 inches of earthen material.*
- (C) *The erosion of the final cover system must be minimized by the use of an erosion layer that contains a minimum of six inches of earthen material that is capable of sustaining native plant growth.*
- (D) *The disruption of the integrity of the final cover system must be minimized through a design that accommodates settling and subsidence.*

(ii) *The owner or operator may select an alternative final cover system design, provided the alternative final cover system is designed and constructed to meet the criteria in paragraphs (f)(3)(ii)(A) through (D) of this section. The design of the final cover system must be included in the written closure plan required by paragraph (b) of this section.*

- (A) *The design of the final cover system must include an infiltration layer that provides an equivalent reduction in infiltration as the infiltration layer specified in paragraphs (d)(3)(i)(A) and (B) of this section.*
- (B) *The design of the final cover system must include an erosion layer that provides equivalent protection from wind or water erosion as the erosion layer specified in paragraph (d)(3)(i)(C) of this section.*
- (C) *The disruption of the integrity of the final cover system must be minimized through a design that accommodates settling and subsidence.*

##### 3.2.7.1 Final Cover System Design Standards - §257.102(d)(3)(i)

The final cover system must be designed to minimize infiltration and erosion, consisting of the following minimum elements:



## Closure and Post-Closure Plan

### CCR Closure Performance Standards – 40 CFR 257.102(c) and 257.102(d)

- Cap cover soil: A minimum 18-inch infiltration layer of earthen materials with permeability less than or equal to the permeability of any natural subsoils present, or a permeability no greater than  $1 \times 10^{-5}$  cm/sec, whichever is less;
- Topsoil: A minimum 6-inch erosion layer that contains earthen material that is capable of sustaining native plant growth; and
- Disruption of the integrity of the final cover system will be minimized through a design that accommodates settling or subsidence.

The final cover system for the closure of the CCR unit will consist of 36 inches of earthen materials with permeability less than or equal to the permeability of any natural subsoils present, or a permeability no greater than  $1 \times 10^{-5}$  cm/sec, whichever is less. In lieu of topsoil, erosion protection such as riprap is anticipated.

The state-permitted final cover system for the gypsum loadout facility is (from top to the bottom subgrade):

- 9.5 inches of reinforced concrete pad
- 12 inches of sand layer
- 40-mil PVC or LLDPE geomembrane liner or equivalent installed over 2 feet of compacted structural fill.

Stormwater drainage improvements will be implemented during the final closure activities with minor grading of existing channels and construction of new channels to improve drainage of the closed pond. The final cover slope will be a minimum of two percent (2%) and will convey surface water to an NPDES-permitted outfall. Permanent stormwater ditch slopes may vary and will be sized to adequately convey anticipated design storm events.

#### **3.2.7.2 Methods and Procedures for Installation of Final Cover - §257.102(b)(1)(iii)**

40 CFR 257.102(b)(1)(iii) requires a description of the methods and procedures used in the installation of the final cover. Section 3.2.7.1 describes the details regarding the construction procedures for cover installation.

The final cover system will be installed once CCR is removed from all areas possible and remaining CCR and soil is graded to the subgrade lines indicated on the construction plans. The remaining CCR materials will be compacted in a manner to mitigate settling and subsidence that could disrupt the integrity of the final cover system. As subgrade is reached on the outslopes of the gypsum loadout facility, the final cover system installation will progress to minimize areas of CCR exposure. The geomembrane layer will be placed above the compacted CCR or soil subgrade layer. The geosynthetic materials will be installed and tested as required by the manufacturer.



## Closure and Post-Closure Plan

### Written Post-Closure Plan – 40 CFR 257.104(d)(1)

#### 3.2.7.3 Professional Engineer Certification - §257.102(d)(3)(iii)

**40 CFR 257.102(d)(3)(iii).** *The owner or operator of the CCR unit must obtain a written certification from a qualified professional engineer that the design of the final cover system meets the requirements of this section.*

IKEC will obtain a written certification from a qualified professional engineer verifying that the design of the final cover system meets the requirements of 40 CFR 257.102.

## 4.0 Written Post-Closure Plan – 40 CFR 257.104(d)(1)

**40 CFR 257.104(d).** *Written Post-Closure Plan – (1) Content of the Plan. The owner or operator of a CCR unit must prepare a written post-closure plan that includes, at a minimum, the information specified in paragraphs (d)(1)(i) through (iii) of this section.*

(i) *A description of the monitoring and maintenance activities required in paragraph (b) of this section for the CCR unit, and the frequency at which these activities will be performed;*

(ii) *The name, address, telephone number, and email address of the person or office to contact about the facility during the post-closure care period; and*

(iii) *A description of the planned uses of the property during the post-closure period. Post-closure use of the property shall not disturb the integrity of the final cover, liner(s), or any other component of the containment system, or the function of the monitoring systems unless necessary to comply with the requirements in this subpart. Any other disturbance is allowed if the owner or operator of the CCR unit demonstrates that disturbance of the final cover, liner, or other component of the containment system, including any removal of CCR, will not increase the potential threat to human health or the environment. The demonstration must be certified by a qualified professional engineer, and notification shall be provided to the State Director that the demonstration has been placed in the operating record and on the owner's or operator's publicly accessible internet site.*

### 4.1 Monitoring and Maintenance Activities- §257.104(d)(1)(i)

**40 CFR 257.104(b).** *Post-closure care maintenance requirements. Following closure of the CCR unit, the owner or operator must conduct post-closure care for the CCR unit, which must consist of at least the following:*

(1) *Maintaining the integrity and effectiveness of the final cover system, including making repairs to the final cover as necessary to correct the effects of settlement, subsidence, erosion, or other events, and preventing run-on and run-off from eroding or otherwise damaging the final cover;*

(2) *If the CCR unit is subject to the design criteria under §257.70, maintaining the integrity and effectiveness of the leachate collection and removal system and operating the leachate collection and removal system in accordance with the requirements of §257.70; and*



## Closure and Post-Closure Plan

### Written Post-Closure Plan – 40 CFR 257.104(d)(1)

(3) *Maintaining the groundwater monitoring system and monitoring the groundwater in accordance with the requirements of §§257.90 through 257.98.*

In accordance with 40 CFR 257.104(d)(1)(i), post-closure care for the closed CCR unit will address the following systems as required under 40 CFR 257.104(b), along with the frequencies for the identified monitoring and maintenance activities:

- Final cover system and
- Groundwater monitoring system.

#### 4.1.1 FINAL COVER SYSTEM - §257.104(b)(1)

IKEC will maintain the integrity and effectiveness of the final cover system and make repairs as necessary to correct the effects of settlement, subsidence, erosion, and other events, and control run-on and run-off from eroding or otherwise damaging the final cover, in accordance with accepted engineering practices. Regularly scheduled inspections, developed specifically for the conditions at the Clifty Creek Station, will be conducted at a minimum annually on the final cover system and will include observations of the slopes, crest, and toe for structural issues.

The cap system will be maintained for a minimum of 30 years following final closure of the CCR. Repairs will be conducted as deemed necessary to correct the effects of settlement, subsidence, erosion, and other surface defects encountered during inspections, and to prevent run-on and run-off from eroding or otherwise damaging the final cover. Repairs may consist of grading activities to correct erosion and poor surface runoff conditions.

During the post-closure care period, the following activities will be performed:

- Maintain the approved final contours and drainage systems of the site such that unintended ponding is controlled and precipitation on the closed area is controlled and directed off the closure area.
- Maintain and monitor the surface water drainage features. Maintenance of the surface water drainage system will continue throughout the post-closure period to promote positive drainage and acceptable performance of the drainage system.
- Instrumentation monitoring, liner integrity evaluations, and applicable inspections/assessments.

During post-closure, instrumentation will be monitored at least semi-annually unless a higher frequency of monitoring is deemed necessary.

#### 4.1.2 LEACHATE COLLECTION AND REMOVAL SYSTEM - §257.104(b)(2)

Since the unit is not a new CCR landfill or new lateral expansions of a CCR landfill, it is not subject to the requirements of 40 CFR 257.70. Therefore, this section is not applicable.



## Closure and Post-Closure Plan

### Written Post-Closure Plan – 40 CFR 257.104(d)(1)

#### 4.1.3 GROUNDWATER MONITORING SYSTEM - §257.104(b)(3)

The groundwater monitoring system has been designed and will be maintained in accordance with the EPA Final CCR Rule, 40 CFR §257.90 through 98. Regularly scheduled inspections and preventive maintenance activities will be conducted on the groundwater monitoring system, subject to specific groundwater monitoring compliance conditions and frequencies stipulated by the EPA Final CCR Rule.

The groundwater monitoring system will be maintained and monitored in accordance with the CCR Rule Groundwater Monitoring Plan. The monitoring system, sampling and analysis program will be continued during the post-closure period in accordance with the EPA Final CCR Rule.

#### 4.2 Contact Information - §257.104(d)(1)(ii)

The following contact information is provided for the post-closure period:

Owner: Ohio Valley Electric Corporation (OVEC)/  
Indiana-Kentucky Electric Corporation (IKEC)

Contact: 3932 U.S. Route 23  
P.O. Box 468  
Piketon, Ohio 45661

Phone: 740-289-7200

Email: [postclosurecare@ovec.com](mailto:postclosurecare@ovec.com)

#### 4.3 Planned Uses - §257.104(d)(1)(iii)

The post-closure use of the property will be undisturbed vacant land space. The only activities occurring on the closed CCR unit will be related to the post-closure care activities. All other activities will be prohibited.

Post-closure use of the property will not disturb the integrity of the final cover, liner, or any other component of the containment system, or the function of the monitoring systems unless necessary to comply with the requirements of the EPA Final CCR Rule under 40 CFR Part 257.

Any other disturbance is allowed if the owner or operator of the CCR unit demonstrates that disturbance of the final cover, liner, or other component of the containment system, including any removal of CCR, will not increase the potential threat to human health or the environment. The demonstration must be certified by a qualified professional engineer, and notification shall be provided to the state director that the demonstration has been placed in the operating record and on the owner's or operator's publicly accessible internet site.



## **Closure and Post-Closure Plan**

### **Written Post-Closure Plan – 40 CFR 257.104(d)(1)**

#### **4.4 Amendment of Post Closure Plan - §257.104(d)(3)**

The owner or operator may amend the post closure plan at any time and must do so at least 60 days prior to any planned change in the operation of the CCR unit that would substantially affect the written closure plan in effect. The post closure plan must also be amended no later than 60 days after an unanticipated event requires the need to revise the existing written post closure plan. If a written post closure plan is revised after post closure activities have commenced for a CCR unit, the owner or operator must amend the written post closure plan no later than 30 days following the triggering event. The amended post closure plan requires a new certification from a qualified professional engineer that it meets the requirements of 40 CFR 257.104.

