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WRITER'S DIRECT DIAL NO:  
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January 30, 2026

**Delivered Electronically**

Mr. Clinton Woods  
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  
Notification of CCR Rule Information Posting  
Annual Certified CCR Dam and Dike (Surface Impoundment)  
Inspection Report Posting**

Dear Mr. Woods:

As required by 40 CFR 257.106(g), the Indiana-Kentucky Electric Corporation (IKEC) is providing notification to the Commissioner (State Director) of the Indiana Department of Environmental Management that a qualified professional engineer has completed the Annual CCR Dam and Dike (Surface Impoundment) Inspection for the 2025 operating year in accordance with 40 CFR 257.83(b) for IKEC's Clifty Creek Station. The inspection report has been placed in the facility's Operating Record as well as on the company's publicly accessible internet site.

This information can be viewed on IKEC's publicly accessible internet site at:  
<http://www.ovec.com/CCRCompliance.php>

If you have any questions, or require any additional information, please call me at (740) 289-7259.

Sincerely,

A handwritten signature in black ink that reads "Jeremy Galloway". The signature is fluid and cursive, with "Jeremy" on the top line and "Galloway" on the bottom line.

Jeremy Galloway  
Environmental Specialist

JDG:zsh



**2025 CCR Rule – Surface Impoundments  
Clifty Creek Dam/Dike Inspections**



Clifty Creek Generating Station  
Madison, Indiana  
Jefferson County

January 19, 2026

Prepared for:

Indiana-Kentucky Electric Corporation  
Piketon, Ohio

Prepared by:

Stantec Consulting Services Inc.  
Cincinnati, Ohio

## Sign-off Sheet

This document entitled 2025 CCR Rule – Surface Impoundments, Clifty Creek Dam/Dike Inspections was prepared by Stantec Consulting Services Inc. ("Stantec") for the account of Indiana-Kentucky Electric Corporation (IKEC) (the "Client"). Any reliance on this document by any third party is strictly prohibited. The material in it reflects Stantec's professional judgment in light of the scope, schedule, and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use that a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.

Prepared by 

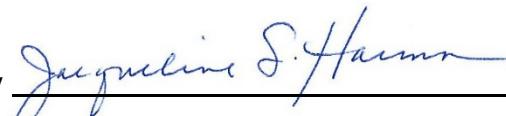
(signature)

**Ryan LeBeau**

Reviewed by 

(signature)

**Darren Pleiman, P.E.**

Reviewed by 

(signature)

**Jacqueline S. Harmon, P.E.**



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**2025 CCR RULE – SURFACE IMPOUNDMENTS  
CLIFTY CREEK DAM/DIKE INSPECTIONS**

Overview  
January 19, 2026

## 1.0 OVERVIEW

Stantec Consulting Services Inc. (Stantec) performed an annual inspection of the existing coal combustion residuals (CCR) surface impoundments at the Clifty Creek Generating Station in Madison, Indiana on October 28, 2025.

This annual dam and dike inspection is intended to fulfill the requirements of 40 CFR 257.83(b) for the *Disposal of Coal Combustion Residuals from Electric Utilities* rule (CCR Rule) signed by the U.S. Environmental Protection Agency (EPA) Administrator on December 19, 2014 and published in the Federal Register on April 17, 2015.

<b>Date performed:</b>	October 28, 2025
<b>Weather:</b>	Cloudy, 55°F - 65°F
<b>Rainfall over previous 72 hours:</b>	October 24, 2025 – 0.00 inch October 26, 2025 – 0.00 inch October 27, 2025 – 0.00 inch October 28, 2025 – 0.15 inches

Precipitation data was collected by the National Centers for Environmental Information (NCEI), a service provided by the National Oceanic and Atmospheric Administration (NOAA), for Clifty Creek, Indiana (USC00121615). Precipitation during the 72-hour period prior to the site visit was 0.15 inches. Occasional light rain was observed during the site inspection. Based on regional records, no appreciable rain fell within the prior week, and the monthly accumulated precipitation total to date was 1.94 inches.

Stantec's team that performed the fieldwork included:

- Darren Pleiman, P.E., Senior Associate, Project Manager  
29 years of experience in geotechnical engineering, including dam and levee design and inspection.
- Ryan LeBeau, Project Engineer  
3 years of experience in environmental and water resources engineering including modification of levees/dams, CCR storage facility design, and CCR facility inspections and closures.

Fieldwork was coordinated with Chengyuan Li from Clifty Creek Station's environmental department and Jeremy Galloway from Ohio Valley Electric Corporation's (OVEC's) corporate environmental department. Mr. Li and Mr. Galloway accompanied Stantec's personnel during the inspection. Observations were briefly discussed with onsite personnel during and after completion of the field activities. Mr. Li and Brent Gray from Clifty Creek Station's environmental department track the maintenance needs and activities through the weekly and monthly inspections.

**2025 CCR RULE – SURFACE IMPOUNDMENTS  
CLIFTY CREEK DAM/DIKE INSPECTIONS**

Description of Clifty Creek Impoundments  
January 19, 2026

## **2.0 DESCRIPTION OF CLIFTY CREEK IMPOUNDMENTS**

The Clifty Creek Generating Station is a coal-combustion generating station located in Madison, Jefferson County, Indiana. It is owned and operated by Indiana-Kentucky Electric Corporation (IKEC), a wholly owned subsidiary of OVEC. The Clifty Creek Station began operating in 1955. It has six generating units with a total capacity of 1,304 megawatts.

The annual assessment included two CCR surface impoundments: the West Boiler Slag Pond (WBSP) and the Landfill Runoff Collection Pond (LRCP).

### **2.1 WEST BOILER SLAG POND**

The WBSP is located about 1,500 feet west/southwest of the power plant on the west side of Big Clifty Creek. It has historically served as a settling facility for sluiced bottom ash produced at the plant and as stormwater run-on management for approximately 510 acres west of the station. Recent facility improvements have altered inflows into the WBSP. The impoundment now receives limited stormwater from rainfall directly into the impoundment or immediately adjacent to it. CCR flows are not sluiced to the WBSP. In October of 2025 the IKEC sent notification of intent to retrofit approximately two acres of the existing WBSP to support plant operations. Construction of a lined impoundment is currently in progress. A station overview is included in Appendix A.

The WBSP is formed by natural grade to the north, east, and west. The CCR landfill haul road is to the north. A wide berm area along the east side supports several transmission towers, separating the impoundment from Big Clifty Creek. The Devils Backbone borders the west side. An embankment dam/dike extends along the south side, separating the WBSP from upland new field habitat and mixed early successional/second growth riparian forest adjacent to the Ohio River's ordinary high-water mark (Stantec 2022). The embankment dam/dike is approximately 2,500 feet long with a maximum height of about 41 feet. The crest of the dike is at about elevation 475.0 feet. On the southeast side of the pond, there is a gypsum loading station for barge traffic. On the southwest side, CCR was removed and the area repurposed as lined settling basins described as the low-volume wastewater treatment system (LVWTS).

The WBSP historically consisted of three primary areas: the eastern portion where CCR was historically sluiced and dredged/mined for recovery, the central portion that consists of a wide, vegetated delta area, and the lined settling basins. Through recent closure by removal activities, the wide, vegetated delta area is being dewatered and excavated and the CCR material moved to the landfill. Discharge from the settling basins occurs through an outlet structure extending under the southern dam/dike located at the far western end of the pond. Flow passes through an NPDES-permitted outfall and into the Ohio River. The eastern and central portions of the WBSP areas are hydraulically disconnected from the lined basins. Water levels within the remaining WBSP are managed by pumping. Additional reference drawings are provided in Appendix B.

**2025 CCR RULE – SURFACE IMPOUNDMENTS  
CLIFTY CREEK DAM/DIKE INSPECTIONS**

Observations  
January 19, 2026

## **2.2 LANDFILL RUNOFF COLLECTION POND**

The LRCP is located about 1.9 miles southwest of the station near the north bank of the Ohio River. It is formed by natural grades to the north, east, and west and a dam to the south, separating it from the upland mixed early successional/second growth riparian forest habitat along the Ohio River's ordinary high-water mark (Stantec 2022). The CCR landfill lies to the northeast. A station overview is included in Appendix A.

The LRCP has historically served as a runoff collection pond for the CCR landfill and run-on stormwater management for approximately 475 acres of the surrounding hillsides. A portion of the CCR landfill leachate previously flowed to the impoundment as landfill construction progressed westward. Currently, lined ponds southwest of the CCR landfill manage leachate and stormwater runoff. A lined diversion channel and modification of the existing dam allow routing of approximately 350 acres of run-on stormwater around the LRCP to the permitted NPDES outfall. Stormwater flows into the LRCP from approximately 126 acres, 35 acres for the LRCP footprint and 91 acres of run-on from the adjacent hillsides. Additional reference drawings are provided in Appendix B.

The LRCP dam is a cross-valley dam approximately 1,025 feet long with a maximum height of about 75 feet. It is registered with the Indiana Department of Natural Resources (IDNR) as Panther Creek Dam, a significant hazard structure identified as No. 39-12. Due to 2023 construction activity at the dam, the crest elevation ranges from approximately 493 to 505 feet, facilitating construction of an outfall for the lined diversion channel, box culvert, and phased pond closure. The primary spillway from the LRCP was not modified.

## **3.0 OBSERVATIONS**

Dam and embankment inspections were conducted in general accordance with 257.83(b) to ensure that the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering standards. The inspection at a minimum included:

1. A review of available information regarding the status and condition of the CCR unit, including, but not limited to, files available in the operating record (e.g., CCR unit design and construction information required by 40 CFR 257.73(c)(1) and 257.74(c)(1), previous periodic structural stability assessments required under 40 CFR 257.73(d) and 257.74(d), the results of inspections by a qualified person, and results of previous annual inspections),
2. A visual inspection of the CCR unit to identify signs of distress or malfunction of the CCR unit and appurtenant structures, and
3. A visual inspection of any hydraulic structures underlying the base of the CCR unit or passing through the dike of the CCR unit for structural integrity and continued safe and reliable operation.

**2025 CCR RULE – SURFACE IMPOUNDMENTS  
CLIFTY CREEK DAM/DIKE INSPECTIONS**

Observations  
January 19, 2026

### **3.1 WEST BOILER SLAG POND**

#### **3.1.1 Changes in Geometry Since Last Inspection (257.83(b)(2)(i))**

The WBSP dam/dike system and slopes have remained relatively unchanged since the last inspection. Reference drawings are provided in Appendix B.

#### **3.1.2 Instrumentation (257.83(b)(2)(ii))**

Applied Geology and Environmental Science, Inc. (AGES) of Clinton, Pennsylvania manages the groundwater monitoring network at the Clifty Creek Station for IKEC. Piezometer data for the station was provided AGES.

Sixteen piezometers/monitoring wells are associated with the WBSP. Locations of the instruments are shown on excerpts from the respective reports in Appendix C. The maximum recorded readings for each location within the past year are shown in Table 1.

**Table 1. WBSP Maximum Piezometer Readings within the Past Year**

<b>Instrument<sup>1</sup></b>	<b>Installation Date</b>	<b>Maximum Reading (ft)</b>	<b>Date of Reading</b>
WBSP-15-01	11/30/2015	465.11	3/24/2025 & 4/21/2025
WBSP-15-02	11/11/2015	472.78	3/24/2025 & 4/21/2025
WBSP-15-03	12/4/2015	477.11	1/2/2025
WBSP-15-04a	11/12/2015	426.12	5/19/2025
WBSP-15-05a	11/17/2015	428.55	5/19/2025
WBSP-15-06a	11/19/2015	428.89	5/19/2025
WBSP-15-07	11/23/2015	430.63	6/16/2025
WBSP-15-08	11/25/2015	432.17	10/7/2025
WBSP-15-09	1/6/2016	429.83	4/21/2025
WBSP-15-10	1/5/2016	431.29	4/21/2025
CF-15-04 <sup>1</sup>	12/3/2015	448.73	2/21/2025
CF-15-05	12/1/2015	437.98	3/24/2025
CF-15-06	11/30/2015	432.49	3/24/2025
WBSP-24-02	2/27/2024	431.24	4/21/2025
WBSP-24-03	2/28/2024	429.59	4/21/2025
WBSP-24-04	2/28/2024	428.50	5/19/2025

Notes:

1. Wells CF-15-04, CF-15-05, CF-15-06, WBSP-15-01 and WBSP-15-02 are part of both the LRCP and WBSP CCR networks.

**2025 CCR RULE – SURFACE IMPOUNDMENTS  
CLIFTY CREEK DAM/DIKE INSPECTIONS**

Observations  
January 19, 2026

Per AGES, the uppermost aquifer below the WBSP is a discontinuous confined aquifer with pressures reflected in the potentiometric surface. Some piezometric levels are higher than the pool within the surface impoundment, suggesting artesian conditions.

### **3.1.3 Impoundment Characteristics (257.83(b)(2)(iii, iv, v))**

Table 2 summarizes the WBSP impoundment characteristics since the previous annual inspection.

**Table 2. Summary of WBSP Impoundment Characteristics**

<b>Characteristics<sup>2</sup></b>	<b>2025 Values<sup>1</sup></b>
Approximate <b>Minimum</b> Depth (Elevation) of impounded water	0 ft (<430.5 ft)
Approximate <b>Maximum</b> Depth (Elev.) of impounded water	<1 ft (431.0 ft)
Approximate <b>Current</b> Depth (Elev.) of impounded water <sup>2</sup>	<1 ft (431.0 ft)
Approximate <b>Minimum</b> Depth (Elev.) of CCR	0 ft (430.5 ft) <sup>3</sup>
Approximate <b>Maximum</b> Depth (Elev.) of CCR	40 ft (473.0 ft)
Approximate <b>Current</b> Depth (Elev.) of CCR	Ranges from 0 to 42.5 ft (430.5 to 473 ft)
Storage Capacity of impounding structure at the time of the inspection <sup>4</sup>	2,337,500 cy
Approximate volume of impounded water at the time of the inspection <sup>5</sup>	6,900 cy (WBSP) 14,000 cy (LWVTS) <sup>7</sup>
Approximate volume of CCR at the time of the inspection <sup>6</sup>	2,025,000 cy

Notes:

1. All values in feet (ft) or cubic yards (cy). Elevation (Elev.) is shown in feet (NAVD88).
2. Excludes LWVTS basins. Reflects remaining WBSP footprint.
3. Minimum depth located beneath the Temporary Lined Containment Basin Retrofit.
4. Assumes water impounded by WBSP embankment dam/dike, including the LWVTS and remaining WBSP footprint.
5. Based on one foot depth with an estimated pool of 4.3 acres in the remaining WBSP footprint.
6. Based on a base elevation of 433.0 ft and neglecting LWVTS footprint.
7. Estimates 4,000 cy in primary basin and 10,000 cy in secondary basin with two feet of freeboard.

The storage capacity and volumes of impounded water assume a water elevation of 436 feet within the primary basin, 440 feet within the secondary basin, and with a minimum elevation for the perimeter dike of 458 feet.

### **3.1.4 Visual Inspection (257.83(b)(2)(vi))**

The visual inspection of the WBSP and appurtenant structures was conducted to identify actual or potential structural weaknesses or a condition disrupting or that has potential to disrupt the operation and safety of the impoundment. Specific items observed included upstream and downstream slopes, crest of the embankment dam/dike, and inlet and outlet structures. Appendix A includes a plan view and table with inspection points identified in the field. Appendix D includes a photographic log of the conditions.

**2025 CCR RULE – SURFACE IMPOUNDMENTS  
CLIFTY CREEK DAM/DIKE INSPECTIONS**

Observations  
January 19, 2026

The WBSP can be divided into two areas: the LVWTS at the southwestern end of the pond and the inactive CCR deposition and processing area at the northeast end. A plan view of the impoundment is included in Appendix A.

At the northwest corner of the WBSP, stormwater run-on from the hillside north of the station property and eastern side of the CCR landfill is directed along a diversion channel north of the WBSP, discharging at the NPDES-permitted outfall into Big Clifty Creek. The existing CON/SPAN (box/arch culvert structure) replaced by the constructed diversion channel has negligible inflow limited to the small area immediately upstream of it. The CON/SPAN carries the western access road of the WBSP over the remnants of the creek and appears to be in satisfactory condition. The upstream side of the culvert is heavily vegetated with tall grass and small brush, while the downstream side is mostly clear. No other surface flows were noted into the WBSP.

The wide berm area along the east side of the WBSP supports several transmission towers and separates the impoundment from Big Clifty Creek. The Devil's Backbone borders the west side. The embankment dam/dike extends along the southern side of the WBSP adjacent to the LVWTS and the gypsum loading pad.

The southwest exterior slope of the embankment dam/dike (facing the Ohio River) along the LVWTS is covered with grass but is clear of tall foliage. We understand that the grass had been mowed within the previous couple of weeks. The area was walked to note soft areas, equipment ruts, potential erosion, and the limits of dense vegetation.

The interior slopes of the LVWTS are relatively uniform, riprap covered and appear to be in good condition. There were no noted gaps in the riprap when viewed from the base of the slopes. Northeast of the LVWTS the WBSP is undergoing closure by removal, and the interior slopes of the embankment dam/dike on the south side are covered with tall weeds and brush. The riverside slope northeast of the LVWTS is overgrown with small to large trees, dense brush, and tall grass. The end of the cleared path and limits of the inspection are noted on the figure in Appendix A.

Both the upstream and the downstream side of the outfall structure from the LVWTS to the Ohio River appear to be in satisfactory condition. No other water inlet or outlet structures were observed for the WBSP other than the pipe carrying process water to the LVWTS. A culvert controls flow between the two LVWTS lined basins.

In general, the internal and external slopes where the vegetation has been controlled appear to be in satisfactory condition. There were no visible signs of impoundment impairment that could affect the normal operation of the facility.

### **3.1.5 Changes that Affect Stability or Operation (257.83(b)(2)(vii))**

Based on discussions with IKEC representatives and observations made during the field inspection, there were no changes to the WBSP impoundment that would affect its stability.

**2025 CCR RULE – SURFACE IMPOUNDMENTS  
CLIFTY CREEK DAM/DIKE INSPECTIONS**

Observations  
January 19, 2026

The retrofit construction of a two-acre lined operational unit was in progress during the site inspection. The location of the retrofit does not impact the exterior slopes of the WBSP. Closure by removal activities for the basin footprint was completed prior to construction. The retrofit will assist in plant operation as a redundant system until it is retired and removed. Dewatering and closure by removal activities continue within the northeast end of the WBSP and have expanded to the west towards the LVWTS. Since the 2024 inspection, there have been no changes to the stability of the dam/dike system of the WBSP. 2025 Phase 2 construction includes continued removal of CCR material and placement in the Clifty Creek Phase 2 Landfill.

## **3.2 LANDFILL RUNOFF COLLECTION POND**

### **3.2.1 Changes in Geometry Since Last Inspection (257.83(b)(2)(i))**

The LRCP dam has remained relatively unchanged since the last inspection. Reference drawings are provided in Appendix B.

### **3.2.2 Instrumentation (257.83(b)(2)(ii))**

Prior to the Phase 1 improvements, fourteen piezometers were in the toe and downstream areas of the dam. One of the piezometers, CF-9405, was removed at the start of phased construction due to its location in the proposed downstream channel. No instrumentation has changed since the beginning of Phase 2 closure activities. Locations of the instruments are shown on excerpts from the respective reports in Appendix C. Table 3 below summarizes the maximum reading since the last annual inspection.

**Table 3. LRCP Maximum Piezometer Readings within the Past Year**

<b>Instrument<sup>2</sup></b>	<b>Installation Date</b>	<b>Maximum Reading (ft)</b>	<b>Date of Reading</b>
CF-9405A	7/21/2021	446.43	Entire Year
CF-9406	5/10/1994	459.00	3/24/2025
CF-9407	5/12/1994	453.79	3/24/2025
SP-84-7	9/25/1984	457.37	3/10/2025
CF-15-04 <sup>2</sup>	12/3/2015	448.73	2/21/2025
CF-15-05	12/1/2015	437.98	3/24/2025
CF-15-06	11/30/2015	432.49	3/24/2025
WBSP-15-01	11/30/2015	465.11	3/24/2025 & 4/21/2025
WBSP-15-02	11/11/2015	472.78	3/24/2025 & 4/21/2025
CF-15-07	11/23/2015	439.00	12/2/2025
CF-15-08	11/19/2023	452.28	4/21/2025
CF-15-09	11/25/2023	453.81	2/21/2025
CF-19-14	3/8/2019	452.04	2/21/2025
CF-19-15	3/13/2019	428.03	5/19/2025 & 6/16/2025

**2025 CCR RULE – SURFACE IMPOUNDMENTS  
CLIFTY CREEK DAM/DIKE INSPECTIONS**

Observations  
January 19, 2026

Notes:

1. Wells CF-15-04, CF-15-05, CF-15-06, WBSP-15-01 and WBSP-15-02 are part of both the LRCP and WBSP CCR networks.

Per AGES, the uppermost aquifer below the LRCP is a discontinuous confined aquifer with pressures reflected in the potentiometric surface.

### **3.2.3 Impoundment Characteristics (257.83(b)(2)(iii, iv, v))**

The LRCP is an inactive facility that ceased wet CCR disposal in 1986 (AEPSC, 2016b). As part of the Phase 2 activities, the surface water in the pond has been gradually lowered and maintained while diversion ditches moved the active pool toward the south of the LRCP to moisture-condition CCR to install a lined cap system per the progress of the impoundment's closure plans. Table 4 summarizes the impoundment characteristics since the previous annual inspection.

**Table 4. Summary of LRCP Impoundment Characteristics**

<b>Characteristics</b>	<b>2025 Values<sup>1</sup></b>
Approximate <b>Minimum</b> Depth (Elevation) of impounded water	2.9 ft (477.9 ft)
Approximate <b>Maximum</b> Depth (Elev) of impounded water	6.2 ft (481.2 ft)
Approximate <b>Current</b> Depth (Elev) of impounded water	3 ft (478 ft)
Approximate <b>Minimum</b> Depth (Elev) of CCR	Less than 5 ft (assumed) (Varying elevations) <sup>3</sup>
Approximate <b>Maximum</b> Depth (Elev) of CCR	45 ft (485 ft) <sup>3</sup>
Approximate <b>Current</b> Depth (Elev) of CCR	Less than 5 ft to 55 ft (Varying elevations) <sup>3</sup>
Storage Capacity of impounding structure at the time of the inspection	697,500 cy
Approximate volume of impounded water at the time of the inspection	21,000 cy
Approximate volume of CCR at the time of the inspection	2,000,000 cy

Notes:

1. All values in feet (ft) or cubic yards (cy). Elevation (Elev.) is shown in feet (NAVD88).
2. Depth of impounded water is shown as water ponded above the CCR elevation (estimated at elevation 475 feet).
3. Ground surface within the LRCP conservatively estimated as 430 feet, reflecting the pond's estimated lowest elevation (Stantec, 2018). Bottom elevation varies across the footprint.
4. Volumes of water based on stage-storage curves and the current depth of impounded water.

### **3.2.4 Visual Inspection (257.83(b)(2)(vi))**

The exterior slope of the LRCP dam was mowed prior to inspection. The area was walked to note soft, damp areas, equipment ruts, potential erosion, and the limits of dense vegetation. These areas should be revisited and monitored to see if additional maintenance steps are needed.

**2025 CCR RULE – SURFACE IMPOUNDMENTS  
CLIFTY CREEK DAM/DIKE INSPECTIONS**

Summary of Findings  
January 19, 2026

With the 2023 Phase 1 improvements, most of the visible surfaces of the dam were regraded and improved except for the riprap-covered downstream eastern slope and the existing untouched western side. The regraded slopes were seeded and mulched following construction. On the downstream side, there are locations along the north edge of the channel where erosion rills have formed. A few significant bare spots were also observed in proximity to the channel. A bulging area to the west of the LRCP riprap cover was observed. The bulge also showed a sloughing area below it. The area should be closely monitored for changing conditions and proactively maintained if changes are observed. Overall, the dam and associated structures appear to be in satisfactory condition.

Early-stage Phase 2 grading and moisture conditioning of existing CCR within the LRCP was conducted in 2025. The active pool of the LRCP was modified and lowered to dewater the area in preparation for a lined cap system per impoundment closure plans. The dam/dike of the LRCP were not modified as part of the 2025 Phase 2 closure construction.

During visual inspection, two areas of concern appeared to the inspection team. One area of concern was the soft, wet ground around instruments CF-15-07, CF-9405, and CF-9405A between the toe of the LRCP dam and the outlet channels. The area was softer than the surrounding areas and had ponding water in deep equipment ruts. The second area observed was the mouth of the outlet channel to the Ohio River. The area had received large amounts of silt buildup that could create blockage in the outlet channel. Close observation and proactive maintenance to clear the silted material is recommended.

The visual inspection of the LRCP and appurtenant structures was conducted to identify actual or potential structural weaknesses or a condition disrupting or that has potential to disrupt the operation and safety of the impoundment. Specific items observed included upstream and downstream slopes, crest of the embankment dam/dike, and inlet and outlet structures. Appendix A includes a plan view and table with inspection points identified in the field. Appendix D includes a photographic log of the conditions.

### **3.2.5 Changes that Affect Stability or Operation (257.83(b)(2)(vii))**

Based on discussions with IKEC representatives and observations made during the field inspection, there were no changes to the LRCP impoundment that would affect its stability or future operational needs. No changes associated with the phased construction have been performed since the 2024 inspection.

## **4.0 SUMMARY OF FINDINGS**

The following recommendations regarding maintenance, monitoring, and deficiencies are offered for the Clifty Creek Station's two CCR surface impoundments.

**2025 CCR RULE – SURFACE IMPOUNDMENTS  
CLIFTY CREEK DAM/DIKE INSPECTIONS**

Summary of Findings  
January 19, 2026

## **4.1 MAINTENANCE**

### **4.1.1 West Boiler Slag Pond**

The upstream and downstream dike slopes and crest areas, east of the LVWTS, are overgrown with small to large trees and heavy brush (Photographs 16, 17, and 18 in Appendix D). These conditions make it virtually impossible to inspect the slopes. The trees and larger brush can also provide seepage pathways as the larger foliage dies off. Trees that topple in windstorms can leave large holes exposed in the face of the dam. Stantec recommends that the overgrown crest and downstream side of the dam be stripped of foliage, graded for ease of maintenance, and seeded with grass to protect it from erosion. This will allow for future inspections to be conducted on this portion of the dam.

On the downstream face of the dam near the LVWTS, the area should be revisited and monitored to see if additional maintenance steps are needed for the soft areas, equipment tracks, and potential erosion. The erosion and minor rutting should be backfilled, graded, and reseeded.

The structural integrity of the dikes and components of the WBSP should be maintained during continuing closure activities.

### **4.1.2 Landfill Runoff Collection Pond**

Minor maintenance for the LRCP includes repairing the erosion rills above and below the downstream channel, and monitoring the surface-sloughed area beneath the access road to the toe will likely require attention as well (Photographs 19, 21, 22, 24, and 30).

Some additional riprap and revegetation may be necessary along the downstream channel to fill in bare spots due to removed silt fencing (Photograph 9 and 10).

At the outlet for Outfall 001, the brush and foliage around the wing walls that had previously been removed to aid in observation of the outlet structure began regrowing. A railing around the top of the head and wing walls was added. Any superfluous materials or fixtures associated with the inlet structure should be removed. It is understood that the inlet elevation will be adjusted as part of the Phase 2 construction (Photograph 17).

Further investigation of the wet/saturated area near the wells at the toe of the slope should be considered. As part of the weekly/monthly monitoring, this area should be checked and evaluated for changing conditions. If this area does not dry out, even during the summer months, then it may be indicative of a potential seep or potential artesian activity associated with one of the nearby wells.

Appendix A includes a plan view and table with inspection points identified in the field. Appendix D includes a photographic log of the conditions.

**2025 CCR RULE – SURFACE IMPOUNDMENTS  
CLIFTY CREEK DAM/DIKE INSPECTIONS**

Summary of Findings  
January 19, 2026

## **4.2 MONITORING**

EPA regulations require weekly and monthly inspections of the CCR surface impoundments, which are performed by qualified plant personnel. These inspections include observations for actual or potential structural weaknesses or other conditions that may disrupt the operation or safety of the CCR unit. The discharge from outlets of hydraulic structures under the base of the surface impoundment or through the dike of the CCR unit is observed for abnormal discoloration or discharge of debris or sediment. Available 2025 weekly and monthly inspection reports were provided by plant personnel for review (IKEC 2025a through 2025d).

Per 40 CFR 257.83(a)(iii), instrumentation should be monitored at least every 30 days by a qualified person. AGES performs a monthly inspection/inventory of the instrumentation at the BSP and SFAP. Daily field activity updates are provided to OVEC and Stantec at a frequency less than 30 days, documenting instrument condition and sampling events (AGES 2025c).

Annual inspections by a qualified professional engineer are required under the EPA regulations. The dam and dike inspections for 2015 through 2022 were performed by American Electric Power Service Corporation (AEPSC) (AEPSC 2015, 2016, 2017, 2022a through 2022e). Stantec performed the 2023 and 2024 inspections (Stantec 2024, 2025). Copies are available on IKEC's publicly accessible CCR website (IKEC 2025e).

### **4.2.1 WBSP Monitoring**

Special or more frequent monitoring of the facility other than that already being performed should not be necessary unless conditions change. Increased monitoring of the new pond facility in the northeast part of the WBSP may be required until baseline values are determined.

### **4.2.2 LRCP Monitoring**

With the Phase 1 construction activities complete and Phase 2 construction underway, culvert performance and both newly and previously graded slopes should be monitored for erosion. Downstream of the riprap channel should be monitored closely for increased silting from the Ohio River and overgrowth near the discharge end of the dam outfall.

## **4.3 DEFICIENCIES**

No structural deficiencies in the dam/dike structures were observed during the 2025 annual inspection. Two structural concerns at the downstream end of the LRCP dam were identified during the 2025 annual inspection. The mouth of the outfall channel showed heavy silting and vegetation growth next to the Ohio River. The silted material may need to be manually removed before blockage of the channel occurs. The second area of concern was the soft, wet ground around CF-15-07, CF-9405, and CF-9405A. This standing water from an undetermined source could indicate a seep. These two locations should be closely monitored.

**2025 CCR RULE – SURFACE IMPOUNDMENTS  
CLIFTY CREEK DAM/DIKE INSPECTIONS**

References  
January 19, 2026

## **5.0 REFERENCES**

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**2025 CCR RULE – SURFACE IMPOUNDMENTS  
CLIFTY CREEK DAM/DIKE INSPECTIONS**

References

January 19, 2026

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**2025 CCR RULE – SURFACE IMPOUNDMENTS  
CLIFTY CREEK DAM/DIKE INSPECTIONS**

References

January 19, 2026

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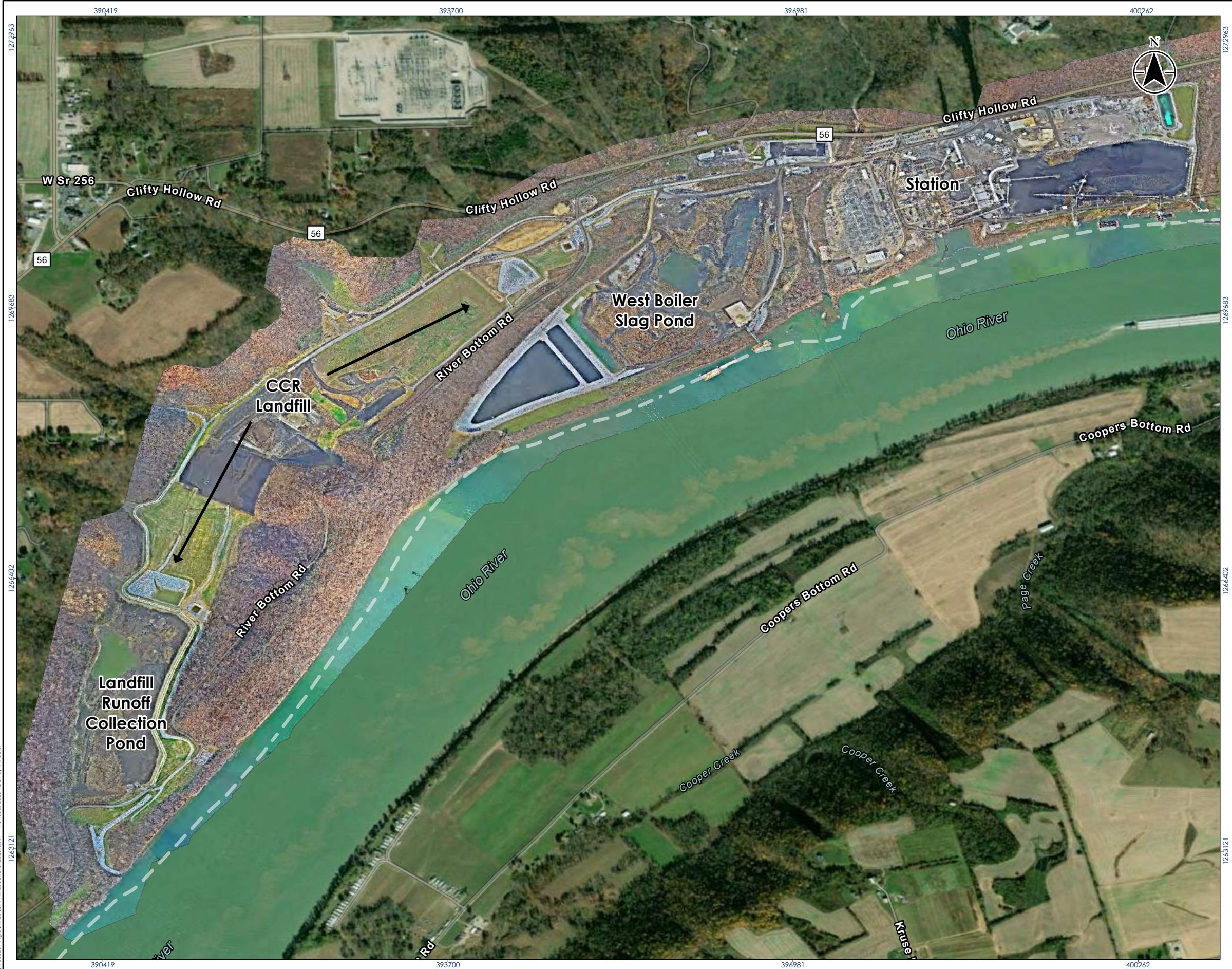
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# **APPENDIX A**

## **Figures**



The logo for OVEC/IKEC features the acronym "OVEC/IKEC" in a large, bold, green sans-serif font. A yellow lightning bolt graphic is positioned between the "C" and the "I". Below the acronym, the text "Ohio Valley Electric Corporation" is written in a smaller, green, sans-serif font, and "Indiana-Kentucky Electric Corporation" is written in a similar font to the right.

Ohio Valley Electric Corporation / Indiana-Kentucky Electric Corporation

Coordinate System: Latitude/Longitude NAD83  
Features - ESRI  
Geometry represents conditions from November 2023

- Coordinate System: Latitude/Longitude NAD83
- Base features - ESRI
- Ortho Imagery represents conditions from November 2023

Project Location  
Clifty Creek Station  
Jefferson County, IN

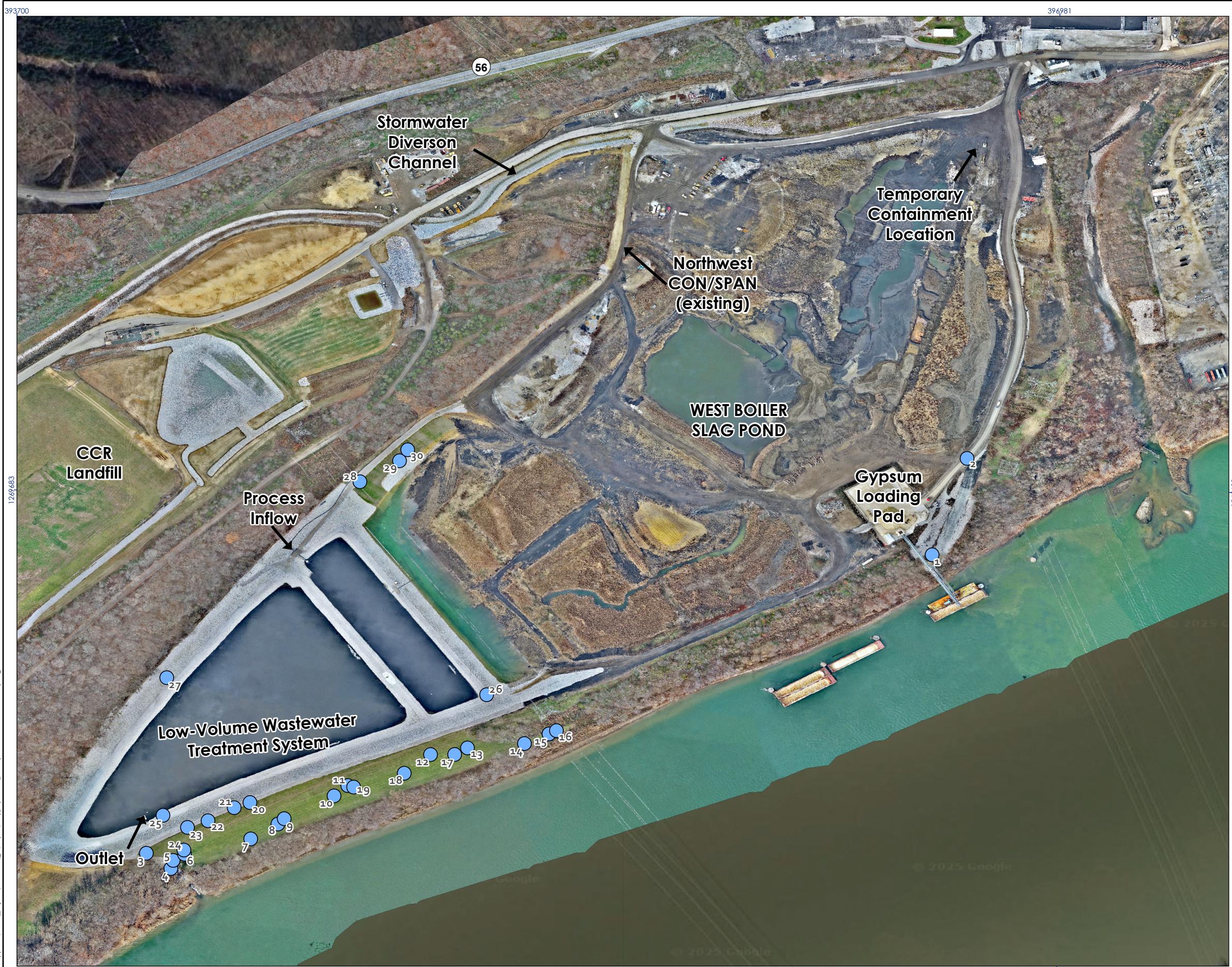
173410747

lient/Project  
Indiana - Kentucky Electric Corporation  
Clifty Creek Station

Figure No.

1

## 2025 Annual CCR Facility Inspections - Station Overview



The logo for OVEC/IKEC features the letters "OVEC" and "IKEC" in a bold, green, sans-serif font. A yellow lightning bolt graphic is positioned between the "C" in "OVEC" and the "I" in "IKEC". Below the main text, the words "Ohio Valley Electric Corporation" and "Indiana-Kentucky Electric Corporation" are written in a smaller, green, sans-serif font.

Legend  
1 → Photo Location  
Blue Circle Inspection  
Locations 2025



0      200      400      Feet

**Notes**

1. Coordinate System: Latitude/Longitude NAD83
2. Base features - ESRI
3. Ortho-Imagery represents conditions from November 2023.



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**Project Location**

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173410747  
Prepared by LRR on 2025-12-19  
Technical Review by JS on 2025-12-22  
Final Review by ISH on 2025-12-22

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### Client/Project

# Indiana - Kentucky Electric Corporation West Boiler Slag Pond

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Figure No.

2

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2025 Annual CCR Surface Impoundment  
Inspection



The logo for OVEC/IKEC features the letters "OVEC" and "IKEC" in a bold, green, sans-serif font. A yellow lightning bolt graphic is positioned between the two words, with its top end resting on the "C" of "IKEC". Below the main text, the words "Ohio Valley Electric Corporation" and "Indiana-Kentucky Electric Corporation" are written in a smaller, green, sans-serif font.

Legend

- 1 → Photo Location
- Blue circle: Inspection Locations 2025



0 200

1:1,800 (At original document size of 11x11)



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Project Location  
Clifty Creek Station  
Jefferson County, IN

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173410747  
Prepared by LRR on 2025-12-19  
Technical Review by JS on 2025-12-22  
Independent Review by ISH on 2025-12-22

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Client/Project  
Indiana - Kentucky Electric Corporation  
Landfill Runoff Collection Pond

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Figure No

19

# 2025 Annual CCR Surface Impoundment Inspection

**GPS Data Points****2025 Annual Inspection****Clifty Creek CCR Surface Impoundments Dams and Dikes****Jefferson County, Indiana**

Point ID No.	Comment	Latitude	Longitude	Location
1	Tall Vegetation	-85.42653098	38.73334838	WBSP
2	Temporary Basin Construction	-85.4261454	38.73441096	WBSP
3	Overlook	-85.43519703	38.73005834	WBSP
4	View North	-85.43492698	38.72988993	WBSP
5	Rutting	-85.43490165	38.72997896	WBSP
6	Rutting	-85.43477654	38.73004746	WBSP
7	Rutting	-85.4340462	38.73021624	WBSP
8	Rutting	-85.43374652	38.73037971	WBSP
9	Rutting	-85.43367723	38.73043893	WBSP
10	Rutting	-85.43312702	38.73069074	WBSP
11	Metal Post	-85.43297594	38.73080402	WBSP
12	Depression	-85.43206289	38.73114599	WBSP
13	Low Overgrowth	-85.4316557	38.73121924	WBSP
14	High Overgrowth	-85.43102741	38.73126736	WBSP
15	Scour	-85.43075651	38.73137364	WBSP
16	Bank Overgrowth	-85.43067464	38.73140975	WBSP
17	Small Bulge	-85.43179691	38.73114678	WBSP
18	Crest	-85.43235295	38.73094017	WBSP
19	Cleanout	-85.43291131	38.73078747	WBSP
20	Roadside Erosion	-85.43405447	38.73061714	WBSP
21	View South	-85.43422859	38.73056089	WBSP
22	Small Rutting	-85.43451728	38.73041632	WBSP
23	Bare Patches	-85.43474349	38.73034313	WBSP
24	Rutting	-85.43478302	38.73009328	WBSP
25	LVWTS	-85.43501372	38.73047621	WBSP
26	LVWTS Slope	-85.43144421	38.73180575	WBSP
27	Devil's Backbone Slope	-85.43497206	38.73199389	WBSP
28	Closed Slope Erosion	-85.43284181	38.73415447	WBSP
29	Rutting	-85.43240495	38.73438513	WBSP
30	Closed Slope Erosion	-85.43231513	38.73450631	WBSP

**GPS Data Points****2025 Annual Inspection****Clifty Creek CCR Surface Impoundments Dams and Dikes****Jefferson County, Indiana**

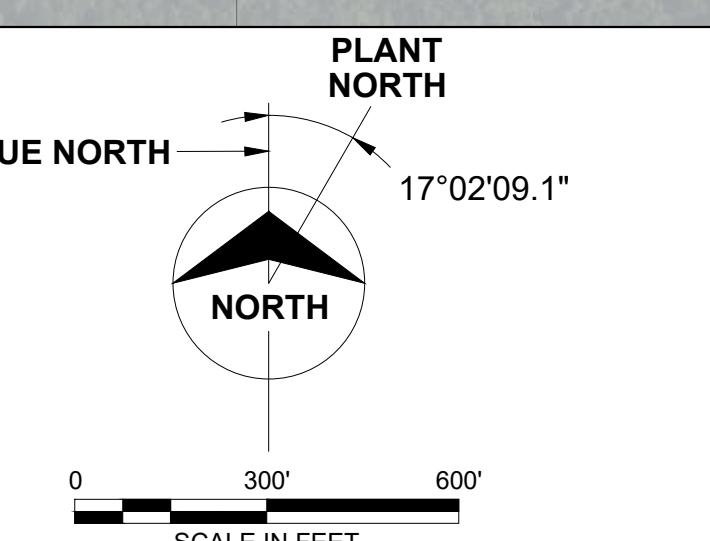
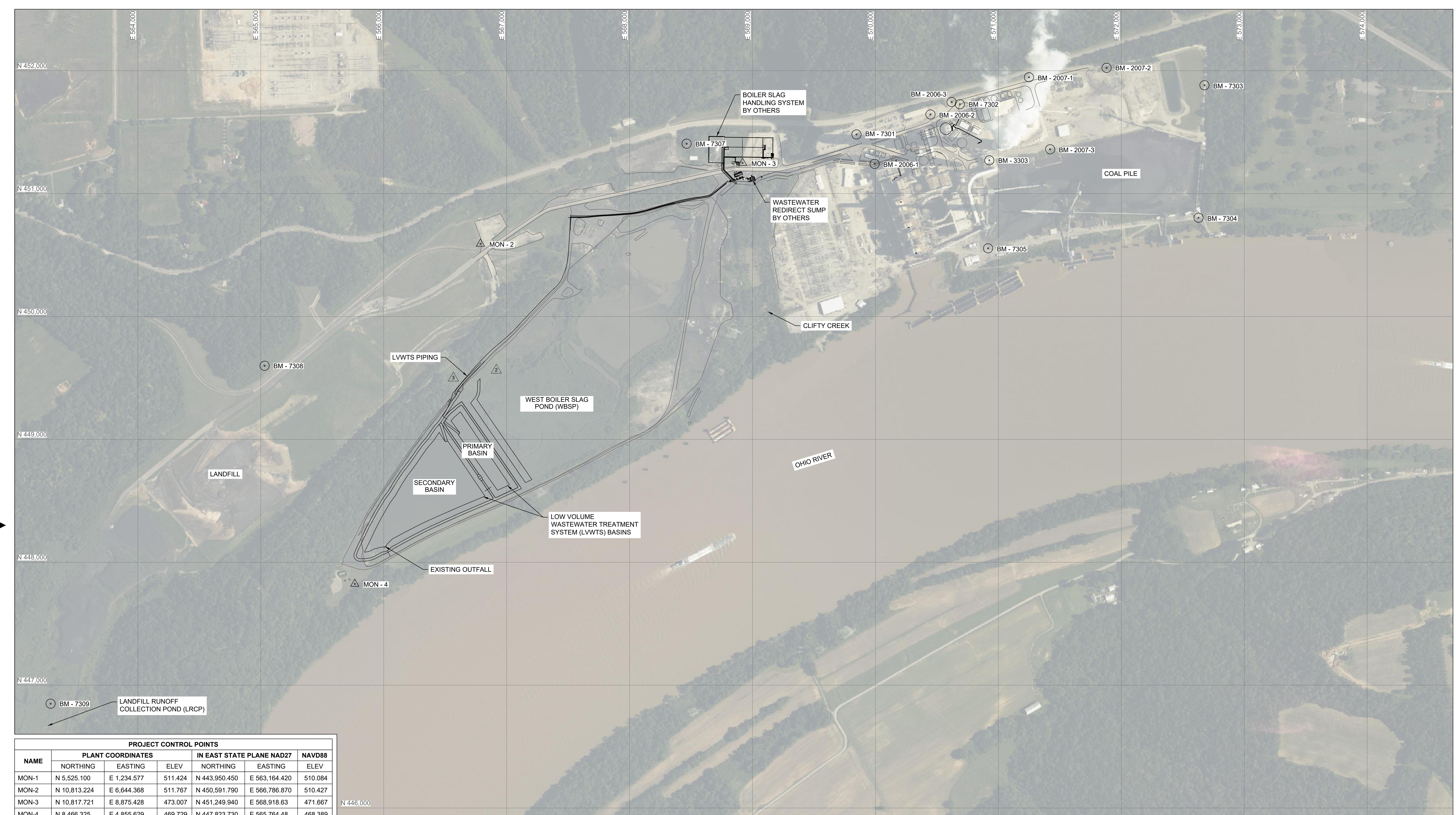
Point ID No.	Comment	Latitude	Longitude	Location
1	Silt Erosion	-85.44680394	38.71788637	LRCP
2	Upper Dam	-85.44695992	38.71770059	LRCP
3	Burrowing	-85.44719948	38.71754622	LRCP
4	Exposed Fabric	-85.44734627	38.71746859	LRCP
5	Bare Spots	-85.4475614	38.71728739	LRCP
6	Burrowing	-85.447739	38.71731949	LRCP
7	Bare Areas	-85.44773461	38.71718084	LRCP
8	View South	-85.44786802	38.71717234	LRCP
9	Softness	-85.44847154	38.71708703	LRCP
10	Burrowing	-85.44874141	38.71717678	LRCP
11	Depression	-85.44859447	38.71711082	LRCP
12	Depression	-85.44875356	38.71703873	LRCP
13	Burrowing	-85.44857416	38.71701802	LRCP
14	Outfall Channel	-85.44866165	38.71690268	LRCP
15	Soft Standing Water	-85.44830414	38.71685615	LRCP
16	Bare Spots	-85.44831711	38.71658435	LRCP
17	View South	-85.44837495	38.71649609	LRCP
18	Silt Erosion	-85.44813123	38.71648673	LRCP
19	Erosion	-85.44765217	38.71695549	LRCP
20	Driving Path	-85.44715502	38.71703075	LRCP
21	Depression	-85.4454669	38.71786253	LRCP
22	Depression	-85.44550645	38.71847786	LRCP
23	Bare Area	-85.44533733	38.71864734	LRCP
24	Bulging	-85.44520939	38.71873806	LRCP
25	Riprap Cover	-85.44516327	38.71892826	LRCP
26	Teardrop Area	-85.44547393	38.71909564	LRCP

## **APPENDIX B**

### **Reference Drawings**

## **APPENDIX B**

### **Burns & McDonnell (2023)**



# CONFORMING TO CONSTRUCTION RECORDS

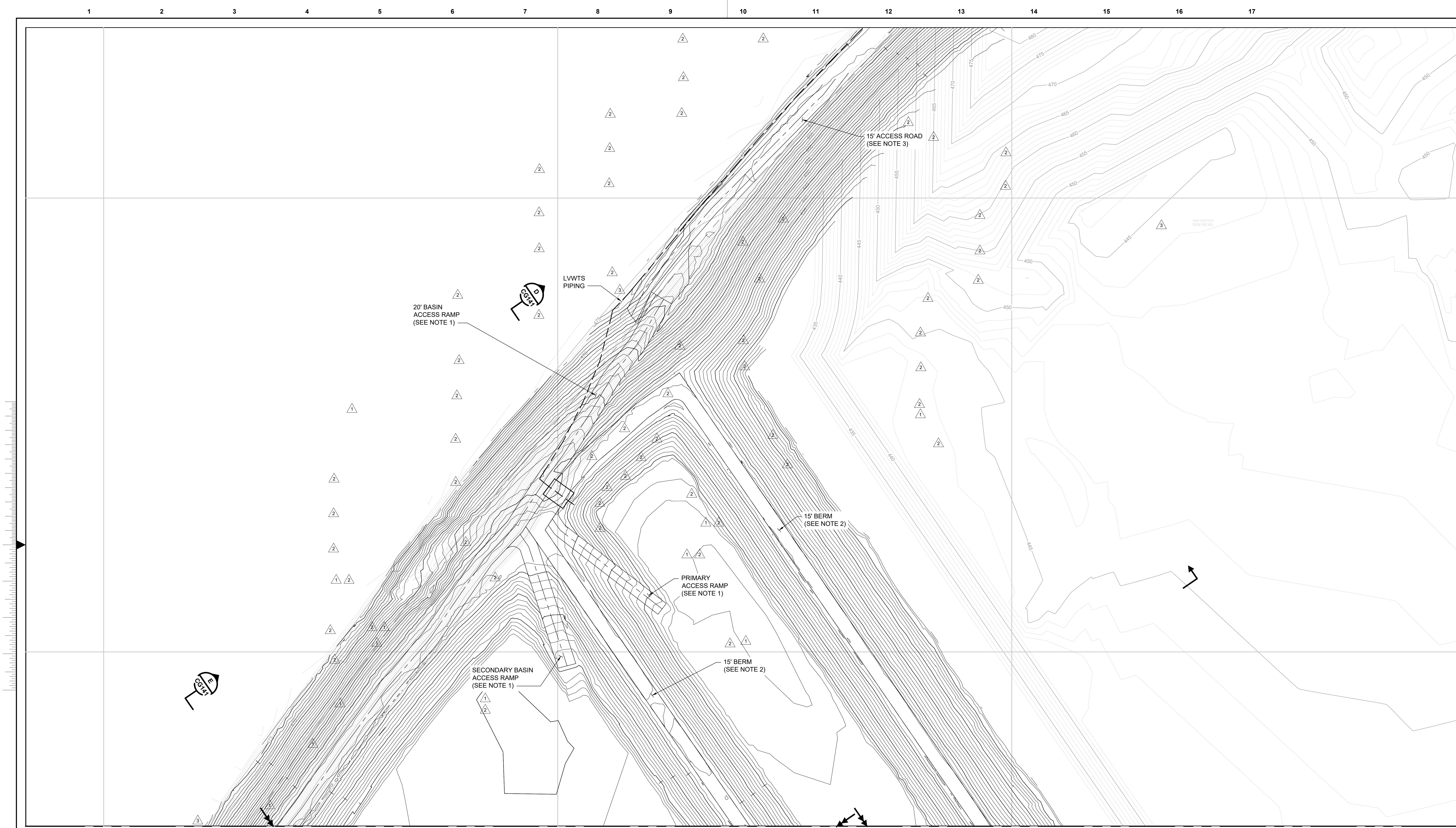
**BURNS  
MCDONNELL**

9400 WARD PARKWAY  
KANSAS CITY, MO 64114  
816-333-9400  
Burns & McDonnell Engineering Co. Inc.

# OVERLAKERS

**Ohio Valley Electric Corporation / Indiana-Kentucky Electric Corporation**

## CCR / ELG PROJECT



3 09/15/23 AMM CONFORMING TO CONSTRUCTION RECORDS

2 11/17/22 AMM RLS REVISED GRADE SLOPES, BERMS, & RAMPS, PER ENVIRONMENTAL AREA

1 09/23/22 AMM RLS REVISED GRADE SLOPES, BERMS, & RAMPS, ADDED PERIMETER ROAD

0 06/24/22 AMM RLS ISSUED FOR CONSTRUCTION

no.	date	by	ckd	description	no.	date	by	ckd	description
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**CONFORMING TO  
CONSTRUCTION  
RECORDS**

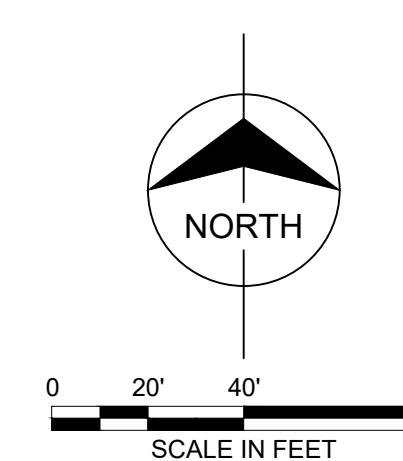
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MCDONNELL**

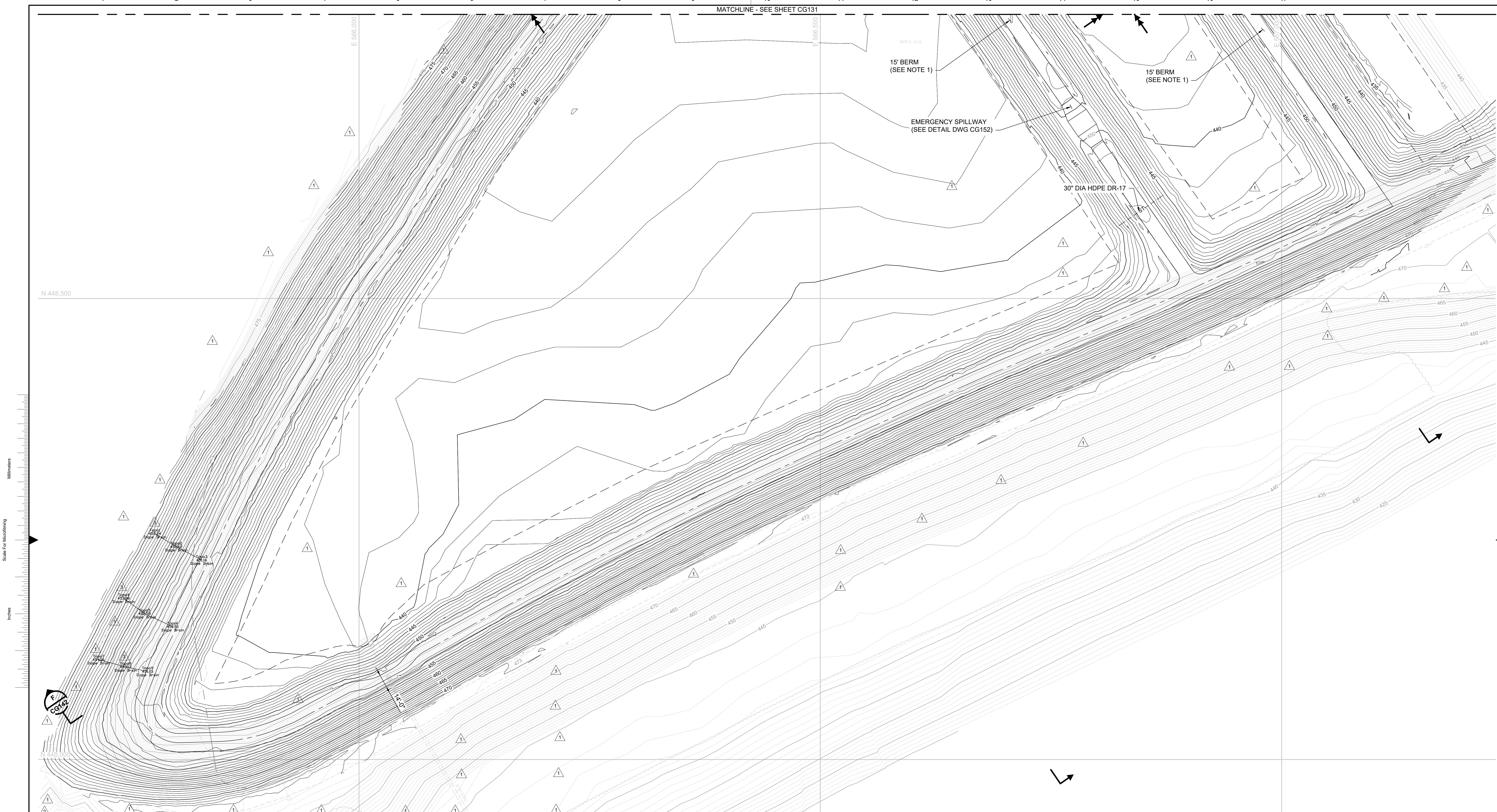
9400 WARD PARKWAY  
KANSAS CITY, MO 64114  
816-333-9400  
Burns & McDonnell Engineering Co., Inc.

designed by  
A. MYERS C. DONNICI

**OVEC/KEC**  
Ohio Valley Electric Corporation Indiana-Kentucky Electric Corporation

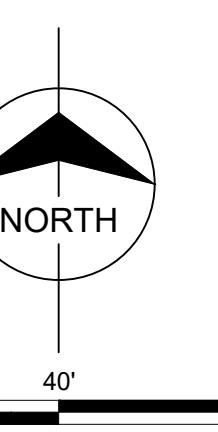
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file 142597 CG131\_FINISH\_GRADING\_PLAN\_SH1.dwg





## NOTES

1. SEE DETAIL DRAWING CG151 FOR BASIN DIVIDER BERM DETAILS.



# CONFORMING TO CONSTRUCTION RECORDS

The logo for Burns & McDonnell. It features a stylized 'B' composed of three black bars of decreasing length from left to right. To the right of the bars, the word 'BURNS' is written in a bold, sans-serif font. Below 'BURNS', the word 'MCDONNELL' is written in a slightly smaller, bold, sans-serif font.


The logo for OVEC/IKEC features the letters 'OVEC' and 'IKEC' in a large, bold, black font. A diagonal lightning bolt graphic is positioned between the two words. Below 'OVEC' is the text 'Ohio Valley Electric Corporation' and below 'IKEC' is the text 'Indiana-Kentucky Electric Corporation'.

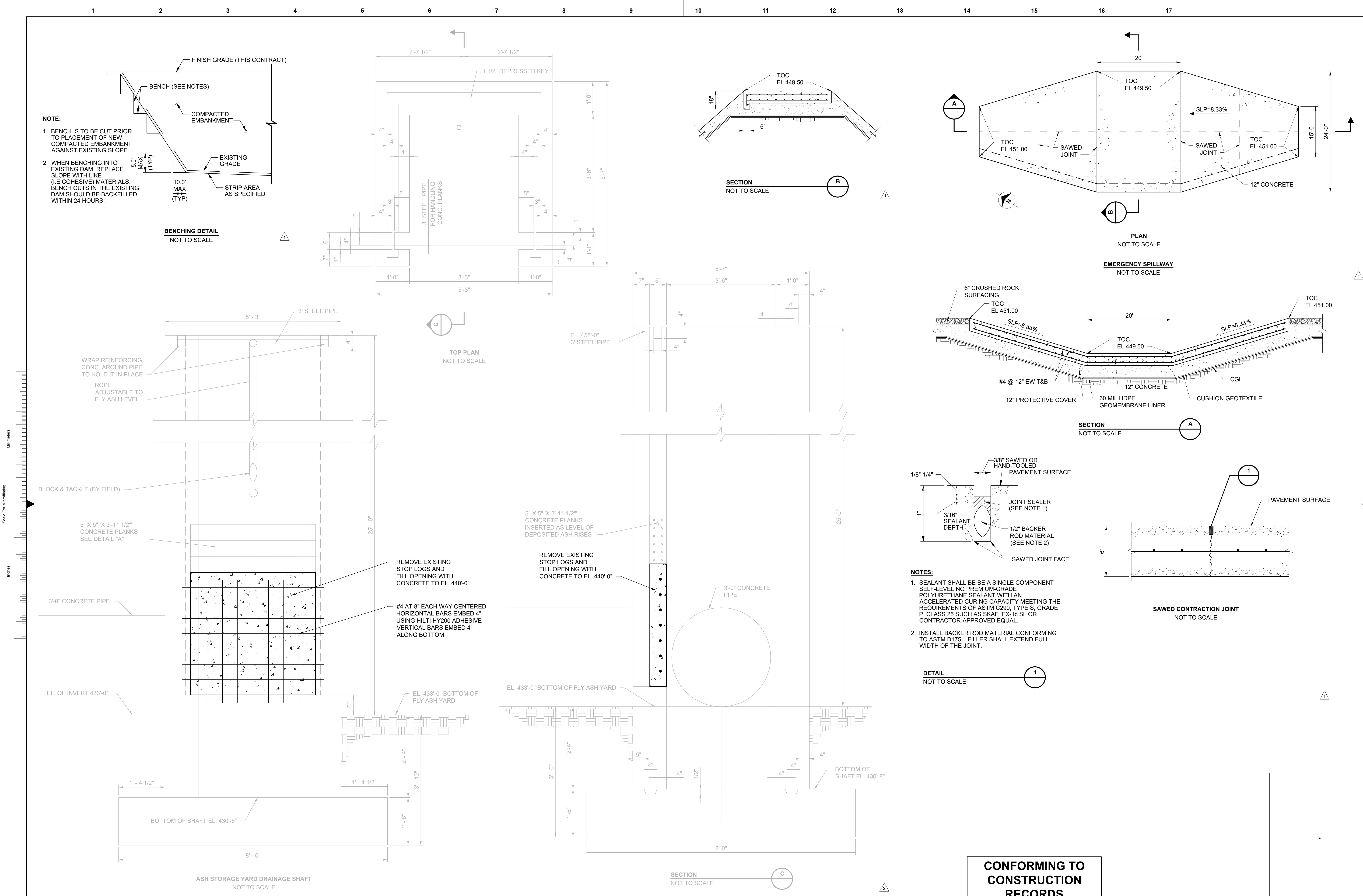
LVWTS BASIN  
FINISH GRADING PLAN  
SHEET 2

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		rev.
<b>CG132</b>	—	<b>2</b>
of		sheets

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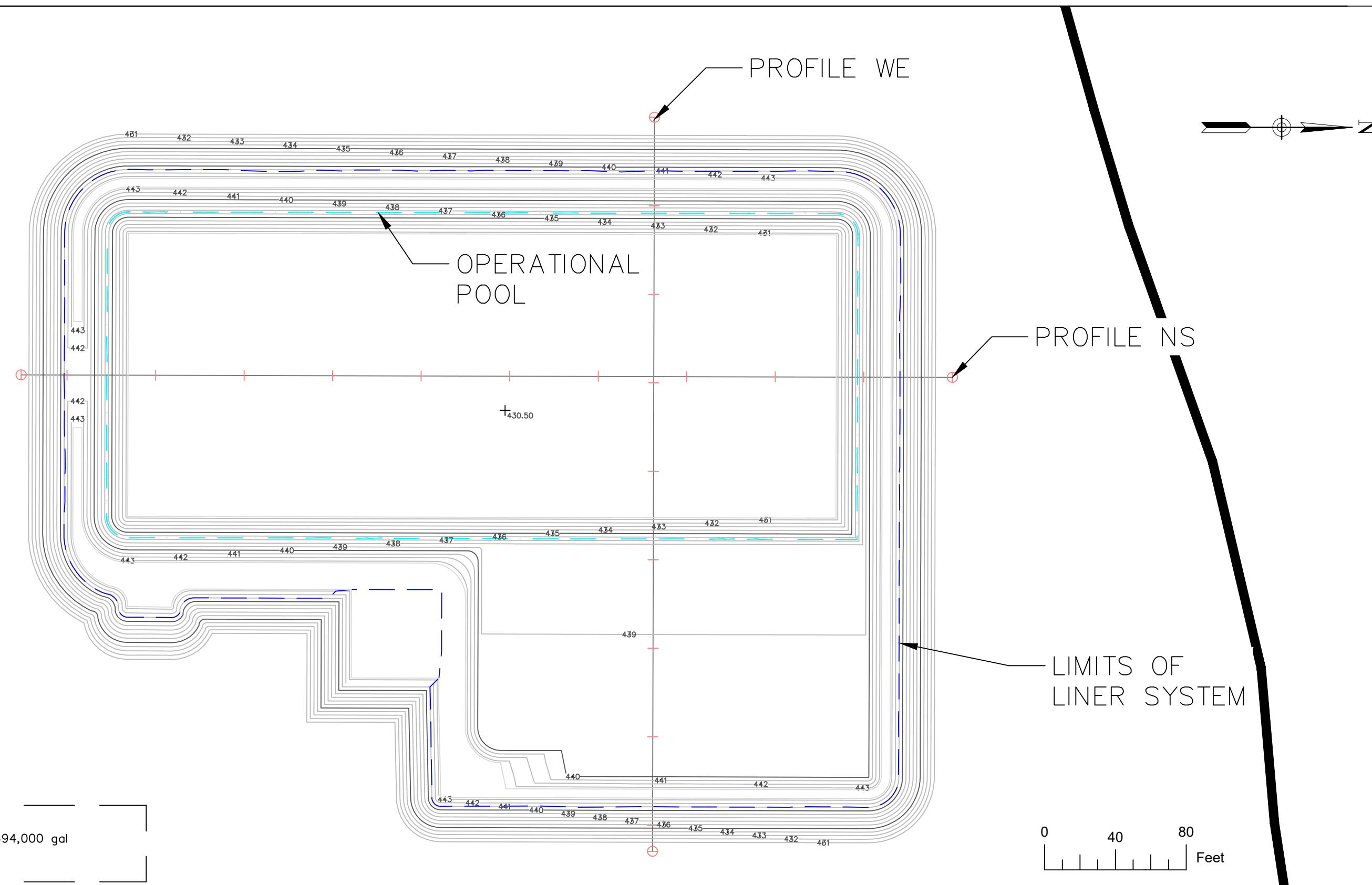
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2	11/17/22	AMM	RLS	ADDED DRAINAGE SHAFT SEALING DETAIL						<b>OVEC/KEC</b>	
1	09/23/22	AMM	RLS	ADDED BENCHING DETAIL, REVISED EMERGENCY SPILLWAY DETAIL						9400 WARD PARKWAY KANSAS CITY, MO 64114 816-333-9400 Burns & McDonnell Engineering Co., Inc.	
0	06/24/22	AMM	RLS	ISSUED FOR CONSTRUCTION						CLIFTY CREEK GENERATING STATION CCR / ELG PROJECT	
										JEFFERSON COUNTY, INDIANA	

LVWTS BASIN  
LINER SECTIONS AND DETAILS  
SHEET 2

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## **APPENDIX B**

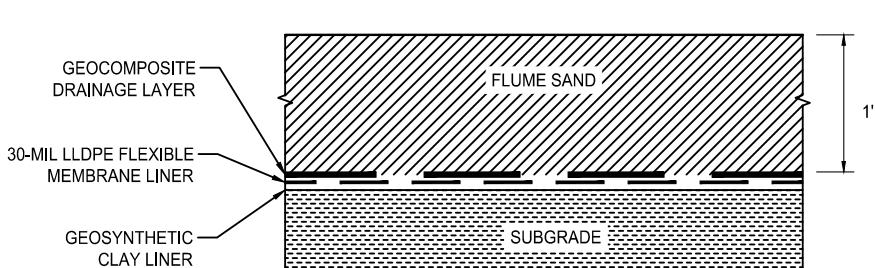
### **ENTACT (2025)**



## NOTES.

NOTES:

1. CAPACITY AT OPERATIONAL POOL: 2,694,000 gal
2. MAXIMUM CAPACITY: 5,852,000 gal



PREPARED FOR:

The logo for OVEC and IKEC. It features the letters "OVEC" in a bold, green, sans-serif font. A lightning bolt symbol is positioned between the "C" and the "IKEC" text. To the right of the lightning bolt, the letters "IKEC" are also in a bold, green, sans-serif font. Below the main text, the words "Ohio Valley Electric Corporation" and "Indiana-Kentucky Electric Corporation" are written in a smaller, green, sans-serif font, separated by a diagonal line.



ENTACT

**DRAWING NAME**      **WRSP TEMPORARY BASIN - BASIN LAYOUT**

PROJECT NAME &  
LOCATION CLIFTY CREEK LANDFILL CONSTRUCTION AND CCR  
MADISON, IN

DRAWN BY	N. DURKALSKI	APPROVED BY	J. LOVENDUSKI	REV	2	SHEET NO.
DATE	12/10/2025	DATE	12/10/2025	PROJECT NO.	E9413	2 OF 3

## **APPENDIX B**

### **Stantec (2021b)**

Notes  
**MAPPING SOURCE NOTE:**  
TOPOGRAPHIC, BATHYMETRIC, AND PLANIMETRIC SURVEY INFORMATION FOR THE PLANS WERE OBTAINED FROM MAPPING PROVIDED BY INDIANA-KENTUCKY ELECTRIC CORPORATION (IKEC) AND AMERICAN ELECTRIC POWER (AEP). FIELD SURVEY OF THE WEST BOILER SLAG POND ARE WAS PERFORMED JULY THROUGH OCTOBER 2020 BY HREZO ENGINEERING, INC. FIELD SURVEY OF THE LANDFILL RUNOFF COLLECTION POND WAS PERFORMED SEPTEMBER THROUGH DECEMBER 2020 BY HREZO ENGINEERING, INC. ACTIVE WORK AREAS NOT COVERED IN THE 2020 SURVEYS ARE BASED ON AERIAL AND FIELD SURVEYS DATED APRIL 2018, MAY 2018, AND SEPTEMBER 2019. SOME AREAS OUTSIDE OF RECENT WORK ZONES WERE SUPPLEMENTED WITH DATA USED IN THE LANDFILL PERMIT AND CONSTRUCTION DRAWINGS (AERIAL AND FIELD SURVEYS DATED 1992, 2005, 2007, 2008) AND 2011 - 2013 INDIANA STATEWIDE LIDAR (EAST). HORIZONTAL DATUM IS NAD27 AND VERTICAL DATUM IS NAVD88.

**LEGEND**

ELECTRIC TOWER	ELECTRIC PULLBOX
PB	TREE/SHRUB
CB	POWER POLE
OHE	STORM CATCH BASIN
UGE	OVERHEAD ELECTRIC
X	FENCE
—	PROPERTY LINE
—	RAILROAD TRACKS
—	STORM SEWER
—	EDGE OF WATER
—	TREELINE
—	EXISTING INDEX CONTOUR
—	EXISTING INTERMEDIATE CONTOUR
—	PROPOSED INDEX CONTOUR
—	PROPOSED INTERMEDIATE CONTOUR
△	GROUNDWATER MONITORING WELL
△	CONTROL MONUMENT
—	GRADING LIMITS
—	TYPE I LANDFILL WASTE BOUNDARY
—	CONSTRUCTION LIMITS
—	COVER SYSTEM LIMITS
□	PROPOSED PIEZOMETER

Revision

A ISSUED FOR PERMIT  
Issued

File Name: 0-LRCP-31028-G104-FG1.PDF  
AC3 MCV 2021.04.16

Dwn. Dsgn. Chkd. YYYY.MM.DD

Permit/Seal

Client/Project Logo

**OVEC/IKEC**  
Ohio Valley Electric Corporation Indiana-Kentucky Electric Corporation

Client/Project  
OHIO VALLEY ELECTRIC CORPORATION  
INDIANA-KENTUCKY ELECTRIC CORPORATION  
POND CLOSURE - LANDFILL RUNOFF  
COLLECTION POND, CLIFTY CREEK STATION  
MADISON TOWNSHIP, JEFFERSON COUNTY, INDIANA

Title

FINAL GRADING PLAN - PHASE 1  
STORMWATER RUN-ON DIVERSION  
AND OUTFALL

Project No.  
175539026

Scale  
1" = 100'

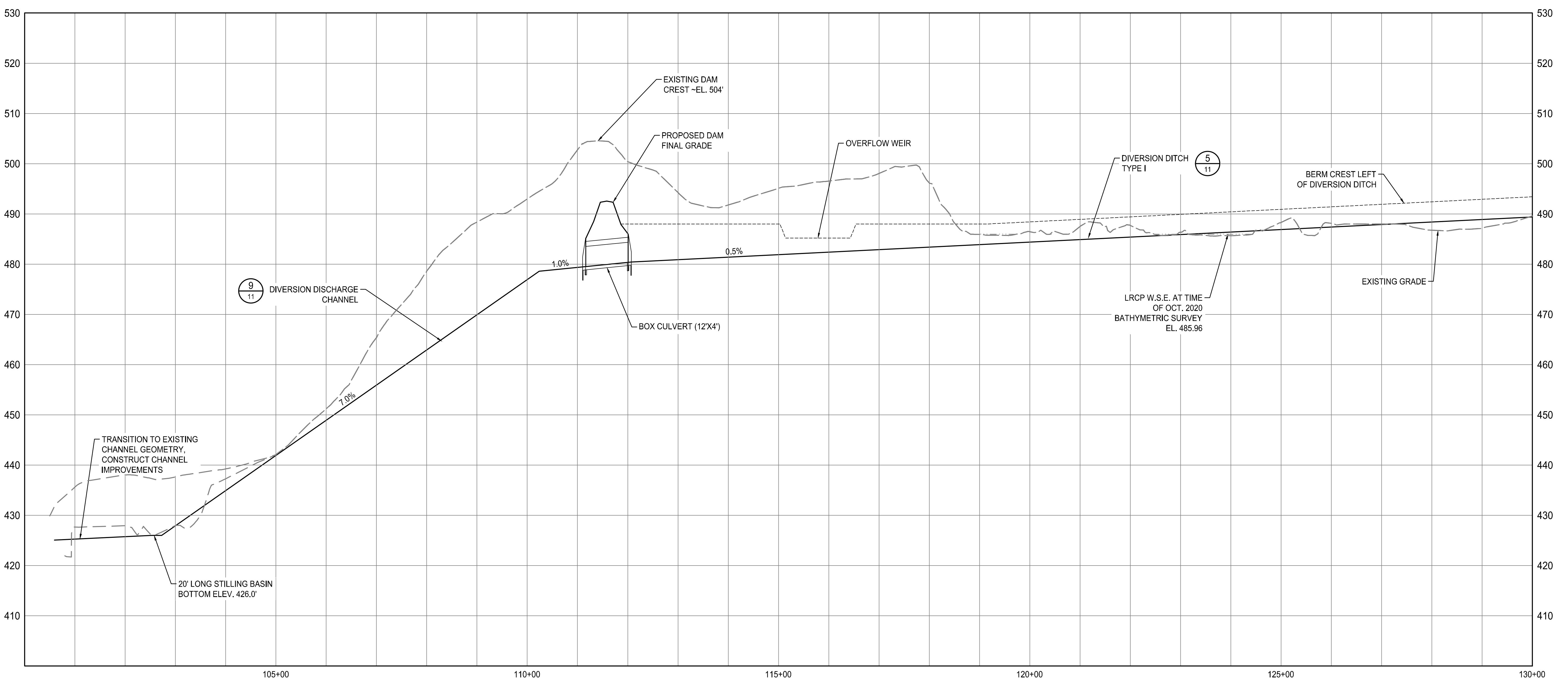
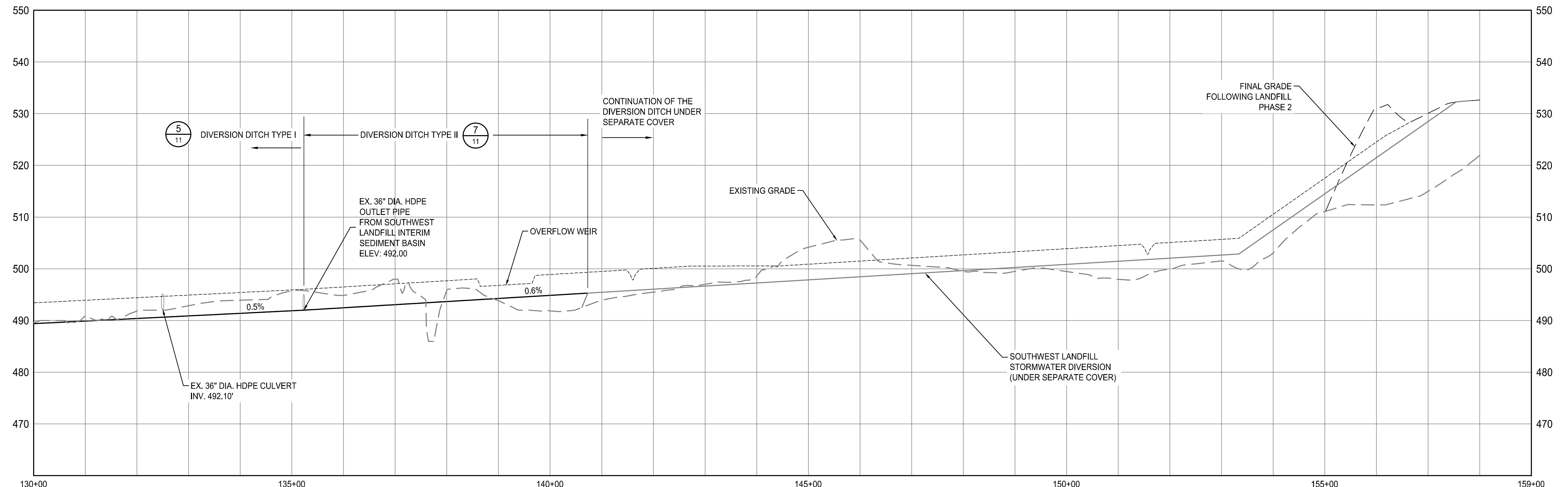
Revision Sheet  
A 4

Drawing No.  
P-LRCP-104-FG1

SECTION OR DETAIL NO.  
TARGET DRAWING  
REFERENCE KEY

**ISSUED FOR PERMIT**





1  
8

## PROFILE - DIVERSION DITCH BASELINE

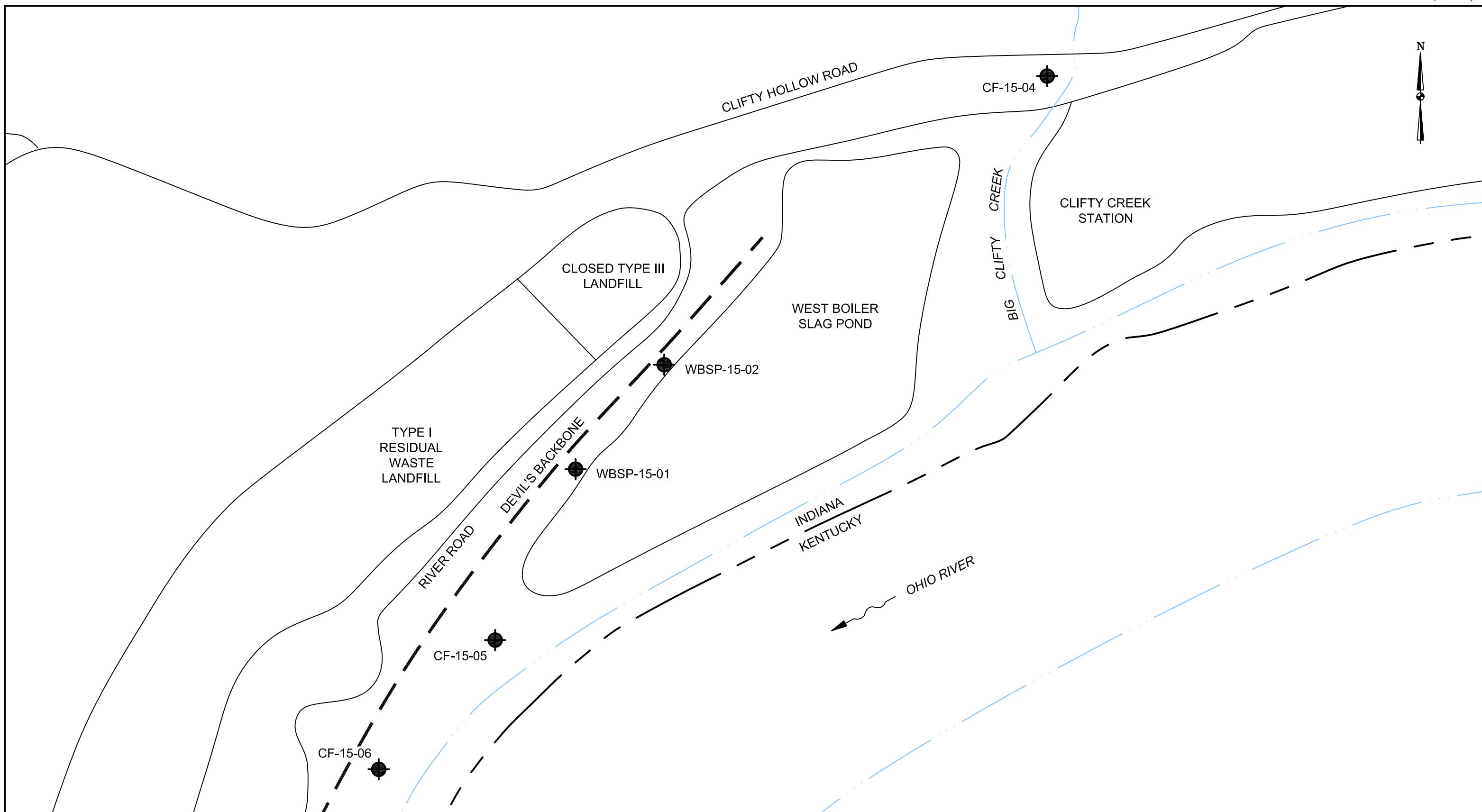
SCALE: 1"=100' (HORIZONTAL)  
1"=10' (VERTICAL)

A circular symbol with a horizontal line through the center, with the text "SECTION OR DETAIL" to its right. Below it is another circular symbol with a horizontal line through the center, with the text "TARGET DRAWING" to its right. Below these symbols is the text "REFERENCE KEYS".

# ISSUED FOR PERMIT

## **APPENDIX C**

### **Instrumentation**

**LEGEND:**

● MONITORING WELL LOCATION

600' 0' 600' 1200'  
SCALE: 1" = 600'

DRAWN BY JM  
DATE  
CHECKED BY  
JOB NO. 2015067-CLI  
DWG. FILE IREC\_Clifty MW Install\_MWs\_b02-b03-b04.dwg  
DRAWING SCALE AS SHOWN



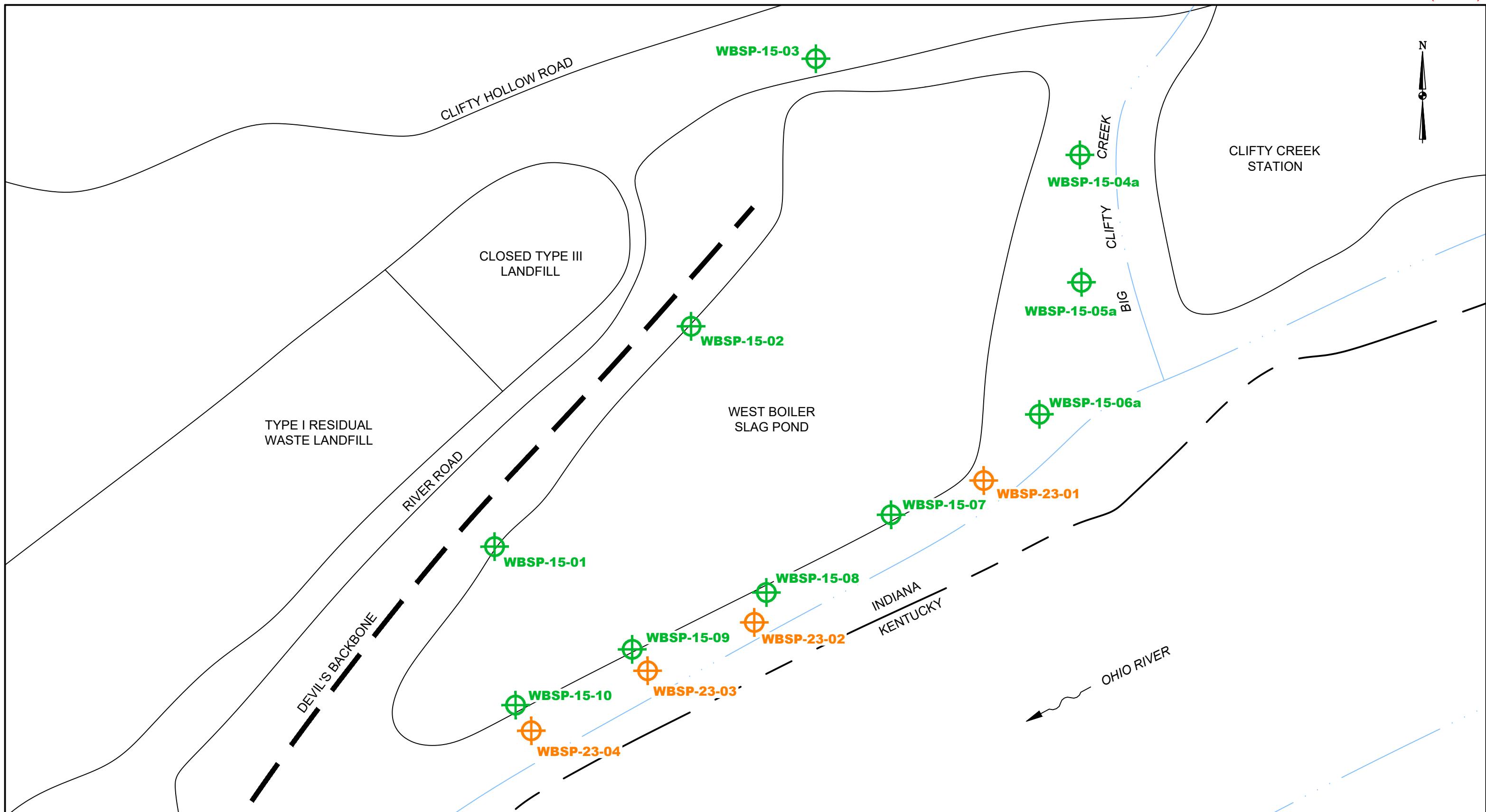
**AGES**  
Applied Geology And Environmental Science, Inc.

2402 Hookstown Grade Road, Suite 200  
Clinton, PA 15026  
412.264.6453

INDIANA-KENTUCKY ELECTRIC CORPORATION

CLIFTY CREEK STATION  
MADISON, INDIANA  
TYPE I RESIDUAL WASTE LANDFILL AND  
LANDFILL RUNOFF COLLECTION POND  
BACKGROUND MONITORING WELL LOCATIONS

DRAWING NAME FIGURE 9 REV. 0

LEGEND:

CCR EXISTING PROGRAM MONITORING WELL

CCR INTERIM PROGRAM MONITORING WELL

400' 0' 400' 800'  
SCALE: 1" = 400'


AB
DATE
CHECKED BY
JOB NO.
DWG FILE
DRAWING SCALE

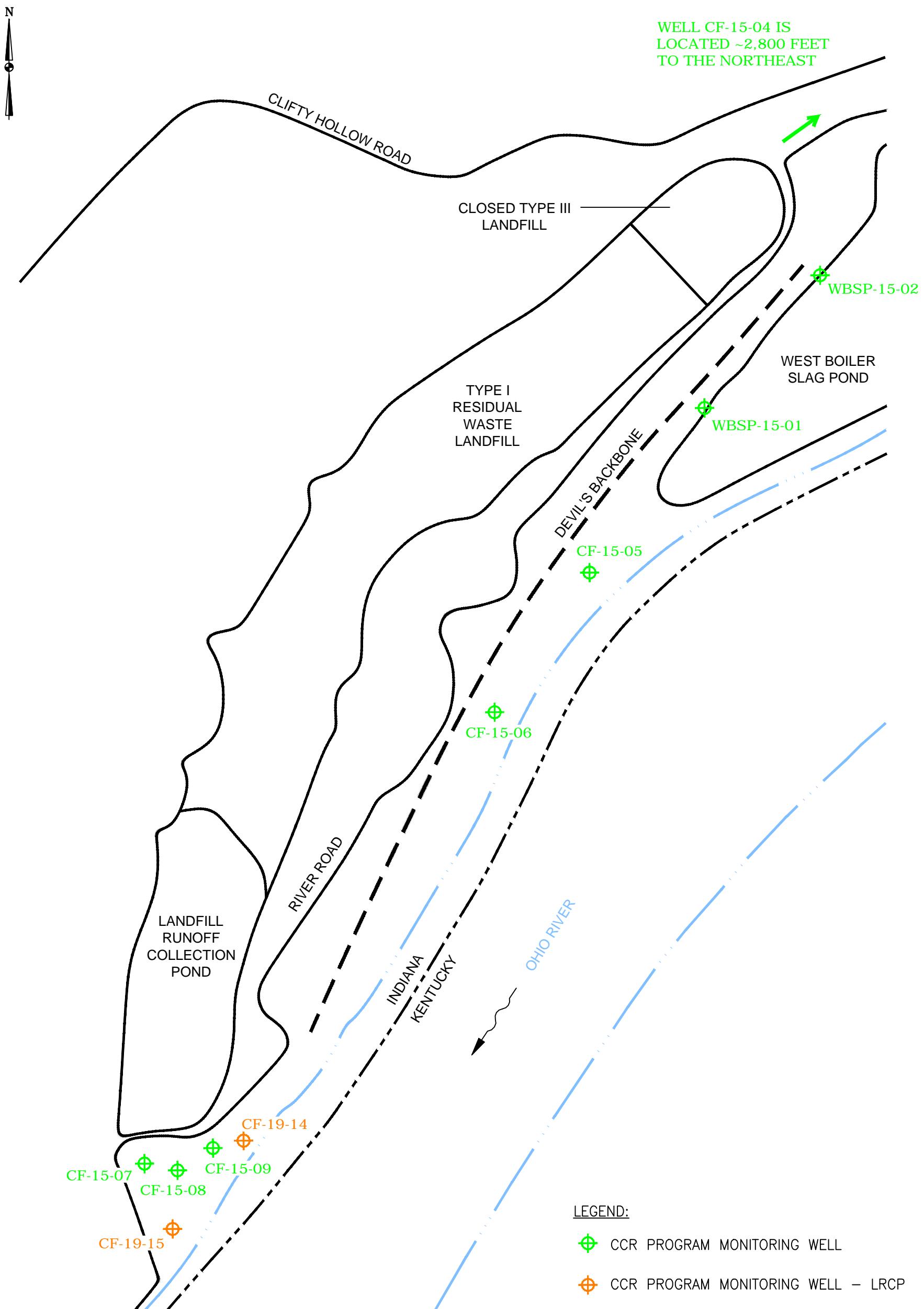


**AGES**  
Applied Geology And Environmental Science, Inc.

2402 Hookstown Grade Road, Suite 200  
Clinton, PA 15026  
412.264.6453

INDIANA-KENTUCKY ELECTRIC CORPORATION
CLIFTY CREEK STATION MADISON, INDIANA
WEST BOILER SLAG POND
EXISTING AND INTERIM MONITORING WELL LOCATION MAP
DRAWING NAME
FIGURE 5-2
REV. 0





**NOTE:**  
WELLS CF-19-14 AND CF-19-15 WERE  
INSTALLED IN MARCH 2019.

DRAWN BY	JM
DATE	
CHECKED BY	
JOB NO.	2020010-CLIFTY
DWG FILE	2_2020_IKEC_Clifty_GW MW LOCs_LANDFILL b01.dwg
DRAWING SCALE	NOT TO SCALE

 **AGES**  
Applied Geology And Environmental Science, Inc.  
2402 Hookstown Grade Road, Suite 200  
Clinton, PA 15026  
412.264.6453

INDIANA-KENTUCKY ELECTRIC CORPORATION	
CLIFTY CREEK STATION MADISON, INDIANA	
TYPE I RESIDUAL WASTE LANDFILL AND LANDFILL RUNOFF COLLECTION POND MONITORING WELL LOCATION MAP	
DRAWING NAME	FIGURE 2

---

## NOTES

**NOTES**

**REFERENCE DRAWINGS**

**LEGEND**

- Soil Boring with Undisturbed (Shelby) Tube Samples and/or Standard Penetration Tests
- Historic Boring

**BORING LAYOUT**  
SCALE: 1"=40'

**GRAPHIC SCALE**

**NOTES**

AMERICAN "H" DRAWINGS IS THE PROPERTY OF THE AND IS LOANED ELECTRIC POWER SERVICE CORP. UPON COMPLETION OF THIS PROJECT, NO COPIES MAY BE MADE, COPIED IN WHOLE OR IN PART, OR USED FOR FURNISHING INFORMATION TO ANY PERSON WITHOUT THE WRITTEN CONSENT OF THE, OR AEP SERVICE CORP., FOR ANY PURPOSE OTHER THAN THE INTEREST OF THEIR INTEREST, AND IS TO BE RETURNED UPON REQUEST.

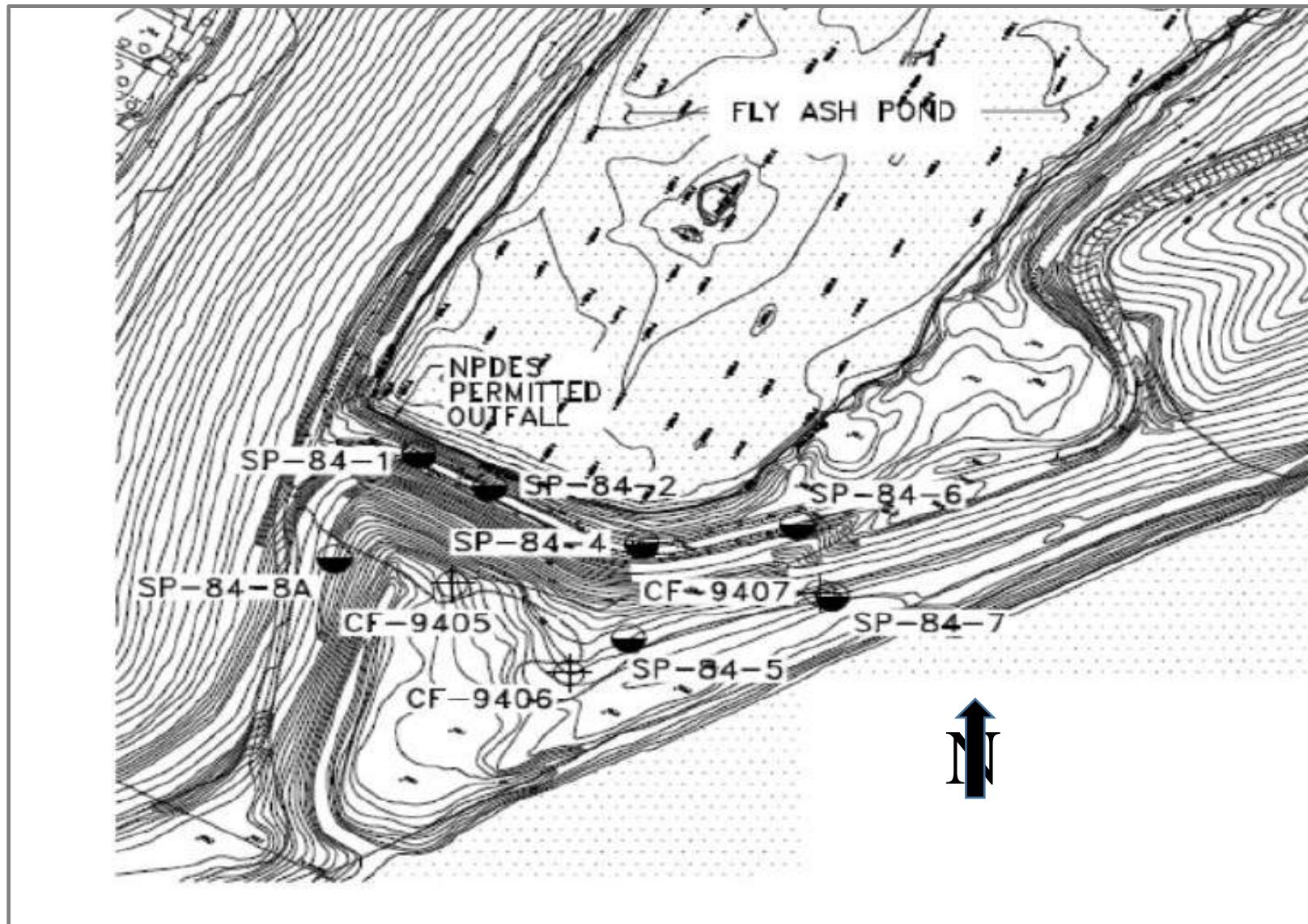
INDIANA - KENTUCKY ELECTRIC CO.  
CLIFTY CREEK PLANT  
MADISON INDIANA

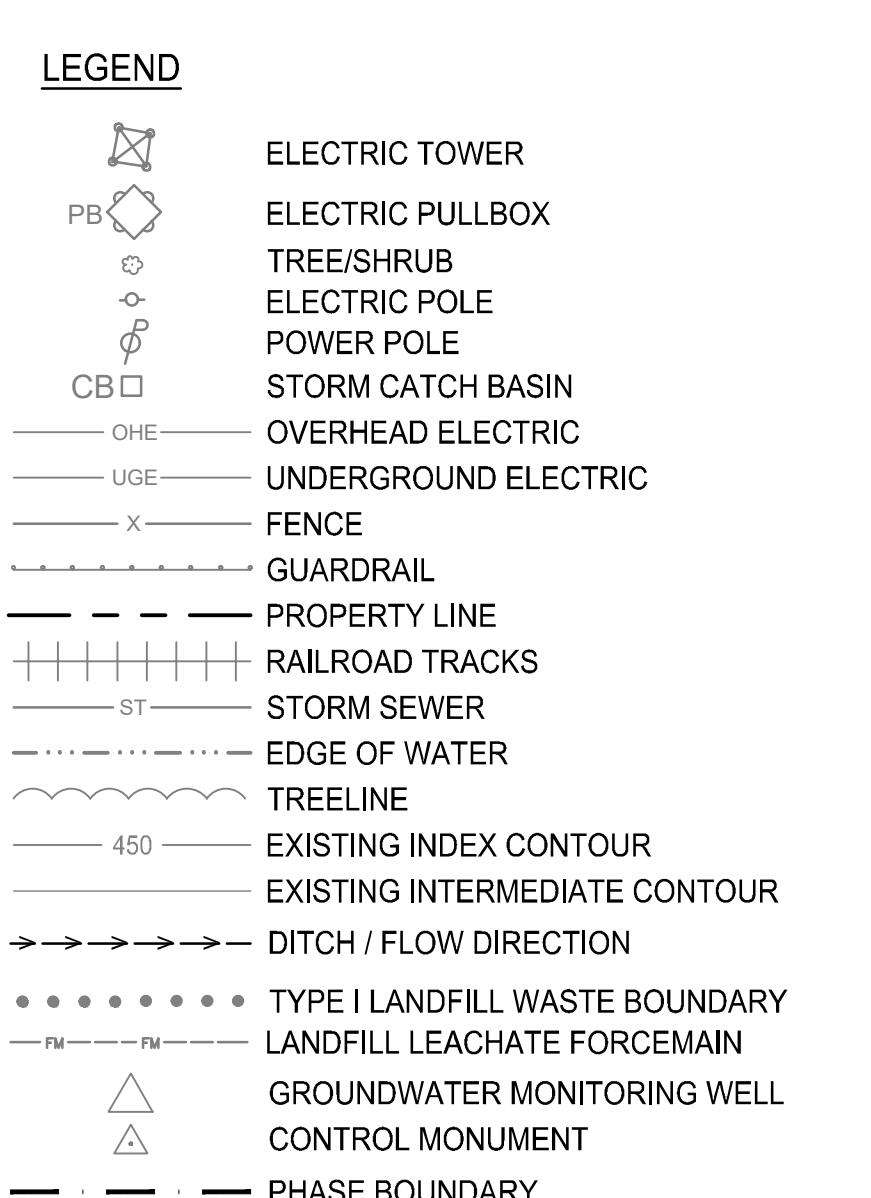
GEOTECHNICAL EXPLORATION  
LANDFILL RUNOFF  
COLLECTION POND DAM  
BORING LAYOUT

DWG. NO. 05/20/2010 USER: WILHENS, CHERYL  
PLOT DATE: 05/20/2010 DRAWING NO. 102-12-2.DWG  
APPROVED BY: CIVIL ENGINEERING DIVISION  
DR: CW CH: EMK ARCH: ENGR: CN DATE: MAY, 2010  
Stantec Consulting Services Inc.  
11651 Leesburg Rd.  
Cleveland, Ohio  
44128-4200  
www.stantec.com

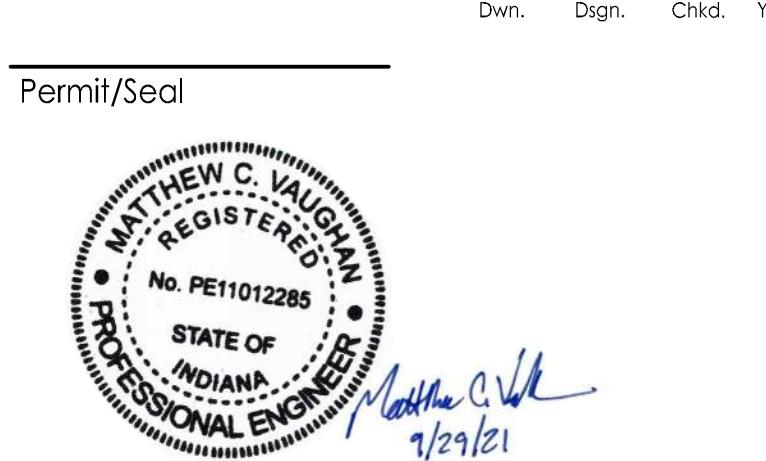
**AMERICAN ELECTRIC POWER** AEP SERVICE CORP., 1 RIVERSIDE PLAZA, COLUMBUS, OH 43215

**FIGURE 5 - LANDFILL RUNOFF COLLECTION POND PIEZOMETERS LOCATION MAP**





CONTROL MONUMENT TABLE			
MONUMENT	NORTHING	EASTING	ELEVATION (FEET)
1-WEST POND	443,950.45	563,164.42	510.08
2-EXISTING	450,591.79	566,786.87	510.43
3-PARKING LOT	451,249.94	568,918.63	471.67
4-CLUB HOUSE	447,823.73	565,764.48	468.39
CM7305	450,554.66	570,915.13	464.78
CM7310	443,341.72	561,976.37	508.74



Client/Project Logo


 Client/Project  
 OHIO VALLEY ELECTRIC CORPORATION  
 INDIANA-KENTUCKY ELECTRIC CORPORATION  
 POND CLOSURE - LANDFILL RUNOFF  
 COLLECTION POND, CLIFTY CREEK STATION  
 MADISON TOWNSHIP, JEFFERSON COUNTY, INDIANA

 Title  
 OVERVIEW / SEQUENCING PLAN

 Project No.  
 175339026  
 Revision Sheet  
 1 3  
 Scale  
 AS SHOWN  
 Drawing No.  
 LRCP-103-OVR

## SEQUENCING NOTES:

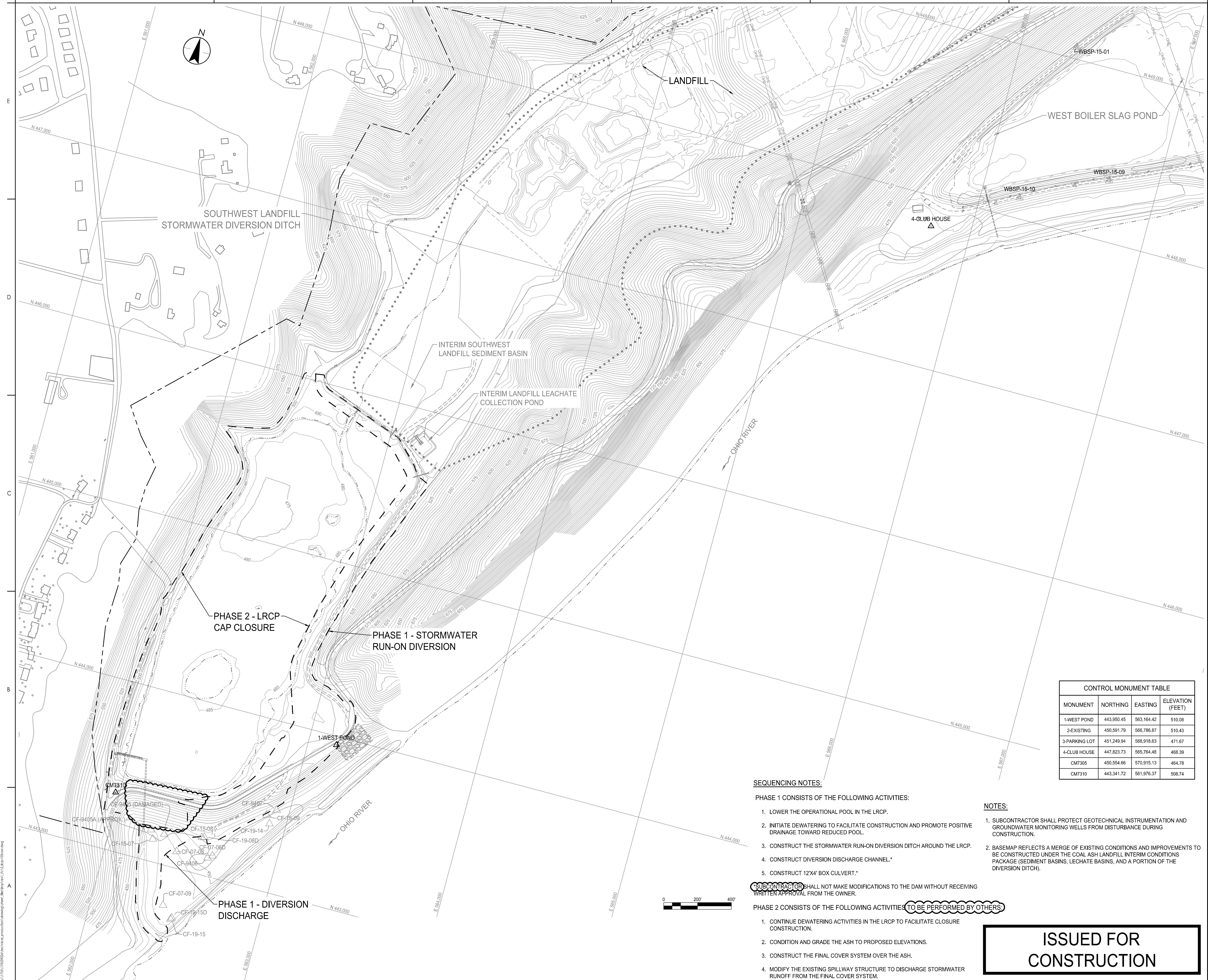
## PHASE 1 CONSISTS OF THE FOLLOWING ACTIVITIES:

1. LOWER THE OPERATIONAL POOL IN THE LRCP.
2. INITIATE Dewatering to facilitate construction and promote positive drainage toward reduced pool.
3. Construct the stormwater run-on diversion ditch around the LRCP.
4. Construct diversion discharge channel.\*
5. Construct 12'x4' box culvert.\*

\*SUBCONTRACTOR SHALL NOT MAKE MODIFICATIONS TO THE DAM WITHOUT RECEIVING WRITTEN APPROVAL FROM THE OWNER.

PHASE 2 CONSISTS OF THE FOLLOWING ACTIVITIES ~~TO BE PERFORMED BY OTHERS~~

1. Continue dewatering activities in the LRCP to facilitate closure construction.
2. Condition and grade the ash to proposed elevations.
3. Construct the final cover system over the ash.
4. Modify the existing spillway structure to discharge stormwater runoff from the final cover system.

**ISSUED FOR  
CONSTRUCTION**


## **APPENDIX D**

### **Photographic Log**



**Photo 1, Point 1**  
Heavy Vegetation looking south near  
Gypsum Loadout area.



**Photo 2, Point 1**  
Heavy Vegetation looking east near  
Gypsum Loadout area.



**Photo 3, Point 1**  
Vegetated slope looking north near  
Gypsum Loadout area.



**Photo 4, Point 2**

Temporary Lined Containment construction.



**Photo 5, Point 3**

WBSP Dam looking east from LVWTS.



**Photo 6, Point 4**

WBSP Dam looking north.



**Photo 7, Point 5**

Rutting on lower, flat area.



**Photo 8, Point 6**

Rutting from equipment tracks.



**Photo 9, Point 7**

Rutting from equipment tracks.



**Photo 10, Point 8**  
Dead grass, bare area.



**Photo 11, Point 9**  
Dead grass, bare area.



**Photo 12, Point 10**  
Rutting, dead grass, and bare area.



**Photo 13, Point 11**

Metal post with small vegetation overgrowth.



**Photo 14, Point 12**

Small dam face depression.



**Photo 15, Point 13**

Low vegetation overgrowth on Dam flat area.





**Photo 16, Point 13**

High vegetation overgrowth on Dam face.



**Photo 17, Point 14**

High vegetation overgrowth on Dam face and at electric tower slope.



**Photo 18, Point 14**

High vegetation overgrowth on Dam face and at electric tower slope.



**Photo 19, Point 15**  
Scour and vegetation on electric tower slope.



**Photo 20, Point 16**  
High overgrowth on dam face slopes.



**Photo 21, Point 17**  
WBSP Dam looking west from toe.



**Photo 22, Point 18**  
Roadside monitoring instruments.



**Photo 23, Point 19**  
Metal post overgrowth area.



**Photo 24, Point 19**  
Bare spot around pipe area.



**Photo 25, Point 20**

Roadside dam slope erosion and exposed ash.



**Photo 26, Point 21**

Roadside dam slope erosion and exposed ash.



**Photo 27, Point 22**

Roadside dam slope erosion and exposed ash.



**Photo 28, Point 23**  
Bare spots with exposed ash.



**Photo 29, Point 23**  
Bare spots with exposed ash.



**Photo 30, Point 24**  
Rutted area from equipment tracks.



**Photo 31, Point 25**

LVWTS discharge structure and surrounding slopes.



**Photo 32, Point 25**

LVWTS slopes looking northeast.



**Photo 33, Point 26**

LVWTS looking west.



**Photo 34, Point 26**  
WBSP CCR closure excavation area  
looking north from LVWTS.



**Photo 35, Point 26**  
LVWTS Slope supporting electric tower.



**Photo 36, Point 27**  
LVWTS slope along Devil's Backbone  
formation.



**Photo 37, Point 27**  
LVWTS slope along Devil's Backbone formation.



**Photo 38, Point 27**  
LVWTS view east.



**Photo 39, Point 28**  
Erosion pin flagged on WBSP-Devil's Backbone Road slope.



**Photo 40, Point 28**

Erosion and scouring pin flagged on WBSP-Devil's Backbone Road slope.



**Photo 41, Point 29**

Erosion and exposed geotextile on WBSP-Devil's Backbone Road slope.



**Photo 42, Point 29**

Erosion and riprap blanket on WBSP-Devil's Backbone Road slope.



**Photo 43, Point 30**

Erosion and scouring pin flagged on  
WBSP-Devil's Backbone Road slope.



**Photo 1, Point 1**  
Erosion along channel riprap.



**Photo 2, Point 1**  
Bare areas.



**Photo 3, Point 2**  
LRCP upper dam and channel.



**Photo 4, Point 3**  
Animal burrowing and bare areas.



**Photo 5, Point 4**  
Exposed liner from erosion.



**Photo 6, Point 5**  
Exposed liner from erosion.



**Photo 7, Point 5**  
Bare areas on dam face.



**Photo 8, Point 6**  
Animal burrowing.



**Photo 9, Point 7**  
Riprap channel side erosion.



**Photo 10, Point 7**  
Riprap channel side erosion.



**Photo 11, Point 8**  
Diversion channel and monitoring wells.



**Photo 12, Point 9**  
Soft area on dam face.



**Photo 13, Point 10**  
Animal burrowing.



**Photo 14, Point 11**  
Dead grass and depression.



**Photo 15, Point 12**  
Dead grass and depression.



**Photo 16, Point 13**  
Animal burrowing on dam face.



**Photo 17, Point 14**  
LRCP outfall looking south at diversion channel.



**Photo 18, Point 15**  
Bare areas.



**Photo 19, Point 15**  
Bare, soft areas near monitoring well area.



**Photo 20, Point 15**  
Vegetation near monitoring wells on Ohio River side.



**Photo 21, Point 16**  
LRCP Dam face looking north.



**Photo 22, Point 17**  
Channel riprap side erosion.



**Photo 23, Point 17**  
Bare area along diversion channel.



**Photo 24, Point 18**  
Bare area along diversion channel.



**Photo 25, Point 18**  
Riprap channel side erosion.



**Photo 26, Point 19**  
Dam face depression.



**Photo 27, Point 20**  
Bare area with dead grass.



**Photo 28, Point 21**

Depression and bulging near middle of the dam face and riprap blanket.



**Photo 29, Point 21**

Depression and bulging near middle of the dam face and riprap blanket.



**Photo 30, Point 21**

Depression and bulging near middle of the dam face and riprap blanket.

**Photo 31, Point 22**

LRCP Dam face view southwest.



**Photo 32, Point 22**

LRCP Dam face view south.



**Photo 33, Point 22**

LRCP Dam face riprap blanket view west.



**Photo 34, Point 23**  
LRCP Teardrop area and diversion channel.



**Photo 35, Point 23**  
LRCP Teardrop area and access road.