INDIANA-KENTUCKY ELECTRIC CORPORATION
3932 U. S. Route 23
P. O. Box 468
Piketon, Ohio 45661
740-289-7200

WRITER'S DIRECT DIAL NO:
740-897-7768

March 14, 2022

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
Notification of CCR Rule Information Posting
Annual Certified CCR Surface Impoundment Inspection Report

Dear Mr. Rockensuess:

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 Surface Impoundment Inspection for the 2021 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 publically 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) 897-7768.

Sincerely,

Tim Fulk
Engineer II

TLF:klr

2021 ANNUAL DAM AND DIKE INSPECTION REPORT

West Boiler Slag Pond
& Landfill Runoff Collection Pond

CLIFTY CREEK PLANT

Indiana-Kentucky Electric Corporation

MADISON, INDIANA

December 2021

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

Prepared by: American Electric Power Service Corporation
1 Riverside Plaza
Columbus, OH 43215

AMERICAN ELECTRIC POWER
BOUNDLESS ENERGY™

Document ID: GERS-21-080

2021 Annual Dam & Dike Inspection Report

Clifty Creek Plant

West Boiler Slag Pond & Landfill Runoff Collection Pond

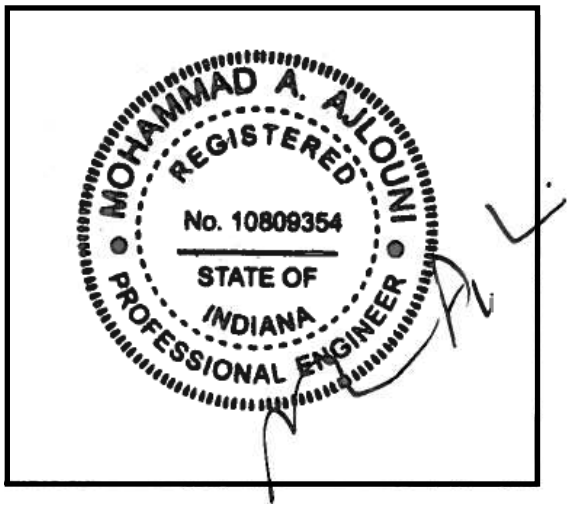
GERS-21-080

INSPECTION DATE **November 17, 2021**

PREPARED BY _____ **DATE** 12/16/2021
Mohammad A. Ajlouni, Ph.D.,P.E.

REVIEWED BY _____ **DATE** 12/20/2021
Shahriyar S. Baig, P.E.

APPROVED BY _____ **DATE** 12/21/2021
Gary F. Zych, P.E.
Manager - Geotechnical Engineering



PROFESSIONAL ENGINEER SEAL & SIGNATURE

I certify to the best of my knowledge, information and belief the information contained in this report meets the requirements of 40 CFR § 257.83(b).

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1.0 INTRODUCTION

This report was prepared by AEP- Geotechnical Engineering Services (GES) section, in part, to fulfill requirements of 40 CFR 257.83 and the Indiana Department of Natural Resource (IDNR), Division of Water and to provide Indiana-Kentucky Electric Corporation (IKEC) and Clifty Creek Station with an evaluation of the facility.

American Electric Power Service Corporation's Civil Engineering Division administers the Clifty Creek Station Dam Inspection and Maintenance Program (DIMP). As part of the DIMP, staff from the GES annually conducts dam and dike inspections. This report contains the inspection findings, observations, photographic descriptions, conclusions, and maintenance recommendations. This inspection report addresses the West Boiler Slag Pond (WBSP) (Previously known as West Bottom Ash Pond), and Landfill Runoff Collection Pond (LRCP) (Previously known as Fly Ash Pond) at the Clifty Creek Station. The East Bottom Ash Pond (EBAP) is no longer active for ash storage and waste water treatment. The EBAP was drained, backfilled, closed and converted to a surface water collection pond in the year 2014.

Mr. Danny Hunt, Plant Engineer, Clifty Creek Station provided onsite coordination for inspection activities and was present during this inspection. The inspection was performed on November 17, 2021 by Mohammad Ajlouni of AEP Geotechnical Engineering. Weather conditions were cloudy with temperatures ranging from the lower 50's F in the morning to the upper 60's F in the afternoon, with good visibility. There was 0.22 inch of precipitation recorded for the 7 days prior to the inspection.

2.0 DESCRIPTIONS OF IMPOUNDMENTS

2.1 WEST BOILER SLAG POND

The WBSP (Figure 1) is located southwest of the station. It is formed by natural grade to the north, east, and west and an embankment dam on the south that runs along the bank of the Ohio River. The WBSP serves as a settling basin for sluiced bottom ash produced at the station and receives stormwater runoff from approximately 510 acres (Stantec, 2010a). The WBSP is used for the storage of bottom ash generated from all six generating Units. It consists of a single dike that is approximately 2,000 feet long and is approximately 35 feet high. The crest is at elevation 470.0 feet. The pond contains two primary areas: the eastern portion near the sluice pipes that is actively dredged for the recovery of material, and a western portion with minimal deposition or dredging activities. A vegetation delta separates the two areas acting as a natural filtering zone. The pond discharges to the Ohio River through a principal spillway at the southern edge of the impoundment.

2.2 LANDFILL RUNOFF COLLECTION POND

The LRCP is located at the southern edge of the station. It is bordered by the station's coal combustion residuals (CCR) landfill to the north, natural grade to the east and west, and by an embankment dam to the south that runs along the bank of the Ohio River.

The LRCP dam is a cross valley dam located on a no-named tributary to the Ohio River. The dam is approximately 1,025 feet long and has a maximum height of 75 feet. The crest is at elevation 505.0 feet. Currently, the facility functions as the stormwater and leachate collection pond for the CCR landfill, and discharges to the Ohio River through a NPDES-permitted outfall.

Approximately 508 acres of both landfill contact water and stormwater runoff drain to the LRCP. Upon the completion of the CCR landfill, the area draining to the LRCP will be reduced to approximately 443 acres.

3.0 REVIEW OF AVAILABLE INFORMATION (257.83(b)(1)(i))

In addition to the current visual inspection, a review of available information regarding the status and condition of the WBSP and the LRCP including files available in the operating record was conducted. Available information consists of design and construction information, previous structural stability assessments, previous 7 day inspection reports, and previous annual inspection reports was conducted. Based on the findings of the current visual inspection and a review of the available data it is concluded that there were no signs of actual or potential structural weakness or adverse conditions and the facility is performing as intended in the design documents.

4.0 INSPECTION (257.83(b)(1)(ii))

4.1 General

The summary of the visual observations uses terms to describe the general appearance or condition of an observed item, activity or structure. Their meaning is understood as follows:

Good: A condition or activity that is generally better or slightly better than what is minimally expected or anticipated from a design or maintenance point of view.

Fair or Satisfactory: A condition or activity that generally meets what is minimally expected or anticipated from a design or maintenance point of view.

Poor: A condition or activity that is generally below what is minimally expected or anticipated from a design or maintenance point of view.

Minor: A reference to an observed item (e.g., erosion, seepage, vegetation, etc.) where the current maintenance condition is below what is normal or desired, but which is not currently causing concern from a structure safety or stability point of view.

Significant: A reference to an observed item (e.g. erosion, seepage, vegetation, etc.) where the current maintenance program has neglected to improve the condition. Usually, conditions that have been previously identified in the previous inspections, but have not yet been corrected.

Excessive: A reference to an observed item (e.g., erosion, seepage, vegetation, etc.) where the current maintenance condition is below or worse than what is normal or desired, and which may have affected the ability of the observer to properly evaluate the structure or particular area being observed or which may be a concern from a structure's safety or stability point of view.

In addition, a "deficiency" is some evidence that a dam or dike has developed a condition that could impact the structural integrity of the impoundment. There are four general categories of deficiencies. These four categories are described below:

1. Uncontrolled Seepage

   Uncontrolled seepage is seepage that is not behaving as the design engineer has intended. An example of uncontrolled seepage is seepage that comes through or around the embankment and is not collected and safely carried off by a drain. Seepage that is collected by a drain can still be uncontrolled, if it is not safely transported, such as seepage that is not clear. Seepage that is unable to be measured and/or observed is considered uncontrolled seepage.

[Wet or soft areas are not considered uncontrolled seepage, but they can lead to this type of deficiency. These areas should be monitored frequently.]

2. Displacement of the Embankment:

   Displacement is a large scale movement of part of the dam. Common signs of displacement are cracks, scarps, bulges, depressions, sinkholes and slides.

3. Blockage of Water Control Appurtenances

   Blockage of water Control Appurtenances is the restriction of flow at spillways, decant or pipe spillways, or drains.

4. Erosion:

   Erosion is the gradual movement of surface material by water, wind or ice. Erosion is considered a deficiency when it is more than a minor routine maintenance item.

Results of the visual inspection performed on November 17, 2021, are summarized below, with inspection photographs included in Appendices A and B.

4.2 WEST BOILER SLAG POND

4.2.1 CHANGES IN GEOMETRY SINCE LAST INSPECTION (257.83(b)(2)(i))

No modifications have been made to the geometry of the WBSP since the 2018 annual inspection. The geometry of the impoundment has remained essentially unchanged.

4.2.2 INSTRUMENTATION (257.83(b)(2)(ii))

The location and type of instrumentation is shown on Figure 1. The results of the measurements of various piezometers since November 2015 are shown in Figure 2. The maximum recorded readings of each instrument since the previous annual inspection is shown in Table 1.

Table 1 WBSP Maximum recorded instruments reading since the previous annual inspection

Instrument	Type	Maximum Reading since last annual inspection	Date of Reading
PZ-1 (B-1)	Piezometer	444.14	6/30/2021
PZ-3 (B-3)	Piezometer	435.6	4/23/2021
PZ-4 (B-4)	Piezometer	427.9	2/26/2021
PZ-5 (B-5)	Piezometer	427.2	6/30/2021

A review of the data contained on the WBSP static water elevation plot showed that all piezometers exhibit consistent water elevations. PZ-1 is a piezometer located at the crest of the constructed dike (shown as B-1 on location plan) which was dry most of the year 2021with potentially erroneous readings (higher than the pond and the river levels). PZ-3 is a piezometer located at the crest of the constructed dike (shown as B-3 on location plan). PZ-4 is a piezometer located along a bench near the downstream toe of the constructed dike (shown as B-4 on location plan). PZ-5 is a piezometer located at the crest of the constructed dike (B-5 on location plan) which was also dry most of the year 2021. Review of the static water elevation plot indicates that the static water levels for the piezometers generally fluctuate as a result of the fluctuations in the pool level (head water) and the river level (tail water), however, it appears that the river water level has more influence on all the piezometer's water levels.

4.2.3 IMPOUNDMENT CHARACTERISTICS (257.83(b)(2)(iii, iv, v))

Below is a summary of the minimum, maximum, and present depth and elevation of the impounded water & CCR since the previous annual inspection; the storage capacity of the impounding structure at the time of the inspection; and the approximate volume of the impounded water and CCR at the time of the inspection.

Table 2 Summary of Relevant Storage Information WBAP

Approximate **Minimum** depth (Elevation) of impounded water since last annual inspection	9.25 ft. (442.25) ft.
Approximate **Maximum** depth (Elevation) of impounded water since last annual inspection	12.5 ft. (445.50) ft.
Approximate **Present** depth (Elevation) of impounded water since last annual inspection	11.33 ft. (444.33) ft.
Approximate **Minimum** depth (Elevation) of CCR since last annual inspection	7.5 ft. (433) ft.
Approximate **Maximum** depth (Elevation) of CCR since last annual inspection (ft.)	7.5 ft. (433) ft.
Approximate **Present** depth (Elevation) of CCR since last annual inspection	7.5 ft. (433) ft.
Storage Capacity of impounding structure at the time of the inspection	1,950,000 c.y.
Approximate volume of impounded water at the time of the inspection	837,000 c.y.
Approximate volume of CCR at the time of the inspection	782,000 c.y.

4.2.4 VISUAL INSPECTION (257.83(b)(2)(i))

A visual inspection of the WBSP was conducted to identify any signs of distress or malfunction of the impoundment and appurtenant structures. Specific items inspected included all structural elements of the dam such as inboard and outboard slopes, crest, and toe; as well as appurtenances such as the outlet structure at the West Boiler Slag Pond, and pipe discharge structure.

– See Appendix A for Photographs

In general, the crest, interior and exterior slopes of the dike appear to be in satisfactory and stable condition. No significant change to the exterior slope was noted from the previous inspection. No significant settlement or misalignment was observed. Seeps were not observed during the inspection. No animal burrows were observed during the inspection.

1. Photographs No. 1 and 2 illustrate a typical overview of the dike crest. The crest appears to be in good and stable condition. Signs of settlement, misalignment and cracking were not observed.

2. Photographs No. 3, and 4 illustrate the condition of the interior slopes at the settling end of the pond and the present extent of boiler slag buildup. The interior slope of the dike at this end of the pond appeared to be in satisfactory and stable condition with some overgrown vegetation near the water line.

3. Photograph No. 5 shows the Principal Spillway and Decant Structure along with some overgrown vegetation near the access stairs and water line. The overflow structure appeared to be in satisfactory condition.

4. The overflow discharge structure walkway, railings, metal decking, and visible concrete were found to be in satisfactory, functional condition. However, there was some overgrown vegetation

adjacent to the access stairs. Photographs No. 5 and 6 illustrate the access stairs, metal walkway, metal deck, and concrete structure of the overflow discharge structure.

5. Photographs No. 7, 8 and 9 shows the general condition of the exterior slope and toe area of the south dike. The slope appeared in satisfactory and stable condition. There were no signs of settlement, misalignment, sloughing or erosion. Few wet areas were noted during this inspection along the toe area which appears to be caused by tire ruts from mowing activities.

6. Photograph No. 10 shows the typical condition of the discharge pipe and outlet channel. The channel and outlet pipe were observed to be in good condition and were unobstructed and flowing steadily.

7. Photograph No. 11 shows the ash sluice pipes and other pipes.

8. Construction within the limit of the pond was ongoing during the site visit. The construction included regrading areas in the dry part of the pond to prepare for building the CCR compliant pond. Photos 12 through 14 show some of the construction activities.

Overall the facility is in satisfactory condition. The impoundment is functioning as intended with no signs of potential structural weakness or conditions which maybe disrupting to the safe operation of the impoundment. Additional pictures taken during the inspection can be made available upon request.

4.2.5 CHANGES THAT EFFECT STABILITY OR OPERATION (257.83(b)(2)(vii))

Based on interviews with plant personnel and field observations there were no changes to the WBSP since the last annual inspection that would affect the stability or operation of the impounding structure.

4.3 LANDFILL RUNOFF COLLECTION POND

4.3.1 CHANGES IN GEOMETRY SINCE LAST INSPECTION (257.83(b)(2)(i))

No modifications have been made to the geometry of the LRCP since the last annual inspection. The geometry of the impoundment has remained essential unchanged. However, In June of 2017 a repair to the northern section of the downstream slope was performed to stabilize previous embankment sloughing. A section of the downstream slope approximately 100 feet wide and extending from the toe to the crest was stabilized by excavating the loose material from the sloughing areas and placing a geotextile fabric and approximately 18-24” of stone rip rap. A seepage collection pipe was installed along the toe area of the rip rap.

4.3.2 INSTRUMENTATION (257.83(b)(2)(ii))

The location and type of instrumentation is shown on Figure 3. The results of the measurements of various piezometers since November 2015 are shown in Figure 4. The maximum recorded readings of each instrument since the previous annual inspection is shown in Table 3 below.

Table 3 LRCP Maximum recorded instruments reading since the previous annual inspection

Instrument	Type	Maximum Reading since last annual inspection	Date of reading
CF-9405	Piezometer	441.39	11/23/2021
CF-9406	Piezometer	444.15	4/23/2021
CF-9407	Piezometer	451.81	3/10/2021
SP-84-1	Piezometer	473.5	5/18/2021
SP-84-2	Piezometer	446.48	2/15/2021
SP-84-4	Piezometer	441.85	4/23/2021
SP-84-5	Piezometer	442.16	3/31/2021
SP-84-6	Piezometer	416.66	3/31/2021
SP-84-7	Piezometer	449.59	11/23/2021
SP-84-8A	Piezometer	442.76	3/31/2021

A review of the LRCP static water elevation plot indicates that two of the piezometers (SP-84-1 and SP-84-6) located along the crest of the dam historically exhibit consistent water elevations. Review of the static water elevation plot indicates that the static water levels for the piezometers and monitoring wells generally fluctuate as a result of the fluctuations in the pool and seasonal river water elevations, however, it appear that the river elevations has more influence on all the piezometers readings.

4.3.3 IMPOUNDMENT CHARACTERISTICS (257.83(b)(2)(iii, iv, v))

Below is a summary of the minimum, maximum, and present depth and elevation of the impounded water & CCR since the previous annual inspection; the storage capacity of the impounding structure at the time of the inspection; and the approximate volume of the impounded water and CCR at the time of the inspection.

Table 4 Summary of Relevant Storage Information LRCP

Approximate **Minimum** depth (Elevation) of impounded water since last annual inspection	11 ft. (486) ft.
Approximate **Maximum** depth (Elevation) of impounded water since last annual inspection	12.5 ft. (487.5) ft.
Approximate **Present** depth (Elevation) of impounded water since last annual inspection	11ft. (486) ft.
Approximate **Minimum** depth (Elevation) of CCR since last annual inspection	45 ft. (475) ft.
Approximate **Maximum** depth (Elevation) of CCR since last annual inspection (ft.)	45 ft. (475) ft.
Approximate **Present** depth (Elevation) of CCR since last annual inspection	45 ft. (475) ft.
Storage Capacity of impounding structure at the time of the inspection	930,000 c.y.
Approximate volume of impounded water at the time of the inspection	553,000 c.y.
Approximate volume of CCR at the time of the inspection	3,150,000 c.y.

4.3.4 VISUAL INSPECTION (257.83(B)(2)(i))

A visual inspection of the LRCP was conducted to identify any signs of distress or malfunction of the impoundment and appurtenant structures. Specific items inspected included all structural elements of the dam such as inboard and outboard slopes, crest, and toe; as well as appurtenances such as the outlet structure at the Landfill Runoff Collection Pond, and pipe discharge structure.

– See Appendix B for Photographs

Overall, the crest, interior slope and exterior slope is well vegetated and in stable condition. There were no apparent signs of new sloughing, depressions, areas of wetness, and seeps. Control of surface vegetation was considered satisfactory except along the outlet channel. The spillway outlet and discharge channel appear to have no obstructions but shows increased vegetation growth. Flow was minimal at the time of the inspection.

1. Photographs Nos. 1, and 2 show the generally condition of the crest of the dam. Signs of misalignment and settlement were not observed. Minor surface cracks in the pavement were observed. Those cracks are attributed to the age of the pavement and the results of weathering process.

2. Photographs Nos. 3 and 4 provide overviews of the interior slope of the dam above the operating pool. Vegetation control near the water line and the upper slope areas is lacking, however, erosion due to wave action was not observed. Overall the slope was found to be in satisfactory and stable condition.

3. Photograph No. 5 shows an overview of the principal spillway decant structure. Vegetation control was observed to be lacking. The decant structure and the access stairway appeared to be functioning properly and was free of obstructions. Photograph No.6 shows the recently added pipe to allow for treatment of discharged water with few fallen wood sticks that doesn't appear to restrict the horizontal flow underneath.

4. Photograph Nos. 7 and 8 is an overview of the principal spillway outlet channel. The channel is unobstructed with minimal flow at the time of the inspection. Vegetation control was observed to be lacking.

5. Photographs Nos. 9 through 14 are all overviews of various areas of the exterior face of the dam as further described with each photograph. Throughout, vegetation control was adequate and there were no signs of sloughing, erosion or instability, except for the area adjacent to the previously repaired slope. No visible change was observed from previous inspections. In general, the exterior slope appeared to be in satisfactory and stable condition

6. The one area of concern is the slope adjacent to the previously repaired area in 2017. This area apparently did not experience additional sloughing/slip activity. A repair detail has been approved the state and ready for implementation.

Overall the facility was in satisfactory condition. The impoundment is functioning as intended with no signs of potential structural weakness or conditions which may be disrupting to the safe operation of the impoundment.

4.3.5 CHANGES THAT EFFECT STABILITY OR OPERATION (257.83(b)(2)(vii))

Based on interviews with plant personnel and field observations there were no changes to the Landfill Runoff Collection Pond since the last annual inspection that would affect the stability or operation of the impounding structure.

5.0 SUMMARY OF FINDINGS

5.1 MAINTENANCE ITEMS

The following maintenance items were identified during the visual inspection:

West Boiler Slag Pond

- Vegetation height was moderate to high on the inboard slopes of the WBSP (Photographs Nos. 4 and 6). These areas should be weed waked to prevent damage to the existing riprap.

Landfill Runoff Collection Pond

- Vegetation height was moderate to high on the inboard slopes of the LCRP near the top of the slope and at the water line. These areas should be maintained on a regular basis.

5.2 ITEMS TO MONITOR

West Boiler Slag Pond

- There are no items to monitor.

Landfill Runoff Collection Pond

- The soughing/slip area of the outboard slope needs to be monitored in order to prevent additional damage to the slope area.

5.3 DEFICIENCIES (257.83(b)(2)(vi))

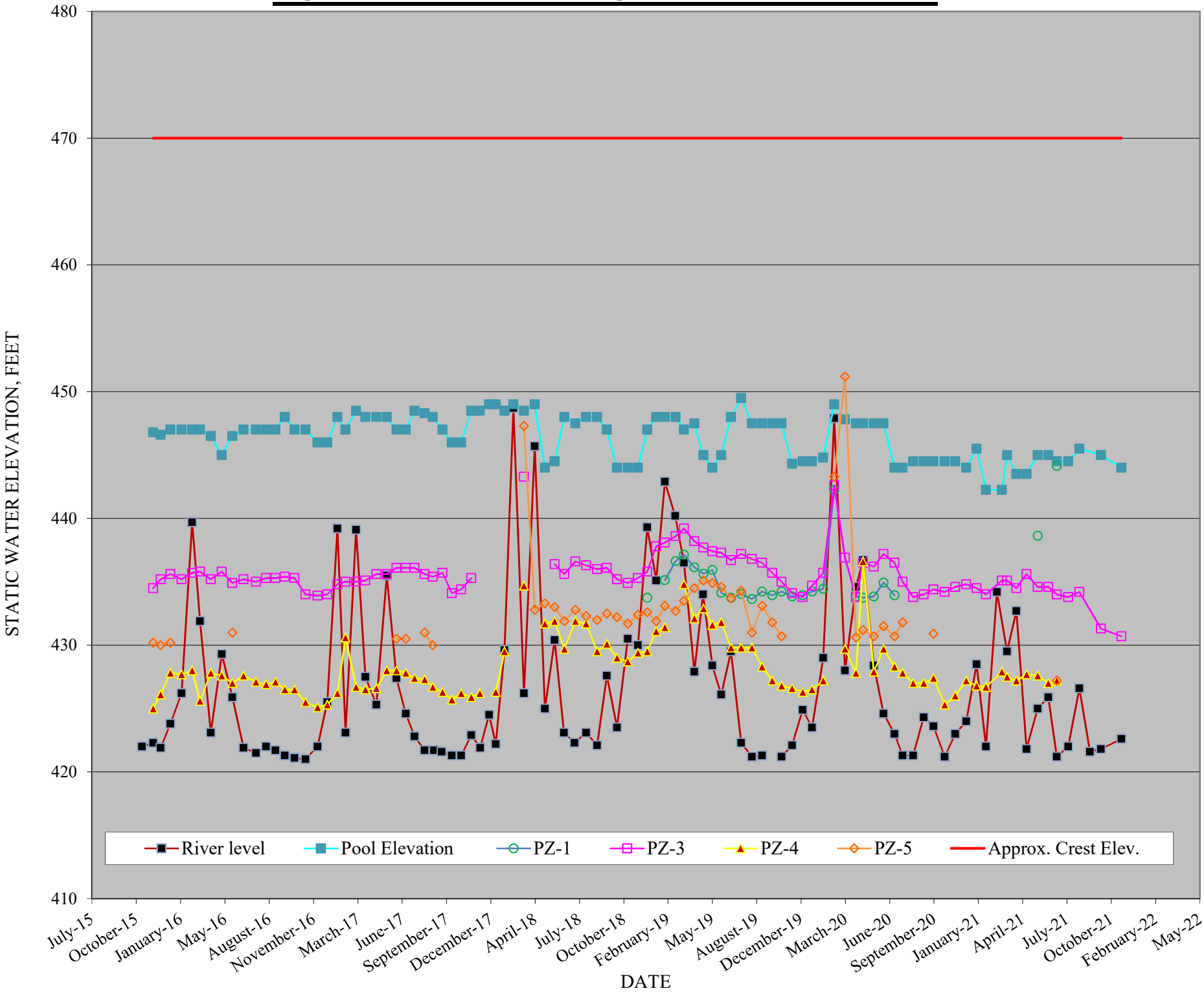
There were no deficiencies or signs of structural weakness or disruptive conditions that were observed at the time of the inspection that would require additional investigation or remedial action. There were no deficiencies noted during any of the periodic 7-day or monthly inspections. If any of these conditions occur before the next annual inspection contact AEP Geotechnical Engineering immediately.

If you have any questions with regard to this report, please contact Mohammad Ajlouni at 614-716-2939 or Gary Zych at 614-716-2917.

FIGURES

FIGURE 1. WEST BOILER SLAG POND PIEZOMETERS LOCATION PLAN

Figure 2 - West Boiler Slag Pond Piezometer Data.



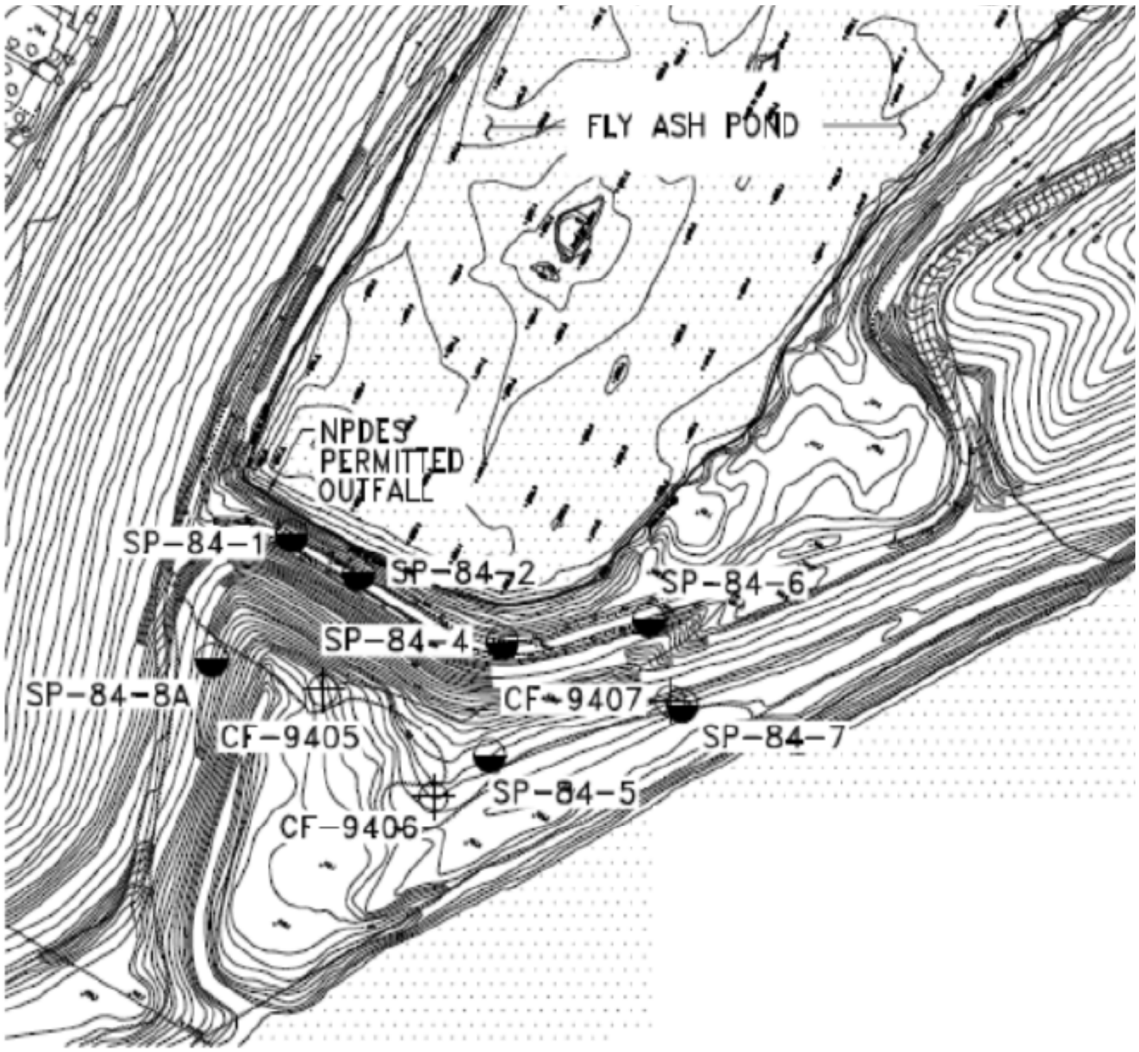
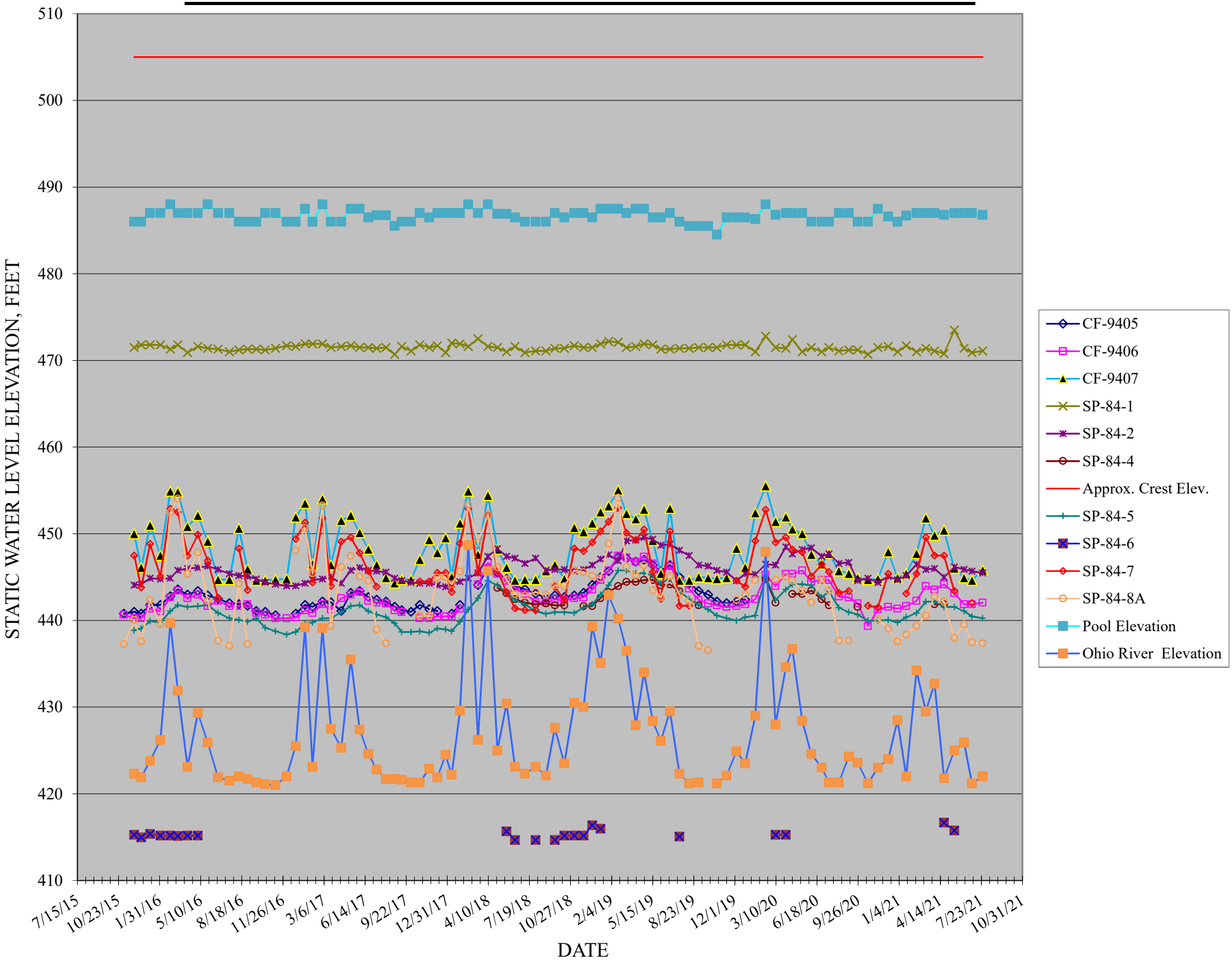


FIGURE 3. LANDFILL RUNOFF COLLECTION POND PIEZOMETERS LOCATION PLAN

FIGURE 4 - Landfill Runoff Collection Pond Piezometers Data.



APPENDICIES

APPENDIX A

WEST BOILER SLAG POND
DIKE INSPECTION PHOTOGRAPHS

APPENDIX A
CLIFTY CREEK WEST BOILER SLAG POND
DIKE INSPECTION PHOTOGRAPHS

	**Photo No. 1** View of the erosion rills on the protective West Boiler Slag Pond Dike From Crest Looking Southwest Overview of Crest
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	**Photo No. 3** West Boiler Slag Pond – Near South End of Interior Slope Area where some surface disturbance caused by the remotely controlled mower, Vegetation overgrowth

APPENDIX A
CLIFTY CREEK WEST BOILER SLAG POND
DIKE INSPECTION PHOTOGRAPHS

	**Photo No. 4** West Boiler Slag Pond Dike – Interior Slope Looking Northeast From Crest. Overview of General Condition, Vegetation overgrowth
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	**Photo No. 6** West Boiler Slag Pond Dike – Interior Slope Looking Northwest From Crest Overview of General Condition Local Vegetation growth

APPENDIX A
CLIFTY CREEK WEST BOILER SLAG POND
DIKE INSPECTION PHOTOGRAPHS

	**Photo No. 7** West Boiler Slag Pond Dike – Exterior Slope From Toe Looking East Overview of Vegetation and General Condition
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	**Photo No. 9** West Boiler Slag Pond Dike – Exterior Slope From Toe Looking East Wet Area

APPENDIX A
CLIFTY CREEK WEST BOILER SLAG POND
DIKE INSPECTION PHOTOGRAPHS

Photo No. 10

West Boiler Slag Pond Principal Spillway Pipe Discharge

General Condition of End of Pipe and Outlet Channel

Some wood debris carried by the river during flooding events

Photo No. 11

West Boiler Slag Pond bottom ash and other discharge pipes

Photo No. 12

West Boiler Slag Pond

Construction within the limit of the pond.

APPENDIX A
CLIFTY CREEK WEST BOILER SLAG POND
DIKE INSPECTION PHOTOGRAPHS

	**Photo No. 13** West Boiler Slag Pond Principal Spillway Pipe Discharge Construction within the limit of the pond.
	**Photo No. 14** West Boiler Slag Pond Principal Spillway Pipe Discharge Construction within the limit of the pond.

APPENDIX B

LANDFILL RUNOFF COLLECTION POND INSPECTION PHOTOGRAPHS

APPENDIX B
CLIFTY CREEK LANDFILL RUNOFF COLLECTION POND
DAM INSPECTION PHOTOGRAPHS

	**Photo No. 1** Landfill Runoff Collection Pond Dam From Crest Looking Northeast Across Saddle Dam General Overview
	**Photo No. 2** Landfill Runoff Collection Pond Dam From Crest Looking Southwest General Overview
	**Photo No. 3** Landfill Runoff Collection Pond Dam From Up Stream Slope Overview of Current Operating Pool and Vegetation Conditions on Interior Slope. Significant vegetation Growth along the Upstream of Dam

APPENDIX B
CLIFTY CREEK LANDFILL RUNOFF COLLECTION POND
DAM INSPECTION PHOTOGRAPHS

Photo No. 4

Landfill Runoff Collection Pond Dam From Up Stream Slope

Overview of Vegetation and General Conditions

Photo No. 5

Landfill Runoff Collection Pond Dam From Roadway Leading to Crest Looking Northeast

Overview of Vegetation Management and General Condition-overgrown vegetation.

Photo No. 6

Landfill Runoff Collection Pond Principal Spillway Structure

Looking at drop inlet for treatment pipe. Fallen wood sticks above the flow line.

APPENDIX B
CLIFTY CREEK LANDFILL RUNOFF COLLECTION POND
DAM INSPECTION PHOTOGRAPHS

	**Photo No. 7** Landfill Runoff Collection Pond Principal Spillway Outlet General Overview-Overgrown vegetation Fallen tree trunk needs remove
	**Photo No. 8** Landfill Runoff Collection Pond Principal Spillway Outlet Channel Looking Downstream General Overview-overgrown vegetation
	**Photo No. 9** Landfill Runoff Collection Pond Dam Adjacent To Toe of Slope Looking East Overview of Vegetation and General Conditions

APPENDIX B
CLIFTY CREEK LANDFILL RUNOFF COLLECTION POND
DAM INSPECTION PHOTOGRAPHS

	**Photo No. 10** Landfill Runoff Collection Pond Dam Adjacent To Toe of Slope Looking East Overview of downstream slope adjacent to rip rap repair area.
	**Photo No. 11** Landfill Runoff Collection Pond Dam Adjacent To Toe of Slope Looking Southwest Overview of Vegetation and General Conditions
	**Photo No. 12** Landfill Runoff Collection Pond Dam Adjacent To Toe of Slope Looking Southwest Overview of rip rap, Looking west.

APPENDIX B
CLIFTY CREEK LANDFILL RUNOFF COLLECTION POND
DAM INSPECTION PHOTOGRAPHS

	**Photo No. 13** Overview of downstream slope area. Looking west. General Overview
	**Photo No. 14** Landfill Runoff Collection Pond Dam From Top of Slope In Right Groin Looking East Overview of Vegetation and General Conditions