November 4, 2021

Closure Completion Notification

Big Sandy Plant

Fly Ash Pond

On October 7, 2021, the Big Sandy Plant Fly Ash Pond was transitioned to closure status in accordance with 40 CFR 257.102. The CCR unit was closed in place and has initiated the written Post Closure Plan. This notice of completion of closure is being placed in the operating record in accordance with 40 CFR 257.102(h).

Effective with the Closure Completion Notification, the following operating record documents, as applicable, are no longer required going forward:

- Hazard Potential Classification
- Emergency Action Plan
- Face to Face Meeting Documentation for EAP
- History of Construction and Revisions for Surface Impoundments
- Structural Stability Assessments
- Safety Factor Assessments
- Fugitive Dust Plan
- Inflow Design Flood System Control Plan

CLOSURE CERTIFICATION BY QUALIFIED PROFESSIONAL ENGINEER

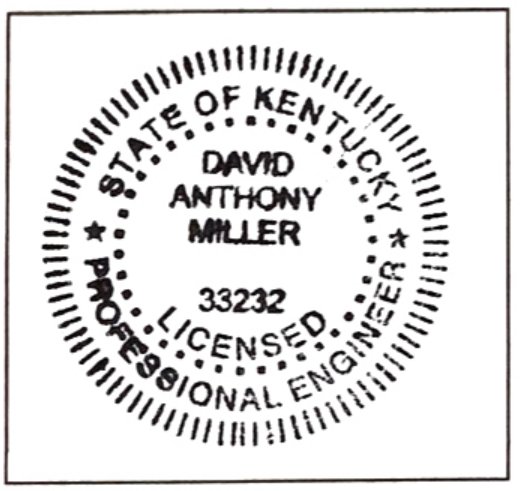
I certify that the Big Sandy Plant Fly Ash Pond (FAP) has been closed in accordance with the closure plan specified by paragraph 257.102(b) and the requirements of section 257.102.

DAVID ANTHONY MILLER

Printed Name of Licensed Professional Engineer

David Anthony Miller

Signature



33232	KENTUCKY	11.04.21
License Number	Licensing State	Date

8. ENGINEER'S CERTIFICATION

ENGINEER'S CERTIFICATION

AECOM

KENTUCKY POWER BIG SANDY POWER PLANT

LAWRENCE COUNTY, KENTUCKY

FLY ASH POND PHASE I CLOSURE CONSTRUCTION

I, Thomas A. Kovacic, P.E., being a Registered Professional Engineer in accordance with the Kentucky's Professional Engineer's Registration do hereby certify to the best of my knowledge, information and belief, that the information contained in the accompanying AEP Big Sandy Plant Fly Ash Pond Closure Construction Quality Assurance Certification Report dated November 27, 2018 is true and correct and has been prepared in accordance with the accepted practice of engineering.

PE Thomas A. Kovacic DATE October 4, 2021

ADDRESS AECOM Technical Services, Inc.
1300 East 9th Street, Suite 500
Cleveland, OH 44114

TELEPHONE (216)-622-2300

8. ENGINEER'S CERTIFICATION

ENGINEER'S CERTIFICATION

AECOM

KENTUCKY POWER BIG SANDY POWER PLANT

LAWRENCE COUNTY, KENTUCKY

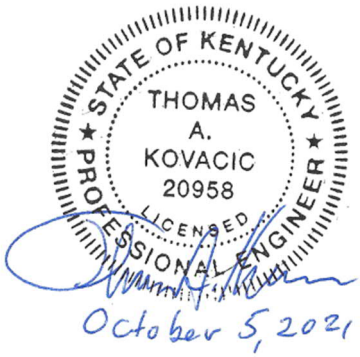
FLY ASH POND PHASE II AND PHASE III 2018 CLOSURE CONSTRUCTION

I, Thomas A. Kovacic, P.E., being a Registered Professional Engineer in accordance with the Kentucky Professional Engineer's Registration do hereby certify to the best of my knowledge, information and belief, that the information contained in the accompanying AEP Big Sandy Plant Fly Ash Pond Phase II and Phase III 2018 Closure Construction Quality Assurance Certification Report dated January, 2020, is true and correct and has been prepared in accordance with the accepted practice of engineering.

SIGNATURE Thomas . Kovacic DATE October 5, 2021

ADDRESS AECOM Technical Services, Inc.
1300 East 9th Street, Suite 500
Cleveland, OH 44114

TELEPHONE (216)-622-2300



9. ENGINEER'S CERTIFICATION

ENGINEER'S CERTIFICATION

AECOM

KENTUCKY POWER BIG SANDY POWER PLANT

LAWRENCE COUNTY, KENTUCKY

FLY ASH POND PHASE III AND PHASE IVA 2019 CLOSURE CONSTRUCTION

I, Thomas A. Kovacic, P.E., being a Registered Professional Engineer in accordance with the Kentucky Professional Engineer's Registration do hereby certify to the best of my knowledge, information and belief, that the information contained in the accompanying report is true and correct and has been prepared in accordance with the accepted practice of engineering.

SIGNATURE Thomas A. Kovacic DATE October 5, 2021

ADDRESS AECOM Technical Services, Inc.
1300 East 9th Street, Suite 500
Cleveland, OH 44114
TELEPHONE (216)-622-2300

9. ENGINEER'S CERTIFICATION

ENGINEER'S CERTIFICATION

AECOM

KENTUCKY POWER BIG SANDY POWER PLANT

LAWRENCE COUNTY, KENTUCKY

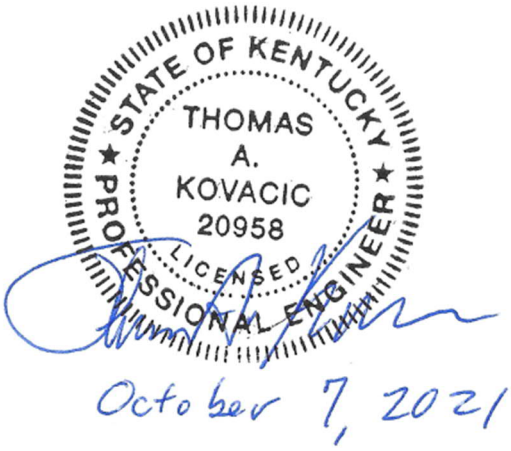
FLY ASH POND PHASE IV 2020 and 2021 AND FINAL CLOSURE CONSTRUCTION

I, Thomas A. Kovacic, P.E., being a Registered Professional Engineer in accordance with the Kentucky Professional Engineer's Registration do hereby certify to the best of my knowledge, information and belief, that the information contained in the accompanying AEP Big Sandy Plant Fly Ash Pond Phase IV 2020-2021 and Final Closure CQA Certification Report is true and correct and has been prepared in accordance with the accepted practice of engineering.

SIGNATURE Thomas A. Kovacic DATE October 7, 2021

ADDRESS AECOM Technical Services, Inc.
1300 East 9th Street, Suite 500
Cleveland, OH 44114

TELEPHONE (216)-622-2300



2021 Annual Dam and Dike Inspection Report

Fly Ash Pond

Big Sandy Plant

Kentucky Power

Lawrence County, KY

September 27, 2021

Prepared for: Kentucky Power – Big Sandy Plant

Louisa, Kentucky

Prepared by: American Electric Power Service Corporation

1 Riverside Plaza

Columbus, OH 43215

GERS-21-43

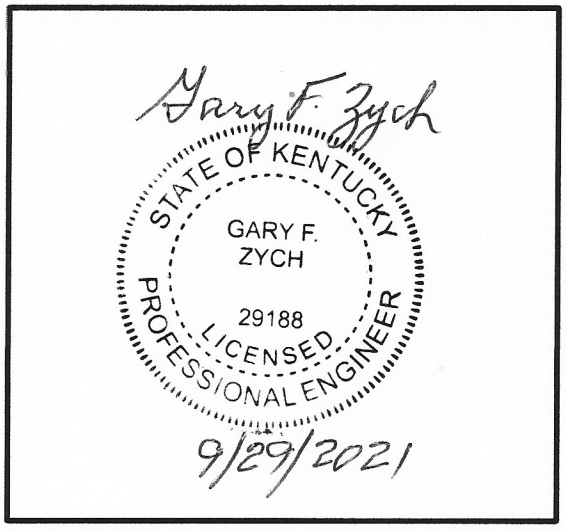
2021 Annual Dam and Dike Inspection Report

Big Sandy Plant
Fly Ash Pond
Inspection Date: September 1. 2021
Document Number: GERS-21-43

PREPARED BY _____ DATE 09/27/2021
Brian G. Palmer, P.E.

REVIEWED BY _____ DATE 09/27/2021
Mohammad Ajlouni, Ph.D., P.E.

APPROVED BY _____ DATE 9/29/2021
Gary F. Zych, P.E.
Manager – AEP Geotechnical Engineering



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).

This is the last inspection report required by the CCR Rule.

Table of Contents

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 Kentucky Department of Environmental Protection, Division of Water, Dam Inspection Section and to provide Kentucky Power and the Big Sandy Power Plant with an evaluation of the facility. As noted below this CCR surface impoundment has been closed in place. This will be the last inspection required by 40 CFR 257.83.

Mr. Keith Sergent, Process Supervisor for the Big Sandy Plant provided onsite coordination for inspection activities. The inspection was performed on September 1, 2021 by Brian Palmer of AEP Geotechnical Engineering. Weather conditions were mostly sunny and temperatures in upper 60°s F to lower 70°s F, during the inspection. Approximately 2-inches of precipitation had fallen in the previous 7-days, including 1.5 in the previous day and approximately 0.5 inches during the inspection.

2.0 DESCRIPTIONS OF IMPOUNDMENTS

The Big Sandy Power Plant is located north of the City of Louisa, Lawrence County, Kentucky.

The facility is owned and operated by Kentucky Power. The facility has historically operated two surface impoundments for managing wastewater and storing CCRs called the Bottom Ash Pond Complex and the Fly Ash Pond.

The Big Sandy Power Plant has ceased burning coal and has been refueled for natural gas. The Bottom Ash Pond Complex has been repurposed as a wastewater pond complex. All CCR material has been removed from the Bottom Ash Pond and the area backfilled and regraded. The Notice of Completion of Closure was posted on February 28, 2020 to the operating record.

The Fly Ash Pond discontinued receiving wastewater from the plant for discharge through the permitted outfall in the February of 2020. Closure activities for the Fly Ash Pond were substantially completed in January 2021 with final punch list activities completed in April 2021.

2.1 FLY ASH POND

The Fly Ash Pond Dam is a valley impoundment with a main dam and a saddle dam. When operational the Big Sandy Fly Ash Pond received sluiced fly ash and wastewater from the plant via the Bottom Ash Pond. Bottom Ash excavated from the Big Sandy Bottom Ash Pond was also placed within the Fly Ash Pond. Closure activities have removed the Saddle Dam, lowered the height of main dam, installed a new concrete spillway over the Main Dam, installed an Articulated Concrete Block Mat spillway structure at the former Saddle Dam, and installed a composite final cover system over the pond surface.

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

A review of available information regarding the status and condition of the Fly Ash Pond, which include files available in the operating record, such as design and construction information, previous periodic structural stability assessments, previous 7-day inspection reports, and previous annual inspections has been conducted. Based on the review of the data there were no signs of actual or potential structural weakness or adverse conditions.

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

4.1 DEFINITIONS OF VISUAL OBSERVATIONS AND DEFICIENCIES

This summary of the visual observations uses terms to describe the general appearance or condition of an observed item, activity or structure. The meaning of these terms is 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 been corrected.
Excessive:	A reference to an observed item (e.g., erosion, seepage, vegetation, etc.) where the current maintenance condition is above 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 safety or stability point of view.

This document also uses the definition of a "deficiency" as referenced in the CCR rule section §257.83(b)(5) Inspection Requirements for CCR Surface Impoundments. This definition has been assembled using the CCR rule Preamble as well as guidance from MSHA, "Qualifications for Impoundment Inspection" CI-31, 2004. These guidance documents further elaborate on the definition of deficiency. Items not defined by deficiency are considered maintenance or items to be monitored.

A "deficiency" is some evidence that a dam has developed a problem that could impact the structural integrity of the dam. There are four general categories of deficiencies. These four categories are described below:

1. Uncontrolled Seepage
    a. 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 picked up and safely carried off by a drain. Seepage that is collected by a drain can still be uncontrolled, if it is not safely collected and 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

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

3. Blockage of Water Control Features
    a. Blockage of Control Features is the restriction of flow at spillways, decant or pipe spillways, or drains.
4. Erosion
    a. 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.

4.2 FLY ASH POND

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

The major changes to geometry of the Main Dam had been completed at the time of the last inspection. Since then, final grading, seeding, riprap and ancillary items have been completed at the Main Dam.

Removal of the Saddle Dam clay core above the Articulated Concrete Block Mat spillway (Auxiliary Spillway) downstream of the Saddle Dam was completed since the last inspection and subsequent seeding of the upstream channel area.

Changes in the operation of the Fly Ash Pond are discussed in Section 4.2.5 below.

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

Location of instrumentation is included on figures in Attachment B. The maximum recorded readings of each piezometer since the previous annual inspection is shown in Table 1 below. A figure showing the readings since last year's annual inspection is included in Attachment C.

Table 1 – FAP Piezometer Data

INSTRUMENTATION DATA **Fly Ash Pond**			
Instrument	**Type**	**Maximum Reading since last annual inspection**	**Date of reading**
P-7	Piezometer	574.84	4/29/21
P-8	Piezometer	574.84	4/29/21
P-130	Piezometer	545.44	3/11/21
PR-7	Piezometer	539.3	3/11/21
PR-21	Piezometer	543.00	4/5/21
PZ-5C	Piezometer	549.00	12/31/21
9305-A	Piezometer	551.43	3/11/21
9305-B	Piezometer	524.92	3/11/21

Piezometers readings have generally stabilized since the last inspection after trending lower between the 2019 and 2020 inspections likely related to the lowering of the pool behind the dam. The common maximum reading for several piezometers of 3/11/21 corresponds to a high water event on Blaine Creek and the Big Sandy River. Figure 4 showing the piezometer readings is included in Attachment C. As noted in the previous inspection report nine Piezometers were closed and no longer monitored as part of the lowering of the main dam. Additionally, several of the piezometers were inaccessible during construction and the top of casings were lowered as part of construction.

In addition to the piezometers, the horizontal and vertical deformations of the Main Dam is currently

monitored using 10 permanent reference points (survey monuments) and two (2) slope indicators. One slope indicator and seven (7) of the reference points across the crest of the dam were removed with the lowering of the dam. The deformation surveys were conducted on a semi-annual basis until November 2015 when 30-day monitoring was implemented in accordance with 40CFR257.83. The report of the 30-day monitoring is submitted to the operating record and contains the historical readings of all the settlement monuments and the recent results for the slope indicators. The reports provide graphs of the vertical and horizontal displacements as a function of time for the survey monuments. The deformation of all the monuments have been reviewed as a part of this annual inspection and no unusual or unexpected behavior has been observed. The reports provide deformation profiles for the slope indicators. The deformation profiles presented in the report do not exhibit any unexpected or unexplained behavior.

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

Table 2 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 – FAP Characteristics

IMPOUNDMENT CHARACTERISTICS	**Fly Ash Pond**
Approximate **Minimum** depth of impounded water since last annual inspection	<1-ft
Approximate **Maximum** depth of impounded water since last annual inspection	~20-ft
Approximate **Present** depth of impounded water at the time of the inspection[2]	0 ft
Approximate **Minimum** depth of CCR since last annual inspection	~102-ft
Approximate **Maximum** depth of CCR since last annual inspection	~157-ft
Approximate **Present** depth of CCR at the time of the inspection[3]	~140-ft (avg)
Storage Capacity of impounding structure at the time of the inspection	N/A[4]
Approximate volume of impounded water at the time of the inspection	0 ac-ft
Approximate volume of CCR at the time of the inspection	8,275 ac-ft

Notes:

1) Water and CCR elevations vary across the Fly Ash Pond, as such the Min. and Max. exist simultaneously.
2) Water depth based on final area of final cover subgrade being prepared at time of inspection
3) Value based on estimated avg. elevation of 680.
4) Storage capacity of pond is not applicable based on the closure of the pond and the site grading. The stage-storage curve for the dam would indicate approximately 6,000 acre-ft of storage, which is less than the estimated volume of CCR material in the closed reservoir.

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

A visual inspection of the Fly Ash Pond 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 upstream and downstream slopes, crest, and toe; as well as appurtenances such as the outlet structure from the Fly Ash Pond and pipe discharge structure.

Overall, the facility is in good condition. As noted above the Main Dam had undergone major changes prior to the previous inspection as part of the closure of the fly ash pond. The final work is complete and the final structure of the Main dam is functioning as intended with no signs of potential structural weakness or conditions. The final work to remove the impounding structure at the saddle dam and convert the area into an Auxiliary spillway was completed and the new spillway is functioning as intended.

Inspection photos are included in Attachment A. Additional pictures taken during the inspection can be made available upon request. Figures showing the Main Dam and the Saddle Dam are included in Attachment B. The aerial imagery used in the figures in Attachment B were taken spring of 2021 after the closure was completed.

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

As noted above the facility has under undergone changes as part of the closure and were noted in the previous inspection. Temporary construction/operational changes that were in place during last inspection including the temporary berm located in front of the new concrete spillway during the previous inspection have been removed and both spillways are now fully functional.

5.0 SUMMARY OF FINDINGS

5.1 GENERAL OBSERVATIONS

The following general observations were identified during the visual inspection. Specific maintenance and items to monitor are described in the subsequent sections of this report.

Fly Ash Pond – Auxiliary Spillway (former Saddle Dam/Emergency Spillway)

1) The articulated concrete block mat structure that forms the Auxiliary Spillway is in general condition.
2) Vegetation is already starting to appear in the open areas of the concrete blocks.
3) The undedrain pipes are flowing but appear to be discharging discolored red water. Including the build-up of precipitate on the concrete.
4) The plunge pool and downstream area appears to be stable.

Fly Ash Pond – Main Dam

5) Vegetation has begun to establish upstream slope after regrading was completed.
6) The upstream inlet to the Main Dam Spillway appeared to be in good condition and functional. Some vegetation was starting to appear in the riprap leading to the spillway
7) The concrete inside the Main Dam Spillway appear to be in good condition.
8) The crest appears to be fair condition but needs re-seeded to establish appropriate vegetation.
9) The catch basin that collects storm water from the crest and directs it into the Main Dam Spillway appeared in good condition.
10) The Fencing along the top of the main spillway was in good condition.
11) The condition of the remaining downstream slope limestone riprap was satisfactory. No significant weathering of the limestone was noted. Settlement monuments on the slope

appeared to be in good condition. The slope did not show any visible signs of significant settlement, instability or misalignment.

12) The condition of the downstream toe area and crest of the lower sandstone buttress (590 berm) was satisfactory

13) The downstream sandstone buttress and toe ditch appeared to be in satisfactory condition with no indication of instability. No significant vegetative growth was noticed between the stones.

14) The left downstream abutment impacted by the construction of the new concrete spillway. The area did not show visible signs of instability. Area appeared to be in fair condition but needs to be re-seeded.

15) The structure and plunge pool of the Main Dam spillway appeared to be in good condition.

16) The seepage area on the left abutment has been captured with new french drain feature routed to the main outlet channel below the new concrete spillway plunge pool. A flume has been installed to measure the flow from this seepage.

17) Seepage from the east side of the historical outlet channel have been collected and routed to the main channel below the new concrete spillway plunge pool. A flume has been installed to measure the flow from this seepage.

18) The v-notched weir (Outfall 018) and channel on the right downstream side of the dam was functional and good condition.

19) The abandoned outfall pipe located near the middle of the stone buttress did not show any signs of seepage around or through the grouted pipe.

20) The seep collection system at the right downstream groin and the 590 berm appeared to be in good condition. This seep has historically had a red coloring and was pumped back to the main pool for discharge. A permanent treatment system has been installed and the discharge directed to flow to Outfall 018.

5.2 MAINTENANCE ITEMS

The following maintenance items were identified during the visual inspection, see inspection map for locations:

Fly Ash Pond – Auxiliary Spillway (Saddle Dam)

1) Spray vegetation in open concrete blocks.

Fly Ash Pond – Main Dam

2) Re-seed the crest and areas of the upstream and downstream slope as required to establish appropriate vegetation.

5.2 ITEMS TO MONITOR

The following items were identified during the visual inspection as items to be monitored, see inspection map for locations:

Fly Ash Pond – Auxiliary Spillway (Saddle Dam)

1) Monitor area for erosion and general stability.

2) Monitor build-up of precipitate from underdrains for blockage of underdrain pipe.

Fly Ash Pond – Main Dam

3) Monitor areas for erosion as vegetation continues to be established.

4) Monitor new spillway structure and surrounding areas for movement and instability.

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

There were no 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 this inspection or during any of the periodic 7-day or 30-day inspections. A deficiency is defined as either 1) uncontrolled seepage, 2) displacement of the embankment, 3) blockage of control features, or 4) erosion, more than minor maintenance. 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 Brian Palmer at 614-716-3382 (Audinet: 200-3382) or Gary Zych at 614-716-2917 (Audinet: 200-2917).

ATTACHMENT A

Photos

AEP GES Dam Inspection

Plant Name: Big Sandy

Inspector: B Palmer

Unit: Fly Ash Pond

Date: September 1, 2021

Photo #: 1

Notes: General condition of of of Auxiliary (Saddle Dam) spillway looking northeast from top. Note vegetation in block open

N38 10.727 W82 37.567

Photo #: 2

Notes: General condition of Auxiliary spillway looking southwest from the bottom. Note vegetation in block open.

N38 10.739 W82 37.537

AEP GES Dam Inspection

Plant Name: Big Sandy

Inspector: B Palmer

Unit: Fly Ash Pond

Date: September 1, 2021

Photo #: 3

Notes: Looking northeast across plunge pool at bottom of Auxiliary Spillway

N38 10.739 W82 37.536

Photo #: 4

Notes: General condition of Auxiliary spillway underdrain outlet on the right side.

AEP GES Dam Inspection

Plant Name: Big Sandy

Inspector: B Palmer

Unit: Fly Ash Pond

Date: September 1, 2021

Photo #: 5

Notes: General condition of of upstream slope of Main Dam looking east.

N38 11.176 W82 37.929

Photo #: 6

Notes: General condition of upstream slope of Main Dam looking west.

N38 11.175 W82 37.932

AEP GES Dam Inspection

Plant Name: Big Sandy

Inspector: B Palmer

Unit: Fly Ash Pond

Date: September 1, 2021

Photo #: 7

Notes: General condition of of upstream entrance to Main Spillway

N38 11.155 W82 38.001

Photo #: 8

Notes: General condition of interior of Main Spillway.

N38 11.215 W82 38.029

AEP GES Dam Inspection

Plant Name: Big Sandy

Inspector: B Palmer

Unit: Fly Ash Pond

Date: September 1, 2021

Photo #: 9

Notes: General condition of Main Spillway looking north down slope

N38 11.214 W82 38.017

Photo #: 10

Notes: General condition of crest drain pipe in Spillway.

N38 11.192 W82 38.016

AEP GES Dam Inspection

Plant Name: Big Sandy

Inspector: B Palmer

Unit: Fly Ash Pond

Date: September 1, 2021

Photo #: 11

Notes: General condition of of Main Dam crest looking east. Note areas need reseeding

N38 11.180 W82 38.007

Photo #: 12

Notes: General condition of crest drain inlet. Area needs reseeded.

N38 11.189 W82 38.009

AEP GES Dam Inspection

Plant Name: Big Sandy

Inspector: B Palmer

Unit: Fly Ash Pond

Date: September 1, 2021

Photo #: 13

Notes: General condition of the top of Main Spillway along crest looking south.

N38 11.211 W82 38.014

Photo #: 14

Notes: General condition of the top of Main Spillway looking north down slope.

N38 11.215 W82 38.013

AEP GES Dam Inspection

Plant Name: Big Sandy

Inspector: B Palmer

Unit: Fly Ash Pond

Date: September 1, 2021

Photo #: 15

Notes: General condition of downstream slope and crest looking east

N38 11.219 W82 38.004

Photo #: 16

Notes: General condition of the left abutment with Main Spillway in foreground.

N38 11.214 W82 38.005

AEP GES Dam Inspection

Plant Name: Big Sandy

Inspector: B Palmer

Unit: Fly Ash Pond

Date: September 1, 2021

Photo #: 17

Notes: General condition of right abutment area from the crest

N38 11.218 W82 37.916

Photo #: 18

Notes: General condition of crest looking west. Note area needing reseeded.

N38 11.220 W82 37.896

AEP GES Dam Inspection

Plant Name: Big Sandy

Inspector: B Palmer

Unit: Fly Ash Pond

Date: September 1, 2021

Photo #: 19

Notes: General condition of downstream slope looking south from toe area

N38 11.293 W82 37.976

Photo #: 20

Notes: General condition of Main Spillway looking from the stone berm creating the plunge pool.

N38 11.286 W82 38.008

AEP GES Dam Inspection

Plant Name: Big Sandy

Inspector: B Palmer

Unit: Fly Ash Pond

Date: September 1, 2021

Photo #: 21

Notes: The discharge spillway looking looking north from the plunge pool rock berm. Walkway across main channel to access seep monitoring

N38 11.289 W82 38.009

Photo #: 22

Notes: General condition of toe and downstream slope of 590 buttress.

N38 11.275 W82 37.994

AEP GES Dam Inspection

Plant Name: Big Sandy

Inspector: B Palmer

Unit: Fly Ash Pond

Date: September 1, 2021

Photo #: 23

Notes: General condition of of seepage channel outfall 018 (right toe)

N38 11.279 W82 37.863

Photo #: 24

Notes: General condition of old outfall pipe. No signs of seepage.

N38 11.281 W82 37.907

AEP GES Dam Inspection

Plant Name: Big Sandy

Inspector: B Palmer

Unit: Fly Ash Pond

Date: September 1, 2021

Photo #: 25

Notes: General condition of top of 590 buttress crest at toe of dam raising looking east.

N38 11.244 W82 37.985

Photo #: 26

Notes: General condition of 590 buttress crest looking west.

N38 11.259 W82 37.885

AEP GES Dam Inspection

Plant Name: Big Sandy

Inspector: B Palmer

Unit: Fly Ash Pond

Date: September 1, 2021

Photo #: 27

Notes: General condition of red water treatment system looking East

N38 11.258 W82 37.843

Photo #: 28

Notes: General condition of red water sump and drain channel. Area needs general housekeeping.

N38 11.270 W82 37.823

AEP GES Dam Inspection

Plant Name: Big Sandy

Inspector: B Palmer

Unit: Fly Ash Pond

Date: September 1, 2021

Photo #: 29

Notes: General condition of access road culvert downstream of Auxiliary Spillway near Blaine Creek

N38 11.197 W82 37.553

Photo #: 30

Notes: General condition of concrete road over access road culvert.

N38 11.209 W82 37.559

AEP GES Dam Inspection

Plant Name: Big Sandy

Inspector: B Palmer

Unit: Fly Ash Pond

Date: September 1, 2021

Photo #: 31

Notes: Looking southeast at Auxiliary spillway across plunge pool

N38 10.749 W82 37.500

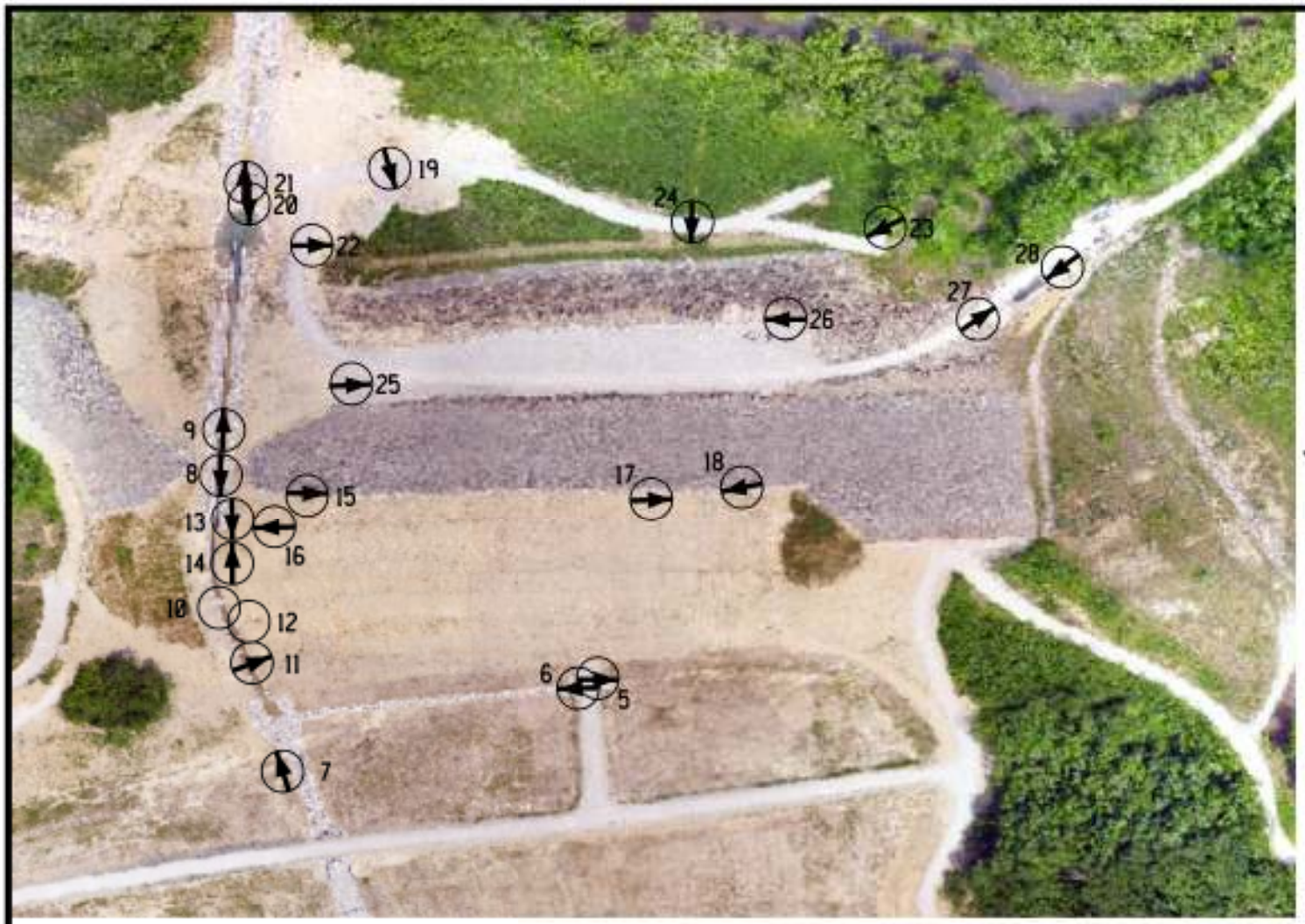
Photo #: 32

Notes: General condition of downstream side of Auxiliary spillway plunge pool discharge

N38 10.768 W82 37.503

ATTACHMENT B

Site Maps



N
W
E

LEGEND
PHOTO LOCATION
PHOTO DIRECTION

DRAWING NUMBER: FIGURE 1

KENTUCKY POWER COMPANY

BIG SANDY PLANT
PHOTOGRAPH MAP 1

BIG SANDY 2021 KENTUCKY

AEP AMERICAN ELECTRIC POWER

AEP SERVICE CORP.
1 RIVERSIDE PLAZA
COLUMBUS, OH 43215

A [8.5"x11"]

N
W
E

LEGEND
PHOTO LOCATION
PHOTO DIRECTION

DRAWING NUMBER:
FIGURE 2

KENTUCKY POWER COMPANY

BIG SANDY PLANT
PHOTOGRAPH MAP 2

BIG SANDY | 2021 | KENTUCKY

AMERICAN ELECTRIC POWER

AEP SERVICE CORP.
1 RIVERSIDE PLAZA
COLUMBUS, OH 43215

A (8.5"x11")

AMERICAN ELECTRIC POWER

FIGURE 3

INSTRUMENTATION

Date: JUNE, 2021

AEP AMERICAN ELECTRIC POWER

AEP SERVICE CORP.
1 RIVERSIDE PLAZA
COLUMBUS, OH 43215

PLOT DATE: DD/MM/YYYY HOUR:MINUTE TIME:

ATTACHMENT C

Instrumentation Data

Figure 4
Big Sandy Plant - Fly Ash Pond
Active Piezometer Water Levels