

**ANNUAL INSPECTION REPORT
POWERTON STATION - FORMER ASH BASIN
JULY 2018**

This annual inspection report has been prepared pursuant to Title 40 of the Code of Federal Regulations (40 CFR) Part 257.83(b) for Midwest Generation, LLC (MWG) at Powerton Station (Station) in Pekin, Illinois. The purpose of this project is to perform the annual inspection of the Former Ash Basin (FAB) by a licensed professional engineer to ensure that the design, construction, operation, and maintenance of the coal combustion residuals (CCR) unit is consistent with recognized and generally accepted good engineering standards. The inspection includes:

- (i.) Review available information regarding the status and condition of the CCR unit, including, but not limited to, files in the operating record and construction information, periodic structural stability assessments, results of inspection by a qualified person, and results of previous inspection;
- (ii.) Visual inspection of the CCR unit to identify signs of distress or malfunction of the CCR unit and appurtenant structures; and
- (iii.) 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.

Civil & Environmental Consultants, Inc. (CEC) completed the following scope of services in preparing this annual inspection report:

- CEC reviewed the structural stability assessment report, weekly and monthly inspection reports provided by MWG, and the previous annual inspection report.
- CEC performed the annual inspection in accordance with the requirements of 40 CFR 257.83(b) including observations pertaining to the following:
 - Changes in Geometry - §257.83(b)(2)(i); Observations of changes in the geometry of the FAB since the previous annual inspection were documented.
 - Instrumentation - §257.83(b)(2)(ii); The location and type of existing instrumentation was inspected and the maximum recorded readings of each instrument since the previous annual inspection were documented from the records provided by MWG.
 - Capacity and Impounded Volume - §257.83(b)(2)(iii) through (v); Inspection observations for the approximate minimum, maximum, and present depth and elevation of the impounded water and CCR; 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.
 - Structural/Operational Observations - §257.83(b)(2)(vi); Estimate the approximate volume of the impounded water and CCR at the time of the inspection.

- Other Changes - §257.83(b)(2)(vii); The inspection will include change(s) which may have affected the stability or operation of the impounding structure since the previous annual inspection.

The FAB is an inactive surface impoundment that is scheduled for closure. Approximately 30 acres in size, the FAB does not received bottom ash or ash slag. In 2010, the FAB was sectioned into a North Pond and South Pond to accommodate a new railroad embankment and the geometry has remained unchanged since.

On June 15, 2018, CEC inspected the North and South FAB. Our observations showed no signs of distress that would suggest the stability or operation of the impounding structure is compromised.

1.0 CHANGES IN GEOMETRY - § 257.83(b)(2)(i)

At the time of inspection, the FAB geometry was observed to be unchanged since the July 2017 inspection.

2.0 INSTRUMENTATION - § 257.83(b)(2)(ii)

Instrumentation associated with FAB includes a series of monitoring wells adjacent to North FAB including MW-02 through MW-05, and South FAB MW-01, MW-06 and MW-10. Maximum and minimum water levels recorded for each of the monitoring wells since February 2017 are provided below in Table 1. Other instrumentation associated with the hydraulic structures, impoundment embankments, and/or slope performance do not exist.

Table 1: Maximum/Minimum Groundwater Elevations - Former Ash Basin

Monitoring Well ID.	Groundwater Elevation_{Max.}	Groundwater Elevation_{Min.}
North FAB		
MW-02	449.87 feet	434.18 feet
MW-03	448.90 feet	434.30 feet
MW-04	449.50 feet	432.08 feet
MW-05	449.30 feet	433.28 feet
South FAB		
MW-01	448.15 feet	440.32 feet
MW-06	449.50 feet	447.74 feet
MW-10	447.78 feet	440.05 feet

3.0 CAPACITY AND IMPOUNDED VOLUME - § 257.83(b)(2)(iii) through (v)

Capacity and impounded volume of the FAB and estimated depth of impounded water and CCR are represented in Table 2, attached. The volume of CCR remains unchanged from the previous investigation. FAB water volume fluctuate with the groundwater table and the surface water elevation of the nearby Illinois River. Volumes and depths were determined by reviewing inspection reports, construction drawings, and from modeling using existing topographic data.

4.0 STRUCTURAL/OPERATIONAL OBSERVATIONS - § 257.83(b)(2)(vi)

CEC inspected the basin for signs of distress that would have the potential to disrupt operation and safety of the FAB. Both the North and South Ponds are partially incised minimizing the potential of a release of CCR from the FAB. CCR is primarily located within the incised area of both ponds. CEC did not identify conditions that had potential to disrupt the operation and safety of the North and South Ponds. Minor erosions and lacking vegetation of interior side slopes was observed.

5.0 OTHER CHANGES - § 257.83(b)(2)(vii)

CEC inspected the basin for signs of other changes or distress that would have the potential to disrupt operation and safety of the basin. Our inspection showed no distresses that would affect the operation and/or stability of the FAB.

6.0 LIMITATIONS AND CERTIFICATION

This annual inspection report was prepared to meet the requirements of §257.83(b) and was prepared under the direction of Mr. M. Dean Jones, P.E.

By affixing my seal to this, I do hereby certify to the best of my knowledge, information, and belief that the information contained in this report is true and correct. I further certify I am licensed to practice in the State of Illinois and that it is within my professional expertise to verify the correctness of the information. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

Seal:



Signature: Maurice Dean Jones

Name: M. Dean Jones, P.E.

Date of Certification: 07/13/18

Illinois Professional Engineer No.: 062-051317

Expiration Date: November 30, 2019

Table 2 - Inspection Summary - Former Ash Basin

Category	Regulation Reference	Evaluation	Recommended Action
Change in Geometry	§257.83(b)(2)(i)	None	None
Instrumentation	§257.83(b)(2)(ii)	None	None
Water Depth	§257.83(b)(2)(iii)	North Pond - 11.4 feet South Pond - 13.5 feet	None
CCR Depth	§257.83(b)(2)(iii)	10 feet	None
Estimated Storage Capacity	§257.83(b)(2)(iv)	500,000 CY	None
Impounded Water Volume	§257.83(b)(2)(v)	North Pond - 6.9 Acre Feet South Pond - 22.9 Acre Feet Ground Water Elevation 440±	None
Impounded CCR Volume	§257.83(b)(2)(v)	North Pond - 300,000 CY South Pond - 200,000 CY	None
Structural/Operational Observations	§257.83(b)(2)(vi)	Minor erosion and poor vegetative cover	Continue to monitor
Other Changes	§257.83(b)(2)(vii)	None	None