

**ANNUAL INSPECTION REPORT
ASH SURGE BASIN AND ASH BYPASS BASIN
POWERTON STATION
OCTOBER 2017**

This Annual Inspection Report has been prepared pursuant to Title 40 Code of Federal Regulations (CFR) 257.83(b) for Midwest Generation, LLC (MWG) Powerton Station (Station) in Pekin, Illinois. The purpose of this project is to perform the annual inspection of the Ash Surge Basin and Ash Bypass Basin by a licensed professional engineer. Civil & Environmental Consultants, Inc. (CEC) completed the following scope of services in preparing this annual inspection report.

- CEC reviewed the 2016 initial annual inspection report and weekly inspection reports provided by MWG.
- CEC performed the annual inspection in accordance with the requirements of 40 CFR 257.83(b). The annual inspection included observations pertaining to the following:
 - Changes in Geometry - §257.83(b)(2)(i); Observations of changes in the geometry of the Ash Surge Basin and Ash Bypass Basin since the previous annual inspection will be 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 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 Coal Combustion Residuals (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 Ash Surge Basin and Ash Bypass Basin are active surface impoundments. The basins are approximately 7.5 acres and 1 acre in size, respectively. A site plan of the Ash Surge Basin and Ash Bypass Basin is attached as Figure 1.

On September 6, 2017, CEC inspected both the Ash Surge Basin and Ash Bypass Basin. Our observations showed no signs of distress that that would suggest the stability or operation of the impounding structure would be compromised.

1.0 CHANGES IN GEOMETRY - §257.83(B)(2)(I)

Based on our review of the 2016 annual inspection report and our subsequent inspection of both basins, no changes in the basin geometry have occurred since the previous inspection. However, it was noted that the Ash Bypass Basin was currently out of service to remove the ash from the basin.

2.0 INSTRUMENTATION - §257.83(B)(2)(II)

Instrumentation associated with the hydraulic structures, impoundment embankments, and/or slope performance were observed, and based on our review of weekly and monthly inspection reports prepared by Station personnel, are operating. The monthly inspections report the pumps, polymer system, and free board measuring device in the Ash Surge Basin are in good condition.

3.0 CAPACITY AND IMPOUNDED VOLUME - §257.83(B)(2)(III) THROUGH (V)

Capacity and impounded volume of the Ash Surge Basin and Ash Bypass Basin and estimated depth of impounded water and coal combustion residuals (CCR) are represented in Tables 1 and 2, respectively. The volumes and depths were obtained from the previous inspection and from modeling using recent existing topographic data.

4.0 STRUCTURAL/OPERATIONAL OBSERVATIONS - §257.83(B)(2)(VI)

On September 6, 2017, CEC inspected both the Ash Surge Basin and Ash Bypass Basin for signs of distress that would have the potential to disrupt operation and safety of the basins. Prior to performing the inspection, CEC reviewed the previous annual inspection report, which did not identify any site conditions that indicate an actual or potential structural weakness. Weekly and monthly inspection reports were also reviewed and did not indicate an actual or potential structural weakness. The weekly and monthly inspection reports did document a tear in the Ash Bypass Basin liner.

CEC did not identify signs of distress or potential failure of the earthen berms. However, our inspection showed the overflow flume from the Bypass Basin into the Surge Basin partially filled with ash and debris consisting of an occasional tree branch. We recommend that annual maintenance activities include removal of ash and debris from the flume.

During our inspection, Station personnel reported that the liner tear occurred during the recent basin cleanout activities. CEC observed the reported liner tear at a location that would be below the normal water surface. CEC confirmed that Station personnel have a plan to repair the tear before the Ash Bypass Basin is put back into service.

5.0 OTHER CHANGES - §257.83(B)(2)(VII)

CEC inspected both the Ash Surge Basin and Ash Bypass Basin for signs of other changes or distress that would have the potential to disrupt operation and safety of the basins. Our inspection showed no distresses that would affect the operation and/or stability of the Ash Surge Basin and Ash Bypass Basin.

6.0 LIMITATIONS AND CERTIFICATION

This CCR 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, Jr.

Name: M. Dean Jones, P.E.

Date of Certification: October 17, 2017

Illinois Professional Engineer No.: 062-051317

Expiration Date: November 30, 2017

Table 1: Inspection Summary - Ash Surge Basin

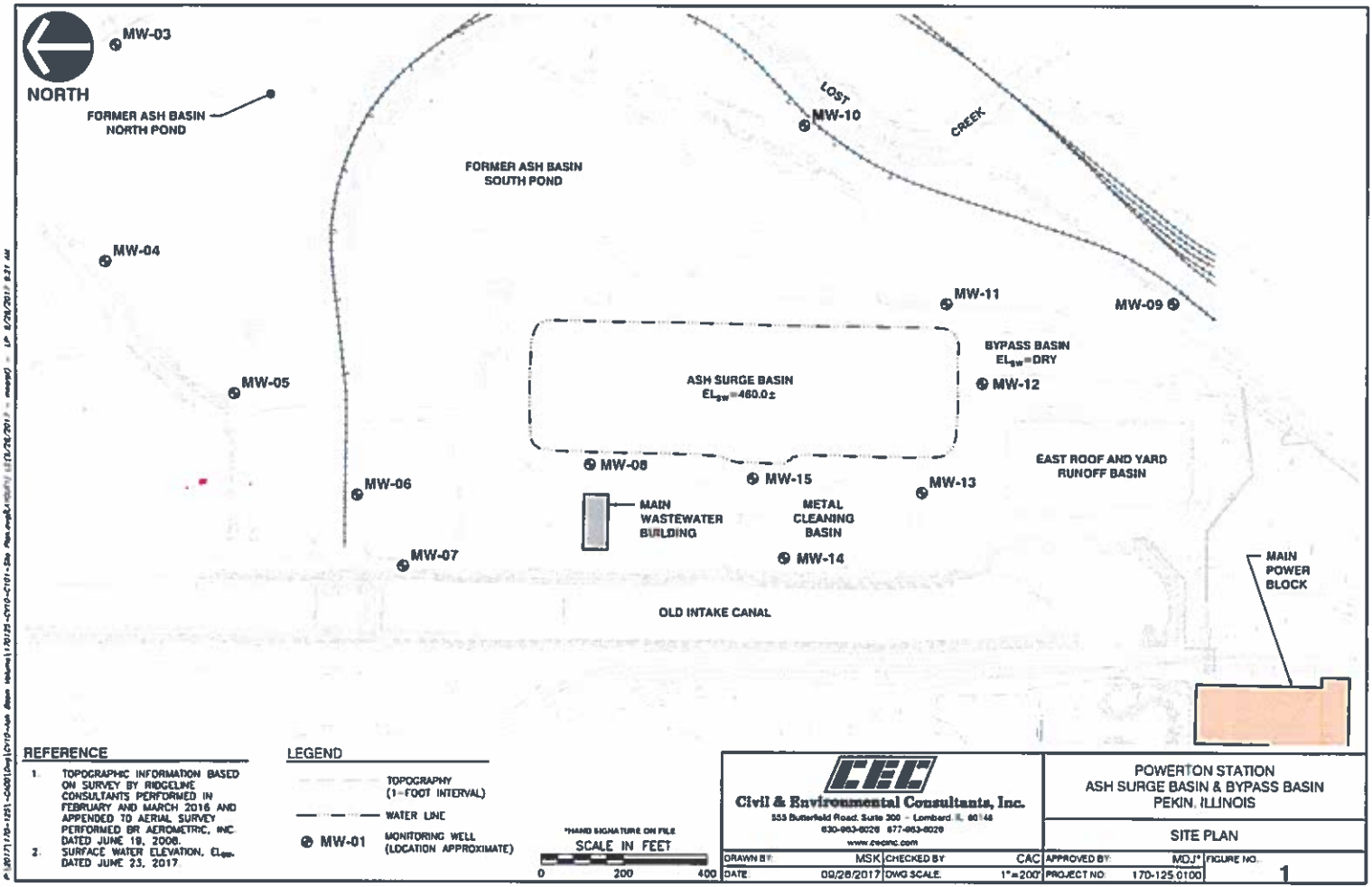
Category	Regulation Reference	Evaluation	Recommended Action
Change in Geometry¹	§257.83(b)(2)(i)	None	None
Instrumentation	§257.83(b)(2)(ii)	None	None
Water Depth¹	§257.83(b)(2)(iii)	1 to 4.5 feet	None
CCR Depth¹	§257.83(b)(2)(iii)	3 to 7.5 feet	None
Estimated Storage Capacity¹	§257.83(b)(2)(iv)	92.1 Acre Feet	None
Impounded Water Volume²	§257.83(b)(2)(v)	45.25 Acre Feet	None
Impounded CCR Volume¹	§257.83(b)(2)(v)	16.36 Acre Feet	None
Structural/Operational Observations	§257.83(b)(2)(vi)	None	None
Other Changes¹	§257.83(b)(2)(vii)	None	None

1. Maximum water depth and impounded water volume based on Surface Water Elevation – 463 feet.
2. Estimated storage capacity is current storage capacity provided by MWG.

Table 2: Inspection Summary - Ash Bypass Basin¹

Category	Regulation Reference	Evaluation	Recommended Action
Change in Geometry¹	§257.83(b)(2)(i)	None	None
Instrumentation	§257.83(b)(2)(ii)	None	None
Water Depth	§257.83(b)(2)(iii)	0 feet	None
CCR Depth	§257.83(b)(2)(iii)	Less than 1 foot	None
Estimated Storage Capacity²	§257.83(b)(2)(iv)	5.1 Acre Feet	None
Impounded Water Volume	§257.83(b)(2)(v)	0 Acre Feet	None
Impounded CCR Volume	§257.83(b)(2)(v)	.25 Acre Feet	None
Structural/Operational Observations	§257.83(b)(2)(vi)	None	None
Other Changes¹	§257.83(b)(2)(vii)	None	None

1. For this inspection, the Ash ByPass Basin was out of service, dewatered, and the ash had been removed.
2. Estimated storage capacity is current storage capacity provided by MWG.



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- REFERENCE**
1. TOPOGRAPHIC INFORMATION BASED ON SURVEY BY RIDGELINE CONSULTANTS PERFORMED IN FEBRUARY AND MARCH 2016 AND APPENDED TO AERIAL SURVEY PERFORMED BY AEROMETRIC, INC. DATED JUNE 19, 2008.
 2. SURFACE WATER ELEVATION, E_{top} . DATED JUNE 23, 2017.

- LEGEND**
- TOPOGRAPHY (1-FOOT INTERVAL)
 - WATER LINE
 - MW-01 MONITORING WELL (LOCATION APPROXIMATE)



C&E

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POWERTON STATION ASH SURGE BASIN & BYPASS BASIN PEKIN, ILLINOIS			
SITE PLAN			
DRAWN BY:	MSK	CHECKED BY:	CAC
DATE:	09/28/2017	APPROVED BY:	MDJ
PROJECT NO. 170-125.0100		FIGURE NO. 1	