ANNUAL INFLOW DESIGN FLOOD CONTROL SYSTEM PLAN
ASH SURGE BASIN AND ASH BYPASS BASIN
POWERTON STATION
OCTOBER 2026

This inflow design flood control system plan has been prepared for the Ash Surge Basin (ASB) and Ash Bypass Basin (ABB) at Powerton Station in Pekin, Illinois (the Station). The purpose of this project is to prepare the inflow design flood control system plan 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. This plan has been prepared pursuant with Title 35 of the Illinois Administrative Code (35 IAC) Section 845.510 and Title 40 of the Code of Federal Regulations (40 CFR) Section 257.82.

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

- Performed the annual CCR impoundment inspection in accordance with the requirements of 35 IAC Section 845.540 and 40 CFR Section 257.83

- Reviewed the inflow design flood control system plans for the ASB and ABB, including the 2021 plan for the ASB, the 2024 plan for the retrofitted ABB, and the 2025 plan for both the ASB and ABB, including information pertaining to the following:

    - Inputs and assumptions used to determine whether the impoundment can manage the inflow design flood;
    - Methodology used to determine whether the impoundment can manage the inflow design flood;
    - Assessed potential changes to the design inputs used in the hydrologic and hydraulic assessments completed for the impoundment; and
    - Reviewed and assessed the results of the hydrologic and hydraulic calculations performed to support the conclusion of whether the impoundment meets the hydrologic and hydraulic requirements for CCR surface impoundments promulgated by both 35 IAC Section 845.510 and 40 CFR Section 257.82.

The following provides a description of the site followed by the assessments and certification.

1.0 SITE DESCRIPTION

At the time of this report, the ASB is an inactive CCR surface impoundment. The ABB is active after a permitted retrofit in 2024. The basins are approximately 7.5 acres and 1 acre in size, respectively. On October 6, 2026, CEC inspected both the ASB and ABB and our observations showed no signs of distress that would suggest the stability or operation of the impounding structure is compromised.

2.0 INPUTS

2.1 Inflow Design Flood Control System

The inflow design flood control system plan for the ASB and ABB are documented in the basins' initial 2016 inflow design flood control system plan, the 2024 plan for the retrofitted ABB, and subsequent annual plan prepared in 2025. There are no documented changes that have been made to the inflow design flood control system plan since the 2021 plan for the ASB and the 2024 plan for the ABB.

2.2 Inflow Design Flood Event

The ASB and ABB are classified as a Class 2 CCR surface impoundment pursuant to 35 IAC Section 845.440(a)(1) and as a significant hazard potential CCR surface impoundment pursuant to 40 CFR Section 257.73(a)(2). The inflow design flood event used in the 2016 and subsequent annual hydrologic and hydraulic assessments were based on the 1,000-year storm. The precipitation depth for the 1,000-year, twenty-four-hour storm event is 9.00 inches, unchanged from the previous assessments.

2.3 Site Topography

The topography of and areas surrounding the basins has remained unchanged since the previous assessments conducted in 2025.

2.4 Aerial Images

Other than removal of CCRs and retrofit of the ABB, the aerial images show the site has remained relatively unchanged since the initial assessment conducted in 2016.

2.5 Ash Pond Condition

The operating and physical conditions of basins are based on discussions with Station personnel and observations from the 2026 annual inspection. The ASB is currently inactive, and the ABB was retrofitted in 2024. Other than removal of CCRs in the ASB and retrofit of the ABB, the condition of the basins has been unchanged since 2016.

3.0 ASSUMPTIONS

There are no assumptions in this document that require verification.

4.0 HYDROLOGIC & HYDRAULIC ASSESSMENT

The inputs for the latest hydrologic and hydraulic calculations performed for the basins were reviewed to determine if changes have occurred since these previous calculations. No changes were identified thereby resulting in no impact on the results and conclusions of the 2021 and 2024 calculations. Hydrologic and hydraulic calculations performed for 2025 inflow design flood control system plan for ASB and ABB are considered valid.

5.0 CONCLUSIONS

Based on results of the 2026 impoundment inspection and review of the initial 2016, 2024, and 2025 inflow design flood control system plans, the ASB and ABB have adequate hydraulic capacity to retain the 1,000-year flood event without water discharging from or overtopping the pond berms. Therefore, provided the Station maintains a low water level in the ASB and the ABB is operated properly, the ASB and ABB can collect and control the inflow design flood event specified in Section 845.510 and Section 257.82.

6.0 LIMITATIONS AND CERTIFICATION

Prepared under the direction of Mr. M. Dean Jones, P.E., the annual structural stability and safety factor assessments were prepared and meet the requirements of 35 IAC Section 845.510 and 40 CFR Section 257.82 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: _____

Name: M. Dean Jones, P.E.

Date of Certification: October 21, 2026

Illinois Professional Engineer No.: 062-051317

Expiration Date: November 30, 2027