ANNUAL STRUCTURAL STABILITY AND SAFETY FACTOR ASSESSMENT
FORMER ASH BASIN
POWERTON STATION
OCTOBER 2026

This annual report documenting the structural stability and safety factor assessments has been prepared for the Former Ash Basin (FAB) at Powerton Station (Station) in Pekin, Illinois. This assessment report documents the annual structural stability and safety factor assessments completed by a licensed professional engineer pursuant with Title 35 of the Illinois Administrative Code (35 IAC) Sections 845.450 and 845.460, and Title 40 of the Code of Federal Regulations (40 CFR) Sections 257.73(d)(3) and 257.73(e)(2), herein referred to as to the regulations, respectively.

Civil & Environmental Consultants, Inc. (CEC) completed this annual structural stability and safety factor assessment as described in the following sections.

1.0 REGULATION REQUIREMENTS

In accordance with the above referenced regulations, the owner or operator of a coal combustion residual (CCR) impoundment is required to:

(1) conduct initial and periodic structural stability assessments and document whether the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering practices for the maximum volume of CCR and CCR wastewater which can be impounded in the CCR impoundment; and

(2) conduct an initial and annual safety factor assessment for each CCR unit and document whether the calculated factors of safety for each CCR unit achieve the minimum safety factors specified for the critical cross section of the embankment.

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

2.0 SITE DESCRIPTION

At the time of this report, the FAB is an inactive CCR surface impoundment. The basin is approximately 30 acres in size. Originally a single pond, in 2010 the single pond was bisected by the construction of a railroad embankment splitting the single pond into a northern and southern portion. On July 6, 2026, CEC inspected the FAB and our observations showed no signs of distress that would suggest the stability or operation of the impounding structure is compromised.

3.0 STRUCTURAL STABILITY AND SAFETY FACTOR ASSESSMENT

In preparing the annual structural stability and safety factor assessments, CEC completed the 2026 CCR surface impoundment inspection. Results of the annual inspection showed no modification to either the configuration or condition of the FAB, nor were structural deficiencies observed or release(s) reported. CEC reviewed both the initial structural stability and safety factor assessment reports prepared by Geosyntec Consultants in April 2018 with the previous annual reports prepared by Sargent & Lundy in October 2025. Considering there have been no changes to the FAB, the

structural stability assessment remains valid. The FAB is considered stable for the maximum volume of CCR and CCR wastewater which can be impounded.

3.1 Structural Stability Assessment

The following sections describe the results of the annual structural stability assessment.

3.1.1 Stable Foundation and Abutments

Descriptions of the soils forming the foundation soils are provided in the initial structural stability report. Results of the annual inspection indicate no modifications to the FAB foundations since the initial structural stability assessment. As a result, the conclusions regarding stable foundations and abutment documented in the initial and subsequent structural stability reports remain valid.

3.1.2 Adequate Slope Protection

The FAB is effectively incised with one earthen dike along its northern edge. The upstream slope protection consists of vegetation which protects the interior slopes from surface erosion, wave action, and the adverse effects of sudden (rapid) drawdown. No modifications to the slope protection have been observed or documented. Vegetation greater than 12 inches was observed during the inspection, with dense, woody vegetation also prevalent along the upstream slopes. Conclusions regarding the adequacy of the documented upstream slope protection remain valid.

Downstream slope protection consists of vegetative cover over the downstream slopes and pertinent surrounding areas. The annual inspection shows the grassy vegetation is greater than 12 inches and contains woody vegetation. An assessment of the downstream slope's stability against wave action or after sudden (rapid) drawdown could not be performed due to the lack of necessary information regarding construction of the downstream slopes due to its construction age. Conclusions regarding downstream slope protection remain valid.

3.1.3 Dike Compaction

As with the initial and subsequent reports, adequacy of the dike compaction could not be performed given to the lack of information due to the construction age. It is unknown if the dike is compacted to a density sufficient to withstand the range of loading conditions in the surface impoundment.

3.1.4 Spillway

The FAB does not contain spillways.

3.1.5 Structural Integrity of Hydraulic Structures

No known hydraulic structures underlie the base of the surface impoundment or pass through the northern dike.

3.1.6 Downstream Slope Stability During Drawdown

As documented in the initial structural stability assessment and the 2025 structural stability reports, the structural stability of the downstream slope under low pool and sudden (rapid) drawdown

conditions could not be evaluated through engineering analysis due to the lack of necessary information necessary to perform the analyses.

3.1.7 Structural Stability Assessment Deficiencies

Due to the age of the construction of the impoundment and lack of necessary information, the structural stability of the FAB could not be assessed. Midwest Generation, LLC plans to close the FAB upon receipt of a closure construction permit from the Illinois Environmental Protection Agency.

3.2 Safety Factor Assessment

The initial safety factor assessment of the FAB by Geosyntec Consultants in 2018, along with the assessment by Sargent & Lundy in 2025, were reviewed. The results of these assessments concluded that necessary information to perform an engineering analysis of the factor of safety for the FAB could not be performed. No additional information has been obtained to allow an engineering analysis to be conducted, therefore no safety factor assessment was performed.

4.0 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 Sections 845.450 and 845.460, and 40 CFR Sections 257.73(d)(3) and 257.73(e)(2).

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 22, 2026

Illinois Professional Engineer No.: 062-051317

Expiration Date: November 30, 2027