

**INITIAL HAZARD POTENTIAL CLASSIFICATION ASSESSMENT
FORMER ASH BASIN
POWERTON STATION
APRIL 2018**

This Initial Hazard Potential Classification Assessment has been prepared pursuant to Title 40 of the Code of Federal Regulations (40 CFR) Part 257, Subpart D, §257.73(a)(2) for the Former Ash Basin (the FAB) at the Midwest Generation, LLC Powerton Station in Pekin, Illinois (Powerton Station FAB).

1.0 PURPOSE

40 CFR 257.73(a)(2) requires the owner or operator of an existing coal combustion residual (CCR) surface impoundment to conduct an initial hazard potential classification assessment, to document the hazard potential classification, and to document the basis for the classification of the impoundment as either a high hazard potential CCR surface impoundment, a significant hazard potential CCR surface impoundment, or a low hazard potential CCR surface impoundment. The purpose of this assessment is to conduct and document the basis for the initial hazard potential classification for the Powerton Station FAB.

2.0 HAZARD CLASSIFICATION

2.1 Site Description

The FAB is an inactive surface impoundment that is scheduled to begin closure in 2018. Approximately 30 acres in size, the FAB has not received bottom ash or ash slag since at least the late 1980s. 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. A site plan showing the FAB location is attached as Figure 1. The site plan also includes the topography of the FAB and surrounding area.

CEC has visually inspected both the North Pond and South Pond; both ponds appear to be primarily incised with the surrounding ground at or higher in elevation. Other than an over flow from the adjacent Ash Surge Basin into the South Pond and used only on an emergency basis, operations have no in-flow to either the North or South Pond. The water elevation in the North and South Ponds is noted to fluctuate with the local groundwater level, which due to its close proximity, fluctuates with the elevation of the adjacent Illinois River.

2.2 Basis for Classification

An assessment was performed to evaluate potential hazards associated with failure of both the North and South Pond containment berms. As noted, the ground surface adjacent to the ponds is the same or higher for most sections of the FAB and therefore a breach is unlikely to occur to the south, east, or west of both the North and South Ponds.

Visual analysis of the North Pond showed a section of perimeter berm that is lower in elevation where a breach failure scenario was evaluated for potential downstream impacts to structures, infrastructure, frequently occupied facilities and areas, and waterways. The potential for impacts was evaluated by determining breach flow paths using available topography overlain onto imagery of the North and South Ponds. A breach of the North Pond berm that is lower in elevation would not likely result in the probable loss of human life. However, a breach of the lower section of the North Pond berm could cause water and ash to be released toward the Illinois River, which could result in environmental damage to downstream areas.

2.3 Hazard Potential Classification

40 CFR 257.53 defines hazard potential classification as possible adverse incremental consequences that a result from the release of water or stored contents due to failure of the diked CCR surface impoundment or mis-operation of the diked CCR surface impoundment or its appurtenances. The hazardous potential classifications include high hazard potential CCR surface impoundment, significant hazard potential CCR surface impoundment, and low hazard potential CCR surface impoundment, as defined below.

- (1) High hazard potential CCR surface impoundment means a diked surface impoundment where failure or mis-operation will probably cause loss of human life.
- (2) Significant hazard potential CCR surface impoundment means a diked surface impoundment where failure or mis-operation results in no probable loss of human life, but can cause economic loss, environmental damage, disruption of lifeline facilities, or impact other concerns.
- (3) Low hazard potential CCR surface impoundment means a diked surface impoundment where failure or mis-operation results in no probable loss of human life and low economic and/or environmental losses. Losses are principally limited to the surface impoundment owner's property.

Based on the results of our analysis as summarized above, the FAB would be defined as a significant hazard potential CCR surface impoundment.

3.0 LIMITATIONS AND CERTIFICATION

This Initial Hazard Potential Classification Assessment was prepared to meet the requirements of §257.73(a)(2) 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:



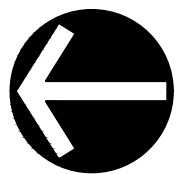
Signature: Maurice Dean Jones

Name: M. Dean Jones, P.E.

Date of Certification: April 10, 2018

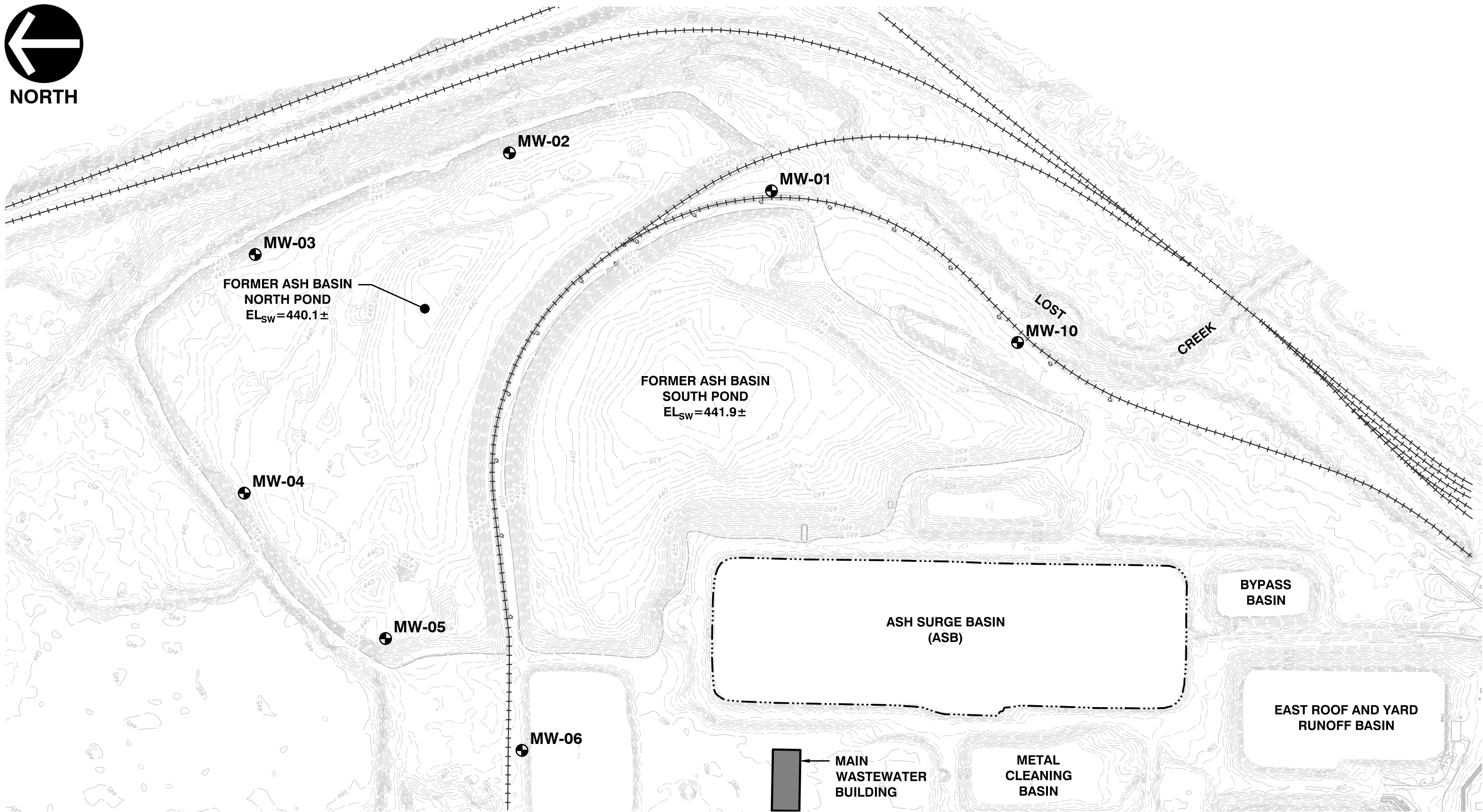
Illinois Professional Engineer No.: 062-051317

Expiration Date: November 30, 2019



NORTH

P:\2018\180-205-CADD\DWG\CAD\180205-CV01-FAB Hazard Assessment\180205-CV01-C101-Site Plan.dwg\LAYOUT1} LS:(3/22/2018 - mkarp) - LP: 4/12/2018 8:53 AM



REFERENCE

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

LEGEND

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

SCALE IN FEET



MAIN WASTEWATER BUILDING

METAL CLEANING BASIN

CEC
Civil & Environmental Consultants, Inc.
 555 Butterfield Road, Suite 300 - Lombard, IL 60148
 630-963-6026 · 877-963-6026
 www.cecinc.com

POWERTON STATION
 FORMER ASH BASIN
 PEKIN, ILLINOIS

SITE PLAN

DRAWN BY: MSK	CHECKED BY: MDJ	APPROVED BY: MDJ	FIGURE NO.: 1
DATE: 04/12/2018	DWG SCALE: 1"=200'	PROJECT NO: 180-205.0100	