MWG

Midwest Generation, LLC

Will County Generating Station

2025 Hazard Potential Classification Assessment for South Ash Pond 2 & South Ash Pond 3

Revision 0

October 13, 2025

Issue Purpose: For Use

Project No.: A12661.199

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EXECUTIVE SUMMARY

This report presents the 2025 hazard potential classification assessment for South Ash Pond 2 and South Ash Pond 3 at Midwest Generation, LLC's (MWG) Will County Generating Station ("Will County" or the "Station"). Pursuant to 35 Ill. Adm. Code 845.440(a)(1), this annual assessment, prepared by Sargent & Lundy (S&L) on behalf of MWG, documents the hazard potential classification for each pond in accordance with the hazard potential classifications defined in 35 Ill. Adm. Code 845.120.

Per last year's hazard potential classification assessment, South Ash Ponds 2 and 3 were each designated as a Class 2 CCR surface impoundment pursuant to 35 Ill. Adm. Code 845.440(a)(1), which is the equivalent of a significant hazard potential CCR surface impoundment under 40 CFR 257.53, after it was determined that the bases for the initial federal hazard potential classifications assigned to the two ponds in 2016 in accordance with 40 CFR 257.73(a)(2) were still valid. Accordingly, to complete this assessment, S&L re-evaluated the bases of the initial federal hazard potential classifications assigned to the two ponds to determine (1) if any changes have occurred since the initial assessment was completed and (2) whether identified changes warrant adjusting the ponds' 2024 hazard potential classifications.

Based on the evaluation of the key hazard potential classification criteria for South Ash Ponds 2 and 3, there have been significant operational changes made at the Station since the initial federal hazard potential classification assessment was completed in 2016. The Station's decommissioning efforts subsequent to the retirement of Unit 4 in June 2022 have reduced the number of occupied buildings at the Station and limit the maximum operating water level South Ash Ponds 2 and 3 to levels substantially lower than their original design operating levels. Moreover, the only water entering South Ash Ponds 2 and 3 is direct precipitation (i.e., rain or snow) and run-off from the crests of the ponds' dikes. No other significant changes to the other bases used to determine the ponds' initial federal hazard potential classifications were noted (topography, downstream developments, depth-velocity flood danger level relationships).

Consistent with the initial dike breach analyses conducted in 2016, hypothetical dike breaches at the ponds' eastern dikes were evaluated under the ponds' current operating conditions to assess potential impacts to the Station buildings downstream of the ponds. These assessments were performed independent of potential causes and/or apparent dike stability.

The water levels in both ponds at the hypothetical failure event were based on the operating water levels observed in the ponds since the 2023 hazard potential classification assessment (0.1 foot and 2.2 feet in South Ash Ponds 2 and 3, respectively) and the probable maximum precipitation (PMP) depth (19 inches). Therefore, the assumed water level in South Ash Ponds 2 and 3 at the time of a hypothetical failure was taken as 1.7 feet and 3.8 feet, respectively.

Based on the updated dike breach analysis for South Ash Pond 2, water released from a hypothetical breach flows to the east towards, but not into, the Commonwealth Edison switchyard, thence south towards two unoccupied Station buildings and north towards the unoccupied former electric generating units. Flow depths near these buildings vary from 0.1 to 0.6 foot, and the flow rates vary from 0.1 to 0.3 feet per second. The two occupied buildings at the site would not be impacted.

Similar results were observed for a hypothetical breach at South Ash Pond 3. Water released from the pond would be principally limited to the southern end of the Station's property, flowing towards two unoccupied buildings, into the South Area Runoff Basin, and into a depression immediately south of South Ash Pond 3. Water entering the swales around the switchyard perimeter would flow north towards the unoccupied former electric generating units. Flow depths near the unoccupied buildings vary from 0.5 to 0.9 foot, and the flow rates vary from 1.1 to 1.6 feet per second. The two occupied buildings at the site would not be impacted.

Compared to the 2016 dike breach analysis results, there is a significant reduction in the inundation areas for both ponds. Under 2016 operating conditions, water released from the ponds' eastern dikes extended into the switchyard (South Ash Pond 2 only), into the Station's coal yard to the north (South Ash Pond 2 only), near the Station's southern property boundary, and into the Des Plaines River. Given the significant reduction in water normally present in South Ash Ponds 2 and 3, water released from the ponds' eastern dikes during a PMP event would not extend into the switchyard, the coal yard, or the Des Plaines River. Instead, water would be principally contained in the ditches and swales east of the ponds, in depressions immediately south of South Ash Pond 3, and around the switchyard, with some flood conditions near unoccupied buildings, including the unoccupied former electric generating units. As previously stated, the two occupied buildings at the site would not be impacted.

Per the updated dike breach analyses performed in support of this hazard potential classification assessment, a failure at either of the ponds' eastern dikes would not result in a probable loss of human life under the ponds' current operating conditions. This is the primary consideration for classifying the hazard potential for a CCR surface impoundment under the Illinois CCR Rule. If a loss of human life is likely to occur, then the CCR surface impoundment is a Class 1 hazard potential; otherwise, it is a Class 2 hazard potential. Because a hypothetical failure at either pond will not cause a probable loss of human life, both South Ash Ponds 2 and 3 are classified as Class 2 CCR surface impoundments in accordance with 35 Ill. Adm. Code 845.440(a)(1).

The classifications of South Ash Ponds 2 and 3 as Class 2 CCR surface impoundments are not reflections of the potential for the impoundments to fail. The 2025 annual safety factor assessment conducted pursuant to 35 Ill. Adm. Code 845.460 shows that South Ash Ponds 2 and 3are stable under design operating conditions.

Table ES-1 presents the 2025 hazard potential classifications assigned to the Will County South Ash Ponds 2 and 3 under their current operating conditions in accordance with 35 Ill. Adm. Code 845.440(a)(1).

Table ES-1 – 2025 Illinois Hazard Potential Classifications for South Ash Pond 2 & South Ash Pond 3 at the Will County Generating Station

CCR Surface Impoundment	2025 Illinois Hazard Potential Classification
South Ash Pond 2	Class 2
South Ash Pond 3	Class 2

1.0 PURPOSE & SCOPE

1.1 PURPOSE

South Ash Pond 2 and South Ash Pond 3 at Midwest Generation, LLC's (MWG) Will County Generating Station ("Will County" or the "Station") are existing coal combustion residual (CCR) surface impoundments that are regulated by the Illinois Pollution Control Board's "Standards for the Disposal of Coal Combustion Residuals in CCR Surface Impoundments." These regulations are codified in Part 845 to Title 35 of the Illinois Administrative Code (35 Ill. Adm. Code 845, Ref. 1) and are also referred to herein as the "Illinois CCR Rule." Pursuant to 35 Ill. Adm. Code 845.440(a)(1), MWG must conduct and complete an annual hazard potential classification assessment that documents the hazard potential classifications for South Ash Ponds 2 and 3 in accordance with the hazard potential classifications defined in 35 Ill. Adm. Code 845.120.

This report documents the 2025 hazard potential classification assessment conducted and completed in accordance with the Illinois CCR Rule by Sargent & Lundy (S&L) on behalf of MWG for South Ash Ponds 2 and 3 at Will County. This report:

- Lists the inputs and assumptions used in the 2025 hazard potential classification assessment,
- Lists and compares the definitions for the hazard potential classifications for CCR surface impoundments promulgated by the Illinois CCR Rule and by the U.S. Environmental Protection Agency's regulations for CCR surface impoundments,
- Discusses the methodology used to conduct the 2025 hazard potential classification assessment,
- Provides the 2025 hazard potential classifications for South Ash Ponds 2 and 3 in accordance with 35 Ill. Adm. Code 845.440(a)(1).

1.2 SCOPE

In addition to being regulated under the Illinois CCR Rule, South Ash Ponds 2 and 3 at Will County are also regulated by the U.S. Environmental Protection Agency's (EPA) "Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments," 40 CFR Part 257 Subpart D (Ref. 2), also referred to herein as the "Federal CCR Rule." Per the 2016 Water Infrastructure Improvements for the Nation (WIIN) Act, South Ash Ponds 2 and 3 will continue to be subject to both the Illinois and Federal CCR Rules until the U.S. EPA approves the Illinois EPA's CCR permit program. However, the scope of this 2025 hazard potential classification assessment is strictly limited to demonstrating compliance with the Illinois CCR Rule. Pursuant to 40 CFR 257.73(f)(3), the next hazard potential classification assessment for demonstrating compliance with the Federal CCR Rule will be completed in 2026, five years after the last federal assessment was completed (2021).

2.0 INPUTS

Hazard Potential Classifications

The Illinois CCR Rule (Ref. 1, § 845.120) defines "hazard potential classification" as "the possible adverse incremental consequences that 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 Illinois CCR Rule (Ref. 1, § 845.440(a)(1)) requires a CCR surface impoundment be designated as either a Class 1 CCR surface impoundment or a Class 2 CCR surface impoundment. Per 35 Ill. Adm. Code 845.120, the two Illinois hazard potential classifications are defined as follows:

- *Class 1 CCR surface impoundment* means a diked surface impoundment where failure or mis-operation will probably cause loss of human life.
- *Class 2 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.

The Federal CCR Rule (Ref. 2, § 257.53) has the same definition for "hazard potential classification" as the Illinois CCR Rule. However, the Federal CCR Rule has three hazard potential classifications instead of the two designations promulgated by the Illinois CCR Rule. Per 40 CFR 257.53, the three federal hazard potential classifications are defined as follows:

- *High hazard potential CCR surface impoundment* means a diked surface impoundment where failure or mis-operation will probably cause loss of human life.
- *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.
- *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.

Per the preceding sets of definitions for the federal and Illinois hazard potential classifications, a high hazard potential CCR surface impoundment per the Federal CCR Rule is the same as a Class 1 CCR surface impoundment per the Illinois CCR Rule. Similarly, a CCR surface impoundment that is classified as a low or significant hazard potential per the Federal CCR Rule is considered to be a Class 2 CCR surface impoundment per the Illinois CCR Rule.

Table 2-1 summarizes the hazard potential classifications for CCR surface impoundments under the Illinois and Federal CCR Rules as defined by the preceding criteria. By comparison, a high hazard potential CCR surface impoundment per the Federal CCR Rule is the same as a Class 1 CCR surface impoundment per

the Illinois CCR Rule. Similarly, a CCR surface impoundment that is classified as a low or significant hazard potential per the Federal CCR Rule is considered to be a Class 2 CCR surface impoundment per the Illinois CCR Rule.

Table 2-1 – Federal and Illinois Hazard Potential Classifications and Classification Criteria

Illinois Hazard Potential Classification	Federal Hazard Potential Classification	Loss of Human Life	Economic, Environmental, Lifeline Losses and/or Disruptions
Class 2	Low	Not Probable	Low and Principally Limited to Owner
	Significant	Not Probable	Yes
Class 1	High	Probable	Not Necessary for This Classification

A CCR surface impoundment's hazard potential classification is not a reflection of the probability of a hypothetical failure event associated with the surface impoundment. Hazard potential classifications are not contingent upon a CCR surface impoundment's structural stability; they only classify the potential impacts should a hypothetical failure occur. For example, a well-maintained CCR surface impoundment with appropriate factors of safety may be classified as a Class 1 hazard potential solely because a loss of human life would be probable if a hypothetical failure event did occur. Instead, the structural integrity of a CCR surface impoundment and its potential for failure are evaluated and documented in the structural stability and safety factor assessments prepared pursuant to 35 Ill. Adm. Code 845.450 and 35 Ill. Adm. Code 845.460 (Ref. 3), respectively.

2016 Dike Breach Analyses & Initial Hazard Potential Classification Assessments

As documented in last year's hazard potential classification assessment, the 2024 hazard potential classifications assigned to South Ash Ponds 2 and 3 were based on the initial federal hazard potential classifications assigned in 2016 pursuant to the Federal CCR Rule (Ref. 4) after it was determined that the bases for the initial federal hazard potential classifications were still valid. The inputs, assumptions, and methodology used to determine the ponds' initial hazard potential classifications, including the 2016 dike breach analyses and inundation maps, were re-evaluated to determine whether any updates to these analyses were warranted.

Probable Maximum Precipitation Depth

Per the National Oceanic Atmospheric Administration's (NOAA) Hydrometeorological Report No. 51 (Ref. 5), *probable maximum precipitation (PMP)* means theoretically the greatest depth of precipitation for a given duration that is physically possible over a given size storm area at a particular geographical location at

certain time of the year. The Illinois State Water Survey has developed PMP depth estimates for dam safety projects that are specific to the State of Illinois, smaller watersheds, and four storm distributions. Table 2-2 present the PMP depth estimates for the four storm durations (quartiles) over drainage areas less than one square mile in the Illinois Northwest Region. The PMP depths for the Illinoi Northwest Region are slightly higher than those for the Illinois North Central Region, where the Will County site is located, and are therefore conservative to use a the basis for the PMP event at South Ash Ponds 2 and 3 (Ref. 6).

Table 2-2 – Probable Maximum Precipitation (PMP) Depths Used for Will County Site

Quartile	Storm Duration (hr)	PMP Depth (in.)
1st	6	14.8
2nd	12	16.3
3rd	24	17.8
4th	48	19.0

Site Topography

Two topographic datasets for the South Ash Pond 2, South Ash Pond 3, and the surrounding areas were reviewed: one from the U.S. Geological Survey's (USGS) National Elevation Dataset (NED) (Ref. 7) and one from the Illinois State Geological Survey's (ISGS) Illinois Geospatial Data Clearinghouse (Ref. 8). The USGS dataset was published in 2011 and was utilized in the initial federal hazard potential classification assessment for South Ash Ponds 2 and 3 and the 2016 dike breach analyses that was the bases for the ponds' initial federal hazard potential classifications. The USGS topography reflects elevation data collected in 2004 at a resolution of approximately 3 meters. Based on a review of the USGS NED, the 2004 USGS elevation dataset is the most recent topographic dataset at a 3-meter or better resolution for the Station and surrounding areas. Meanwhile, the ISGS topography reflects elevation data collected in 2021 at a 1-meter resolution and was utilized in this 2025 assessment. This topographic dataset is the most recent dataset collected by ISGS for Will County, Illinois.

Aerial Images

Historical and recent aerial images of the Station and surrounding areas were obtained from Google Earth Pro (Ref. 9).

Property Boundaries

Boundaries for the Station's property and adjacent properties were obtained from the geographic information system (GIS) for Will County, Illinois (Ref. 10).

Ash Pond Conditions

The operating and physical conditions for South Ash Ponds 2 and 3 were based on the following inputs:

- Discussions with MWG personnel.
- The 2025 annual inspection report prepared for the CCR surface impoundments in accordance with 35 Ill. Adm. Code 845.540(b) (Ref. 11).
- The weekly inspection reports prepared in accordance with 35 Ill. Adm. Code 845.540(a) since the 2024 hazard potential classification assessment was issued (Ref. 12).

3.0 ASSUMPTIONS

There are no assumptions in this document that require verification.

4.0 METHODOLOGY

As documented in last year's hazard potential classification assessment, the 2024 hazard potential classifications assigned to South Ash Ponds 2 and 3 were based on the initial federal hazard potential classifications assigned in 2016 pursuant to the Federal CCR Rule after it was determined that the bases for the initial federal hazard potential classifications had either not changed or were conservative under present operating conditions. Accordingly, for this 2025 assessment, the bases for the ponds' initial federal hazard potential classifications were re-evaluated to determine if any changes have occurred since the initial assessment was completed. Identified changes were then evaluated to determine if the 2016 dike breach analyses warrant re-evaluation.

5.0 ASSESSMENT

5.1 SUMMARY OF 2024 HAZARD POTENTIAL CLASSIFICATION ASSESSMENT

The previous hazard potential classification assessment for South Ash Ponds 2 and 3 was completed on October 13, 2024. Ultimately, the 2024 hazard potential classifications for South Ash Ponds 2 and 3 were based on the initial federal hazard potential classifications that were assigned to the ponds in 2016 after it was determined that the bases for the initial federal hazard potential classifications were still valid, albeit conservative for the ponds' present operating conditions. Per the initial federal hazard potential classification assessment for South Ash Ponds 2 and 3, the ponds were classified as significant hazard potential CCR surface impoundments pursuant to 40 CFR 257.53. Based on the comparison between the Federal and Illinois CCR Rules' definitions for hazard potential classifications in Section 2.0, a significant hazard potential CCR surface impoundment under the Federal CCR Rule is the equivalent of a Class 2 CCR surface impoundment under the Illinois CCR Rule. Therefore, the South Ash Ponds 2 and 3 were classified as Class 2 CCR surface impoundments in the 2024 hazard potential classification assessment.

5.2 CHANGES IN BASES FOR INITIAL FEDERAL HAZARD POTENTIAL CLASSIFICATIONS

The 2016 federal hazard potential classifications for South Ash Ponds 2 and 3 were based on a hypothetical dike breach analysis conducted for each pond's eastern dike (Ref. 13), which was determined to pose the most risk to human life due to the eastern dikes' proximities to occupied Station buildings and the adjacent topography sloping towards the buildings. The 2016 dike breach analysis also assumed South Ash Pond 2, South Ash Pond 3, and other nearby, non-CCR surface impoundments were at capacity at the time of the hypothetical failure. These key criteria are re-evaluated under present-day conditions to determine if the 2016 dike breach analysis – and, by extension, the initial federal hazard potential classifications for South Ash Ponds 2 and 3 – warrant re-evaluation.

5.2.1 CHANGES IN STATION OPERATIONS

In 2016, Will County operated one coal-fired electric generating unit, Unit 4. At that time, the Station managed CCR wastestreams and various non-CCR wastestreams from the electric power generation process in South Ash Ponds 2 and 3. The ponds were operated in parallel; only one pond would be in service at any one time. While CCR and non-CCR wastestreams were being conveyed into one pond, the Station would empty and clean the out-of-service pond to recover working storage capacity.

In early October 2020, Will County took South Ash Pond 3 out of service for routine cleaning. In April 2021, MWG filed a notice of intent to close South Ash Pond 3 in accordance with the Federal CCR Rule's closure criteria (Ref. § 257.102). Then, in June 2022, Unit 4 was retired and, after subsequent cleaning, isolating, and securing of ash-handling equipment, Will County ceased placing CCR wastestream into South Ash Pond 2. The Station continued to use South Ash Pond 2 to manage stormwater overflow from the South Area Runoff Basin until December 2022 when the Station re-routed South Area Runoff Basin overflow to the North Area Runoff Basin, thereby ceasing all flows to South Ash Pond 2. On January 12, 2023, MWG filed a notice of intent to close South Ash Pond 2. Closure construction activities will commence at South Ash Ponds 2 and 3 upon receipt of closure construction permits from the Illinois EPA in accordance with Subpart B of the Illinois CCR Rule.

As noted in the last annual inspection report (Ref. 11), both South Ash Pond 2 and South Ash Pond 3 had less than 1 foot of water when the inspection was performed in September 2025. Moreover, the Station routinely dewaters the ponds to minimize the accumulation of rainwater. To dewater South Ash Pond 2 and 3, the Station pumps accumulated rainwater over the overflow weir into the concrete overflow trough at the west end of each pond. Per the weekly inspection reports prepared in accordance with 35 Ill. Adm. Code 845.540(a) for South Ash Ponds 2 and 3 since the 2023 hazard potential classification assessment was issued (Ref. 12), the Station's dewatering efforts have limited the water level in South Ash Pond 3 to at most

2.2 feet; no appreciable surface water was observed above the CCR remaining in South Ash Pond 2 since the 2023 assessment.

As previously stated, the 2016 federal hazard potential classification assessment for South Ash Ponds 2 and 3 examined hypothetical breach scenarios assuming both ponds were operating and at their original design capacities. Currently, the only water entering South Ash Ponds 2 and 3 is direct precipitation (i.e., rain or snow) and run-off from the crests of the ponds' dikes. Moreover, the Station is actively limiting the amount of stormwater that can accumulate in the ponds. Therefore, the assumed operating conditions used for the initial assessment are conservative for the ponds' current operating conditions.

5.2.2 CHANGES IN DOWNSTREAM PROPERTY DEVELOPMENTS

Appendix A provides a Building Occupancy Map for the site, updated from a similar map included in the initial 2016 federal hazard potential classification assessment. The numbers used to identify buildings at the Station are consistent with the 2016 map and are used for identification purposes only; they do not correspond to identification numbers assigned by the Station.

Table 5-1 presents a comparison of the building occupancy status at the Station since the initial federal hazard potential classification assessment was completed in 2016. Based on reviews of Google Earth aerial images (Ref. 9) and the Will County, Illinois GIS (Ref. 10), no new buildings or transport corridors (roads, rail lines, *etc.*) have been constructed in the past nine years within the dike breach impact areas identified in the initial federal hazard potential classification assessment. However, due to the retirement of Unit 4 in June 2022, the main power building, identified as Building 2 on the Site Building Occupancy Map in Appendix A, is now unoccupied. In addition, four structures immediately south of the main power building, identified as Buildings 4, 7, 8, and 9, have been demolished. Finally, the site's caretakers occupy the Station's wastewater treatment building, identified as Building 11.

Table 5-1 – Comparison of Station Building Occupancy Status Since 2016 Federal Hazard Potential Classification Assessment[1]

Building ID[2]	2016 Occupancy Status[3]	2025 Occupancy Status
Station Building 1	Unoccupied	Unoccupied
Station Building 2 (Main Power Building)	Occupied	Unoccupied
Station Building 3	Unoccupied	Unoccupied

Building ID[2]	2016 Occupancy Status[3]	2025 Occupancy Status
Station Building 4	Unoccupied	Demolished
Station Building 5	Unoccupied	Unoccupied
Station Building 6	Unoccupied	Unoccupied
Station Building 7	Occupied	Demolished
Station Building 8	Occupied	Demolished
Station Building 9	Occupied	Demolished
Station Building 10	Occupied	Occupied
Station Building 11	Unoccupied	Occupied

Notes:

1. Buildings are considered "occupied" if at least one human occupant is present in the building for at least 12 hours per day.
2. For Site Building Occupancy Map, see Appendix A.
3. 2016 building occupancy status is per the South Ash Pond 2's and South Ash Pond 3's initial federal hazard potential classification assessments (Ref. 4).

5.2.3 CHANGES IN ASH POND GEOMETRY

Based on reviews of the 2025 annual inspection report (Ref. 11) and Google Earth aerial images (Ref. 9), there have been no significant physical modifications to South Ash Ponds 2 and 3 (mass excavations, major embankment modifications, *etc*.) since the initial federal hazard potential classification assessment was completed.

5.2.4 CHANGES IN SITE TOPOGRAPHY

When comparing the 2004 USGS topography (Ref. 7) used in the initial federal hazard potential classification assessment and the 2021 ISGS elevation dataset for the area (Ref. 8), no significant differences in the

topography adjacent to the ash ponds and within the dike breach impact areas were identified. Moreover, Google Earth aerial images (Ref. 9) indicated that there have been no significant modifications to the ground surfaces (mass excavations, mass fill placement, *etc.*) adjacent to South Ash Ponds 2 and 3 or within the dike breach impact areas since 2004.

5.2.5 CHANGES IN USBR DEPTH-VELOCITY FLOOD DANGER LEVELS

To determine whether a failure at South Ash Pond 2 or South Ash Pond 3 would cause a probable loss of human life, the 2016 dike breach analysis compared the combination of estimated flood velocity and depth at each occupied building to the U.S. Department of the Interior, Bureau of Reclamation's (USBR) depth-velocity flood danger level relationship presented in the bureau's "Downstream Hazard Classification Guidelines" (Ref. 12). The USBR states therein that if the depth-velocity combination of a hazard (*e.g.*, flood) for a given area plots within the "Low Danger Zone," "the number of lives-in-jeopardy associated with possible downstream hazards is assumed to be zero." In other words, floods plotting within the USBR's "Low Danger Zone" are unlikely to cause a probable loss of human life.

The USBR has not updated the depth-velocity flood danger level relationships presented in its "Downstream Hazard Classification Guidelines" (Ref. 12) since the initial federal hazard potential classification assessment for South Ash Ponds 2 and 3 was completed in 2016. Therefore, the depth-velocity danger level relationship used in the 2016 assessment remains valid for use in this 2025 assessment for determining the corresponding danger levels at occupied Station buildings within the inundation areas downstream of the eastern dikes for South Ash Ponds 2 and 3.

5.3 2025 HAZARD POTENTIAL CLASSIFICATION ASSESSMENT

Per the evaluation of the key hazard potential classification criteria for South Ash Ponds 2 and 3 in Section 5.2, there have been significant operational changes made at the Station since the initial federal hazard potential classification assessment was completed in 2016. The Station's decommissioning efforts subsequent to the retirement of Unit 4 in June 2022 have reduced the number of occupied buildings at the Station to two and limit the maximum operating water levels in South Ash Ponds 2 and 3. Although no significant changes were noted to the other bases used to determine the ponds' initial federal hazard potential classifications (topography, downstream developments, depth-velocity flood danger level relationships), the Station's reduction in the ponds' operating capacities consequently reduces the potential impacts to downstream areas during a hypothetical dike breach. This warrants updating the hypothetical dike breach analyses for both ponds' eastern dikes.

5.3.1 UPDATED DIKE BREACH ANALYSIS METHODOLOGY

Consistent with the initial dike breach analyses conducted in 2016, hypothetical dike breaches at the eastern dikes of South Ash Ponds 2 and 3 were evaluated under the ponds' current operating conditions to assess potential impacts to the Station buildings downstream of the ponds. These assessments were performed independent of potential causes and/or apparent dike stability. As noted in Section 5.2.1 the only water entering South Ash Ponds 2 and 3 is direct precipitation and run-off from the crests of the ponds' dikes. Moreover, since the 2023 hazard potential classification assessment, the water level in South Ash Pond 3 has not exceeded 2.2 feet, and no appreciable surface water has been observed above the CCR remaining in South Ash Pond 2. Therefore, the assumed water level in South Ash Ponds 2 and 3 at the time of a hypothetical failure was taken as 1.7 feet and 3.8 feet, respectively, which is the sum of the maximum water levels observed since October 2023 and the maximum PMP depth listed in Table 2-2 (19 inches).

HEC-HMS modeling software was used to compute the hypothetical breach hydrographs for South Ash Ponds 2 and 3, and the hydrographs producing the highest peak flow were subsequently used for downstream routing analysis and inundation mapping. To simulate flooded conditions that could be present during the PMP event, non-CCR ponds at the site were assumed to be full when routing a hypothetical release of water from each pond's eastern dike. The corresponding inundation maps for hypothetical failures at the eastern dikes for South Ash Ponds 2 and 3 were developed using the HEC-RAS Version 6.4.1 software. Model terrain was based on the aforementioned 2021 ISGS topographic data (Ref. 8).

5.3.2 RESULTS FROM UPDATED SOUTH ASH POND 2 DIKE BREACH ANALYSIS

Figure 5-1 and Figure 5-2 below show the maximum flow depth and maximum flow velocity, respectively, from a hypothetical breach at South Ash Pond 2's eastern dike. As shown in the figures, water released from a hypothetical breach flows to the east towards, but not into, the Commonwealth Edison switchyard, thence south towards unoccupied Buildings 5 and 6 and north towards the unoccupied former electric generating units (Building 2). Flow depths near these buildings vary from 0.1 to 0.6 foot, and the flow rates vary from 0.1 to 0.3 feet per second. The two occupied buildings at the site, Buildings 10 and 11, would not be impacted.

Compared to the 2016 dike breach analysis results (Ref. 4), there is a significant reduction in the inundation area. Under 2016 operating conditions, water released from South Ash Pond 2's eastern dike extended into the switchyard, into the Station's coal yard to the north, near the Station's southern property boundary, and into the Des Plaines River. Given the significant reduction in water normally present in South Ash Pond 2, water released from the pond's eastern dike during a PMP event would not extend into the switchyard, the coal yard, or the Des Plaines River. As shown in Figure 5-1 and Figure 5-2, water would be principally contained in the ditches and swales east of the pond and around the switchyard, with some flood conditions near unoccupied Buildings 5 and 6 the unoccupied former electric generating units (Building 2).

Figure 5-1 – Maximum Flow Depth from Breach at South Ash Pond 2 East Dike

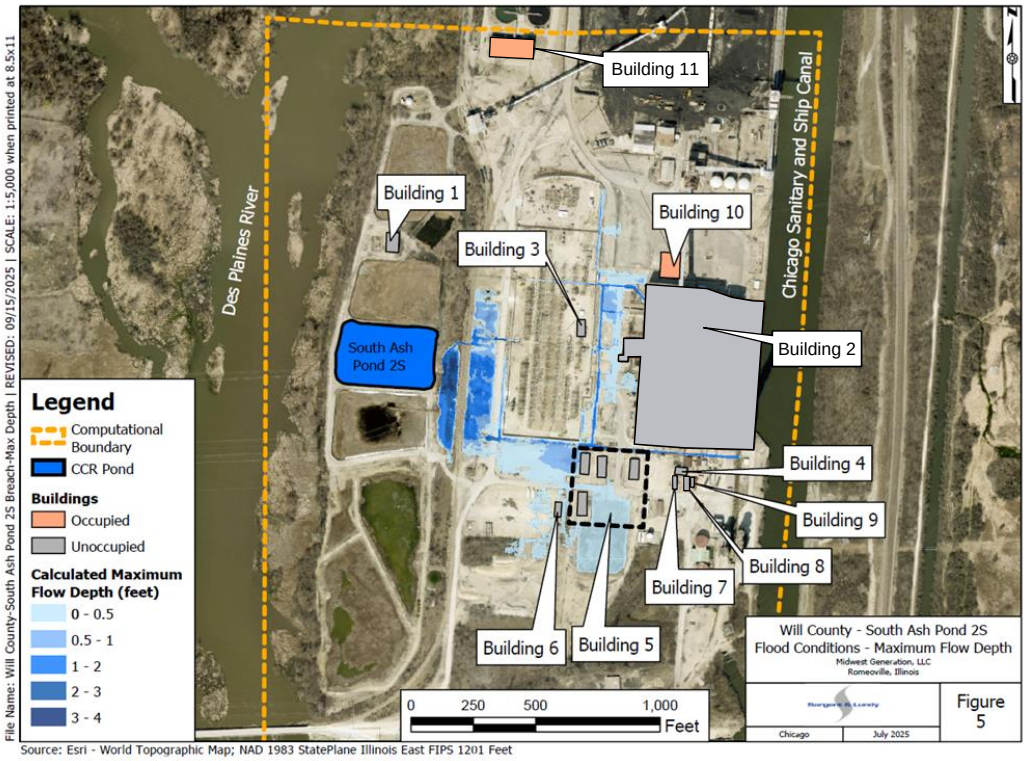
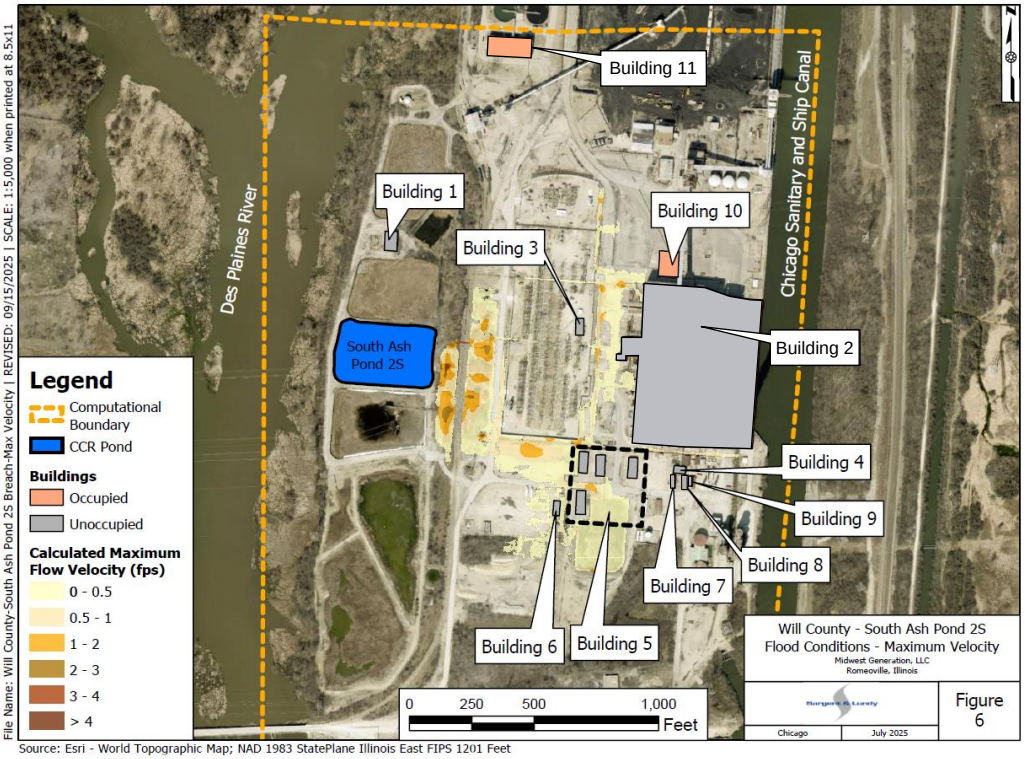


Figure 5-2 – Maximum Flow Velocity from Breach at South Ash Pond 2 East Dike

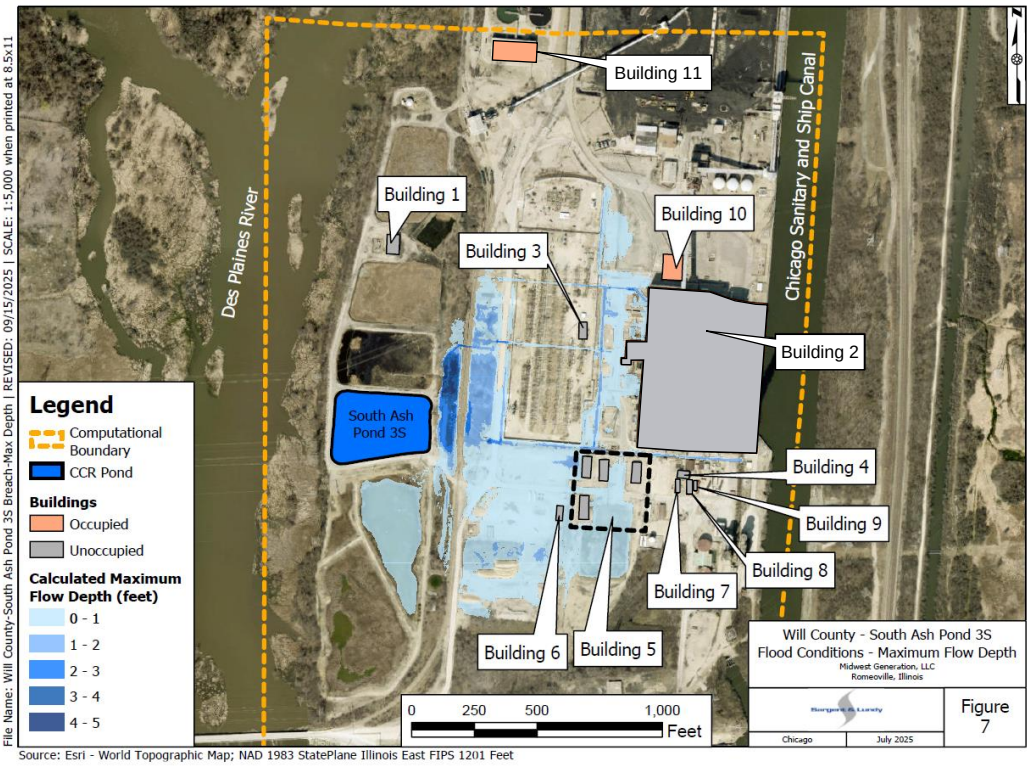


5.3.3 RESULTS FROM UPDATED SOUTH ASH POND 3 DIKE BREACH ANALYSIS

Figure 5-3 and Figure 5-4 below show the maximum flow depth and maximum flow velocity, respectively, from a hypothetical breach at South Ash Pond 3's eastern dike. Similar to a hypothetical release from South Ash Pond 2, water released from a hypothetical breach at South Ash Pond 3 flows to the east towards, but not into, the Commonwealth Edison switchyard. Water released from the pond would be principally limited to the southern end of the Station's property, flowing towards unoccupied Buildings 5 and 6, into the South Area Runoff Basin, and into a depression immediately south of South Ash Pond 3. Water entering the swales around the switchyard perimeter would flow north towards the unoccupied former electric generating units (Building 2). Flow depths near unoccupied Buildings 2, 5, and 6 vary from 0.5 to 0.9 foot, and the flow rates vary from 1.1 to 1.6 feet per second. The two occupied buildings at the site, Buildings 10 and 11, would not be impacted.

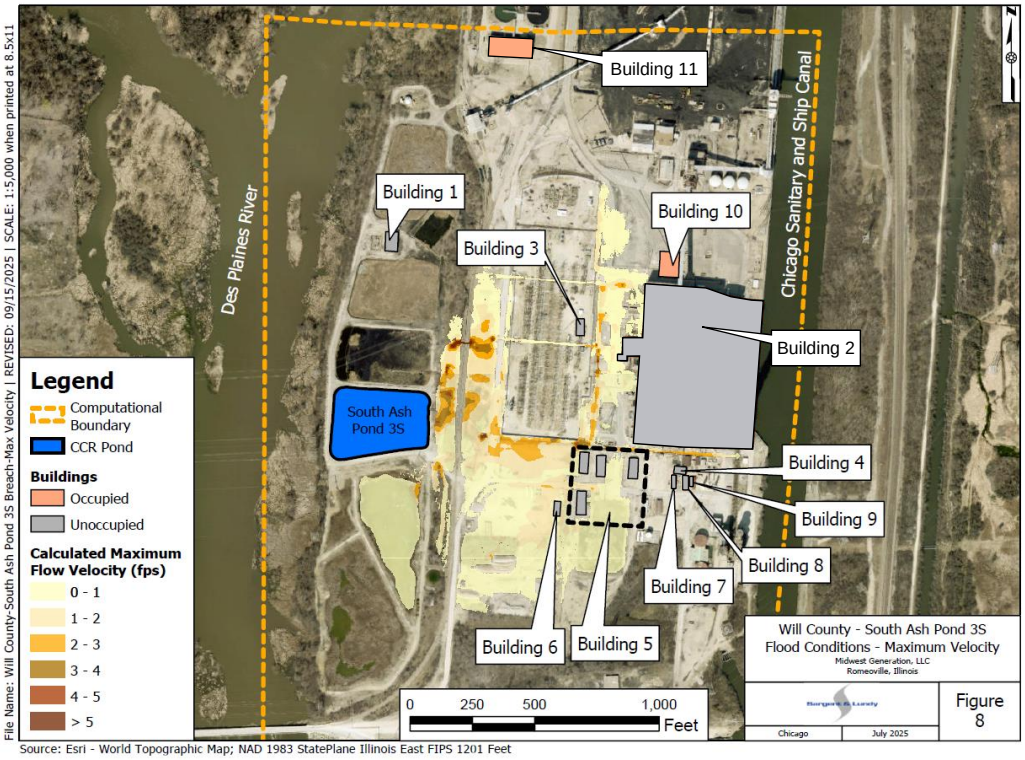
Compared to the 2016 dike breach analysis results (Ref. 4), there is also a significant reduction in the inundation area from a hypothetical breach at South Ash Pond 3's eastern dike. Under 2016 operating conditions, water released from South Ash Pond 3 extended further south near the southern end of the Station's property and further west into the Des Plaines River. Given the Station's active measures to keep the water level in South Ash Pond 3 at much lower levels than were present in 2016, water released from the pond's eastern dike during a PMP event would not extend as far south or into the Des Plaines River. As shown in Figure 5-1 and Figure 5-2, water would be principally contained in the ditches and swales east of the pond and around the switchyard, with some flood conditions near unoccupied Buildings 5 and 6 the unoccupied former electric generating units (Building 2).

Figure 5-3 – Maximum Flow Depth from Breach at South Ash Pond 3 East Dike



Source: Esri - World Topographic Map; NAD 1983 StatePlane Illinois East FIPS 1201 Feet

Figure 5-4 – Maximum Flow Velocity from Breach at South Ash Pond 3 East Dike



Source: Esri - World Topographic Map; NAD 1983 StatePlane Illinois East FIPS 1201 Feet

5.3.4 HAZARD POTENTIAL CLASSIFICATIONS

Under the Illinois CCR Rule, the primary consideration for classifying the hazard potential for a CCR surface impoundment is whether the downstream impacts from a hypothetical breach at the impoundment would cause a probable loss of human life. Per Table 2-1, loss of human life is the critical aspect of the Class 1 hazard potential classification. If a loss of human life is unlikely to occur, then the CCR surface impoundment is not a Class 1 hazard potential; instead, it is a Class 2 hazard potential.

Per the results from the updated dike breach analyses presented in Sections 5.3.2 and 5.3.3, the two occupied buildings at the Station (Buildings 10 and 11) are not expected to be impacted by a hypothetical release at either South Ash Pond 2 or South Ash Pond 3 during a PMP event. Therefore, a failure at either of the ponds' eastern dikes would not result in a probable loss of human life at the occupied Station buildings. Thus, both South Ash Ponds 2 and 3 are classified as Class 2 CCR surface impoundments under their current operating conditions pursuant to 35 Ill. Adm. Code 845.440(a)(1).

The classifications of South Ash Ponds 2 and 3 as Class 2 CCR surface impoundments are not reflections of the potential for the impoundments to fail. The 2025 annual safety factor assessment conducted pursuant to 35 Ill. Adm. Code 845.460 shows that South Ash Ponds 2 and 3 are stable under design operating conditions (Ref. 3).

6.0 CONCLUSIONS

This assessment re-evaluated the factors and design inputs used as the bases for the initial federal hazard potential classification assessment completed in 2016 in accordance with the Federal CCR Rule for Will County's South Ash Ponds 2 and 3. It was determined that no significant physical changes to these CCR surface impoundments and no new downstream developments within the dike breach inundation areas have occurred within the last nine years that would necessitate changing either pond's initial federal hazard potential classification. However, operational changes made by the Station since Unit 4 was retired in June 2022 have reduced the ponds' operating capacities to volumes less than their original design capacities, warranting a re-evaluation of the potential impacts to downstream areas during hypothetical dike breaches at the ponds' eastern dikes.

Based on the results from dike breach analyses for South Ash Ponds 2 and 3, a loss of human life is unlikely to result from a hypothetical failure at either pond under the ponds' current operating conditions. Under the Illinois CCR Rule, the primary consideration for classifying the hazard potential for a CCR surface impoundment is whether the downstream impacts from a hypothetical breach at the impoundment would cause a probable loss of human life. If a loss of human life is likely to occur, then the CCR surface impoundment is a Class 1 hazard potential; otherwise, it is a Class 2 hazard potential. Because a

hypothetical failure at either pond will not cause a probable loss of human life, both South Ash Ponds 2 and 3 are classified as Class 2 CCR surface impoundments under their current operating conditions pursuant to 35 Ill. Adm. Code 845.440(a)(1).

Table 6-1 presents the 2025 hazard potential classifications assigned to Will County South Ash Ponds 2 and 3 under their current operating conditions in accordance with 35 Ill. Adm. Code 845.440(a)(1).

Table 6-1 – 2025 Illinois Hazard Potential Classifications for South Ash Pond 2 & South Ash Pond 3 at the Will County Generating Station

CCR Surface Impoundment	2025 Illinois Hazard Potential Classification
South Ash Pond 2	Class 2
South Ash Pond 3	Class 2

However, as noted above, the 2025 hazard potential classifications for South Ash Ponds 2 and 3 do not reflect the probability of a hypothetical failure event associated with the ponds and are not contingent upon the ponds' structural stabilities. Indeed, the 2025 annual safety factor assessment conducted pursuant to 35 Ill. Adm. Code 845.460 (Ref. 3) shows that the East and West Ash Ponds are structurally stable under design operating conditions.

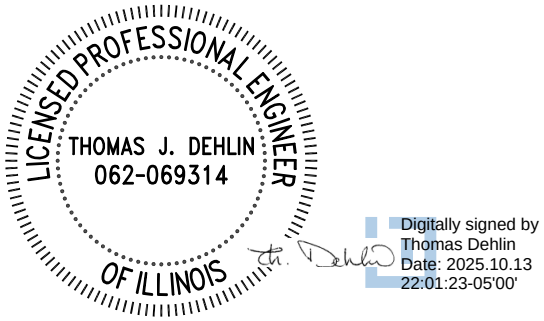
7.0 CERTIFICATION

I certify that:

- This hazard potential classification assessment was prepared by me or under my direct supervision.
- The work was conducted in accordance with the requirements of 35 Ill. Adm. Code 845.440.
- I am a registered professional engineer under the laws of the State of Illinois.

Certified By: Thomas Dehlin Date: October 13, 2025

Seal:



8.0 REFERENCES

1. Illinois Pollution Control Board. “Standards for Disposal of Coal Combustion Residuals in CCR Surface Impoundments.” 35 Ill. Adm. Code 845. Accessed October 8, 2025.
2. U.S. Environmental Protection Agency. “Standards for Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments.” 40 CFR Part 257 Subpart D. https://www.ecfr.gov/current/title-40/chapter-I/subchapter-I/part-257/subpart-D. Accessed October 8, 2025.
3. Civil & Environmental Consultants, Inc. “Structural Stability and Factor of Safety Assessment, Ash Pond 1N, 1S, 2S, and 3S, Will County Station.” September 17, 2025.
4. Geosyntec Consultants. “Hazard Potential Classification Assessment, South Ash Pond 2S & South Ash Pond 3S, Will County Station.” October 2016.
5. National Oceanic and Atmospheric Administration. *NOAA Hydrometeorological Report No. 52*. “Application of Probable Maximum Precipitation Estimates – United Sates East of the 105th Meridian.” August 1982.
6. Huff, Floyd A. “Precipitation Relations for Use in Dam Safety Project.” Illinois State Water Survey. 1980.
7. U.S. Geological Survey, National Elevation Dataset. Ned19_n42x50_w088x00_il_lakeco_2007 1/9 arc-second 2011 15 x 15 minute IMG (April 16, 2007 – May 7, 2007). Published January 1, 2011.
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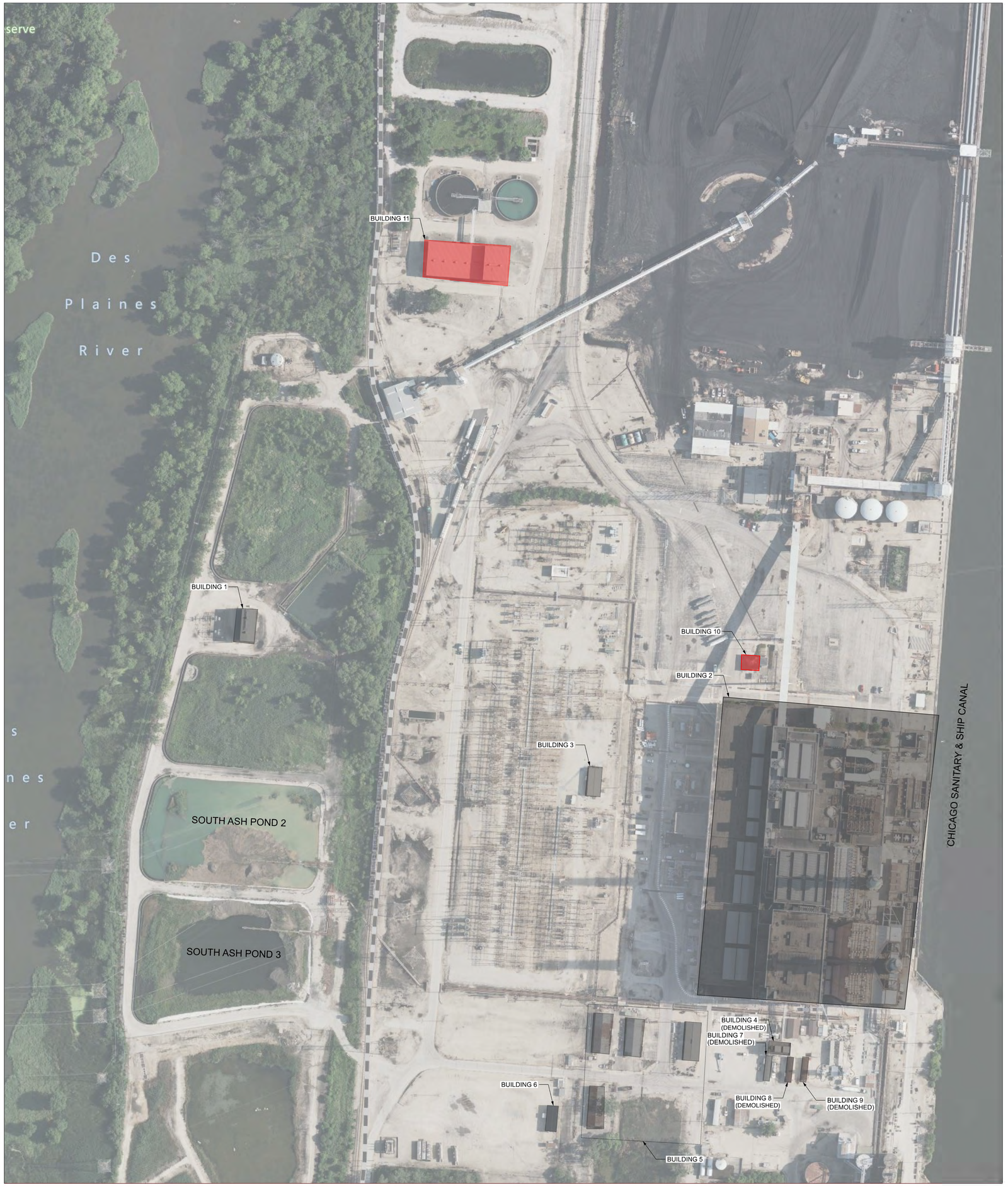
9. Google Earth Pro v7.3.0.3832. Accessed October 10, 2025.
10. Will County GIS Data Viewer. https://www.willcountyillinois.com/County-Offices/Administration/GIS-Division/GIS-Data-Viewer. Accessed October 10, 2025.
11. Civil & Environmental Consultants, Inc. “Annual Inspection Report, Ash Ponds 2S and 3S, Will County Station.” September 17, 2025.
12. Midwest Generation, LLC. “IL Weekly and Monthly Inspection.” 2023 Week 42 through 2025 Week 38. Accessed via https://midwestgenerationllc.com/illinois-ccr-rule-compliance-data-and-information/.
13. Geosyntec Consultants. “Will County Station, Ash Pond 2S and 3S, Hazard Potential Classification Assessment Embankment Breach Analysis.” October 17, 2016.

APPENDIX A: SITE BUILDING OCCUPANCY MAP



PRELIMINARY
NOT FOR CONSTRUCTION

NORTH

80' 0' 80' 160'
GRAPHIC SCALE

LEGEND

- OCCUPIED BUILDING
- UNOCCUPIED BUILDING

NOTES

1. AERIAL IMAGE IS FROM GOOGLE EARTH PRO V7.3 AND MAY NOT BE REPRESENTATIVE OF CURRENT SITE CONDITIONS.
2. BUILDING NUMBERS ARE FOR REFERENCE PURPOSES ONLY AND MAY NOT CORRESPOND TO THE BUILDING NAMES OR NUMBERS ASSIGNED BY / USED AT THE STATION.
3. BUILDINGS ARE CONSIDERED TO BE OCCUPIED IF AT LEAST ONE HUMAN OCCUPANT IS PRESENT IN THE BUILDING FOR AT LEAST 12 HOURS PER DAY.

REFERENCE DRAWINGS

CONTRACTOR/INSTALLER SHALL TAKE ALL APPROPRIATE PRECAUTIONS TO ENSURE THE SAFETY OF ALL PEOPLE LOCATED ON THE WORK SITE, INCLUDING CONTRACTOR'S/INSTALLER'S PERSONNEL (OR THAT OF ITS SUBCONTRACTOR(S)) PERFORMING THE WORK.

UNDERGROUND OR EMBEDDED UTILITIES MAY BE LOCATED WITHIN OR ADJACENT TO THE AREA IN WHICH EXCAVATION, DEMOLITION, FOUNDATION, OR MODIFICATION WORK IS TO BE PERFORMED.

REFERENCES RELATING TO THE UNDERGROUND OR EMBEDDED UTILITIES ARE PROVIDED TO ASSIST THE CONTRACTOR/INSTALLER IN THE FIELD LOCATING THOSE UTILITIES AND OTHER POSSIBLE UNDERGROUND OR EMBEDDED INTERFERENCES WITH THE WORK.

THE CONTRACTOR/INSTALLER SHALL EXERCISE DUE CAUTION DURING ALL EXCAVATION/FOUNDATION/DEMOLITION WORK.

HOLD INFORMATION

NO.	DESCRIPTION

CONTRACTOR/INSTALLER SHALL TAKE ALL APPROPRIATE PRECAUTIONS TO ENSURE THE SAFETY OF ALL PEOPLE LOCATED ON THE WORK SITE, INCLUDING CONTRACTOR'S/INSTALLER'S PERSONNEL (OR THAT OF ITS SUB-CONTRACTOR(S)) PERFORMING THE WORK.

RELEASE INFORMATION

REV.	DATE	DESCRIPTION
0	10-10-2024	FOR USE
1	10-10-2025	FOR USE

ISSUE PURPOSE:	USE
SPECIFICATION:	N/A
PROJECT NO.:	12661-199

CAD FILE NAME:	WC-EXHIBIT-CSK-002.DGN
PREPARED BY:	J. CHAVEZ
REVIEWED BY:	T. DEHLIN
APPROVED BY:	---

ANY MODIFICATION OR ADDITION TO THIS DRAWING BY AN ORGANIZATION OTHER THAN SARGENT & LUNDY, IS NOT THE RESPONSIBILITY OF SARGENT & LUNDY.

Sargent & Lundy LLC
SARGENT & LUNDY LLC
55 EAST MONROE STREET
CHICAGO, ILLINOIS 60603-5780

MWG
Midwest Generation, LLC

PROJECT

WILL COUNTY
GENERATING STATION
2025 HAZARD POTENTIAL
CLASSIFICATION ASSESSMENT

DRAWING TITLE

SITE BUILDING
OCCUPANCY MAP

DRAWING NUMBER	REVISION
12661-189-WC-CSK-001	1

SHEET 1 OF 1

10/11/2024 4:14:01 PM
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PL:12804/0R9007/E:\Shared\INFO CENTER\DISCIPLINE REF MATERIAL\CIVIL\DESIGN2-Will County - CCR\Will County Ash Pond Closure 1N, 1S, 2S & 3S Drawings\WC-EXHIBIT-CSK-002.dgn
Form GDG-0401-01-08, ANSI (Imperial) MicroStation Border - Size E - 34 x 44
Revision 11A, Revision Date: 04-30-2010