

# MWVG

Midwest Generation, LLC  
Waukegan Generating Station

## West Ash Pond Closure Plan

April 9, 2021

Issue Purpose: Use

Project No.: 12661-098

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## 1.0 INTRODUCTION & PURPOSE

### **Federal CCR Rule Reference: 40 CFR 257.102(b)**

Pursuant to 40 CFR 257.102(b), this document provides the written closure plan for the existing West Ash Pond at Midwest Generation, LLC's (MWG) Waukegan Generating Station ("Station") in Waukegan, Illinois. The West Ash Pond is a coal combustion residual (CCR) surface impoundment as defined in 40 CFR 257.53. MWG intends to close this CCR surface impoundment through removal of the CCR remaining in the pond at the time of closure and decontamination of affected areas pursuant to the requirements of 40 CFR 257.102(c). This plan describes the steps necessary to close the West Ash Pond in this manner.

## 2.0 CLOSURE PLAN NARRATIVE DESCRIPTION

### **Federal CCR Rule Reference: 40 CFR 257.102(b)(1)(i)**

The anticipated clean closure of the West Ash Pond will be performed in accordance with the following sequential steps:

1. Ceasing all CCR and non-CCR inflows to the West Ash Pond;
2. Drawing down free surface water in the pond by evaporation and by draining water into the Recycle Water Sump in the northeast corner of the pond;
3. Once the water elevation is below the Recycle Water Sump's overflow weir elevation, promoting additional drainage and dewatering by:
  - a. Excavating sumps and trenches within the ash material,
  - b. Using portable pumps as necessary to remove additional water by pumping water over the weir into the Recycle Water Sump, and/or
  - c. Utilizing earthmoving equipment to move the ash within the pond;
4. Dredging and removing the CCR from the pond, loading the material onto trucks, and transporting the material to a beneficial-use facility or a permitted disposal facility;
5. Decontaminating or removing the pond's existing liner system and/or appurtenant structures (e.g., inlet troughs, outlet structures, piping) in accordance with the construction permit issued by the Illinois Environmental Protection Agency (EPA) to close the West Ash Pond;
6. Remediating or removing, as required, CCR-impacted material (e.g., the subgrade);
7. Sampling the groundwater near the West Ash Pond to verify the groundwater monitoring concentrations do not exceed the groundwater protection standards established for constituents in accordance with the operating permit issued by the Illinois EPA; and
8. Certifying (via a qualified professional engineer licensed in the State of Illinois) that the CCR has been removed from the West Ash Pond and that the CCR surface impoundment has been

decontaminated in accordance with the closure plan in effect at the time of closure and in accordance with the corresponding construction permit issued by the Illinois EPA.

### 3.0 CCR REMOVAL & DECONTAMINATION PROCEDURES

#### **Federal CCR Rule Reference: 40 CFR 257.102(b)(1)(ii)**

Clean closure of the West Ash Pond will follow the sequential steps outlined in Section 2.0.

After permanently ceasing all flows into the impoundment, MWG will remove the ash stored in the West Ash Pond in accordance with historical cleaning practices in the Station's ash pond operations. Prior to removing any ash from the pond, MWG will first draw down the free surface water remaining in the CCR surface impoundment and dewater the CCR stored therein. Initially, free water remaining in the pond will be drawn down by allowing water to drain to the Recycle Water Sump in the northeast corner of the pond and by natural means (e.g., evaporation). Once the water level falls below the sump's overflow weir elevation, additional drainage and dewatering may be facilitated by:

- Excavating sumps and trenches within the ash,
- Using portable pumps to pump water over the weir into the Recycle Water Sump, and/or
- Utilizing earthmoving equipment to move the CCR from one location in the pond to another location in the pond.

Once the CCR within the impoundment is sufficiently dewatered to handle, construction equipment will be used to load the CCR onto trucks to be transported to a beneficial-use facility or a permitted disposal facility. Fugitive dust control measures (e.g., water spray, dust suppressants) will be implemented as necessary to minimize airborne CCR particulates while the CCR is being handled.

The West Ash Pond's existing liner and appurtenant structures (inlet troughs, structures, piping, etc.) will be either decontaminated or removed in accordance with the construction permit issued by the Illinois EPA to close the pond. Decontamination procedures may include pressure washing, scrubbing, flushing, or other generally accepted decontamination methods. The impoundment area will also be inspected to identify any areas impacted by CCR (e.g., the pond subgrade). Material impacted by CCR will be removed from the area or remediated as appropriate. Material removed from the area will be loaded onto trucks and transported to a permitted disposal facility.

In accordance with 40 CFR 257.102(c), CCR removal and decontamination will be complete when constituent concentrations throughout the CCR unit and areas that may have been affected by releases from these units have been removed and groundwater monitoring concentrations do not exceed the groundwater protection standards in effect at the time of closure. After CCR removal from and decontamination of the

West Ash Pond has been completed, groundwater monitoring at the pond area will continue in accordance with the closure construction permit issued by the Illinois EPA.

## 4.0 ESTIMATED MAXIMUM INVENTORY OF CCR

### **Federal CCR Rule Reference: 40 CFR 257.102(b)(1)(iv)**

Detailed records of the maximum inventory of CCR ever stored in the West Ash Pond are not available. For the purposes of this closure plan, the maximum CCR inventory for the pond is conservatively based on the estimated maximum capacity of the pond, which is 223,000 cubic yards.

## 5.0 CLOSURE SCHEDULE

### **Federal CCR Rule Reference: 40 CFR 257.102(b)(1)(vi)**

Clean closure of the West Ash Pond is estimated to be completed by 2023. Table 1 lists the major milestones necessary for closing the West Ash Pond and the expected duration for completing each milestone. Prior to initiating closure, a notice of intent to close will be prepared in accordance with 40 CFR 257.102(g). Initiation of closure activities will occur once all flows into the West Ash Pond have ceased and any of the following actions have been completed pursuant to 40 CFR 257.102(e)(3):

- Taken any steps necessary to implement this written closure plan,
- Submitted a completed application for any permit or permit modification required by the Illinois EPA,  
or
- Taken any steps necessary to comply with any Illinois EPA standard that is a prerequisite, or is otherwise applicable, to initiating or completing closure of the West Ash Pond.

**Table 1 – Planning Level Schedule for Closing West Ash Pond**

<b>Activity</b>	<b>Estimated Duration</b>
Cease All Flows into West Ash Pond	--
Draw Down Water & Dewater Impounded Ash	4 Months
Remove Ash from Impoundment	4 Months
Prepare Closure Construction Design Documents	8 Months
Obtain Closure Construction Permit from Illinois EPA	12 Months
Hire Contractor to Complete Closure Activities in Accordance with Illinois EPA Permit	4 Months
Decontaminate or Remove Liner and Appurtenances	5 Months
Complete and Certify Closure	--

## **6.0 AMENDMENTS TO CLOSURE PLAN**

### **Federal CCR Rule Reference: 40 CFR 257.102(b)(3)**

This closure plan will be amended in accordance with 40 CFR 257.102(b)(3) if a change in the operation of the West Ash Pond would substantially affect this closure plan or after an unanticipated event necessitates a revision to this closure plan. Any and all amendments to this closure plan will be certified by a qualified professional engineer registered in the State of Illinois in accordance with 40 CFR 257.102(b)(4).

## **7.0 COMPLETION OF CLOSURE ACTIVITIES**

### **Federal CCR Rule Reference: 40 CFR 257.102(f)(3)**

Upon completion of all closure activities for the West Ash Pond, MWG will obtain a certification from an independent, qualified professional engineer licensed in the State of Illinois verifying that that the CCR has been removed from the West Ash Pond and that the CCR surface impoundment has been decontaminated in accordance with the closure plan in effect at the time of closure and in accordance with the corresponding construction permit issued by the Illinois EPA.

## 8.0 CERTIFICATION

### Federal CCR Rule Reference: 40 CFR 257.102(b)(4)

I certify that this amendment to the closure plan for the West Ash Pond meets the requirements for a written closure plan pursuant to 40 CFR 257.102(b).

I certify that this document was prepared by me or under my direct supervision and that I am a licensed professional engineer under the laws of the State of Illinois.

Certified By: Thomas J. Dehlin

Date: April 9, 2021

Seal:

