MWG

Midwest Generation, LLC
Powerton Generating Station

Bypass Basin Closure Plan

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Issue Purpose: Use

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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 Bypass Basin at Midwest Generation, LLC's (MWG) Powerton Generating Station ("Station") in Pekin, Illinois. The Bypass Basin 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 basin 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 Bypass Basin 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 Bypass Basin will be performed in accordance with the following sequential steps:

1. Ceasing all CCR and non-CCR inflows to the Bypass Basin;
2. Drawing down free surface water in the basin by evaporation and by draining water into the existing outlet structure in the southeast corner of the basin;
3. Once the water elevation is below the invert elevation of the basin's outlet structure, 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 into the basin's outlet structure, and/or
    c. Utilizing earthmoving equipment to move the ash within the basin;
4. Dredging and removing the CCR from the basin, loading the material onto trucks, and transporting the material to a beneficial-use facility or a permitted disposal facility;
5. Decontaminating or removing the basin'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 Bypass Basin;
6. Remediating or removing, as required, CCR-impacted material (*e.g.*, the subgrade);
7. Sampling the groundwater near the Bypass Basin 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 Bypass Basin 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 Bypass Basin 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 Bypass Basin in accordance with historical cleaning practices in the Station's ash basin operations. Prior to removing any ash from the basin, 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 basin will be drawn down by allowing the water to drain to the outlet structure at the southeast corner of the basin and by natural means (*e.g.*, evaporation). Once the water level falls below the outlet structure's invert elevation, additional drainage and dewatering may be facilitated by:

- Excavating sumps and trenches within the ash,
- Using portable pumps to pump water into the basin's outlet structure, and/or
- Utilizing earthmoving equipment to move the CCR from one location in the basin to another location in the basin.

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 Bypass Basin'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 basin. 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 basin 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

Bypass Basin has been completed, groundwater monitoring at the basin 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 Bypass Basin are not available. For the purposes of this closure plan, the maximum CCR inventory for the basin is conservatively based on the estimated maximum capacity of the basin, which is 9,000 cubic yards.

5.0 CLOSURE SCHEDULE

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

Clean closure of the Bypass Basin is estimated to be completed by 2023. Table 1 lists the major milestones necessary for closing the Bypass Basin 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 Bypass Basin 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 Bypass Basin.

Table 1 – Planning Level Schedule for Closing the Bypass Basin

Activity	Estimated Duration
Cease All Flows into Bypass Basin	--
Draw Down Water & Dewater Impounded Ash	5 Months
Remove Ash from Impoundment	1 Month
Prepare Closure Construction Design Documents	6 Months
Obtain Closure Construction Permit from Illinois EPA	13 Months
Hire Contractor to Complete Closure Activities in Accordance with Illinois EPA Permit	4 Months
Decontaminate or Remove Liner and Appurtenances	1 Month
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 Bypass Basin 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 Bypass Basin, 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 Bypass Basin 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 Bypass Basin 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:

Digitally signed by
Thomas J. Dehlin
Date: 2021.04.09
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