

Buckley, Jill

From: Hillyer, Kirsten <hillyer.kirsten@epa.gov>
Sent: Monday, February 14, 2022 2:56 PM
To: Bacher, David
Cc: Huggins, Richard; Behan, Frank; Celeste, Laurel
Subject: Powerton - CCR Part A Demonstration, Request for Additional Information

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Dear Mr. Bacher,

It has taken EPA longer than expected to issue a proposed determination on the demonstration submitted pursuant to 40 C.F.R. § 257.103(f)(1) for the Powerton Power Plant. Therefore, EPA needs to determine whether you are on track to meet the date to cease receipt of waste requested in the demonstration. In light of this and as provided for under 40 C.F.R. § 257.103(f)(3)(ii), EPA is requesting additional information to complete its review of the demonstration for the Powerton Power Plant.

EPA requests that you submit the following:

1. A narrative explaining the progress made and current activities and phase/step at the facility to achieve alternative capacity.
2. A discussion of the issues that led to the delay (if a delay has occurred) to the requested date to cease receipt of waste.
3. An updated requested date to cease receipt of waste (if the original date requested has changed).
4. An updated narrative justifying the new date to cease receipt of waste (if the original date requested has changed).

Please post this additional information to the CCR compliance website pursuant to 40 C.F.R. §§ 257.103(f)(1)(ix)(A), 105(i)(14) and 107(i)(14). Please submit this information no later than close of business on March 1, 2022.

If you have any questions, please reach out to me.

Sincerely,

Kirsten Hillyer
Environmental Engineer
U.S. Environmental Protection Agency
Office of Resource Conservation & Recovery (ORCR)
Materials Recovery & Waste Management Division (MRWMD)
NEW Phone: (202) 566-0542

March 1, 2022

Richard Huggins
Branch Chief, Energy Recovery and Waste Disposal, U.S. EPA
One Potomac Yard
2777 S. Crystal Drive
Arlington, Virginia 22202-3553

Submitted via e-mail.

RE: Powerton Generating Station, Midwest Generation LLC
CCR Part A Demonstration, Request for Additional Information

Chief Huggins,

The purpose of this correspondence is to provide the information the United States Environmental Protection Agency (U.S. EPA) requested via e-mail on February 14, 2022 regarding the progress made to date in developing alternative disposal capacity to the Ash Surge Basin at the Powerton Generating Station ("Station") as proposed in our Demonstration for a Site-Specific Alternative Deadline to Initiate Closure ("Demonstration") that was submitted on behalf of the station on November 30, 2020. MWG's responses to the four questions posed by the U.S. EPA in the subject e-mail are provided enclosed.

We look forward to working with the U.S. EPA as we continue developing alternative disposal capacity for the Ash Surge Basin. Please contact me at (302)-540-0327 or david.bacher@nrgenergy.com to address any questions or concerns regarding this submittal.

Sincerely,



David Bacher
Senior Regional Manager
Environmental Business, NRG Energy, Inc.

CC: Kirsten Hillyer (U.S. EPA)
Frank Behan (U.S. EPA)
Laurel Celeste (U.S. EPA)
W. Stone (NRG)
S. Shealey (MWG)
J. Buckley (MWG)
W. Shander (MWG)
T. Dehlin (S&L)

Enclosure: Midwest Generation LLC's Responses to U.S. EPA's February 14, 2022 Request for Additional Information on CCR Part A Demonstration for Powerton Generating Station's Ash Surge Basin

MIDWEST GENERATION LLC'S RESPONSES TO U.S. EPA'S FEBRUARY 14, 2022 REQUEST FOR ADDITIONAL INFORMATION ON CCR PART A DEMONSTRATION FOR POWERTON GENERATING STATION'S ASH SURGE BASIN

1. A narrative explaining the progress made and current activities and phase/step at the facility to achieve alternative capacity.

In the Demonstration, MWG detailed plans to replace the Ash Surge Basin with a multiple technology system consisting of four components: refurbished dewatering bins, a new concrete ash-settling tank, a new Recycle Cooling Water Basin, and a new Low-Volume Waste Basin. This system was to be installed in two phases with the ultimate goals of (1) providing alternative disposal capacity to the Ash Surge Basin pursuant to the U.S. EPA's CCR Rule and (2) separating the CCR and non-CCR waste streams that are currently commingling in the Ash Surge Basin to set up the Station for compliance with the forthcoming updated effluent limitations guidelines (ELG) for bottom ash transport water in the U.S. EPA's recently-revised ELG Rule¹. In the first phase of construction, the new concrete ash-settling tank would be constructed upstream of the existing Bypass Basin while the basin was closed and repurposed as the new Recycle Cooling Water Basin to receive treated effluent from the new tank. After these facilities were constructed and operational, alternative disposal capacity would become available for the CCR and non-CCR wastestreams being managed in the Ash Surge Basin, at which point MWG would have diverted these wastestreams to the new concrete ash-settling tank. At that time, MWG would have proceeded with the second phase of the project: closing and repurposing the Ash Surge Basin as a new Low-Volume Waste Basin to provide a means of separating the CCR and non-CCR wastestreams.

After submitting the Demonstration to the U.S. EPA on November 30, 2020, MWG proceeded with developing the proposed alternative disposal facilities for the Ash Surge Basin in accordance with the activities presented in Project Schedule included in Section 2 and described in Section 3 of the Demonstration. On February 4, 2021, the Illinois Pollution Control Board (IPCB) published the Second Notice of its proposed regulations for CCR surface impoundments ("Illinois CCR Rule") for review by the Illinois Joint Committee on Administrative Rules (JCAR), a bipartisan legislative oversight committee that reviews administrative rules proposed by Illinois state agencies before they are adopted into the Illinois Administrative Code. Although JCAR still had to review the IPCB's Second Notice regulations before the Illinois CCR Rule could be adopted into the Illinois Administrative Code, MWG considered these regulations to be "close enough to final" to re-evaluate the concrete ash-settling tank project.

Based on the IPCB's Second Notice regulations and corresponding opinion issued on February 4, 2021, MWG determined that the Illinois EPA could likely regulate the Recycle Cooling Water Basin downstream of the new concrete ash-settling tank as a CCR surface impoundment, which meant that the basin would need to have a composite liner system and a leachate collection and removal system (LCRS) constructed above the composite liner system. Not only would this require more time to construct the Recycle Cooling Water Basin, it would also eliminate the need for the concrete ash-settling tank since the Station has historically been able to operate in accordance with its National Pollutant Discharge Elimination System (NPDES) permit when the existing Bypass Basin is the only ash basin in service. Consequently, upon the IPCB's publication of the Second Notice regulations for the Illinois CCR Rule, MWG ceased all activities associated with developing the multiple technology system presented in the Demonstration and started making plans to retrofit the existing Bypass Basin with an Illinois CCR Rule-compliant composite liner system and LCRS.

The following paragraphs summarize the progress MWG made in developing the multiple technology system that MWG originally proposed in the Demonstration prior to the IPCB's Second Notice regulations

¹ 40 CFR Part 423, "Effluent Guidelines and Standards, Steam Electric Power Generating Point Source Category."

for the Illinois CCR Rule on February 4, 2021, and the progress MWG has made since to retrofit the Bypass Basin in accordance with the Federal CCR Rule and Illinois CCR Rule, which became effective on April 21, 2021 as the new Part 845 to Title 35 of the Illinois Administrative Code (35 Ill. Adm. Code 845).

Original Concrete Ash-Settling Tank Project

Ash Removal from Bypass Basin

As mentioned in the Demonstration, the Station took the Bypass Basin out of service for routine cleaning in early October 2020 and began drawing down the surface water in the basin to dewater the basin and remove the CCR material stored therein. In accordance with historical Station cleaning practices, the Station dewatered and removed CCR from the basin up to the depth of the granular protective layer present along the basin floor above the high-density polyethylene (HDPE) geomembrane liner. Material from the protective granular layer was left intact because removal of this material was not part of historical Station cleaning practices.

During the Bypass Basin's 2020 annual inspection, which occurred approximately six weeks before the Station took the basin out of service, the estimated volume of CCR stored in the basin was approximately 400 cubic yards². By the end of October 2021, this volume of CCR had been removed from the Bypass Basin.

Budgetary Cost Estimate Update

Upon submitting the Demonstration to the U.S. EPA, MWG began updating the budgetary cost estimate that was originally prepared in 2019 for refurbishing the dewatering bins, constructing the concrete ash-settling tank, repurposing the Bypass Basin as the new Recycle Cooling Water Basin, and repurposing the Ash Surge Basin as the new Low-Volume Waste Basin in accordance with the revisions and refinements that were made and described in the 2020 Demonstration. This revised cost estimate was finished on January 22, 2021.

Second Notice Illinois CCR Rule Regulations

As detailed in the Demonstration, MWG based the design of its multiple technology system for replacing the Station's Ash Surge Basin based on the Federal CCR Rule and the Illinois EPA's proposed regulations for CCR surface impoundments at Illinois power plants pursuant to Illinois Public Act 101-0171, which were published on March 30, 2020 for the IPCB to review and to finalize for adoption into the Illinois Administrative Code. When the Demonstration was submitted to the U.S. EPA on November 30, 2020, the IPCB had concluded the public-hearing phase of the rulemaking process for adopting the Illinois CCR Rule into the Illinois Administrative Code. When the IPCB published the Second Notice of its proposed regulations for the Illinois CCR Rule on February 4, 2021, it also published its corresponding opinion on the Illinois EPA's proposed regulations, which the Board largely accepted with some modifications, and its opinion on issues raised by stakeholders during the public hearings on the Rule.

Prior to the IPCB publishing its Second Notice regulations for the Illinois CCR Rule, MWG had expected that a definition for "de minimis unit" would be added to the Rule. However, the IPCB's Second Notice regulations did not include a "de minimis unit" definition. MWG considered the IPCB's Second Notice regulations to be "close enough to final," and re-evaluated the concrete ash-settling tank project. Because the proposed Recycle Cooling Water Basin would receive treated effluent from the concrete ash-settling tank, MWG determined that the Illinois EPA could consider the repurposed basin to be a CCR surface impoundment given the IPCB's decision to omit a definition for "de minimis unit" from its Second Notice regulations. Moreover, when the Illinois EPA issued their proposed regulations for the Illinois CCR Rule

² Civil & Environmental Consultants, Inc. "Annual Inspection Report, Ash Surge Basin and Ash Bypass Basin, Powerton Station." October 2020.

on March 30, 2020, the Agency identified several ponds that did not directly receive or treat CCR as CCR surface impoundments, including Powerton's Service Water Basin.³

Although MWG disagrees that an impoundment designed like the proposed Recycle Cooling Water Basin should be regulated as a CCR surface impoundment, MWG ultimately determined that the Illinois EPA would likely regulate the Recycle Cooling Water Basin downstream of the new concrete ash-settling tank as a CCR surface impoundment, which meant that the basin would need to have a composite liner system and LCRS. Not only would this require more time to construct the Recycle Cooling Water Basin, it would also eliminate the need for the concrete ash-settling tank since the Station has historically been able to operate in accordance with its NPDES permit when the existing Bypass Basin is the only ash basin in service. Accordingly, MWG elected to retrofit the Bypass Basin to provide alternative disposal capacity to the Ash Surge Basin in lieu of the new concrete ash-settling tank and Recycle Cooling Water Basin system proposed in the Demonstration.

New Retrofitted Bypass Basin Project

ELG Rule Compliance

Despite changing its path for compliance with the Federal CCR Rule's alternative closure standards, MWG still continued to pursue a holistic solution that would also provide compliance with the U.S. EPA ELG Rule's recently-revised discharge limits for bottom ash transport water. Retrofitting the Bypass Basin still provides the Station a means of segregating the CCR and non-CCR wastestreams that currently commingle in the Ash Surge Basin into two separate disposal facilities. After the Bypass Basin has been retrofitted, MWG plans to retrofit the Ash Surge Basin in a similar manner. Once the Ash Surge Basin has been retrofitted with an Illinois CCR Rule-compliant composite liner system and LCRS, MWG plans to use the retrofitted Ash Surge Basin for managing only CCR wastestreams and the retrofitted Bypass Basin for managing only non-CCR wastestreams. Although a basin that manages only non-CCR wastestreams is not required to have a composite liner system or an LCRS, MWG recognized that retrofitting the Bypass Basin would provide the faster means of developing alternative disposal capacity for the CCR and non-CCR wastestreams currently being managed by the Ash Surge Basin because (1) the Bypass Basin is one-tenth the size of the Ash Surge Basin and (2) the Station was already in the process of removing CCR from the Bypass Basin as part of its routine cleaning efforts.

Heat Load Recirculation Study & Conceptual Designs

To comply with the ELG Rule's updated discharge limits for bottom ash transport water that will eventually be incorporated into the Station's NPDES permit, MWG plans to transition the Station's bottom ash-handling systems to closed-loop systems. To ensure the new alternative disposal capacity designs (retrofitted ash basins) could adequately cool the bottom ash transport water prior to being recirculated back to the Station, MWG conducted a heat load recirculation study to evaluate proposed system temperatures and to verify there would be sufficient heat transfer to maintain the bottom ash transport water at an acceptable temperature for operation. As MWG noted in the Demonstration, the recirculation design concept needs to be validated during this phase of the project to ensure the appropriate segregation of CCR and non-CCR wastestreams for future compliance with the ELG Rule and to minimize delays to the overall project schedule if neither of the retrofitted basins are large enough to adequately cool the bottom ash transport water prior to recirculation.

A necessary input to the heat load recirculation study was the conceptual design of the retrofitted Ash Surge Basin, which, as previously stated, MWG plans to use to manage only bottom ash transport water after retrofit work is complete. Given physical space and schedule considerations, MWG's preliminary retrofit plans for the Ash Surge and Bypass Basins are to construct the basins' new composite liner systems and LCRSs over the basins' existing HDPE geomembrane liners. While this allows the basins to

³ Ultimately, the Illinois EPA and IPCB agreed with MWG that the Service Water Basin is not a CCR surface impoundment.

be retrofitted faster, it also reduces the storage capacity and surface area available in each basin to cool water stored therein. Thus, to ensure the heat load recirculation study accurately represented the conditions at the Ash Surge Basin that would be present when the Station's bottom ash-handling system was transitioned to a closed-loop system, MWG developed a preliminary conceptual design for the retrofitted Ash Surge Basin to be used as an input to the study.

Ultimately, MWG concluded that, despite the storage loss from the new composite liner system and LCRS, the retrofitted Ash Surge Basin would be capable of sufficiently cooling the bottom ash transport water prior to recirculation back to the Station's slag tanks.

Budgetary Cost Estimates

Concurrent with developing conceptual designs for the retrofitted Ash Surge and Bypass Basins and conducting the heat load recirculation study, MWG developed budgetary cost estimates for the projects to ensure adequate funding would be allocated for the projects. These cost estimates also provided necessary inputs to the Station's bid into the PJM regional transmission organization's 2022/2023 Reliability Pricing Model Base Residual Auction.

Preliminary Retrofit Plans & Closure Prioritization Category Designations

In mid-April 2021, the Illinois CCR Rule was finalized and adopted as the new Part 845 to Title 35 of the Illinois Administrative Code (35 Ill. Adm. Code 845). The Illinois CCR Rule became effective on April 21, 2021, approximately three weeks later than the anticipated effective date of March 30, 2021. Upon adoption of the Illinois CCR Rule into the Illinois Administrative Code, MWG began preparing the initial operating permit applications for the Station's Ash Surge and Bypass Basins required by 35 Ill. Adm. Code 845.230(d)(1), MWG's preliminary written retrofit plans for the basins as required by 35 Ill. Adm. Code 845.770(a)(3), and the basins' closure prioritization category designations required by 35 Ill. Adm. Code 845.700(g). On May 21, 2021, 30 days after the Illinois CCR Rule became effective, MWG submitted its preliminary written retrofit plans, the closure category designations, and justifications for the closure category designations for the Ash Surge and Bypass Basins to the Illinois EPA.

As anticipated and as stated in the Demonstration, MWG classified the Ash Surge and Bypass Basins as Category 7 CCR surface impoundments pursuant to the closure prioritization categories defined in 35 Ill. Adm. Code 845.700(g)(1). As stated in the regulation, a Category 7 CCR surface impoundment has the lowest priority for closure. Thus, retrofit construction permit applications submitted for the Ash Surge and Bypass Basins are at the lowest priority for the Illinois EPA to review and process. Accordingly, the Illinois CCR Rule does not require these permit applications to be submitted to the Illinois EPA until August 1, 2023. While MWG will submit a retrofit construction permit application for the Bypass Basin earlier than August 1, 2023, it is important to note that the Illinois EPA will prioritize closing CCR surface impoundments that have impacted an existing potable water supply well (Category 1), are an imminent threat to human health or the environment (Category 2), are located in areas of environmental justice concern (Category 3), have an exceedance of groundwater protection standards (Categories 4 and 5), or are inactive and do not have an exceedance of groundwater protection standards (Category 6).

Initial Operating & Retrofit Construction Permit Applications

As previously stated, MWG began preparing the initial operating permit applications for the Station's Ash Surge and Bypass Basins upon adoption of the Illinois CCR Rule into the Illinois Administrative Code in mid-April 2021. As its name suggests, an Illinois EPA operating permit is required to operate an existing CCR surface impoundment under Illinois's CCR program. An operating permit for the Bypass Basin not only covers the operation of the existing basin but will eventually cover the operation for the retrofitted impoundment. Moreover, much of the information required by 35 Ill. Adm. Code 845.230(d)(2) for an initial operating permit is also required for a retrofit construction permit pursuant to 35 Ill. Adm. Code 845.220(b), including:

- Identifying information and history of construction,

- Analysis of chemical constituents of all CCR entering or contained in the CCR surface impoundment,
- Demonstration of how the CCR surface impoundment meets or explanation of how it fails to meet the Illinois CCR Rule's location standards (placement above the uppermost aquifer, wetlands, fault areas, seismic impact zones, and unstable areas and floodplains),
- Preliminary written closure plan,
- Design Information regarding the CCR surface impoundment's liner system.

Throughout the second and third quarters of 2021, MWG compiled and prepared the documentation required for the Ash Surge and Bypass Basins' initial operating permit applications, which were due to the Illinois EPA by October 31, 2021 per 35 Ill. Adm. Code 845.230(d)(1). In addition to providing the history of construction information prepared pursuant to 40 CFR 257.73(c) in 2016, MWG collected and analyzed CCR samples from the Ash Surge Basin to determine representative chemical constituents of CCR that are currently managed in the Ash Surge Basin and will eventually be managed by the retrofitted Bypass Basin, re-evaluated the basins' compliance with location standards relative to the Illinois CCR Rule, updated the basins' written closure plans for Illinois-specific design standards and to reflect the future retrofitted conditions of the ponds, and re-evaluated the basins' existing liner systems against the Illinois CCR Rule's liner design criteria. The latter ultimately demonstrated that the basins' existing HDPE geomembrane liners and underlying Poz-O-Pac liner (Ash Surge Basin only) did not meet the Illinois CCR Rule's liner design criteria and, therefore, confirmed that MWG would need to install a new composite liner system within each basin as part of retrofit construction.

In addition to the preceding documentation required in the retrofit construction permit applications for the Ash Surge and Bypass Basins, MWG also performed the following periodic assessments required by 40 CFR 257.73 to be performed every five years: hazard potential classification assessment, structural stability assessment, safety factor assessment, and inflow design flood control system plan (*i.e.*, hydrologic and hydraulic capacity assessment). Based on the timing, MWG updated these assessments to demonstrate compliance with both the Federal and Illinois CCR Rules' respective requirements for these assessments so that they could be incorporated into the Ash Surge and Bypass Basins' initial operating permit applications pursuant to 35 Ill. Adm. Code 845.230(d)(2)(O) –(R).

Pursuant to the Illinois CCR Rule, MWG submitted the preceding evaluations and information with the Ash Surge and Bypass Basins' initial operating permit applications to the Illinois EPA on October 29, 2021. MWG also posted the applications and all supporting information to its public Illinois CCR Rule compliance website. The Illinois EPA is currently reviewing these initial operating permit applications.

Retrofitted Bypass Basin Design Refinement

Concurrent with preparing the initial operating permit application for the Bypass Basin in the summer of 2021, MWG began refining the conceptual design for the retrofitted Bypass Basin from that developed earlier in the year for the budgetary cost estimate and preliminary written retrofit plan. Given the need to develop alternative disposal capacity to the existing Ash Surge Basin as soon as technically feasible, MWG prioritized completing the retrofit design and corresponding construction permit application for the Bypass Basin over the retrofitted Ash Surge Basin. MWG will submit the construction permit application for retrofitting the Ash Surge Basin after submitting the corresponding application for the Bypass Basin.

The first retrofit design item MWG addressed for the Bypass Basin was the concept of re-using the basin's existing geomembrane liner as a supplemental liner under the basin's new composite liner system pursuant to 35 Ill. Adm. Code 845.770(a)(4). Per the Illinois CCR Rule, this is subject to the approval of the Illinois EPA and requires visual inspection and analytical testing results be submitted to the Agency demonstrating the liner is not contaminated with CCR constituents. Otherwise, MWG would be required to remove the Bypass Basin's liner pursuant to 35 Ill. Adm. Code 845.770(a)(1), which would delay the start of constructing the basin's new composite liner system and LCRS.

Because MWG plans to also re-use the existing HDPE geomembrane liner in the West Ash Pond at its Waukegan Generating Station, MWG developed its proposed material removal and decontamination plans for the West Ash Pond and the retrofitted Bypass Basin in parallel with the expectation that the same (or very similar) plans would be utilized for both decontaminating both impoundments' liners. Because the West Ash Pond's closure construction permit application is a higher priority to the Illinois EPA relative to the Bypass Basin's retrofit construction permit application (Category 3 vs. Category 7), MWG plans to incorporate comments it receives from the Agency and the public on its liner decontamination plan for the West Ash Pond into the corresponding plan for the retrofitted Bypass Basin as necessary and appropriate.

In early August 2021, MWG met with the Illinois EPA to discuss its plans for the Station's Ash Surge and Bypass Basins and to discuss Petitions for an Adjusted Standard from 35 Ill. Adm. Code 845.740(a) that MWG filed with the IPCB for select CCR surface impoundments at MWG's Joliet 29, Powerton, and Waukegan Generating Stations. These petitions MWG filed with the IPCB would allow MWG to decontaminate and retain the existing HDPE geomembrane liners in the subject CCR surface impoundments after removing the CCR stored therein. Although this is permitted by the Illinois CCR Rule pursuant to 35 Ill. Adm. Code 845.770(a)(1), the Rule prohibits re-using existing liners when closing a CCR surface impoundment pursuant to 35 Ill. Adm. Code 845.740(a). For more information on MWG's Petitions for an Adjusted Standard, please refer to our letter to you regarding the process MWG has made developing alternative disposal capacity for the East Ash Pond at the Waukegan Generating Station.

Throughout the fall of 2021, MWG refined its material removal and decontamination plans for the Bypass Basin and the CCR surface impoundments it plans to close and repurpose, including the West Ash Pond at Waukegan's Generating Station. As previously stated, given the material removal and decontamination standards would be the same for the Bypass Basin and West Ash Pond, MWG developed this plan for both CCR surface impoundments in parallel. In mid-November 2021, MWG published its proposed material removal and decontamination plan for re-using existing HDPE geomembrane liners for public comment in its conceptual construction plans for closing the West Ash Pond. MWG then finalized the plan for the Illinois EPA's review in its closure construction permit applications for the East and West Ash Ponds, which were submitted to the Agency on January 28, 2021.

Preliminary Construction Plans & Technical Specifications

In January 2022, MWG began preparing the conceptual construction plans and technical specifications for the Bypass Basin's retrofit construction permit application. In addition to incorporating the material removal and decontamination plan from the Waukegan West Ash Pond closure construction permit application into the Bypass Basin retrofit plan, MWG is developing a basin floor grading plan to establish the required lines and grades for the future LCRS, specifying materials for and designing the retrofitted basin's new composite liner system and LCRS, preparing documentation that demonstrates the proposed composite liner system and LCRS comply with the applicable design standards promulgated by the Illinois and Federal CCR Rules, and preparing interface details between existing and new basin infrastructure.

In addition to the preceding construction plans and design criteria, MWG is also preparing two specifications for retrofitting the Bypass Basin. One specification will cover the technical requirements for a General Work (GW) Contractor to retrofit the Bypass Basin in accordance with the conceptual construction plans and as described in the basin's written retrofit plan. Meanwhile, the other specification will cover the field and laboratory activities for a third-party, independent Construction Quality Assurance (CQA) Contractor to provide assurance and documentation that the Bypass Basin will be retrofitted in accordance with the construction plans, specifications, and Federal and Illinois CCR Rules. This work is ongoing and is expected to be completed by April 2022.

Public Meetings

In accordance with 35 Ill. Adm. Code 845.240, MWG will hold two public meetings to discuss the retrofit construction activities for the Bypass Basin. MWG is currently working with a third-party organization to prepare for the meeting and to make the necessary reservations, such as meeting location. After the public meeting dates have been set and corresponding reservations have been made, MWG will issue public notices with detailed information on the dates, times, and locations of the two public meetings. No later than 30 days before the public meetings, MWG will post the conceptual design documents it is currently preparing to MWG's public Illinois CCR Rule compliance website for the public to review prior to these public meetings. Given that MWG expects to complete the corresponding design documents by April 2022, MWG expects these public meetings will be held in May 2022.

2. A discussion of the issues that led to the delay (if a delay has occurred) to the requested date to cease receipt of waste.

As detailed in our response to Question 1, MWG changed its plans for developing alternative disposal capacity for the Ash Surge Basin in February 2021 after the IPCB's Second Notice regulations for the Illinois CCR Rule omitted a definition for "de minimis unit," which made it possible that the Recycle Cooling Water Basin proposed in the Demonstration would be regulated as a CCR surface impoundment. However, MWG has been developing the new alternative disposal facility selected to replace the Ash Surge Basin – retrofitting the Bypass Basin with an Illinois CCR Rule-compliant composite liner system and LCRS – with the intent of having the retrofitted Bypass Basin operational by August 11, 2023, the alternative deadline that MWG requested in the Demonstration to cease placing CCR and non-CCR wastestreams into the Ash Surge Basin. Although it is MWG's intent to meet the original alternative deadline we requested, the timeframes associated with obtaining a construction permit from the Illinois EPA to retrofit the Bypass Basin and to ultimately obtain approval to re-use the basin's existing HDPE geomembrane liner under the basin's new composite liner system may cause delays. These potential delays are discussed in detail below.

Time Required to Issue Final Construction Permit

Before MWG can retrofit the Bypass Basin, the Illinois EPA must first issue the corresponding construction permit. Based on MWG's current plans to hold the required public meetings on its proposed retrofit plans for the Bypass Basin in May 2022, MWG expects to submit the retrofit construction permit application for the Bypass Basin in June 2022. As stated in the Demonstration, the time required for the Illinois EPA to perform its review is unknown but is expected to take several months based on the large number of operating and closure construction permit applications the Agency has received since the Illinois CCR Rule became effective and the potential need for other state agencies like the Illinois Department of Natural Resources to review information provided in these permit applications.⁴

Upon issuing a draft construction permit for the project, the Illinois EPA will prepare and distribute a public notice of its tentative decision to issue the permit. This public notice will start a 30-day-minimum public comment period which may be extended to accommodate a public hearing if, per 35 Ill. Adm. Code 845.260(d)(1), the Illinois EPA determines "there exists a significant degree of public interest in the proposed permit." As stated in the Demonstration, MWG expects a public hearing will be requested during the public comment period and anticipates the public hearing will take approximately two months to schedule and hold. After consideration of the public comments the Agency receives on the draft retrofit construction permit, including those submitted during a potential public hearing, the Illinois EPA will then make a final permit determination.

As stated in the Demonstration, MWG expects the overall permitting process to take at least 13 months based on MWG's experience with obtaining other permits from the Illinois EPA, the time required to

⁴ The Illinois EPA has stated that it could take years to issue a permit. See *Midwest Generation, LLC v. Illinois EPA*, PCB21-108 (Variance-Land), Hearing Transcript, pp. 117:10-11; 119:6-15 (July 27, 2021).

conduct the required public comment period and to hold the potential public hearing on the construction permit, and the large number of operating and construction permit applications the Agency has to review. The general review of construction permit applications is also subject to the closure prioritization categories promulgated by 35 Ill. Adm. Code 845.700(g). Based on this regulation, as previously stated, the Agency will prioritize reviewing other CCR surface impoundment closure and retrofit construction permit applications because the Bypass Basin has been classified as a Class 7 CCR surface impoundment, which has the lowest closure priority.

Time Required to Receive Approval to Re-Use Existing Liner

As previously discussed and pursuant to 35 Ill. Adm. Code 845.770(a)(4), MWG will need to conduct visual inspection and analytical testing to demonstrate that the Bypass Basin's existing HDPE geomembrane liner is not contaminated with CCR constituents and submit the results to the Illinois EPA for approval before the liner can be used as a supplemental liner under the new composite liner system. Similar to the time required for the Illinois EPA to review MWG's construction permit application for retrofitting the Bypass Basin and to complete the public comment period, it is unknown how long the Agency will need to review the CQA results for the pond liner decontamination work. In MWG's preliminary written retrofit plan for the Bypass Basin that MWG submitted to the Illinois EPA, MWG has conservatively assumed the Agency will need three months to complete its review of the liner decontamination results. This 3-month timeframe includes an allowance for responding to the Agency's requests for additional information, clarification, *etc.*, so the overall review may require less time if the Illinois EPA only has minor comments and questions.

Time Required to Receive Approval for Using Retrofitted Bypass Basin

Pursuant to 35 Ill. Adm. Code 845.770(g), MWG must submit a retrofit completion report to the Illinois EPA for review following the completion of all retrofit activities, which the Agency must approve before the Bypass Basin can be certified as retrofitted. Like the timeframe assumed for the Agency to review the CQA results for decontaminating the liner, MWG has conservatively assumed the Illinois EPA will need three months to complete its review of the retrofit completion report and approve the basin's use, which includes an allowance for responding to the Agency's requests for additional information, clarification, *etc.* The overall review may require less time if the Illinois EPA only have minor comments and questions.

Planning Level Schedule for Retrofitting Bypass Basin

The following table presents the planning level schedule MWG developed for retrofitting the Bypass Basin and included in the basin's preliminary written retrofit plan, which was submitted to the Illinois EPA in May 2021. Based on this schedule and MWG's progress to date in designing and permitting the retrofitted Bypass Basin, MWG expects to have a final construction permit to retrofit the Bypass Basin by June 2023. MWG plans to have the GW and CQA Contractors hired to perform the retrofit work and CQA work, respectively, by the time the Illinois EPA issues the final construction permit so that the retrofit work can start as soon as possible. Although the liner decontamination work and subsequent composite liner and LCRS construction work are only anticipated to take about three weeks each (six weeks total), the latter construction work cannot begin until the Illinois EPA completes its review of the CQA results, and the retrofitted Bypass Basin cannot operate until the Agency approves the retrofit completion report. Assuming the Illinois EPA requires the three months shown in the following table for each review, the retrofitted Bypass Basin would not be operational until the end of 2023 at the earliest.

While the timeframes in the planning level schedule below extend the retrofitted Bypass Basin project beyond the original deadline of August 11, 2023 that MWG requested in its Demonstration, MWG is not requesting an updated date to cease receipt of waste in the Ash Surge Basin at this time because the overall schedule could progress faster than currently expected if the Illinois EPA issues a final construction permit for the work sooner than expected and/or completes its reviews of the Bypass Basin retrofit work sooner than expected. Even though the timeframes for permitting and review are based on past experience with other Illinois EPA permits and mandatory timeframes prescribed by the Illinois CCR

Rule, MWG is optimistic the overall permitting and review timeframes will be conservative estimates given the relatively small scope and straightforward nature of the work required to retrofit the Bypass Basin. If MWG considers an extension necessary based on delays in either of these activities, then MWG will file a request in accordance with 40 CFR 257.103(f)(1)(vii) for additional time to operate the Ash Surge Basin while the Bypass Basin is being retrofitted immediately upon determining that additional time is necessary to complete the project.

Activity	Estimated Duration
Prepare Retrofit Construction Design Documents	6 Months
Obtain Retrofit Construction Permit from Illinois EPA	13 Months
Hire Contractor to Complete Retrofit Activities in Accordance with Illinois EPA Permit	4 Months
Remove Protective Granular Layers Above Existing Liner	1 Week
Decontaminate Existing Liner and Basin Appurtenances (Including Laboratory Testing)	3 Weeks
Obtain Approval from Illinois EPA to Re-Use Existing Liner as Supplemental Liner	3 Months
Install Composite Liner System	1 Week
Install LCRS (Including Filter and Protective Layers)	1 Week
Submit Retrofit Completion Report and Certification to Illinois EPA	1 Week
Obtain Approval of Retrofit Complete Report and Certification from Illinois EPA	3 Months
Complete and Certify Retrofit of the Bypass Basin	--

3. An updated requested date to cease receipt of waste (if the original date has changed).

Per our response to Question 2, MWG is not requesting an updated date to cease receipt of waste in the Ash Surge Basin at this time.

4. An updated narrative justifying the new date to cease receipt of waste (if the original date requested has changed).

Per our response to Question 2, MWG is not requesting an updated date to cease receipt of waste in the Ash Surge Basin at this time. However, as we also noted in our response to Question 2, the time required to receive a final construction permit from the Illinois EPA to retrofit the Bypass Basin may cause delays that necessitate an extension to the originally requested deadline of August 11, 2023. If MWG considers an extension necessary based on a delay in permitting, then MWG will file a request in accordance with 40 CFR 257.103(f)(1)(vii) for additional time to operate the Ash Surge Basin while the Bypass Basin is being retrofitted immediately upon determining that additional time is necessary to complete the project.