Buckley, Jill

From: Hillyer, Kirsten <hillyer.kirsten@epa.gov>
Sent: Monday, February 14, 2022 2:55 PM
To: Bacher, David
Cc: Huggins, Richard; Behan, Frank; Celeste, Laurel
Subject: Waukegan - CCR Part A Demonstration, Request for Additional Information

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 Waukegan 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 Waukegan 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: Waukegan 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 East Ash Pond at the Waukegan Generating Station ("Station") as proposed in Midwest Generation LLC's (MWG) 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 enclosed.

We look forward to working with the U.S. EPA as we continue developing alternative disposal capacity for the East Ash Pond. 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 Waukegan Generating Station's East Ash Pond

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

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 East Ash Pond with a multiple technology system consisting of a remote submerged scraper conveyor (SSC) and a new low volume waste pond, which would provide alternative disposal facilities for the coal combustion residual (CCR) and non-CCR waste streams, respectively, currently being managed in the Station's East Ash Pond. The intent of this multiple technology system was to provide a holistic solution that (1) would provide alternative disposal capacity to the East Ash Pond pursuant to the U.S. EPA's CCR Rule and (2) would separate the CCR and non-CCR wastestreams that were commingling in the East Ash Pond 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 Rule[1]. Both alternative disposal facilities would be located within the footprint of the West Ash Pond to take advantage of the Station's existing infrastructure and therefore reduce design and construction time. The West Ash Pond was selected for the sites of the new remote SSC and Low Volume Waste Pond in part because the Station had taken the pond out of service in June 2020 for routine cleaning, so repurposing the area for these alternative disposal facilities would take less time than at the East Ash Pond or other potential sites evaluated in the Demonstration.

After submitting the Demonstration to the U.S. EPA on November 30, 2020, MWG proceeded with developing the proposed alternative disposal facilities for the East Ash Pond in accordance with the activities presented in the Project Schedule included in Section 2 and described in Section 3 of the Demonstration. However, on June 17, 2021, MWG's parent company NRG Energy announced that the Station's two coal-fired electric generating units, Units 7 and 8, would be retired by June 1, 2022 after unexpectedly failing to "clear" the PJM Interconnection's 2022/2023 Base Residual Auction that was held in mid-May 2021. Given these unexpected retirements, MWG determined it was no longer appropriate to install a remote SSC as proposed in the Demonstration because, in part, the earliest anticipated installation date for the remote SSC was October 11, 2023, approximately 16 months after the planned retirement date for Units 7 and 8. Accordingly, MWG ceased all activities associated with developing a new remote SSC for the Station after the announced retirement of Units 7 and 8 in mid-June 2021. Because the Station will continue to operate two ultra-low-sulfur diesel (ULSD) fired peaking units and thus will continue to operate as an industrial facility, the Station still needs a new stormwater retention basin to replace the East Ash Pond as a means of managing the site's stormwater. Accordingly, MWG has continued with its plans to install a new low volume waste pond / stormwater retention basin within the limits of the existing West Ash Pond to meet this operational need.

The following paragraphs summarize the progress MWG made in developing the remote SSC and new low volume waste pond that MWG originally proposed in the Demonstration prior to the announcement that the Station's Units 7 and 8 would be retired by June 1, 2022, and the progress MWG has made since that June 2021 announcement in developing a new stormwater retention basin to be located within the existing limits of the West Ash Pond.

Original Remote SSC & Low Volume Waste Pond Project

Ash Removal from West Ash Pond

As mentioned in the Demonstration, the Station took the West Ash Pond out of service for routine cleaning in June 2020 and began drawing down the surface water in the pond to dewater the CCR stored

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

therein. In accordance with historical Station cleaning practices, the Station has methodically dewatered and removed CCR from the pond since taking it out of service. This work was performed to expedite the future closure of the West Ash Pond, and CCR was removed up to the depth of the protective granular layer present along the pond 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 West Ash Pond's 2019 annual inspection, which occurred approximately six months before the Station took the pond out of service, the estimated volume of CCR stored in the pond was approximately 83,000 cubic yards[2]. By June 2021, the Station had removed the majority of the impounded CCR with about 7,000 cubic yards of CCR remaining. This is the estimated volume of CCR remaining in the West Ash Pond at this time, which MWG plans to have removed as part of closure construction activities for the pond.

Budgetary Cost Estimate Update

Upon submitting the Demonstration to the U.S. EPA, MWG began updating the budgetary cost estimate for the remote SSC and new low volume waste pond that was originally prepared in 2019 in accordance with the revisions and refinements that were made and described in the 2020 Demonstration. This revised cost estimate was finished on February 3, 2021.

Conceptual Design Refinement

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. As detailed in the Demonstration, the IPCB had concluded the public-hearing phase of the rulemaking process for adopting the Illinois CCR Rule as authorized by Illinois Public Act 101-0171 when the Demonstration was submitted to the U.S. EPA on November 30, 2020. The Second Notice regulations published by the IPCB on February 4, 2021 included the IPCB's opinion on the Illinois EPA's proposal for the Illinois CCR Rule (included as Appendix D to the Demonstration), which the IPCB largely accepted with some modifications.

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 those regulations to be "close enough to final" to start refining the general arrangement for the remote SSC presented in Appendix A to the Demonstration. Accordingly, between February and April 2021, MWG refined the conceptual design for the remote SSC and its corresponding enclosure by:

- Revising two design features for the remote SSC.
    - Specifying a hydraulic chain tensioner for the remote SSC instead of an electric one. Except for a small air compressor for the air-operated valves, this design revision eliminated the need for air compressors and corresponding piping that were included in the conceptual design submitted with the Demonstration.
    - Including modifications to the existing crushers' hydraulic power units for speed control to prevent potential overload to the remote SSC in the remote SSC vendor's scope of work.
    - As part of these design changes, MWG requested and received a proposal from a potential SSC vendor that would then be used as an input into an updated budgetary cost estimate.

[2] Civil & Environmental Consultants, Inc. "Annual Inspection Report, East Ash Pond and West Ash Pond, Waukegan Station." October 16, 2019.

- Reducing the footprint required for the SSC enclosure area by removing, relocating, or optimizing the space required for the various mechanical and electrical components that would support the remote SSC operations. This design change reduced the volume of concrete that would be required to construct the enclosure's foundation and perimeter walls.
- Minimizing the heights of the perimeter walls, which further reduced the volume of concrete required to construct the enclosure.
    - Instead, the fabric enclosure sides would be extended to compensate for the decreased height of the perimeter walls.
    - As part of this design change, MWG requested and received a proposal from a potential vendor that would then be used as an input into an updated budgetary cost estimate.
- Configuring the foundation to slope towards a single collection trench that would gravity-drain to the Recycle Water Sump.

As MWG refined its conceptual design for the remote SSC, MWG also adjusted its budgetary cost estimate for the project from the February 2021 version. This cost estimate ultimately provided a necessary input to the Station's bid price for supplying electricity to the 2022/2023 Reliability Pricing Model for the ComEd Zone of the PJM Interconnection, the regional transmission organization (RTO) to which the Station belongs. As described later in this narrative, PJM Interconnection routinely holds Base Residual Auctions (BRA) to procure a target electrical capacity for the region in future years in a least-cost manner. The February 2021 cost estimate and subsequent updates were used to support the Station's bid price for the 2022/2023 BRA which opened in mid-May 2021.

Final Illinois CCR Rule & 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. Immediately upon adoption of the Illinois CCR Rule, MWG began preparing the initial operating permit applications required by 35 Ill. Adm. Code 845.230(d)(1) for the Station's East and West Ash Ponds and the preliminary closure documents that would eventually be incorporated into the ponds' closure construction permit applications. The first sets of documents MWG began preparing for the East and West Ash Ponds' closure construction permit applications were the closure category designations required by 35 Ill. Adm. Code 845.700(c) and the preliminary written closure plans required by 35 Ill. Adm. Code 845.720(a). On May 21, 2021, 30 days after the Illinois CCR Rule became effective, in accordance with the relative timeframe presented in the Project Schedule, MWG submitted the closure prioritization category designations for the East and West Ash Ponds and corresponding justifications for the designations to the Illinois EPA. As anticipated and as stated in the Demonstration, both ponds were designated as Category 3 CCR surface impoundments because the Station is located in an area of environmental justice concern as defined by the Illinois EPA. Consequently, pursuant to 35 Ill. Adm. Code 845.700(h), MWG was required to submit closure construction permit applications for both ponds to the Illinois EPA by February 1, 2022.

PJM Auction Results & Announced Retirement of Units 7 and 8

As mentioned earlier in this narrative and in the Demonstration, the Station is located in the ComEd Zone of the PJM Interconnection, an RTO that coordinates the electric transmission systems in all or parts of 13 states and Washington, D.C. To ensure the region's electrical reliability needs are met, PJM Interconnection routinely holds BRAs to procure a target electrical capacity for the region in future years in a least-cost manner. On May 19, 2021, PJM Interconnection opened the 2022/2023 BRA and the Station submitted its bid price for supplying electricity to the RTO. On June 2, 2021, PJM Interconnection posted the results for the 2022/2023 BRA, and the Station unexpectedly did not meet the RTO's Resource Clearing Price (*i.e.*, the Station did not "clear" the forward capacity auction).

Based on this disappointing and unexpected result in PJM Interconnection's 2022/2023 BRA, MWG's parent company NRG Energy announced on June 17, 2021 that the Station's two coal-fired electric generating units, Units 7 and 8, would be retired by June 1, 2022. After this announcement was made, MWG began re-evaluating the Station's needs for alternative disposal capacity to replace the East Ash Pond. Given that the retirements of the Station's coal-fired units, MWG determined that it was no longer appropriate to install a remote SSC as proposed in the Demonstration because, in part, the earliest anticipated installation date for the remote SSC was October 11, 2023, approximately 16 months after the planned retirement date for Units 7 and 8. However, the Station will continue to operate two ULSD fired peaking units and thus will continue to operate as an industrial facility. Therefore, the Station still needs a new stormwater retention basin to replace the East Ash Pond as a means of managing the site's stormwater. Accordingly, MWG continued with its plans to install a new low volume waste pond / stormwater retention basin to meet this operational need.

As part its re-evaluation of the Station's needs for alternative disposal capacity to replace the East Ash Pond, MWG considered the original cessation of waste deadlines requested in the Demonstration for the East Ash Pond, a potential request to the U.S. EPA to continue operating the pond pursuant to 40 CFR 257.103(f)(2) instead of 40 CFR 257.103(f)(1), and the compliance requirements and timeframes stipulated by the Federal CCR Rule and Illinois CCR Rule. Despite the unexpected announcement that Units 7 and 8 would be retired, MWG still sought to have the new stormwater retention basin operational by June 16, 2023, the alternative deadline that MWG requested in the Demonstration to cease placing non-CCR wastestreams in the East Ash Pond. Although the retirement of Units 7 and 8 would allow MWG to continue operating the East Ash Pond under 40 CFR 257.103(f)(2), MWG determined that it would not be feasible to complete closure of the East Ash Pond by October 17, 2023 as required by 40 CFR 257.103(f)(2)(iv)(A) given the anticipated time required to permit and construct a new stormwater retention basin and to close the East Ash Pond.

Ultimately, MWG determined that converting the entire West Ash Pond into a stormwater retention basin would provide the fastest path to developing alternative disposal capacity to the East Ash Pond for the site's stormwater. While MWG intended to only repurpose a portion of the West Ash Pond's east channel into a low volume waste pond in its original alternative disposal capacity plan, the removal of a remote SSC from consideration made the entire West Ash Pond area available to be repurposed as a stormwater retention basin (MWG had planned to install the remote SSC in the northeastern corner of the West Ash Pond). Because all of the infrastructure required to convey and manage stormwater in the West Ash Pond area is already in-place, the only construction work required to repurpose the area as a stormwater retention basin is to remove the remaining CCR in the pond, remove the protective granular fill layer above the pond's existing geomembrane liner, and decontaminate the pond's existing geomembrane liner and concrete structures.

New Stormwater Retention Basin Project

Closure Alternatives Analysis: Groundwater Modeling

In July 2021, MWG started working on the closure alternatives analysis required by 35 Ill. Adm. Code 845.710(c) for closing the Station's East and West Ash Ponds. The first task MWG started was the development of a numerical groundwater flow model for the site that could be used to evaluate potential groundwater flow paths under the ponds to evaluate the short- and long-term effectiveness of proposed closure scenarios for each pond relative to groundwater quality improvements. Pursuant to 35 Ill. Adm. Code 845.710(d)(2) and (3), this groundwater contaminant transport modeling would ultimately be used as an input in evaluating the effectiveness of MWG's proposed plan of closing the West Ash Pond by removing the CCR stored therein per 35 Ill. Adm. Code 845.740 and 40 CFR 257.102(c) relative to closing the pond by leaving the stored CCR in-place and installing a final cover system per 35 Ill. Adm. Code 845.750 and 40 CFR 257.102(d).

Illinois CCR Rule Requirements & Petition for an Adjusted Standard

While the Illinois CCR Rule allows the re-use of an existing, competent geomembrane liner when retrofitting an existing CCR surface impoundment[3], the Rule's closure-by-removal regulations require the liner, all impoundment structures, and ancillary equipment to be removed regardless of their conditions[4]. Conversely, the Federal CCR Rule's closure-by-removal regulations permit the re-use of the West Ash Pond's appurtenances provided they are decontaminated of CCR constituents[5]. Therefore, repurposing the West Ash Pond as a stormwater retention basin pursuant to the Illinois CCR Rule would require MWG to remove the pond's existing geomembrane liner and concrete structures, which would eliminate a major benefit of installing the stormwater retention basin at the West Ash Pond site (*i.e.*, re-use of existing infrastructure). This action would add significantly more time to the overall implementation schedule to procure a new geomembrane liner and reconstruct the necessary pond appurtenances at the site. It would also waste the West Ash Pond's competent geomembrane liner, which MWG has taken great care to prevent damaging during routine cleanings. Even in the rare occasions where the liner was damaged during a cleaning, MWG would ensure the necessary repairs were made prior to placing the pond back into service.

To ensure a stormwater retention basin could be constructed as soon as technically feasible to replace the East Ash Pond, MWG filed an Amended Petition for an Adjusted Standard from 35 Ill. Adm. Code 845.740(a) on September 17, 2021 to allow the Station to decontaminate and retain the West Ash Pond's existing HDPE geomembrane liner. In the Amended Petition, MWG proposed the following adjusted standard from 35 Ill. Adm. Code 845.740(a) for closing the West Ash Pond:

> "MWG may close by removing and decontaminating all areas affected by releases from the West Pond at the Waukegan Station. CCR removal and decontamination of the West Pond is complete when the CCR in the West Pond and any areas affected by releases from the CCR surface impoundment have been removed. MWG must conduct visual inspection and analytical testing to demonstrate that the geomembrane liner in the West Pond is not contaminated with CCR constituents. MWG must submit the results to the Illinois EPA."

MWG's Amended Petition modified MWG's initial Petition for an Adjusted Standard from 35 Ill. Adm. Code 845.740(a) that was filed on May 11, 2021 to decontaminate and retain the East Ash Pond's existing HDPE geomembrane liner after removing the CCR stored therein (IPCB Case No. AS 2021-003). However, the need for the East Ash Pond area as a low volume waste pond / stormwater retention basin is no longer needed given the planned retirements of Units 7 and 8 on June 1, 2022. It should be noted that MWG's Amended Petition for an Adjusted Standard stays the requirement to remove the West Ash Pond's existing HDPE geomembrane liner pending the IPCB's decision.[6]

Since filing the initial and amended Petitions for an Adjusted Standard, MWG has met with the Illinois EPA to discuss the petition and to answer the Illinois EPA's questions regarding the petition. MWG has also responded to several requests for additional information and clarifications from the Illinois EPA as the agency prepares its recommendation to the IPCB on approving or denying MWG's requested alternative standard to 35 Ill. Adm. Code 845.740(a). The Illinois EPA is currently preparing its recommendation, which is due to the IPCB by May 26, 2022.

Closure Alternatives Analysis: Engineering Evaluations

In early September 2021, MWG started the remaining engineering evaluations required by 35 Ill. Adm. Code 845.710(b) and (c) for the closure alternatives analysis for the Station's East and West Ash Ponds

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[3] 35 Ill. Adm. Code 845.770(a)(4)
[4] 35 Ill. Adm. Code 845.740(a)
[5] 40 CFR 257.102(c)
[6] 415 ILCS 5/28.1(e)

in addition to the numerical groundwater flow model that MWG had been developing throughout the summer of 2021. Ultimately, MWG evaluated six closure scenarios for the Station's ash ponds:

1. West Ash Pond: Closure-by-Removal
2. West Ash Pond: Closure-in-Place
3. East Ash Pond: Closure-by-Removal
4. East Ash Pond: Closure-in-Place with Minimal Grading / Earthwork
5. East Ash Pond: Closure-in-Place with Maximum Grading / Earthwork
6. East Ash Pond: Closure-in-Place with Intermediate Grading / Earthwork

Pursuant to 35 Ill. Adm. Code 845.710(b), MWG evaluated the following criteria for each of the preceding closure methods:

- Level of effectiveness and protectiveness in the short- and long-term;
- Ability to control future releases to the environment;
- Degree of difficulty to implement; and
- Extent to which concerns of residents impacted by the closure construction are addressed, including CCR handling, transportation, and final disposal.

In addition to the preceding evaluation criteria, MWG also performed the following tasks as part of the closure alternatives analysis for the East and West Ash Ponds in accordance with 35 Ill. Adm. Code 845.710(c):

- Evaluated whether a landfill could be constructed at the Station to dispose of the CCR removed from the East and/or West Ash Ponds,
- Prepared a Class 4 cost estimate for each of the six closure methods evaluated in the analysis in accordance with the Association for the Advancement of Cost Engineering's (AACE) classification standards,
- Evaluated each closure method's impact to waters in Illinois.

In November 2021, MWG finished the preliminary evaluations of the six aforementioned closure scenarios. These preliminary results were then published on MWG's public Illinois CCR Rule compliance website[7] for the public to review prior to the public meetings that MWG held in mid-December 2021 to discuss MWG's proposed plans for closing the Station's East and West Ash Ponds.

Preliminary Closure Plans, Construction Plans, & Technical Specifications

In October 2021, MWG began preparing the preliminary written closure plans, conceptual construction plans, and technical specifications for the East and West Ash Ponds' closure construction permit applications. Based on the preliminary results of the engineering evaluations performed and numerical groundwater models prepared for the closure alternatives analysis, MWG prepared these documents on the basis of closing the West Ash Pond by-removal for the purposes of repurposing the area as a stormwater retention basin and closing the East Ash Pond in-place with a final cover system. Together, the conceptual construction plans and technical specifications depicted and specified the closure designs and standards for the East and West Ash Ponds as described in the ponds' respective preliminary written closure plans.

MWG prepared nine conceptual construction plans and two technical specifications for the East and West Ash Ponds. One specification covers the technical requirements for a General Work (GW) Contractor to close the East and West Ash Ponds in accordance with the conceptual construction plans and as described in the ponds' written closure plans. Meanwhile, the other specification covers the field and laboratory activities for a third-party, independent Construction Quality Assurance (CQA) Contractor to provide assurance and documentation that the East and West Ash Ponds were closed in accordance with the construction plans, specifications, and Federal and Illinois CCR Rules. MWG finished the preliminary

[7] https://midwestgenerationllc.com/illinois-ccr-rule-compliance-data-and-information/

versions of these design documents and the corresponding written closure plans in November 2021. Like the preliminary results of the closure alternatives analysis, these conceptual design documents were then posted to MWG's public Illinois CCR Rule compliance website for the public to review prior to the public meetings MWG's held in mid-December 2021 on the proposed closure plans for the East and West Ash Ponds.

Public Meetings

In accordance with 35 Ill. Adm. Code 845.240 and 845.710(e), MWG held two public meetings to discuss the proposed closure activities for the East and West Ash Ponds and the results from the closure alternatives analysis. These meetings were held virtually on December 15 and 16, 2021.

MWG began planning for the public meetings on the proposed closure plans for the East and West Ash Ponds in June 2021 by first hiring a third-party organization to organize, broadcast, and moderate the virtual meetings as well as provide translations for non-English speaking residents. Then, in early November 2021, MWG issued a public notice of the virtual public meetings to all residents within at least one mile of the Station, posted the notice in 33 public locations within 10 miles of the Station, and published the notice on MWG's public Illinois CCR Rule compliance website.

Immediately following the mid-December 2021 public meetings, MWG began preparing a general summary of the issues raised by the public during the meetings. This general summary included responses to the concerns and questions submitted by the public. In accordance with 35 Ill. Adm. Code 845.240(g), MWG finalized and posted this general summary to MWG's public Illinois CCR Rule compliance website on December 30, 2021, 14 days after the public meetings were held.

Final Closure Construction Permit Application Documents

In early January 2022, MWG began finalizing the closure alternatives analysis, written closure plans, and closure construction documents for the closure construction permit applications for the East and West Ash Ponds. Based on the results of the final closure alternatives analysis, MWG selected a final closure method for each pond: closure-by-removal for the West Ash Pond for the purposes of reusing the area as a stormwater retention basin and closure in-place for the East Ash Pond. On January 28, 2021, upon finalizing the ponds' closure alternatives analysis, written closure plans, conceptual design drawings, and technical specifications, MWG submitted the corresponding closure construction permit applications to the Illinois EPA and published the applications on MWG's public Illinois CCR Rule compliance website.

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 had to change its plans for developing alternative disposal capacity for the East Ash Pond in June 2021 after NRG Energy announced that the Station's two-coal fired electric generating units would be retired by June 1, 2022. However, MWG has been developing the new alternative disposal facility selected for the site's stormwater, a new retention basin within the limits of the closed and decontaminated West Ash Pond, with the intent of having the West Ash Pond closed and the new stormwater retention basin operational by June 16, 2023, the alternative deadline that MWG requested in the Demonstration to cease placing non-CCR wastestreams into the East Ash Pond. 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 close the West Ash Pond and to ultimately obtain approval to re-use the former West Ash Pond area as a stormwater retention basin may cause delays. These potential delays are discussed in detail below.

Time Required to Issue Final Construction Permit

Illinois EPA Review & IPCB Ruling on Adjusted Standard

Before MWG can construct the new stormwater retention basin within the West Ash Pond, the Illinois EPA must first issue the corresponding closure construction permit. As previously stated, MWG submitted the corresponding permit application to the Illinois EPA on January 28, 2022. As stated in the Demonstration, the time required for the Illinois EPA to perform its review and make a tentative determination on issuing a closure construction permit 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.[8]

The timeframe for the Illinois EPA to issue a draft permit for closing the West Ash Pond is also contingent on when the IPCB issues its ruling on MWG's Petition for an Adjusted Standard from 35 Ill. Adm. Code 845.740(a) to allow the Station to decontaminate and retain the West Ash Pond's existing HDPE geomembrane liner for the new stormwater retention basin MWG plans to operate at the site. Because MWG's Amended Petition for an Adjusted Standard stays the application of the requirement to remove the liner pending the IPCB's decision, the closure construction permit application that MWG submitted to the Illinois EPA is based on this plan, so the Agency cannot issue a draft permit for the proposed closure construction work until the IPCB makes its ruling. As previously stated, the Illinois EPA is currently working on its recommendation to the IPCB on whether MWG should be granted the adjusted standard; the agency's recommendation is due to the IPCB by May 26, 2022. After the Illinois EPA files its recommendation, MWG will have an opportunity to file a response to the agency's recommendation before the IPCB makes a ruling on the petition. Prior to making its ruling, the IPCB may hold a hearing on the matter, which MWG has requested.

Construction Permit Issuance

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 closure 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 about a year based on MWG's experience with obtaining other permits from the Illinois EPA, the time required to 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).

Time Required to Receive Approval to Re-Use West Ash Pond Area

Assuming the IPCB approves MWG's Petition for an Adjusted Standard from 35 Ill. Adm. Code 845.740(a) for the West Ash Pond, MWG will need to conduct visual inspection and analytical testing to demonstrate that the West Ash Pond's existing HDPE geomembrane liner is not contaminated with CCR constituents and submit the results to the Illinois EPA for approval before the area can be re-used as a stormwater retention basin. Similar to the time required for the Illinois EPA to review MWG's construction

[8] 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).

permit application for closing the West Ash Pond 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. Pursuant to 35 Ill. Adm. Code 845.760(e), MWG must also submit a final closure report to the Illinois EPA for review following the completion of all closure activities, which the agency must also approve before the West Ash Pond can be certified as closed. MWG expects to issue the CQA results for decontamination of the West Ash Pond's liner in advance of the complete closure report (which will include the aforementioned liner decontamination results) to ensure the Illinois EPA's reviews are completed as soon as technically feasible. In MWG's written closure plan for the West Ash Pond, MWG has conservatively assumed the agency will need three months to complete its review of the liner decontamination results and the final closure report but also expects these activities can be performed in parallel after MWG submits the latter report. The 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.

Planning Level Schedule for Developing Stormwater Retention Basin

The following table presents the planning level schedule MWG developed for closing the West Ash Pond, which was included in the pond's final written closure plan that was submitted to the Illinois EPA with MWG's closure construction permit application for the West Ash Pond. Based on this schedule, MWG anticipates having a final construction permit to close the West Ash Pond by January 2023, assuming the IPCB approves MWG's Petition for an Adjusted Standard from 35 Ill. Adm. Code 845.740(a) in the summer of 2022 to facilitate the Illinois EPA's issuance of a permit for the work. MWG plans to have the GW and CQA Contractors hired to perform the closure work and CQA work, respectively, by the time the Illinois EPA issues the final construction permits so that closure work can start as soon as possible. Based on the expected timing of receiving a construction permit, MWG anticipates this closure work occurring in the winter and early spring of 2023. While there are general labor inefficiencies associated with winter construction, which could lead to schedule delays during particularly inclement weather, MWG is hopeful the West Ash Pond area can be emptied and decontaminated by April 2023.

Assuming the Illinois EPA issues a final construction permit to close the West Ash Pond in January 2023 and requires the three months shown in the following table for reviewing and approving the re-use of the pond's liner and approving the pond's closure, then the stormwater retention basin would not be operational until July 2023. While this date is beyond the original deadline of June 16, 2023 that MWG requested in its Demonstration, MWG is not requesting an updated date to cease receipt of waste in the East Ash Pond 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 West Ash Pond liner decontamination and closure work sooner than expected. If MWG considers an extension necessary based on delays in either of these activities, then MWG will file a request for additional time in accordance with 40 CFR 257.103(f)(1)(vii) immediately upon determining that additional time is necessary to complete the project.

Activity	Estimated Duration
Prepare Closure Construction Design Documents	Complete
Submit Closure Construction Permit Application to Illinois EPA	Complete
Obtain Closure Construction Permit from Illinois EPA	12 Months
Hire Contractor to Complete Closure Activities in Accordance with Illinois EPA Permit	4 Months
Remove Protective Granular Layer Above Existing Liner	1 Month
Decontaminate Existing Liner and Pond Appurtenances (Including Laboratory Testing)	2 Months
Obtain Approval from Illinois EPA to Re-Use Existing Liner for New Stormwater Retention Basin	3 Months
Submit Completion of CCR Removal and Decontamination Report and Certification to Illinois EPA	2 Weeks
Obtain Approval of Completion of CCR Removal and Decontamination Report from Illinois EPA	3 Months
Complete and Certify Closure of the West Ash Pond	--

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 East Ash Pond 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 East Ash Pond 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 close the West Ash Pond and the time required to obtain approval from the agency to re-use the former West Ash Pond area as a stormwater retention basin may cause delays that necessitate an extension to the originally requested deadline of June 16, 2023. 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 East Ash Pond while the new stormwater retention basin is being developed immediately upon determining that additional time is necessary to complete the project.