

CCR Permit No. 2024-CC-100030
Notice No. MEL:24032601.docx

Public Notice Beginning Date: April 4, 2024

Public Notice Ending Date: May 17, 2024

Coal Combustion Residual Surface Impoundment
Permit Program

Draft Permit for Retrofit Construction of a Coal Combustion Residual Surface Impoundment.

Public Notice/Fact Sheet Issued By:

Illinois Environmental Protection Agency
Bureau of Water
Division of Water Pollution Control
Permit Section
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276
217/782-0610

Name and Address of Permittee:

Midwest Generation, LLC
13082 East Manito Rd.
Pekin, IL 61554

Name and Address of Facility:

Midwest Generation, LLC
Powerton Generating Station
13082 East Manito Rd.
Pekin, IL 61554
(Tazewell County)

The Illinois Environmental Protection Agency (IEPA) has made a tentative determination to issue a Permit for Retrofit Construction of a Coal Combustion Surface Impoundment pursuant to 35 Illinois Administrative Code Part 845 and has prepared a draft permit and associated fact sheet. The IEPA is holding a public comment period and public hearing to offer an opportunity to the public to provide both written and oral comments on this proposed action prior to making a final decision.

The IEPA is accepting written public comments on the draft permit until 11:59 p.m. Friday, May 17, 2024. If you would like to provide written comments, please email your comments to epa.publichearingcom@illinois.gov, RE: "Midwest Generation, LLC – Powerton Generating Station CCR" or "2024-CC-100030". Written comments on the draft permit may also be mailed to IEPA, attention Jeff Guy, IEPA Hearing Officer, P.O. Box 19276, 1021 North Grand Avenue East, Springfield, Illinois 62794-9276. Email comments originating on third party systems or servers intended for submittal of multiple emails of the same or nearly the same content will not be accepted without prior approval from the hearing officer.

In addition to accepting written public comments, the IEPA will host a public hearing on May 8, 2024 beginning at 6:00 p.m. to receive oral public comments on the draft permit. The public hearing will be conducted pursuant to 35 Ill. Adm. Code Part 845. The public hearing will be held in Room A at the Miller Center, 551 South 14th Street, Pekin, Illinois 61554.

A public hearing on this draft permit will be held on May 8, 2024 at 6:00 p.m. in Room A at the Miller Center, 551 South 14th Street, Pekin, Illinois 61554.

Interested persons are invited to submit written comments on the draft permit to the IEPA at:

Hearing Officer Jeff Guy, Office of Community Relations
Re: Midwest Generation, LLC – Powerton Generating Station
Illinois Environmental Protection Agency
1021 North Grand Avenue East, P. O. Box 19276
Springfield, IL 62794-9276

Requests for interpretation (including sign language) must be made by 5:00 p.m. on Wednesday, April 17, 2024 by contacting the IEPA Hearing Officer by email at epa.publichearingcom@illinois.gov, or by calling (217) 785-8724. Questions regarding hearing procedures or

requests to address special needs should be made to the IEPA Hearing Officer by email at epa.publichearingcom@illinois.gov, by calling (217) 785-8724, or by calling (866) 273-5488 (TDD phone number).

The IEPA will provide a Responsiveness Summary, which will be available at the time a final decision is made in this matter. The Responsiveness Summary will include a summary of all significant comments, criticisms, and suggestions, whether written or oral, submitted during the public comment period, at the hearing, or during the time the hearing record is open. The Responsiveness Summary will provide IEPA's response to all significant comments, criticisms, and suggestions and a statement of IEPA's action, including, when applicable, the issuance or denial of the permit.

The permit application, IEPA review notes including load limit calculations, public notice, fact sheet, draft permit, comments received, and other pertinent documents are available for inspection and may be copied at the IEPA between 9:30 a.m. and 3:30 p.m. Monday through Friday when scheduled by the interested person.

You can join the listserv for this facility at the following address:

<https://epa.illinois.gov/topics/water-quality/watershed-management/ccr-surface-impoundments.html>

For further information on the draft permit, please call Mark E. Liska at 217/782-0610.

The applicant has been operating a steam electric generating station (SIC 4911). The station operates four cyclone coal-fired wet bottom boilers to supply steam to two generating units, designated units #5 and #6 rated at 851 and 846 MW respectively.

CCR basins at the facility consist of the Ash Surge Basin, the Ash Bypass Basin, the Former Ash Basin, and the Metal Cleaning Basin. This permit will cover the retrofit construction of the Ash Bypass Basin only. The operation of the Ash Bypass Basin, Ash Surge Basin, Former Ash Basin, and Metal Cleaning Basin will be covered under a separate permit.

The Ash Bypass Basin is a settling pond for sluiced CCR and other process waters related to power generation when the Ash Surge Basin is not currently in use due to maintenance. The Ash Bypass Basin has a surface area of 0.83 acres and a storage capacity of approximately 6,700 cubic yards. The Ash Bypass Basin has not been in use since April 11, 2021.

Midwest Generation – Powerton Generating Station has an active NPDES Permit IL0002232 that regulates the discharges of wastewater from the property to waters of the United States.

The proposed Coal Combustion Residual Surface Impoundment Retrofit Construction Permit No. 2021-C0-100029 does not address the closure of any of the CCR Basins. Midwest Generation – Powerton Generating Station has submitted a separate Permit application to address the closure of the CCR basins.

Retrofit Construction of Ash Bypass Basin:

Midwest Generation – Powerton Generating Station must comply with the requirements of 35 Illinois Administrative Code Part 845. This proposed Coal Combustion Residual Surface Impoundment Retrofit Construction Permit (Permit No. 2024-CC-100030) is being issued to specify the conditions that must be followed to comply with 35 Illinois Administrative Code Part 845. In order for the permittee to use the Ash Bypass Basin for receiving CCR, it must be retrofitted with a new composite liner system and a new leachate collection and removal system in accordance with federal and state environmental regulations for CCR surface impoundments. It is therefore subject to the requirements of 35 IAC 845.220 for construction permits.

Midwest Generation, LLC – Powerton Station is currently a 1,785 MW coal-fired power plant located in Pekin, IL along the Illinois River. The facility has produced electricity since the 1928 and currently utilizes four coal-fired boilers and two electric generating units, Units 5 and 6. The site is located within Pekin Lake-Illinois River watershed which is approximately 28,834 acres.

The basin historically has managed bottom ash since it was constructed in 1980 and was retrofitted in 2010. The chemical constituents of the CCR have been analyzed in mg/kg. The max capacity of the basin is 6,700 cubic yards. The basin is currently not receiving CCR, but will receive it after retrofit and will receive up to 20 MGD of dewatering effluent, slag tank overflow, basin overflow, etc. until December 31, 2028. The facility has secure, on-site roads for transportation of people and material.

The permittee submitted a construction permit containing the physical and engineering properties of the foundation and abutment materials, the type, size, range, and physical and engineering properties of the materials used in constructing each zone or stage of the CCR surface impoundment and the method of site preparation and construction of each zone of the CCR surface impoundment.

Site drawings show details to the design, construction, operation, and maintenance of the CCR surface impoundment, detailed dimensional drawings of the CCR surface impoundment, including a plan view and cross-sections of the length and width of the CCR surface impoundment, showing all zones, foundation improvements, drainage provisions, spillways, diversion ditches, outlets, instrument locations, and slope protection, in addition to the normal operating pool surface elevation and the maximum pool surface

elevation following peak discharge from the inflow design flood, the expected maximum depth of CCR within the CCR surface impoundment, and any identifiable natural or manmade features that could adversely affect operation of the CCR surface impoundment due to malfunction or mis-operation.

Narrative Description of Proposed Construction:

The permittee's narrative of the construction is as follows: obtain the construction permit, remove the gravel warning and sand cushion layers or the existing liner, decontaminate the existing liner for re-use as a supplemental liner, decontaminate appurtenant structures, place structural fill in the basin floor to establish slopes of the new leachate collection and removal system, install new composite liner, install new leachate collection system, install sand filter layer, and install protective warning layer.

Location Standards:

The permittee provided information and certification on the placement being above the aquifer, wetlands, fault areas, seismic impact zones, unstable areas, and floodplains.

Above the Uppermost Aquifer – October 2018 conclusion approved by Geosyntec that the bottom of the Ash Bypass Basin's existing liner is separated from the upper limit of the uppermost aquifer by at least five feet.

Wetlands - October 2018 conclusion approved by Geosyntec that the Ash Bypass Basin is not located in mapped wetlands.

Fault Areas - October 2018 conclusion approved by Geosyntec that the Ash Bypass Basin is not located within 200 feet of the outermost damage zone of a fault that has had displacement in Holocene time.

Seismic Impact Zones - October 2018 conclusion approved by Geosyntec that the Ash Bypass Basin is not located within a seismic impact zone.

Unstable Areas - October 2018 conclusion approved by Geosyntec that the Ash Bypass Basin is not located in an unstable area.

Floodplain - October 2018 conclusion approved by KPRG that the Ash Bypass Basin is not located in a floodplain according to the National Flood Hazard Layer FIRMette Map No. 17179C0175E prepared by FEMA.

Meeting Design Criteria:

The plans meet these criteria in that it will have a liner that meets the criteria, it will have a new leachate collection system installed, and will have slope protection.

A. Liner requirements – 845.400(c)(1-4)

The permittee has chosen to install an alternative composite liner that meets the requirements of 35 Ill. Adm. Code 845.400(c).

The permittee submitted information and drawings showing that the composite liner will meet these specifications. The maximum hydraulic conductivity of 1.0×10^{-9} cm/sec and has a liquid flow rate of 4.24×10^7 cm³/sec/cm². The information and drawings have been certified by Thomas J. Dehlin, an Illinois licensed P.E. An inspection of the drawings have shown no deficiencies in the basin and liner system.

The composite liner also meets all requirements from 845.400(b) as is required in 845.400(c)(4). It is constructed of sufficient materials that are exposed to climatic conditions, installation stress, daily operation, shear resistance, and is on a base capable of supporting the basin and is installed to cover all surrounding earth likely to come into contact with CCR or leachate.

B. Leachate Collection System – 845.420

The permittee submitted information and drawings showing that the composite liner will meet these specifications. This system is being placed above the retrofitted Ash Bypass Basin's new composite liner. It will have a sand filter layer having a hydraulic conductivity of at least 10×10^{-5} cm/sec. It has a bottom slope of 3%. For drainage material, they chose option B; it is a drainage geocomposite with a transmissivity of at least 6×10^{-4} m²/sec. The drainage components are HDPE and natural soil components which are chemically resistant to CCR and non-CCR waste.

The perforated leachate collection pipe will be surrounded by coarse aggregate bedding in order to prevent fines from clogging the piping. The piping itself is a 6-inch diameter perforated leachate collection pipe which is sloped towards a

sump with a submersible pump and riser pipe to convey leachate out of the basin.

The protective waring layer for the leachate collection system will be 6 inches of densely graded aggregate installed over the sand filter layer. Along the sides, riprap on a gravel bedding layer will protect the sand filter layer from erosion. The upper non-woven geotextile component of the drainage geocomposite will prevent CCR and non-CCR sediments from intruding into, clogging, and impeding the flow of leachate through the HDPE geonet core during the active life and post-closure care period of the retrofitted Ash Bypass Basin.

The information and drawings have been certified by Thomas J. Dehlin, an Illinois licensed P.E. An inspection of the drawings have shown no deficiencies in the leachate collection system.

C. CCR fugitive dust control plan (845.220(b)(3))

The application has a fugitive dust control plan for the construction of the Ash Bypass Basin which conforms to 845.500. A special condition has been added that they keep proper records as required in the regulations.

D. Preliminary written closure plan (845.220(b)(4))

The permittee will close the retrofitted Ash Bypass Basin by removing the CCR and other materials remaining in the basin after the plant has closed, then decontaminating the areas (closure by removal).

E. Initial post-closure care plan (845.220(b)(5))

After removal of all CCR material and this has been verified and certified, groundwater will be sampled to make sure that it is not exceeding the groundwater protection standards.

Special Conditions:

The following explains the conditions of the proposed permit:

The special conditions specify that various plans relating to the operation and maintenance of the basins must be maintained and kept up to date, that the permittee must operate and maintain the groundwater monitoring system, specifies the groundwater standards at the waste boundary, and specifies recordkeeping and reporting requirements.

1. Permittee must Comply with Air and Land Regulations
2. No construction for closure or corrective actions, only retrofit construction of the Ash Bypass Basin
3. Fugitive Dust Control Plan Requirements
4. Permanent Signage Requirements
5. Emergency Action Plan Requirements
6. Safety and Health Plan Requirements
7. Financial Assurance Requirements
8. Lateral expansions must be inspected
9. All impoundments must be inspected annually
10. Two additional down gradient wells in the silty clay silt unit, two piezometers must be added
11. Addresses to mail to Agency
12. Construct according to plans approved by Agency
13. Notify Agency when construction is completed
14. Not released from prior liabilities
15. Sludges generated must be properly disposed of
16. Wastewater discharges governed by NPDES permit
17. All certs, logs etc. as part of construction must be submitted

Public Notice of Draft Permit

Public Notice Number MEL:24032601.docx is hereby given by Illinois EPA, Division of Water Pollution Control, Permit Section, 1021 North Grand Avenue East, Post Office Box 19276, Springfield, Illinois 62794-9276 (herein Agency) that a draft Coal Combustion Residual Surface Impoundment Retrofit Construction Permit (CCR) Permit Number 2024-CC-100030 has been prepared under 40 CFR 124.6(d) for Midwest Generation, LLC for discharge into Illinois River from the Powerton Generating Station, 13082 East Manito Rd., Pekin, IL 61554, (Tazewell County).

The application, draft permit and other documents are available for inspection and may be copied at the Agency between 9:30 A.M. and 3:30 P.M. Monday through Friday. A Fact Sheet containing more detailed information is available at no charge. For further information, call the Public Notice Clerk at 217/782-0610.

Interested persons are invited to submit written comments on the draft permit to the Agency at the above address. The NPDES Permit and Joint Public Notice numbers must appear on each comment page. All comments received by the Agency not later than 30 days from the date of this publication shall be considered in making the final decision regarding permit issuance.

Any interested person may submit written request for a public hearing on the draft permit, stating their name and address, the nature of the issues proposed to be raised and the evidence proposed to be presented with regards to these issues in the hearing. Such requests must be received by the Agency not later than 45 days from the date of this publication.

If written comments and/or requests indicate a significant degree of public interest in the draft permit, the permitting authority may, at its discretion, hold a public hearing. Public notice will be given 45 days before any public hearing.

Coal Combustion Residual Surface Impoundment Permit No. 2024-CC-100030

Illinois Environmental Protection Agency

Division of Water Pollution Control

1021 North Grand Avenue East

Post Office Box 19276

Springfield, Illinois 62794-9276

Coal Combustion Residual Surface Impoundment Retrofit Construction Permit

Expiration Date:

Issue Date:

Effective Date:

Name and Address of Permittee:

Name and Address of Facility:

Midwest Generation, LLC
13082 East Manito Rd.
Pekin, IL 61554

Midwest Generation, LLC
Powerton Generating Station
13082 East Manito Rd.
Pekin, IL 61554
(Tazewell County)

CCR Impoundment:

W1798010008-04 Ash Bypass Basin

In compliance with the provisions of the Illinois Environmental Protection Act, Title 35 of Ill. Adm. Code, Subtitle C and/or Subtitle D, Chapter 1, and the Clean Water Act (CWA), the above-named permittee is hereby authorized to retrofit construct a coal combustion residual (CCR) surface impoundment, at the above location in accordance with the standard conditions and attachments herein.

Coal Combustion Residual Surface Impoundment Permit No. 2024-CC-100030 authorizes the retrofit construction of the Ash Bypass Basin in accordance with 35 Illinois Administrative Code Part 845 as described below.

Coal Combustion Residual Surface Impoundment Permit No. 2024-CC-100030 does not authorize the operation of the Ash Surge Basin, the Metal Cleaning Basin, the Ash Bypass Basin, or the Former Ash Basin.

Coal Combustion Residual Surface Impoundment Permit No. 2024-CC-100030 does not authorize the closure of the Ash Bypass Basin, corrective action for the Ash Bypass Basin, or any construction activities associated with the closure of the Ash Bypass Basin.

Coal Combustion Residual Surface Impoundment Permit No. 2024-CC-100030 does not authorize the closure, corrective action, or any construction for the Ash Surge Basin, the Former Ash Basin, or the Metal Cleaning Basin.

Coal Combustion Residual Surface Impoundment Permit No. 2024-CC-100030 does not authorize the discharge of any wastewater to waters of the United States. NPDES Permit No. IL0002232 authorizes this facility to discharge wastewater to waters of the United States.

Coal combustion residuals, consisting of bottom ash discharged from the station's dewatering bins and other process waste streams related to electric power-generating operations when the Ash Surge Basin was being cleaned. The Ash Bypass Basin covers approximately 0.83 acres and has a storage capacity of approximately 6,700 cubic yards.

Permit is hereby granted to the above designated permittee(s) to construct facilities described as follows:

The retrofit construction of the Ash Bypass Basin including the removal of the gravel warning and sand cushion layers over the existing geomembrane liner, decontaminating the basin's existing geomembrane liner for re-use as a supplemental liner, decontaminating the basin's appurtenant structures, installing a new basin floor and slopes, installing a composite liner system consisting of a 60-mil HDPE geomembrane over a geosynthetic clay liner, installing a leachate collection and removal system consisting of a drainage geocomposite, leachate collection pipe, and submersible sump pump, installing a sand filter layer over the leachate collection and removal system, and installing a protective warning layer over the sand filter layer. Retrofit construction includes all pipes, pumps, and appurtenances as specified in the Application for Retrofit Construction Permit application dated July 15, 2022 and the Amended Written Retrofit Plan Revision 1 dated March 5, 2024.

Permittee is not authorized to operate after the above expiration date. In order to receive authorization to operate beyond the expiration date, the permittee shall submit the proper application as required by the Illinois Environmental Protection Agency (IEPA) not later than 180 days prior to the expiration date.

Darin E. LeCrone P.E.
Manager, Permit Section
Division of Water Pollution Control

SPECIAL CONDITION 1: This permit does not relieve the Permittee of the responsibility of complying with the provisions of the State of Illinois Rules and Regulations, 35 Ill. Adm. Code Subtitle B, Air Pollution Control, Chapter 1 and 35 Ill. Adm. Code Subtitle G, Land Pollution Control, Chapter 1. The Permittee may be required to file reports and/or obtain applicable permits through the Illinois EPA's Bureau of Air (BOA) - Division of Air Pollution Control (DAPC) and/or Illinois EPA's Bureau of Land (BOL) – Division of Land Pollution Control (DLPC).

SPECIAL CONDITON 2: This construction permit is for Retrofitting of the Ash Bypass Basin and does not cover any closure construction or post-closure care of the Ash Bypass Basin. This permit does not authorize any construction activities necessary for closure and/or corrective action of the Ash Bypass Basin.

SPECIAL CONDITION 3: The operator shall implement methods for controlling dust, including the Fugitive Dust Control Plan included in Application Log No. 2021-100029, so as to prevent wind dispersal of particulate matter off-site.

SPECIAL CONDITION 4: A permanent sign shall be maintained at each CCR impoundment that contains the information required under 35 IAC, Section 845.130.

SPECIAL CONDITION 5: The written Emergency Action Plan (EAP), shall be maintained by the facility. The EAP and all amendments must be placed in the facility's operating record. Upon activation of the EAP, the facility must notify Illinois EPA in writing within 30 days of activation and place all corresponding documentation in the facility operating record. The permittee may amend the EAP at any time but must amend the EAP when there is a change in conditions that would substantially affect the EAP.

SPECIAL CONDITION 6: The Safety and Health Plan and accompanying certification has been submitted as part of Permit Application Log No. 2021-100029 and must be maintained by the facility. The plan must be updated annually and on an as needed basis. The Safety and Health Plan and all amendments must be placed in the facility operating record.

SPECIAL CONDITION 7: The permittee shall provide and maintain financial assurance in accordance with Part 845 Subpart I.

SPECIAL CONDITION 8: All CCR impoundments and any lateral expansion of a CCR surface impoundment must be inspected by a qualified person on a weekly basis and after each 25-year, 24-hour storm event. All CCR surface impoundment instrumentation must be inspected at least every 30 days. A report for each inspection shall be generated and placed into the facility operating record.

SPECIAL CONDITION 9: Each CCR Surface impoundment must be inspected on an annual basis by a qualified Professional Engineer, in accordance with 35 IAC 845.540. An inspection report must be completed and included with the Annual Consolidated Report, as specified in Special Condition 29.

SPECIAL CONDITION 10: Within 60 days of the effective date of this construction permit, the facility must install and begin to monitor at least two additional down gradient wells in the Silty Clay/Silt Unit, two piezometers in the fill unit, and two staff gages in the intermittent stream and standing water within the wetlands north of the service road splitting up the Former Ash Basin.

SPECIAL CONDITION 11: All certifications, logs, reports, plan sheets, notices, and groundwater monitoring data required to be submitted to the Illinois EPA by the permittee shall be mailed to the following address:

Illinois Environmental Protection Agency
Compliance Assurance Section
Bureau of Water
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

Information submittals transmitted by FedEx or UPS shall be mailed to the following address:

Illinois Environmental Protection Agency
Compliance Assurance Section
Bureau of Water
1021 North Grand Avenue East
Springfield, Illinois 62702

Electronic groundwater monitoring data shall be emailed to Illinois EPA at the following email address:
EPA.BOW.GWS.CCR@illinois.gov

Except for electronic groundwater and leachate monitoring data, the operator shall provide the Illinois EPA with the original and two (2) copies of all certifications, logs, reports, and plan sheets required by this permit.

SPECIAL CONDITION 12: The permittee will commence construction in accordance with the specifications listed in the Application for Retrofit Construction Permit application dated July 15, 2022 and the Amended Written Retrofit Plan Revision 1 dated March 5, 2024. Any changes made to the construction plans must be approved by the Agency.

SPECIAL CONDITION 13: The permittee shall notify the Agency when construction has been completed.

SPECIAL CONDITION 14: Issuance of this permit does not release the Permittees from any liability for prior violations of the Act or Rules and Regulations promulgated thereunder.

SPECIAL CONDITION 15: All sludges generated on site shall be disposed of at a site and in a manner acceptable to the Agency.

SPECIAL CONDITION 16: All discharges to a Water of the United States shall be governed by NPDES Permit No. IL0002232.

SPECIAL CONDITION 17: All certifications, logs, reports, plan sheets, notices, and groundwater monitoring data generated as a part of the construction quality assurance program must be reported in the retrofit construction completion report in accordance with 35 IAC 845.770(g) and is required to be submitted to the Illinois EPA prior to termination of the retrofit construction permit by the permittee. The permittee shall mail the retrofit construction completion report to the following address:

Illinois Environmental Protection Agency
Compliance Assurance Section
Bureau of Water
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

Information submittals transmitted by FedEx or UPS shall be mailed to the following address:

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1021 North Grand Avenue East
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