

CCR COMPLIANCE FUGITIVE DUST CONTROL PLAN

**Midwest Generation, LLC
Waukegan Generating Station
401 East Greenwood Avenue
Waukegan, Illinois**

PREPARED BY:

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August 18, 2023

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1.0 INTRODUCTION

On April 17, 2015, the United States Environmental Protection Agency published a final rule regulating coal combustion residuals (CCR) as part of 40 CFR 257 (the Federal CCR Rule). On April 15, 2021, the Illinois Environmental Protection Agency adopted a 35 Ill. Adm. Code 845 (the Illinois CCR Rule) creating statewide standards for the disposal of CCR in surface impoundments, created by the generation of electricity by coal-fired power plants. Part. Both 40 CFR 257 and 35 Ill. Adm. Code specifically require that “the owner or operator of a CCR landfill, CCR surface impoundment, or any lateral expansion of a CCR unit (surface impoundment), must adopt measures that will effectively minimize CCR from becoming airborne at the facility, including CCR fugitive dust originating from CCR units (surface impoundments), roads, and other CCR management and material handling activities”. As a result, each regulated facility must develop a CCR fugitive dust control plan that complies with 40 CFR 257.80 and 35 Ill. Adm. Code 845.500(b). It should be noted that 40 CFR Part 257 also regulates CCR landfills but 35 Ill. Adm. Code only regulates CCR surface impoundments.

This site-specific Fugitive Dust Control Plan (Plan) has been developed to comply with the requirements specified in both 40 CFR 257.80 and 35 Ill. Adm. Code 845.500. In general, the Plan identifies the potential CCR fugitive dust sources and describes the control measures that will be implemented to minimize CCR fugitive dust emissions. The Plan also includes a procedure for the periodic assessment of the Plan’s effectiveness, documentation of any Plan amendments deemed necessary to assure continued compliance, a record of any citizen complaints received pertaining to CCR fugitive dust emissions, and an outline of the required reporting and recordkeeping requirements in both regulations.

This Plan has been revised to combine the requirements for the Federal CCR Rule and Illinois CCR Rule into one plan and reflect the current conditions at the facility.

2.0 SITE INFORMATION

2.1 Owner/Operator and Address:

Midwest Generation, LLC
Waukegan Generating Station
401 East Greenwood Avenue
Waukegan, Illinois

2.2 Owner Representative/Responsible Person Contact Information:

Plant Manager
773-617-3450

2.3 Location and Description of Facility Operations

The Midwest Generation Waukegan Generating Station is located at 401 East Greenwood Avenue, Waukegan, Lake County, Illinois. The facility retired its coal-fired electric power generating units in 2022 and currently operates oil-fired electric power generating units. The station occupies approximately 200 acres. There are currently two coal-fired units, Units 7 and 8 that ceased coal-burning operations in May 2022. There are four peaker units at the site, fired by fuel oil. Electrical power is transmitted from the site to the area grid through overhead transmission power lines.

The general vicinity includes other commercial and industrial facilities, limited residential development and Lake Michigan.

3.0 POTENTIAL FUGITIVE DUST SOURCES

Potential fugitive dust sources associated with the bottom ash ponds, temporary storage locations, and ash truck transportation routes have been identified at the facility. With the retirement of Units 7 and 8, the potential CCR fugitive dust sources associated with coal combustion operations, including exterior ash distribution systems, and ash bulk loading/unloading operations are no longer occurring. Fugitive dust could potentially be generated from these sources as a result of wind erosion, housekeeping issues and/or the nature of the operation. Specifically, these identified sources were further evaluated to determine the probability of CCR fugitive dust being generated and to determine the level of emission controls that are warranted to mitigate fugitive dust emissions. The findings of the evaluation are individually discussed in the following sections.

3.1 West Ash Pond and East Ash Pond

The East Ash Pond is currently, and will remain, filled with water until closure is initiated. The West Ash Pond has been dewatered and dredged and only the warning layer and de minimis amounts of CCR remain within the pond footprint. If dredging is necessary, the pond will be dewatered and the dredged material is allowed to dry. When the material is suitable for transport, it will be loaded into open top trucks, covered and sent off site to a licensed landfill. Potential fugitive dust emissions could occur if dry bottom ash and slag residual is exposed or loaded during excessive windy and dry weather conditions.

3.2 Maintenance Storage Area

If bottom ash and slag and fly ash are generated as a result of decommissioning activities, the materials are temporarily stored in dedicated roll-off boxes in the Maintenance Storage Area. The materials are placed within the lined roll-off boxes until the container is full. The roll-off boxes are covered and transported to a licensed landfill. Any material that accumulates outside the roll-off box or dry material in an uncovered container that is exposed to excessive windy and dry weather conditions has the potential for becoming fugitive dust emissions.

3.3 Ash Transport Roadways

Both gravel covered and asphalt paved roads within the facility are used by trucks when hauling both bottom ash and slag and fly ash to off-site landfills as well as by other vehicles entering and exiting the facility. Fugitive CCR dust emissions could occur during transit if the roll-off boxes are not covered and secured, if ash material is not properly cleaned from the boxes and trucks, or if there is a release of ash material due to a malfunction or accident.

These potential fugitive dust sources are identified on the Site Diagram included in Appendix A.

4.0 DESCRIPTION OF CONTROL MEASURES

4.1 Purpose

The purpose of developing appropriate control measures is to minimize and reduce the emissions of CCR fugitive dust from the identified potential emission sources. The control measures and work practices implemented at the facility are described in the following sections.

4.2 West Ash Pond and East Ash Pond

The East Ash Pond is currently filled with water, thereby suppressing any potential fugitive dust emissions. The West Ash Pond has been dewatered and dredged and only the warning layer and de minimis amounts of CCR remain within the pond footprint. If dredging of the East Pond is necessary, the pond will be dewatered and the sediment removed off site to a licensed landfill. While the bottom ash and slag residue is drying, there is the potential for this material to become airborne especially during excessively dry and windy conditions. Loading of this material under these conditions also has the potential for generating fugitive dust. Dewatered ponds will be assessed on a quarterly basis or more frequently during excessively dry and windy conditions. To minimize fugitive dust emissions from exposed dry bottom ash and slag, the height of the staged material will be minimized and the material piles will be either sprayed with water or covered. Loading activities also will be limited during such occasions. Haul trucks are covered with tarps once they have been loaded.

4.3 Maintenance Storage Area

The roll-off boxes in the Maintenance Storage Area only periodically contain bottom ash and slag, fly ash and other ash-related materials generated from decommissioning activities. Typically, the bottom ash and slag is in a wet state when placed into the containers but fly ash is in a dry state. When the roll-off boxes are filled, the material is promptly removed to an off-site licensed landfill. The Maintenance Storage Area will be assessed on a quarterly basis or more frequently during excessively dry and windy conditions. If ash material is observed outside a roll-off box, it will be collected and placed into the container. All roll-off boxes will be covered while staged in the Maintenance Storage Area and during removal off site. With the retirement of Units 7 and 8, the maintenance storage area will be used infrequently, if at all.

4.4 Ash Transport Roadways

During CCR hauling activities, truck drivers are instructed on the proper procedure for cleaning trucks and roll-off boxes before removal and a vehicle speed limit is enforced at the facility. Ash material that may not have been adequately removed from the trucks or roll-off boxes has the potential to become airborne and ultimately be deposited on haul roads. To minimize fugitive dust emissions, these roads will be assessed on a quarterly basis and any observed accumulated ash material will be promptly cleaned up and collected for off-site removal to a licensed landfill.

5.0 PLAN ASSESSMENTS/AMENDMENTS

To assure that the work practices being implemented adequately control the dust from the identified potential CCR fugitive dust emission sources at the facility, routine assessments and record keeping are performed. These procedures include the following:

5.1 Fugitive CCR Dust Assessments

Pursuant to 257.80(b)(4) and 845.500(b)(3), assessments of the potential CCR fugitive dust emission sources identified within this Plan will be conducted to assess the effectiveness of this Plan. The assessment will include observation of ash removal from ponds, temporary storage and transport activities at the facility to confirm the adequacy of the control measures. The assessments will be conducted on a quarterly basis by an individual designated by the contact identified in Section 2.2 of this Plan. Observations made during each assessment will be recorded on a form similar to the one included in Appendix B, however, the station may create their own form.

If the assessment finds that this Plan does not effectively minimize the CCR from becoming airborne, this Plan will be amended to include additional control measures.

5.2 Plan Amendments

This Fugitive Dust Plan will be reviewed whenever there is a change in conditions that would substantially affect the written Plan currently in place. A record of the reviews and any modifications or amendments made to the Plan currently in place will be kept on a form similar to the one included in Appendix C; however, the station may create their own form. The amended Plan will be reviewed by a Registered Professional Engineer and, if deemed acceptable, will be recertified.

5.3 Citizen Complaints

Any written or verbal complaints received from a citizen involving alleged CCR fugitive dust emission events at the facility will be recorded by an individual designated by the contact identified in Section 2.2 of this Plan. The complaints will be recorded on a form similar to the one included in Appendix D; however, the station may create their own form. Upon receipt of the complaint, an investigation of the alleged source of the fugitive dust emissions will be performed and the results of that investigation recorded on the form. If the fugitive dust emission event is confirmed, any necessary repairs or changes in operation required to mitigate the fugitive dust emissions will be implemented as soon as practicable.

6.0 FUGITIVE DUST PLAN REPORTING/RECORDKEEPING REQUIREMENTS

This section outlines the Plan reports that must be prepared and records that must be maintained to meet the requirements specified in the Federal and Illinois CCR Rules. These requirements include the following:

- Place the Plan in the facility's operating record and publicly accessible internet site. If the Plan is amended, replace the initial Plan with the amended Plan. Only the most recent amended Plan will be maintained in the facility's operating record and internet site.
- Prepare an annual CCR Fugitive Dust Control Report compliant with 40 CFR 257.80(c) and place it in the facility's operating record and post to the publicly accessible internet site. The annual report will include:
 - A description of the actions taken to control CCR fugitive dust,
 - A record of all citizen complaints, and
 - A summary of any corrective measures taken.
- Prepare an annual CCR Fugitive Dust Control Report compliant with 35 Ill. Code 845.500(c), place it in the facility's operating record, and submit to the IEPA as part of the annual consolidated report required by 845.550. The annual report will be posted to the publicly accessible website and will include:
 - A description of the actions taken to control CCR fugitive dust,
 - A record of all citizen complaints, and
 - A summary of any corrective measures taken.
- Provide notification to the IEPA and, if applicable, the Tribal authority when the Plan and reports are placed in the facility's operating record and publicly accessible internet site.
- Submit quarterly reports compliant with 35 Ill. Code 845.500(b)(2)(B) to IEPA within 14 days from the end of the quarter of all complaints received in that quarter. The quarterly reports will include:
 - The date of the complaint,
 - The date of the incident,
 - The name and contact information of the complainant, and
 - All actions taken to assess and resolve the complaint.

7.0 PROFESSIONAL ENGINEER CERTIFICATION

The undersigned Registered Professional Engineer is familiar with the requirements of 40 CFR 257.80 and 35 Ill. Adm. Code 845.500 and has visited and examined the facility or has supervised examination of the facility by appropriately qualified personnel. The undersigned Registered Professional Engineer attests that this CCR Fugitive Dust Control Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards and meets the requirements of 40 CFR 257.80 and 35 Ill. Adm. Code 845.500, and that this Plan is adequate for the facility. This certification was prepared as required by 40 CFR 257.80(b)(7) and 35 Ill. Adm. Code 845.500(b)(7).

Engineer: Joshua D. Davenport

Signature:  _____

Date: 8/18/2023

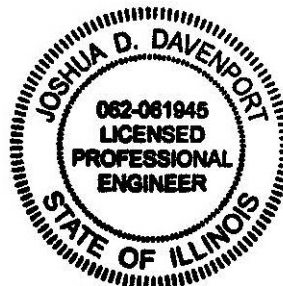
Company: KPRG and Associates, Inc.

Registration State: Illinois

Registration Number: 062.061945

License Expiration Date: November 30, 2023

Professional Engineer Stamp:



APPENDIX A

SITE DIAGRAM

POTENTIAL FUGITIVE DUST SOURCES



NOTE:
BACKGROUND MAP RETRIEVED FROM MAPQUEST 2012

LOCATION:
SECTION 15, TOWNSHIP 45 N, RANGE 12 E

0 550'
APPROXIMATE SCALE

ENVIRONMENTAL CONSULTATION & REMEDIATION

SITE DIAGRAM/FUGITIVE DUST SOURCES

K P R G

KPRG and Associates, inc.

WAUKEGAN STATION
WAUKEGAN, ILLINOIS

414 Plaza Drive, Suite 106 Westmont, Illinois 60559 Telephone 630-325-1300 Facsimile 630-325-1593

Scale: 1" = 550'

Date: August 17, 2023

14665 West Lisbon Road, Suite 2B Brookfield, Wisconsin 53005 Telephone 262-781-0475 Facsimile 262-781-0478

KPRG Project No. 15315

APPENDIX A

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APPENDIX B

EXAMPLE ASSESSMENT RECORD

APPENDIX B

WAUKEGAN STATION

EXAMPLE ASSESSMENT RECORD

Date	Inspector	Unit Inspected (See Key Below)	Maintenance/Cleanup Required (yes/no)	Response Action Performed (completion date)	Inspector Signature

- Unit Key:
1 - West Ash Pond
2 - East Ash Pond
3 - Maintenance Storage Area
4 - Ash Roadways

APPENDIX C

EXAMPLE PLAN REVIEW AND AMENDMENT RECORD

APPENDIX D

EXAMPLE CITIZEN COMPLAINT LOG

