# CCR COMPLIANCE CCR FUGITIVE DUST CONTROL PLAN

Midwest Generation, LLC Joliet #9 Generating Station and Lincoln Stone Quarry 1601 South Patterson Road Joliet, Illinois

**PREPARED BY:** 

KPRG and Associates, Inc. 14665 W. Lisbon Road, Suite 1A Brookfield, Wisconsin 53005

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 Part 257. On April 15, 2021, the Illinois Environmental Protection Agency adopted 35 Ill. Adm. Code 845 creating statewide standards for the disposal of CCR in surface impoundments. Both 40 CFR Part 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 Part 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 CCR Fugitive Dust Control Plan (Plan) has been developed to comply with the requirements specified in 40 CFR Part 257.80(b)(1-7) and 35 Ill. Adm. Code 845.500(b). In general, the Plan identifies the potential CCR fugitive dust sources subject to the regulations 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 40 CFR Part 257.80 and 35 Ill. Adm. Code 845.500.

This Plan has been revised to combine the requirements of both 40 CFR Part 257.80 and 35 Ill. Adm. Code 845.500 into one plan and reflect the current conditions at the facility.

### 2.0 SITE INFORMATION

2.1 Owner/Operator and Address:

Midwest Generation, LLC Joliet #9 Generating Station 1601 South Patterson Road Joliet, Illinois

2.2 Owner Representative/Responsible Person Contact Information:

Plant Manager 815-207-5412

2.3 Location and Description of Facility Operations

The Midwest Generation Joliet #9 Generating Station is located at 1601 South Patterson Road, Joliet, Will County, Illinois. The facility is a retired gas-fired (formerly coal-fired) electric power generating station that occupies approximately 170 acres. The last remaining gas-fired unit at the Station, Unit 6, ceased operation in June 2023. Electrical power was transmitted from the site to the area grid through overhead transmission power lines.

The Lincoln Stone Quarry occupies approximately 120 acres and includes a former ash placement site, referred to as the West Filled Area, that ceased receiving CCR prior to 1994, and the Main Quarry, which was used as a landfill for bottom ash and slag and has ceased receiving CCR. Lincoln Stone Quarry may remain open to allow for the beneficial reuse of slag.

The general vicinity includes other commercial and industrial facilities, residential development and agricultural areas.

### 3.0 POTENTIAL CCR FUGITIVE DUST SOURCES

As a result of the fuel conversion, and the correlated fact that all coal combustion ceased at the facility as of March 20, 2016 and the cessation of receipt of CCR, the only remaining potential CCR fugitive dust source is final closure of Lincoln Stone Quarry. CCR Fugitive dust could potentially be generated from this source 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 CCR fugitive dust emissions. The findings of the evaluation are individually discussed in the following paragraphs.

Lincoln Stone Quarry was used for routine disposal of bottom ash and slag from the Joliet #9 and Joliet #29 Generating Stations. Occasionally Joliet #29 Ash Pond 2 was used for Joliet #29 bottom ash; Joliet #29 Ash Pond 2 is covered by a separate CCR Fugitive Dust Plan. Both Joliet #9 and Joliet #29 facilities no longer generate ash thus eliminating ash disposal in Lincoln Stone Quarry (and disposal to Joliet #29 Ash Pond 2). Ash from the Joliet #29 Ash Pond 2 has been disposed of in Lincoln Stone Quarry from cleaning activities associated with Ash Pond 2. Therefore, Ash Pond 2 is no longer a potential CCR fugitive dust source.

Lincoln Stone Quarry currently consists of a closed portion referred to as the West Filled Area, which has a vegetated soil cover over the historically disposed ash and is not subject to 40 CFR Part 257.80 and 35 Ill. Adm. Code 845.500, and the recently inactive bottom ash and slag disposal area referred to as the Main Quarry. Ash in the Main Quarry is approximately 40 feet below grade and is confined by the quarry walls and, therefore, not readily susceptible to wind erosion and generation of potential CCR fugitive dust emissions. If slag or ash are removed from the Main Quarry for beneficial use, loading of the moisture laden material would also be performed within the Main Quarry at a level well below grade. Therefore, the loading operation is also not susceptible to wind erosion. After settling occurs, water from the Main Quarry is discharged through a final settling basin and then ultimately discharged through a regulated NPDES outfall.

This potential CCR fugitive dust source is 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 Lincoln Stone Quarry

Lincoln Stone Quarry used to receive bottom ash and slag from the Joliet #9 and Joliet #29 Generating Stations. Ash in the Main Quarry is approximately 40 feet below grade and is confined by the quarry walls and, therefore, not readily susceptible to wind erosion and generation of potential CCR fugitive dust emissions. Loading of the moisture-laden slag to be used as a beneficial material would also be performed within the Main Quarry at a level well below grade. Therefore, the loading operation is also not susceptible to wind erosion. The ash in the West Filled Area lies beneath a vegetated soil cover, which mitigates any wind erosion impacts and the potential for CCR fugitive dust emissions.

Operation of the Main Quarry and West Filled Area is performed in accordance with the conditions of the issued landfill permit, No. 1994-241-LFM, dated August 14, 2015, Modification No. 21. The issued permit includes the requirement to control dust to prevent wind dispersal of particulate matter off site. Additionally, the permit requires quarterly inspections of the West Filled Area and requires repair of erosion and scoured channels observed during the inspection.

### 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 source at the facility, routine assessments and record keeping are performed. These procedures include the following:

#### 5.1 CCR Fugitive Dust Assessments

Pursuant to 40 CFR 257.80(b)() and 35 Ill. Adm. Code 845.500(b)(3), assessments of the potential CCR fugitive dust emission source identified within this Plan will be conducted to assess the effectiveness of this Plan. The assessment will include observation of Lincoln Stone Quarry to confirm the adequacy of the control measures. The assessments will be conducted as needed to comply with the issued permit 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 results of the assessment determine that the control measures are not adequate, the necessary response measures will be implemented. 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 CCR 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 CCR fugitive dust emissions will be performed and the results of that investigation recorded on the form. If the CCR fugitive dust emission event is confirmed, any necessary response measures or changes in operation required to mitigate the CCR fugitive dust emissions will be implemented as soon as practicable.

### 6.0 CCR 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 40 CFR Part 257 and 35 Ill. Adm. Code Section 845.500. 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. Adm. 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 35 Ill. Adm. Code 845.550. The annual report will be posted to the publicly accessible website and will include:
  - o 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 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. Adm. Code 845.500(b)(2) 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.

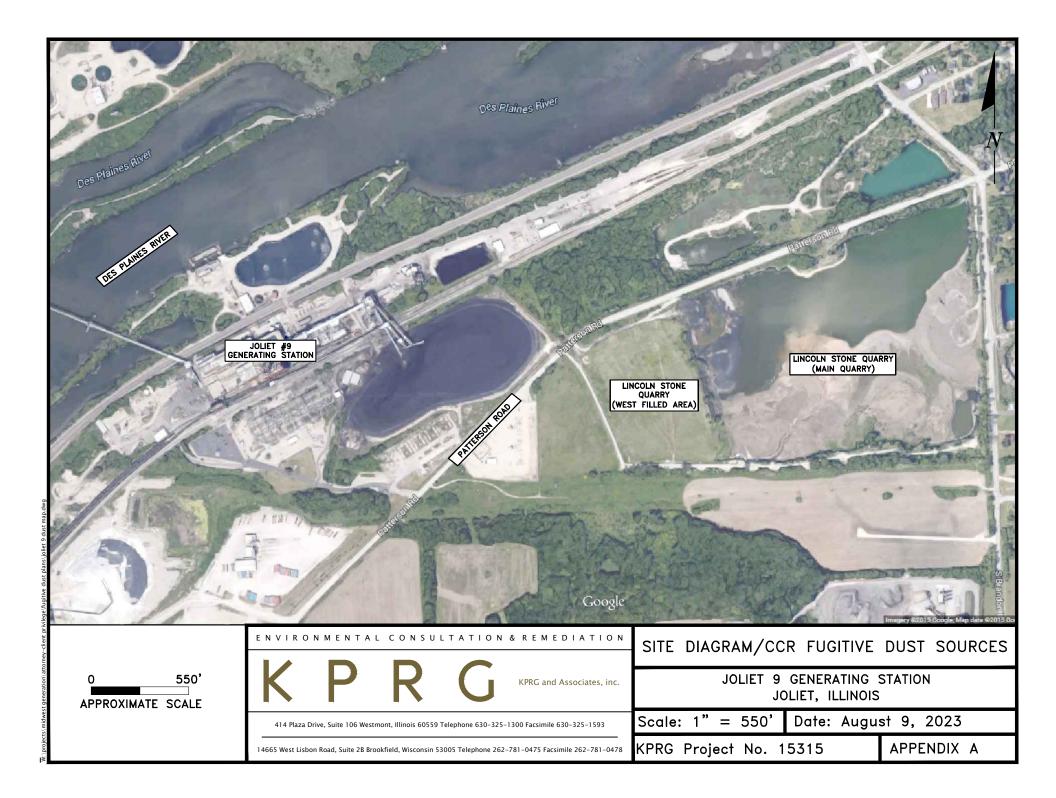
### 7.0 PROFESSIONAL ENGINEER CERTIFICATION

The undersigned Registered Professional Engineer is familiar with the requirements of 40 CFR 257.80 and 35 III. 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 III. 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 III. Adm. Code 845.500(b)(7).

Engineer:	Joshua D. Dav	venport	
Signature:			
Date:	<u>8/18/2023</u>		
Company:	KPRG and As	sociates, Inc.	
Registration S	tate:	Illinois	
Registration N	lumber:	062.061945	
License Expir	ation Date:	November 30, 2	2023
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### **APPENDIX** A

## SITE DIAGRAM POTENTIAL CCR FUGITIVE DUST SOURCES



### **APPENDIX B**

## **EXAMPLE ASSESSMENT RECORD**

### **APPENDIX B**

### **JOLIET #9 STATION**

## **EXAMPLE ASSESSMENT RECORD**

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

### **APPENDIX C**

## EXAMPLE PLAN REVIEW AND AMENDMENT RECORD

### **APPENDIX C**

### **JOLIET #9 STATION**

## **EXAMPLE CCR PLAN REVIEW/AMENDMENT RECORD**

Date of Review	Reason for Review	Section Amended	P.E. Certification (Name/Date)
June 3, 2016	Station fuel change from coal to natural gas.	Sections 1.0 through 5.0 and Section 7.0	Thomas J. Rysiewicz
17-Aug-23	Combined federal & IL CCR plans and station has ceased operating	Sections 1.0 through 7.0	Josh Davenport, 08/2023

### **APPENDIX D**

## **EXAMPLE CITIZEN COMPLAINT LOG**

#### APPENDIX D

#### **JOLIET #9 STATION**

### **EXAMPLE CITIZEN COMPLAINT LOG**

Citizen Information					
Date	Time	(Name, Address, Phone No., Email)	Summary of Complaint	Action Taken	Recorded By
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