MEMORANDUM

4 April 2018
File No. 129778-005

SUBJECT: CCR Fugitive Dust Control Plan – Revision #2
Jeffrey Energy Center
St. Marys, Kansas

This CCR Fugitive Dust Control Plan addresses the requirements of §257.80 Air Criteria of the USEPA’s Final CCR Rule dated April 17, 2015 for Westar Energy Inc.’s (Westar) Jeffrey Energy Center. This Plan has been developed based upon information provided by Westar and the Plan describes the CCR units and handling areas at the facility along with the dust control measures that are planned to be implemented by the Owner (Westar) and any handling Operators to minimize fugitive dust from becoming airborne. This Plan is in addition to any other Occupational Safety and Health Act (OSHA) standards applicable to this facility.

I. Site Name and Location

Jeffrey Energy Center (JEC)
25905 Jeffrey Road
St. Marys, KS 66536

The general location of the facility is provided in Figure 1.

II. CCR Management Areas

Temporary Storage Areas
Fly ash and economizer ash (a different fraction of the fly ash generated at the plant) are initially collected within enclosed structures at the plant. Fly ash is pneumatically blown into a silo which is then loaded into enclosed trucks for either off-site beneficial use or disposal at the on-site landfill. Economizer ash is transported to the Fly Ash Area(s) where it is either stored until eventual off-site transfer for beneficial use or disposed. If not used beneficially, the economizer ash can be disposed of in the on-site permitted units.

Flue gas desulfurization (FGD) gypsum is generated at the plant, dewatered, and temporarily stored in enclosed staging areas. The material that is staged is managed and then loaded and hauled either off-site for beneficial use or to the on-site FGD Scrubber Gypsum Landfill or permitted units.
**CCR Impoundments**

Westar is currently permitted to manage and dispose of CCR materials in an area west of the plant through solid waste Permit No. 359 issued by the Kansas Department of Health and Environment (KDHE). Within this permit boundary, Westar operates one active CCR impoundment at JEC. The Bottom Ash Area Impoundment(s) receives direct sluice bottom ash and plant process water. The settled solids are excavated, loaded, and hauled off-site for beneficial use or disposed on-site. The decant water from this impoundment discharges into a ditch to the Tower Hill Lake to the west. The inactive Bottom Ash Pond is a CCR impoundment that historically received CCRs but has not actively received CCRs after October 2015.

**CCR Landfills**

There are several active and permitted future CCR landfills at JEC within the Permit No. 359 boundary. Bottom Ash Area Landfill(s) receive bottom ash that has been excavated from the impoundment and dewatered or dry handled. The Fly Ash Area(s) is located to the north of the inactive Bottom Ash Pond and receives dry fly ash for disposal. The FGD Scrubber Gypsum Landfill is located south of the inactive Bottom Ash Pond and receives the FGD gypsum that is intended for disposal. The units may accept permitted CCR materials.

**Haul Roads**

Both paved and unpaved roads are used to transport CCRs either off-site from the temporary storage areas or Bottom Ash Area 1 or to the on-site landfills.

**III. CCR Fugitive Dust Control Methods**

This section outlines the general CCR related fugitive dust control measures based on unit and handling activity. These measures are being implemented based on the types of CCRs being managed and the site-specific facility operation. This eastern portion of Kansas has moderate weather conditions and receives approximately 31 inches of rain annually per the National Weather Service (based on Topeka, KS data). This moisture, combined with temperate climates, in conjunction with the noted dust control methods are suitable measures for minimizing dust generation.

**Bulk Material Handling**

The referenced fly ash and economizer ash silos are above ground silos that have controlled loading into enclosed haul trucks. Trucks enter under the silos on a concrete pad for loading. A chute is lowered on top of the truck and the CCR is then loaded into the enclosed truck. The trucks are equipped with lids that are closed mechanically or manually once loading of the fly ash is complete and the chute is removed. Fugitive dust potential is minimized by minimal exposure of CCR to the atmosphere through this temporary storage and loading process. In the event that de minimis amounts of CCRs are observed on the loading pad, the CCRs are collected and properly disposed. In addition, Westar may choose to

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1 The Bottom Ash Pond has been included in this fugitive dust plan based on the CCR Rule Partial Vacatur direct final rulemaking effective 4 October 2016.
load the fly ash into rail cars. The rail cars would enter under the silo and be loaded similar to that as described above.

FGD gypsum that is initially handled at the plant is stacked in one containerized area which has controls in place to act as barriers against wind. These areas rely on front end loaders to load haul trucks for either off-site beneficial use or on-site disposal at the FGD Scrubber Gypsum Landfill or other permitted units. Haul trucks then utilize canopies to protect the CCR material to minimize dust generation.

The Bottom Ash Area Impoundment(s) is managed by intermittent excavation of settled bottom ash and dewatering of the material within the impoundment footprint. The dewatered material is then loaded into trucks with mechanically closed canopies which minimize potential dust generation and hauled off-site for beneficial use or placed in the Bottom Ash Area Landfill(s) footprint or other permitted units. The stacked material retains a level of moisture that prevents dust generation. If Westar identifies that the stacked material needs additional measures to limit dust generation, either water or a dust suppressant may be applied.

**Unit Wind-Blown Dust Management**

CCR impoundments – The following measures will be used to minimize fugitive dust generation at the Bottom Ash Area(s) and the inactive Bottom Ash Pond:
- A portion of the settled material may become exposed above the water surface elevation. Westar will monitor any exposed areas and apply water or a dust suppressant as appropriate.
- Maintain a crust and/or appropriate moisture on exposed areas susceptible to fugitive dust generation.

Bottom Ash Area(s), Fly Ash Area(s) and FGD Scrubber Gypsum Landfills – The following measures will be used to minimize fugitive dust generation at the CCR landfills:
- CCRs will be placed onto the ground from the haul trucks using minimal drop heights.
- CCRs will not be placed when wind speeds exceed sustained 15 miles per hour (mph).
- Haul trucks will limit travel speeds to less than 10 mph on active areas. Abrupt starts, stops, and turns will be avoided within the working face. Drivers will attempt to avoid driving in active areas of landfill and to drive in Westar-directed travel paths to avoid agitation of areas susceptible to fugitive dust generation.
- Water will be the primary means of suppressing dust. Dust suppressants may be used to minimize fugitive dust if determined appropriate. A log shall be kept to record water usage.
- Areas reaching final grades will receive appropriate cover materials in accordance with the applicable state permit requirements.

**Haul Roads**
The following dust control measures will be used for CCR haul roads, as appropriate:
- Posted speed limits will be in effect on facility roads.
- CCR haul roads will be cleaned as needed in a timely manner.

**General Housekeeping**
Spilled and/or deposited CCR within the facility will be cleaned in a timely manner.
Roads will be cleaned and maintained as needed.

Hauler will maintain equipment in proper condition to function to minimize leaking/maintain normal operations.

**IV. Citizen Complaints**

Westar will keep a log of citizen complaints involving CCR fugitive dust events at the facility. Information to be recorded includes dates and time of complaint, the telephone number and addresses of the citizen, a description of the complaint, and any corrective measures taken to address the complaint. See Appendix A for an example table to be completed.

Westar will accept citizen complaints in writing only to the following addresses:

By Post:
Westar Energy Inc.
ATTN: Environmental Manager, Water and Waste Programs
P.O. Box 889
Topeka, KS 66601

Or, electronically: WestarCCR@westarenergy.com

**V. Amendment of the Plan**

*Plan Assessment*
Westar will periodically assess the current Plan to determine if any amendments are prudent based on changes to CCR units (e.g. expansions, closures) and the adequacy of dust control measures being implemented to meet the performance standard of the regulation. To assess the current Plan, Westar’s designated person will:

- Review citizen complaints logged.
- Visually inspect and monitor CCR areas weekly.
- At a minimum, assess plan in an annual meeting with operations personnel to determine if revisions are necessary.

*Plan Amendment*
Based on the periodic assessment, Westar may choose to amend this Plan if measures are deemed ineffective or if changes to the areas being managed, the dust control measures, and/or other operating practices to continue compliance with the regulatory standards. Amendments to the current Plan will be completed in accordance with §257.80(b)(6) of the Final CCR Rule. Any amendment to the Plan will be certified by a qualified professional engineer.
A record of amendments to the Plan will be tracked below. The latest version of the report will be noted in the subject line of the Plan.

<table>
<thead>
<tr>
<th>Version</th>
<th>Date</th>
<th>Description of Changes Made</th>
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<td>10/15/2015</td>
<td>Initial Issuance</td>
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<tr>
<td>1</td>
<td>4/17/2017</td>
<td>Revisions to include Bottom Ash Pond and operational alterations</td>
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<tr>
<td>2</td>
<td>4/4/2018</td>
<td>Revisions to include all permitted CCR management areas</td>
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**VI. Annual CCR Fugitive Dust Control Report**

Westar Energy Inc. will prepare an annual report in accordance with §257.80(c) of the Final CCR Rule. The report will be placed in the operating record for the facility and appropriate notifications and recordkeeping actions will be completed.

**VII. Attachments**

- Figure 1 – Project Locus
- Figure 2 – CCR Fugitive Dust Control Plan Management Areas
- Appendix A – CCR Fugitive Dust Event Citizen Complaint Log

**VIII. Professional Engineer Certification**

I certify that this CCR fugitive dust control plan meets the USEPA’s Final CCR Rule requirements of §257.80 for Westar Energy’s Jeffrey Energy Center.

Steven F. Purrich, P.E.
Certifying Engineer
NOTES:

1. IMAGE SOURCE: GOOGLE EARTH PRO, DATED 05/03/2014.


3. THIS FUGITIVE DUST CONTROL PLAN IS APPLICABLE TO THE CCR HANDLING LOCATIONS SHOWN BASED ON WESTAR CCR UNIT AND MANAGEMENT DESIGNATIONS AS OF THE DATE OF THIS FIGURE AND POTENTIAL FUTURE CONFIGURATIONS OF PERMITTED UNITS.
## CCR FUGITIVE DUST EVENT CITIZEN COMPLAINT LOG

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<thead>
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<th>Complaint ID</th>
<th>Date &amp; Time of Complaint</th>
<th>Complainant Name</th>
<th>Complainant Phone Number</th>
<th>Complainant Address</th>
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<th>Corrective Measures Taken to Address Complaint</th>
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