

**2018 ANNUAL INSPECTION REPORT OF CCR SURFACE IMPOUNDMENT BY QUALIFIED PROFESSIONAL ENGINEER
40 CFR 257.83**

FACILITY INFORMATION

Facility Name / Address	Sibley Generating Station / 33200 East Johnson Road Sibley, Missouri 64088
Owner	KCP&L Greater Missouri Operations Company
CCR Unit	Fly Ash Impoundment
Inspection Date	November 21, 2018

ANNUAL CCR UNIT INSPECTION REPORT

Rule	Inspection Results																								
<p>§257.83(b)(2)(i):</p> <p><i>“(2) Inspection report. The qualified professional engineer must prepare a report following each inspection that addresses the following:</i></p> <p><i>(i) Any changes in geometry of the impounding structure since the previous annual inspection;”</i></p>	<p>A visual inspection of the Fly Ash Impoundment and associated hydraulic structures was completed on November 21, 2018 by Mr. Patrick Goeke, a qualified professional engineer (QPE) and/or his designated representative. No changes in the geometry of the impounding structure were noted since the 2017 site inspection.</p>																								
<p>§257.83(b)(2)(ii):</p> <p><i>“(ii) The location and type of existing instrumentation and the maximum recorded readings of each instrument since the previous annual inspection;”</i></p>	<p>No instrumentation is present at the Fly Ash Impoundment.</p>																								
<p>§257.83(b)(2)(iii):</p> <p><i>“(iii) The approximate minimum, maximum, and present depth and elevation of the impounded water and CCR since the previous annual inspection;”</i></p>	<p>The maximum and minimum depths of impounded water frequently change depending on plant needs and rainfall events. At the time of inspection, the approximate maximum, minimum and present elevations of the water and CCR in the impoundment were as follows.</p> <table border="1"> <thead> <tr> <th>Water</th> <th>Depth (ft)</th> <th>Elevation (MSL)</th> </tr> </thead> <tbody> <tr> <td>Minimum</td> <td>0</td> <td>717.5</td> </tr> <tr> <td>Maximum</td> <td>6.5</td> <td>718.5</td> </tr> <tr> <td>Present</td> <td>6</td> <td>718</td> </tr> <tr> <th>CCR</th> <th>Depth (ft)</th> <th>Elevation (MSL)</th> </tr> <tr> <td>Minimum</td> <td>5</td> <td>712</td> </tr> <tr> <td>Maximum</td> <td>26</td> <td>733</td> </tr> <tr> <td>Present</td> <td>5-26</td> <td>712-733</td> </tr> </tbody> </table>	Water	Depth (ft)	Elevation (MSL)	Minimum	0	717.5	Maximum	6.5	718.5	Present	6	718	CCR	Depth (ft)	Elevation (MSL)	Minimum	5	712	Maximum	26	733	Present	5-26	712-733
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<p>§257.83(b)(2)(iv):</p> <p><i>“(iv) The storage capacity of the impounding structure at the time of the inspection;”</i></p>	<p>The storage capacity of the impoundment structure at the time of inspection was 380,000 cubic yards¹.</p>																								
<p>§257.83(b)(2)(v):</p> <p><i>“(v) The approximate volume of the impounded water and CCR at the time of the inspection;”</i></p>	<p>The approximate volume of the impounded water and CCR at the time of inspection was 354,000 cubic yards².</p>																								

<p>§257.83(b)(2)(vi):</p> <p>“(vi) Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit and appurtenant structures;”</p>	<p>At the time of this inspection, there were no signs of distress or malfunction that would indicate actual or potential structural weakness of the perimeter impoundment dike. The QPE reviewed §257.84(a)(1) 7-day reports as part of the annual inspection. There was no indication that existing conditions at the Fly Ash Impoundment have disrupted or have the potential to disrupt safety or operations.</p>
<p>§257.83(b)(2)(vii):</p> <p>“(vii) Any other change(s) which may have affected the stability or operation of the impounding structure since the previous annual inspection.”</p>	<p>There have been no changes to the Fly Ash Impoundment since the previous annual inspection.</p>

1. Storage capacity calculation completed by SCS in 2017 based on 2016 volume with adjustment for water volume,
2. Volume calculation completed in 2018 by SCS Engineers by adjusting the water level in impoundment relative to 2017, and includes temporary material on the edges of the impoundment for the purpose of dewatering before CCR is moved to the CCR Landfill. Stockpiled volume appears to be a similar volume relative to the 2017 calculations.

PROFESSIONAL ENGINEER CERTIFICATION

The undersigned registered professional engineer is familiar with the requirements of the CCR Rule and has visited and examined the CCR unit or has supervised examination of the CCR unit by appropriately qualified personnel. I hereby certify based on a review of available information within the Sibley Generation Station’s operating records and observations from my personal on-site inspection, that this CCR unit does not exhibit any appearances of actual/potential structural weakness that would be disruptive to the safety and normal operations of the CCR unit. The unit is being operated and maintained consistent with recognized and generally accepted good engineering standards and practices. This certification was prepared as required by 40 CFR Part §257.83.

Name of Professional Engineer: Patrick M. Goeke, P.E.



Professional Engineer Seal: