

**2020 ANNUAL INSPECTION OF CCR SURFACE IMPOUNDMENT BY QUALIFIED PROFESSIONAL ENGINEER
40 CFR 257.83**

FACILITY INFORMATION

Facility Name / Address	La Cygne Generating Station / 25166 East 2200 Road, La Cygne, Kansas 66040
Owner	Evergy Metro, Inc.
CCR Unit	Upper AQC Impoundment
Inspection Date	November 4, 2020

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 Upper AQC impoundment and associated hydraulic structures was completed on November 4, 2020 by Mr. Doug Doerr, a qualified professional engineer (QPE), and/or his designated representative. No changes in the geometry of the impounding structure were noted since the 2019 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>Existing instrumentation at the Upper AQC impoundment consists of nine piezometers present on the crest of the embankment, spaced around the impoundment. The staff gauge was removed in 2017. The water levels in the piezometers are measured no less than every 30 days. A review of the 7 and 30-day inspection reports completed since the prior year’s inspection was done. The maximum recorded readings of each instrument since the last inspection date are listed in Table 1. No issues of concern were noted.</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 rainfall, evaporation, and unit operations. 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" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #D3D3D3;">Water</th> <th style="background-color: #D3D3D3;">Depth (ft)</th> <th style="background-color: #D3D3D3;">Elevation (MSL)</th> </tr> </thead> <tbody> <tr> <td>Minimum</td> <td style="text-align: center;">0</td> <td style="text-align: center;">865</td> </tr> <tr> <td>Maximum</td> <td style="text-align: center;">18</td> <td style="text-align: center;">883</td> </tr> <tr> <td>Present</td> <td style="text-align: center;">18</td> <td style="text-align: center;">883</td> </tr> <tr> <th style="background-color: #D3D3D3;">CCR</th> <th style="background-color: #D3D3D3;">Depth (ft)</th> <th style="background-color: #D3D3D3;">Elevation (MSL)</th> </tr> <tr> <td>Minimum</td> <td style="text-align: center;">0</td> <td style="text-align: center;">850</td> </tr> <tr> <td>Maximum</td> <td style="text-align: center;">40</td> <td style="text-align: center;">905±</td> </tr> <tr> <td>Present</td> <td style="text-align: center;">40</td> <td style="text-align: center;">905±</td> </tr> </tbody> </table>	Water	Depth (ft)	Elevation (MSL)	Minimum	0	865	Maximum	18	883	Present	18	883	CCR	Depth (ft)	Elevation (MSL)	Minimum	0	850	Maximum	40	905±	Present	40	905±
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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>Approximately 13.6 million cubic yards¹.</p>																								

<p>§257.83(b)(2)(v): “(v) The approximate volume of the impounded water and CCR at the time of the inspection;”</p>	<p>Approximately 14.4 million cubic yards^{1,2}.</p>
<p>§257.83(b)(2)(vi): “(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 actual or potential structural weakness or existing conditions that are disrupting or have the potential to disrupt the operation and/or safety of the impoundment and appurtenant structures. No signs of distress or malfunction were observed³.</p>
<p>§257.83(b)(2)(vii): “(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 impoundment that have affected the stability or operation of the impounding structure since the previous annual inspection.</p>

1. Capacity is from water stage-storage curve. Current storage volume [(b)(2)(v)] exceeds calculated storage capacity [(b)(2)(iv)] because dry CCR was placed in the unit to elevations that in some areas slightly exceed the top of the embankment as noted in (b)(2)(iii) for the purpose of surface water drainage. This placement and volume does not exceed the permitted storage capacity or create a potential safety or operational issue.
2. The 2020 volume estimate was completed by SCS Engineers using the impoundment’s reported 2019 volume and the approximate 2020 CCR volume change. There was no significant water volume change as most of the UQAC has no standing water. CCR volume change was estimated from truck load counts for stabilization and waste material, and from Google Earth area delineation for consolidated material.
3. The QPE reviewed §257.83(a)(1) 7-day and 30-day reports as part of the annual inspection.

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 La Cygne Generating Station’s operating records and observations from my and/or my designated representative’s 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 or 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: Douglas L. Doerr, P.E.

Professional Engineer Seal:

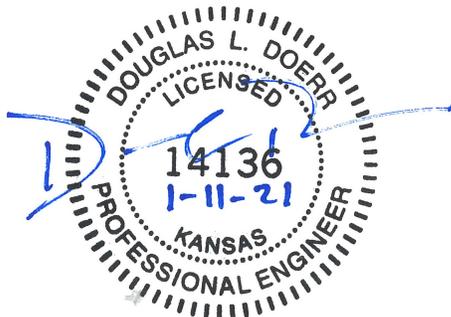


Table 1. Highest Water Level Readings during the 2020 Inspection Period
(November 2019 to November 2020)

Piezometer	Water Level Elevation (ft)
P-501	856.68
P-502	853.14
P-503	856.29
P-504	857.82
P-505	862.4
P-506	881.87
P-507	883.28
P-508	883.32
P-509	869.37
Pool Gauge	Staff gauge removed