


2016 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 Name	Kansas City Power & Light Company
CCR Unit	Upper AQC Impoundment
Inspection Date	September 21, 2016

ANNUAL CCR UNIT INSPECTION REPORT

Rule	Inspection Results
(b)(1)(i) – Review of available information.	Files available in the operating record, including but not limited to seven-day and thirty-day inspection reports dated 1/5/16 through 10/25/16 prepared by a qualified person and design and construction documentation were reviewed. No issues of concern with the CCR unit were noted.
(b)(1)(ii) – Visual inspection of the CCR unit to identify signs of distress or malfunction of the CCR unit and appurtenant structures.	A visual inspection of the CCR unit was made on September 21, 2016. No signs of distress or malfunction of the impoundment or appurtenant structures were identified.
(b)(1)(iii) – Visual inspection of any hydraulic structures underlying the base of the CCR unit or passing through the dike of the CCR unit for structural integrity and continued safe and reliable operation.	A visual inspection of the hydraulic structures was made on September 21, 2016. Structures were observed to be visually stable. Based on visual inspection, continued safe and reliable operation is expected.
(b)(2)(i) – Changes in geometry of the impounding structure since the previous annual inspection.	None.
(b)(2)(ii) – Location and type of existing instrumentation and the maximum recorded readings of each instrument since the previous annual inspection.	Water level readings of nine piezometers present on the crest of the embankment and spaced around the impoundment and water levels measured at one pool gauge at the principal spillway were reviewed. No issues of concern were noted. The maximum recorded readings of each instrument since the last inspection date are listed in Table 1.
(b)(2)(iii) – Approximate minimum, maximum, and present depth and elevation of the impounded water and CCR since the previous annual inspection.	The approximate minimum depth of water and CCR was zero to one foot. The approximate maximum depth of water and CCR was 22 and 40 feet, respectively. The elevation of the water surface at the time of the inspection was approximately 885 feet. Dry CCR is being placed above this elevation to dewater and stabilize the wet CCR.
(b)(2)(iv) – The storage capacity of the impounding structures at the time of the inspection.	Approximately 13.6 million cubic yards ¹ .
(b)(2)(v) – Approximate volume of impounded water and CCR at the time of the inspection.	Approximately 12.8 million cubic yards ² .
(b)(2)(vi) – 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.	None.
(b)(2)(vii) – Other change(s) which may have affected the stability or operation of the impounding structure since the previous annual inspection.	None.

QUALIFIED PROFESSIONAL ENGINEER	
Prepared by	Brian D. Linnan, PE
Date	January 6, 2017
Signature	



1. Storage capacity calculation completed by AECOM using updated bathymetric and topographic survey dated June 23, 2016 by Tukah Technologies and Stage-Storage Curve developed by AECOM in August 2016 for Upper AQC Impoundment at an elevation of 890 ft.
2. Volume calculation completed by AECOM using updated bathymetric and topographic survey dated June 23, 2016 by Tukah Technologies and Stage-Storage Curve developed by AECOM in August 2016 for Upper AQC Impoundment at an elevation of 885 ft. Volume includes CCR placement through June 23, 2016.

Table 1 – Highest Water Level Readings in 2016

Piezometer	Water Level Elevation (ft)
P-501	857.92
P-502	853.72
P-503	858.62
P-504	859.43
P-505	863.33
P-506	877.33
P-507	883.05
P-508	881.21
P-509	869.84
Pool Gauge	886