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17 October 2017
Revised 17 April 2019
Revised 18 December 2019
File No. 129778-002

SUBJECT: Jeffrey Energy Center – Groundwater Monitoring Systems Certification
Existing Bottom Ash Settling Area/Bottom Ash Landfill, Fly Ash Landfill, Flue Gas
Desulfurization Landfill (Phase IA, IB, and IC), and Inactive Bottom Ash Pond
Eversource Energy Kansas Central, Inc.

Eversource Energy Kansas Central, Inc. (Eversource) operates the subject coal combustion residuals (CCR) management units referred to as the Bottom Ash Settling Area (also known as the Bottom Ash Area 1 Impoundment) / Bottom Ash Landfill (also known as the Bottom Ash Area 1 Landfill; [BASA/BAL]), Fly Ash Landfill (FAL), Flue Gas Desulfurization (FGD) Landfill (Phase IA, IB, and IC), and the Inactive Bottom Ash Pond (BAP) at the Jeffrey Energy Center (JEC) located in St. Marys, Kansas. This document addresses the requirements of § 257.91 *Groundwater Monitoring Systems*, specifically section § 257.91(f), of the U.S. Environmental Protection Agency (EPA) Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities, Code of Federal Regulations Title 40 (40 CFR) Part 257 (CCR Rule) effective 19 October 2015, and subsequent rulemaking revisions. The above-mentioned CCR units are considered subject to the CCR Rule since they were either active or identified as inactive with a notification of intent to close as of the effective and/or applicable dates of the CCR Rule. This document serves as certification that the subject units comply with the requirements defined in the CCR Rule. This certification has been prepared based upon Haley & Aldrich, Inc.'s (Haley & Aldrich) investigation(s) and information made available by Eversource pursuant to § 257.91(e)(1).

Eversource has determined, based upon Haley & Aldrich recommendations, that a multi-unit groundwater monitoring system is preferred for the BASA/BAL as allowed pursuant to § 257.91(d). This multi-unit monitoring system is as capable of detecting monitored constituents passing through the combined unit waste boundary as individual groundwater monitoring systems.

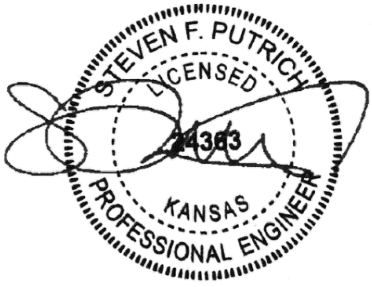
The single-unit groundwater monitoring systems at the FAL, FGD Landfill, and the BAP, and the multi-unit groundwater monitoring system at the BASA/BAL, have been designed to include at least a minimum of one up gradient and three down gradient monitoring wells pursuant to § 257.91(c). Table I presents the wells in each of the groundwater monitoring systems as certified herein. Haley & Aldrich has deemed the FAL, FGD Landfill, the BAP, and the multi-unit BASA/BAL monitoring systems to be sufficient and appropriate to characterize the quality of groundwater flowing beneath each single or multi-unit monitoring system based on site conceptual models and site-specific geologic conditions.

Pursuant to 40 CFR Chapter I Subchapter I Part 257 Subpart D §257.91(f), I certify that the groundwater monitoring systems for the subject units have been designed and constructed to meet the requirements of § 257.91. The certification submitted is, to the best of my knowledge, accurate and complete.

Signed: 

 Certifying Engineer

Print Name: Steven F. Putrich, P.E.
 Kansas License No.: PE24363
 Title: Principal Consultant
 Company: Haley & Aldrich, Inc.



Signed: 

 Professional Geologist

Print Name: Mark D. Nicholls, P.G.
 Kansas License No.: 881
 Title: Lead Hydrogeologist
 Company: Haley & Aldrich, Inc.



Revision No.	Date	Notes
0	17 October 2017	Original
1	17 April 2019	Revised to clarify names of CCR Units and to include the inactive Bottom Ash Pond in subject certification.
2	18 December 2019	Inclusion of additional lateral expansion up gradient and down gradient monitoring wells into the FGD Landfill CCR Management Unit.

Attachment:
 Table I – Groundwater Monitoring Systems

TABLE I
GROUNDWATER MONITORING SYSTEMS
 EVERGY KANSAS CENTRAL, INC.
 JEFFREY ENERGY CENTER
 BOTTOM ASH SETTLING AREA/BOTTOM ASH LANDFILL
 ST. MARYS, KANSAS

CCR UNIT	Upgradient Monitoring Wells		Downgradient Monitoring Wells			
Bottom Ash Settling Area/Bottom Ash Landfill	MW-BAA-6		MW-BAA-2	MW-BAA-3	MW-BAA-7	
Fly Ash Landfill	MW-FAA-5		MW-FAA-3	MW-FAA-4	MW-FAA-6	
Flue Gas Desulfurization Landfill (Phase IA, IB, and IC)	MW-FGD-1	MW-FGD-6	MW-FGD-2	MW-FGD-3	MW-FGD-4	MW-FGD-9
Bottom Ash Pond (inactive)	IBA-4		IBA-1	IBA-2	IBA-3	