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File No. 129778-019

Westar Energy, Inc.
818 South Kansas Avenue
Topeka, Kansas 66612

Attention: Jared Morrison – Sr. Manager, Water and Waste Programs

Subject: Certification of Statistical Methods – Existing 847 Landfill and inactive Area 2 Pond, Area 3 Pond, and Area 4 Pond
Revised to Clarify Names of CCR Units and to Include the inactive Area 2 Pond, Area 3 Pond, and Area 4 Pond in Subject Certification
Lawrence Energy Center, Lawrence, Kansas

Dear Mr. Morrison:

Westar Energy, Inc. operates one existing and three inactive coal combustion residual (CCR) management units at the Lawrence Energy Center (LEC) located in Lawrence, Kansas. These CCR management units are referred to as the 847 Landfill (existing) and inactive Area 2 Pond, Area 3 Pond, and Area 4 Pond. The inactive units are managed as a multi-unit groundwater system. Pursuant to Code of Federal Regulations Title 40 (40 CFR) Chapter I, Subchapter I, Part 257, Subpart D § 257.93(f)(6)¹, I certify that the selected statistical methods described herein are appropriate for evaluating the groundwater monitoring data for the subject CCR management units. The statistical methods described below were selected for the evaluation of the groundwater quality data collected from monitoring wells constructed in accordance with requirements of 40 CFR 257.91 *Groundwater Monitoring Systems* at the subject units.

Based on attributes of the water quality dataset, one statistical method has been selected to evaluate groundwater quality data obtained from monitoring wells completed at the subject CCR units. The statistical method is prediction limits. A prediction limit procedure is one in which concentration limits for each constituent are established from the distribution of the background data, with a specified confidence level (e.g., 95 percent). The upper endpoint of concentration limits is called the upper prediction limit (UPL). Depending on the background data distribution, parametric or non-parametric prediction limit procedures are used to evaluate groundwater monitoring data using this method. Parametric prediction limits utilize normally distributed data or normalized data via a transformation of the sample background data used to construct the limit. If the data are non-normal and a

¹ “The owner or operator of the CCR unit must obtain a certification from a qualified professional engineer stating the selected statistical method is appropriate for evaluating the groundwater for the CCR management area. The certification must include a narrative description of the statistical method selected to evaluate the groundwater monitoring data.”

transformation is not indicated, non-parametric procedures (order statistics or bootstrap methods) are used to calculate the prediction limit. If all the background data are non-detect, a maximum reporting limit may serve as an approximate UPL.

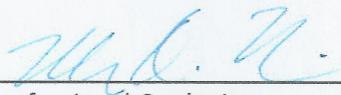
This certification and the evaluation to select the statistical procedures were conducted under my direction or supervision according to a system designed to assure that qualified personnel selected the statistical procedure pursuant to 40 CFR 257.93. The certification submitted is, to the best of my 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.

