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## MEMORANDUM

16 December 2021  
File No. 132892

TO: Santee Cooper

FROM: Haley & Aldrich, Inc.  
Jeffrey A. Klaiber, P.E.

SUBJECT: Selection of Statistical Procedures Certification for the Class 3 Landfill Area 2  
Santee Cooper  
Winyah Generating Station, Georgetown, South Carolina

Pursuant to CFR Title 40 Chapter I Subchapter I Part 257 Subpart D §257.93 (f)(6)<sup>1</sup>, I certify that the selected statistical method described herein will be appropriate for evaluating the groundwater monitoring data collected for detection and assessment monitoring for the CCR management area for the Class 3 Landfill Area 2. This certification and the underlying evaluation to select a statistical procedure 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.

The selected statistical method is the upper prediction limit (or UPL) which is a type of prediction interval. A prediction interval procedure in which a concentration limits [0, PL] for each constituent is established from the distribution of the background data, with a specified confidence level (e.g., 95 percent). The upper endpoint of the concentration limits is called the upper prediction limit or UPL. Depending on the background data distribution, parametric or non-parametric prediction limits 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 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 (RL) may serve as an approximate upper prediction limit.

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<sup>1</sup> "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."

Any change in the statistical methods will be documented in a subsequent certification, if necessary and appropriate.

HALEY & ALDRICH, INC.



Signature

Jeffrey A. Klaiber, P.E.

Name

22576

Professional Engineer Registration Number

16 December 2021

Date

