

STATISTICAL ANALYSIS METHOD CERTIFICATION
Rules for Solid Waste Management, Chapter 391-3-4-.10(6)
PLANT YATES GYPSUM STACK LANDFILL
GEORGIA POWER COMPANY

Chapter 391-3-4-.10(6) of the Georgia Rules for Solid Waste Management (Georgia Rule) requires the owner or operator of an existing CCR Unit to identify a statistical method to be used in evaluating groundwater monitoring data for each specified constituent. The owner or operator must obtain a certification from a qualified professional engineer stating that the selected statistical method is appropriate for evaluating the groundwater monitoring data for the CCR management area meeting the requirements of 40 CFR § 257.93 as adopted by Georgia Rule 391-3-4-.10(6).

Statistical Methodology

The selected statistical method for Plant Yates was developed and updated in accordance with Georgia Rule 391-3-4-.10(6) using methodology presented in *Statistical Analysis of Groundwater Data at RCRA Facilities, Unified Guidance*, March 2009, EPA530/R-09-007 (Unified Guidance) and as requested by the Georgia Environmental Protection Division.

For the detection monitoring program, the statistical test used to evaluate the groundwater monitoring data will be the interwell prediction limit (PL) method combined with a 1-of-2 resample plan. The interwell PLs pool background data from the network of upgradient wells to calculate a PL. An "initial exceedance" occurs when any downgradient well data exceed the PL.

If data from a sampling event initially exceed the PL, the resampling strategy will be used to verify the result. In 1-of-2 resampling, one independent resample will be collected and evaluated within 90 days to determine whether the initial exceedance is verified. If the resample exceeds the PL, the initial exceedance is verified. If the resample result does not verify the initial result, the initial exceedance is considered an erroneous result and the resample values will replace the initial result. When the resample confirms the initial finding, a statistically significant increase (SSI) is determined.

An SSI is determined only if the resample verifies the initial exceedance (i.e., the resample also exceeds the PL).

If a confirmed SSI over background is identified, assessment monitoring will be initiated within 90 days unless a demonstration is made within that same timeframe that the SSI resulted from a source other than the CCR Unit.

In addition to interwell PL statistics, other statistical methods consistent with the Unified Guidance may be used to further evaluate apparent SSIs or support alternative source demonstrations.

CERTIFICATION

I hereby certify that the groundwater statistical method for the CCR Unit located at Georgia Power's Plant Yates located at 708 Dyer Road, approximately eight miles northwest of the city of Newnan and 13 miles southeast of the city of Carrollton in Coweta County, Georgia, and designated as Gypsum Stack Landfill, has been designed and constructed to meet the requirements of Chapter 391-3-4-.10(6) of the Georgia Rules for Solid Waste Management.

PE STAMP

Qualified Professional Engineer's Signature

October 20, 2021

Date

