## STATISTICAL ANALYSIS METHOD CERTIFICATION 40 CFR §257.93(f) GULF CLEAN ENERGY CENTER FLORIDA POWER & LIGHT COMPANY

The Environmental Protection Agency's "Disposal of Coal Combustion Residuals from Electric Utilities" Final Rule (40 CFR Part 257 and Part 261), §257.93, requires the owner or operator of an existing CCR Unit or Units 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 from CCR Units meeting the requirements of 40 CFR §257.93.

## **Statistical Methodology**

The selected statistical method for Gulf Clean Energy Center's Landfill No.1, Landfill No. 2, and the Gypsum Storage Area was developed in accordance with 40 CFR §257.93(f) using methodology presented in *Statistical Analysis of Groundwater Data at RCRA Facilities, Unified Guidance*, March 2009, EPA 530/R-09-007 (Unified Guidance). As described in the June 2025 *Statistical Analysis Plan ("SAP"), Florida Power & Light Company – Gulf Clean Energy Center,* the selected statistical method has been updated from the initial SAP that was prepared and submitted in October 2017. Accordingly, this certification is intended to replace the prior certification of the October 2017 SAP.

For the detection monitoring program, either the prediction or tolerance interval (using either the intra- or inter-well approach) is the selected statistical method that will be used to establish background concentrations for Appendix III parameters. The exact approach will be assessed once the background data has been preprocessed and reviewed to assess spatial variability between background wells.

If no statistically significant differences are observed between background wells, then pooling data and using an interwell comparison approach is appropriate. Otherwise, an intrawell comparison approach may be appropriate. An initial exceedance occurs when any downgradient well data exceed the upper limit of the prediction or tolerance interval.

Within 90 days of receiving sample analysis results, the concentration of each Appendix III constituent in each compliance well will be compared to background to evaluate if a statistically significant increase ("SSI") above background has occurred.

If an SSI above background is detected in any compliance well, data will be evaluated to assess if the cause of the SSI was from the CCR Unit or from a release from another source, sampling and analysis error, or from natural variability. Detection monitoring may resume if demonstrations indicate the CCR Unit was not the cause of the SSI.

In the event a confirmed SSI over background is identified in one or more wells for any of the Appendix III parameters, 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. If no demonstration is made, wells will be sampled for Appendix IV parameters and concentrations will be compared to groundwater protection standards using confidence intervals that are appropriate to the distribution of the data and the presence of trends in the data.

## **PROFESSIONAL ENGINEER'S CERTIFICATION**

I, Benjamin K. Amos, certify that the *Statistical Analysis Plan, Florida Power & Light Company* – *Gulf Clean Energy Center* was prepared in accordance with the requirements of 40 CFR §257.93 under my supervision as a State of Florida licensed Professional Engineer with Geosyntec Consultants, Inc. Based on my experience and knowledge of the CCR Units, the selected statistical methods are appropriate for evaluating groundwater monitoring data collected at the CCR Units.

Benjamin K. Amos, Ph.D., P.E. Florida Professional Engineer No. 82837 Date