

**STATISTICAL ANALYSIS PLAN CERTIFICATION
40 CFR §257.93(f)**

**ARIZONA ELECTRIC POWER COOPERATIVE, INC.
3525 North Highway 191 South, Cochise, AZ 85606**

**APACHE GENERATING STATION
COMBUSTION WASTE DISPOSAL FACILITY**

EPA's "Disposal of Coal Combustion Residuals from Electric Utilities" Final Rule (40 CFR Part 257 and Part 261), 40 CFR §257.93, 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.

STATISTICAL METHODOLOGY

The selected statistical method for the Combustion Waste Disposal Facility was developed in accordance with 40 CFR §257.93(f) using methodology presented in *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities: Unified Guidance*, March 2009, EPA 530/R-09-007 (Unified Guidance).

The statistical test used to evaluate the groundwater monitoring data will be the prediction interval method. Interwell statistical methods will be used as specified in the Statistical Plan – meaning that data from downgradient wells will be compared to upgradient background groundwater quality. Using this approach, background data from the network of upgradient wells will be pooled to calculate a Prediction Limit (PL) for each of the Appendix III parameters. Data from the downgradient monitoring wells will be evaluated by comparing individual results to the PL following each monitoring event. An "initial exceedance" occurs when any downgradient well data exceed the upgradient PL.

If data from a sampling event initially exceed the intrawell PL, a 1-of-2 resampling strategy for parameters boron, calcium, chloride, fluoride, pH, sulfate, and TDS 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 result does not verify the initial result, the initial exceedance is considered a spurious result and the resample value will

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replace the initial result. When the resample confirms the initial finding, a statistically significant increase (SSI) is declared. An SSI is determined only if the resample verifies the initial exceedance (i.e. the resample also exceeds the PL).

Assessment monitoring is initiated when there is a confirmed SSI over background in one (1) or more wells. Assessment monitoring includes comparison of data to groundwater protection standards through the use of confidence intervals as specified in the Statistical Analysis Plan.

CERTIFICATION

I hereby certify that the groundwater statistical plan for the CCR Unit located at Arizona Electric Power Cooperative Inc.'s Apache Generating Station located at 3525 North Highway 191 South, Cochise, AZ 85606, and designated as the Combustion Waste Disposal Facility, has been designed and constructed to meet the requirements of 40 CFR §257.93.



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