

October 15, 2018

15-45454.2A

**Mr. Sean McGinnis, CHMM**

Lakeland Electric  
 501 East Lemon Street  
 Lakeland, FL 33801

**RE: STATISTICALLY SIGNIFICANT LEVEL EVALUATION  
 CCR RULE GROUNDWATER MONITORING – BYPRODUCT STORAGE AREA  
 LAKELAND ELECTRIC C.D. MCINTOSH POWER PLANT**

Dear Mr. McGinnis:

Golder Associates Inc. (Golder) is providing Lakeland Electric (LE) with this Statistically Significant Level (SSL) evaluation summarizing the statistical analysis of the results from the initial annual and first semi-annual Coal Combustion Residual (CCR) Rule<sup>1</sup> assessment monitoring events for the Byproduct Storage Area (BSA) at the C.D. McIntosh Power Plant.

During the initial annual assessment event, performed in April 2018, the groundwater samples collected from CCR monitoring wells were analyzed for Appendix IV parameters, in accordance with §257.95(a). During the subsequent semi-annual assessment event conducted in July 2018, a groundwater sample was collected from each well where the results of the April 2018 event revealed a detection of an Appendix IV parameter. In addition, the groundwater samples collected during the July 2018 event were analyzed for all Appendix III parameters, in accordance with §257.95(d)(1).

A statistical analysis of the Appendix IV results from downgradient wells (CCR-3 through CCR-14) was performed to evaluate if the downgradient wells concentrations are at SSLs relative to the groundwater protection standards (GWPS) established for the site. The statistical analysis was performed in accordance with the Statistical Analysis Plan for CCR Groundwater Monitoring<sup>2</sup> (Golder 2017). The following SSLs above the GWPS have been identified:

Appendix IV Parameter	GWPS	Monitoring Well at SSL
Arsenic	0.010 mg/L	CCR-11 and CCR-12
Lithium	0.040 mg/L	CCR-5, CCR-6, CCR-9, and CCR-13
Radium 226+228	7.94 pCi/L	CCR-4, CCR-5, CCR-7, CCR-13 and CCR-14

<sup>1</sup> 40 Code of Federal Regulations (CFR) §257.50 to §257.107, as revised in Phase one, Part One, Final Rule, 83 Federal Register 36435 (July 30, 2018)

<sup>2</sup> Golder, 2017. Statistical Analysis Plan CCR Groundwater Monitoring, Lakeland Electric, C.D. McIntosh Power Plant, October 2017.

Based on the results of the evaluation presented herein, Golder recommends preparing a demonstration showing that a source other than the BSA is the cause of the SSLs within 90 days in accordance with §257.95(g)(3)(ii) or initiating assessment of corrective measures within 90 days in accordance with §257.96. Pursuant to §257.95(g)(1), a characterization of the nature and extent of the release is required.

Sincerely,

**Golder Associates Inc.**



Samuel F. Stafford, PE  
*Senior Project Engineer*



Anthony L. Grasso, PG  
*Principal*

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