



Carlos A. Gimenez, Mayor

Department of Regulatory and Economic Resources

Environmental Resources Management

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July 10, 2018

Certified Mail No. 70172400000078352802

Return Receipt Requested

Matthew J. Raffenberg, Sr. Director
Environmental Licensing and Permitting
Florida Power & Light Company
700 Universe Blvd.
Juno Beach, Florida 33408

RE: Site Assessment Report (SAR) dated March 17, 2017 and the SAR Supplemental Information dated November 11, 2017, submitted pursuant to Addendum 1 dated August 15, 2016 of the Consent Agreement between Florida Power & Light (FPL) and Miami-Dade County, Division of Environmental Resources Management for FPL's Turkey Point facility located at, near, or in the vicinity of 9700 SW 344 Street, Unincorporated Miami-Dade County, Florida (DERM IW-3, IW-16, IW5-6229, DWO-10, CLI-2014-0312, CLI-2016-0303, HWR-851)

Dear Mr. Raffenberg:

The Department of Regulatory and Economic Resources-Division of Environmental Resources Management (DERM) has reviewed the documents referenced above along with applicable historical DERM records for the site. DERM's evaluation of the report as discussed at our January 10, 2018, meeting identified the following:

1. An evaluation of the total ammonia (ammonia) groundwater data provided in the referenced report along with historical data (since 2010) from groundwater monitoring wells within (TP-GW13 series) and immediately adjacent, to the Cooling Canal System (CCS) (TPGW-1, TPGW-2, TPGW-10, and TPGW-14 series) indicates a statistically significant increasing trend (Mann Kendall Trend Analysis; 0.05 significance level, 0.95 confidence level) and a concentration gradient emanating from the CCS at the deep and intermediate intervals.
2. DERM finds that the total ammonia concentrations documented in several sampling locations at the Barge basin, Turtle Point Canal, Card Sound Canal, S-20 Get Away Canal, and the Sea-Dade Canal exceeded the applicable Miami-Dade County surface water standard. DERM acknowledges that the documented elevated surface water ammonia concentrations may be attributable to several contributing sources, including factors not directly related to the operation of the CCS. However, based on an evaluation of other associated water quality data, such as tritium concentrations and

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temperature, DERM finds that the data supports that the CCS is a contributing source to the ammonia concentrations observed in areas which exceed the applicable standard.

Based on the above and to address the CCS's contribution to the surface water ammonia exceedances and to monitor any potential migration of the groundwater ammonia plume, DERM requires the following:

1. Submittal of a plan that identifies strategies or actions FPL shall implement to address CCS nutrient impacts to groundwater and surface water resources beyond the boundaries of the CCS. Due to documented movement of CCS water through the groundwater pathway, it is acknowledged that management of water quality within the CCS may be effective in reducing water quality impacts observed beyond the CCS facility boundaries. Therefore, the plan may include an evaluation of nutrient sources within the CCS and may include proposed operational, process, or engineering modifications to reduce the level of nutrients within the CCS, and improve the general ecological health of the CCS, in order to eliminate CCS discharges to surrounding groundwater and surface waters that result in exceedances of state water quality criteria and Miami-Dade County water quality standards.
2. Implementation of the FPL proposed plan to fill the barge basin and Turtle Point canal, as well as submittal of plans to fill or otherwise address water quality impacts in the additional areas as referenced above.
3. Resampling of surface water sampling point SDS-SWCCS (March 17, 2017 SAR, Figure 6) at all depths to confirm the concentrations of total ammonia (31 mg/l) documented.
4. Submittal of a proposal, including but not limited to groundwater and surface water monitoring, to evaluate the effectiveness of the measures implemented pursuant to requirements 1 and 2 above. The plan shall include, without limitation:
 - a. Sampling and analysis of groundwater from monitoring wells TPGW-17, TPGW-18, TPGW-19, TPGW-1, TPGW-2, TPGW-13, TPGW-12, TPGW-15, L-3, L-5, G-21, and G-28 and the groundwater recovery wells. Groundwater shall be analyzed for nutrients, including but not limited to the species of nitrogen (ammonium ion, total ammonia, nitrate nitrite as N, etc.,) total phosphorus, etc.
 - b. A representative number of groundwater and surface water monitoring locations to the east and south of the CCS to be sampled and analyses as indicated in Item 4a above. Note that this may include utilization of existing monitoring stations where appropriate.

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5. The evaluation of the performance of the DERM approved groundwater recovery well system, shall include an evaluation of the spatial and temporal trends for groundwater ammonia, an evaluation and quantification of ammonia mass removal.

Therefore, within ninety (90) days of receipt of this correspondence a report (s) that addresses the above requirements. Be advised that the groundwater/surface water nutrient monitoring proposal may propose a sampling and reporting frequency consistent with preexisting sampling programs as applicable (e.g., uprate monitoring, DERM Class I permit (CA) monitoring, etc.,).

Be advised that failure to comply with the above may result, at a minimum, in the assessment of penalties as outlined in the subject Consent Agreement.

If you have any questions concerning the above matters please contact me at wilbur.mayorga@miamidade.gov or via telephone at (305) 372-6700

Sincerely,



Wilbur Mayorga, P.E., Chief
Environmental Monitoring and Restoration Division
DERM

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