



Florida Department of Environmental Protection

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Mimi Drew
Secretary

October 20, 2010

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Jay Worley
Director, Environmental Programs
St. Johns River Power Park
11201 New Berlin Road
Jacksonville, Florida 32226

RE: Petition to Modify Site Certification PA 81-13
Groundwater Monitoring (Mod P)
DEP Case Number PA 81-13P
Request for Additional Information

Dear Mr. Worley:

On September 20, 2010 the Siting Coordination Office received a petition, and an associated fee of \$10,000, from Jacksonville Electric Authority (JEA) for a modification to the St. Johns River Power Park Site Certification. The petition is to reduce submittal of the quarterly groundwater sampling and analysis on the 15th day of the month to semi-annually, submitting the data on the 30th day of the month.

Additional information is needed in order to make an adequate review of the submitted petition. The Department of Environmental Protection (DEP) Northeast District Office (NED) Water Facilities –Ground Water section has the following questions and comments:

1. In reference to the facility's Industrial Wastewater Ground Water Monitoring Program, including the "B" and "C" wells and the request for modification of the Site Certification to reduce the frequency of monitoring from quarterly to semi-annually, it is requested the facility submit an evaluation of the historic monitoring results from these wells over the last five years. The evaluation should include graphs of each monitored parameter showing any trends, and a review of the data for any seasonality changes to justify a reduction in the monitoring frequency.

2. This modification request will require the ground water monitor conditions of the Site Certification to be updated to today's language by incorporating the standard conditions that are required by current rules. This will include separating the ground water monitoring conditions according to each program. There will be a separate Solid Waste ground water monitoring section and a separate Industrial Wastewater ground water monitoring section.

The St. Johns River Water Management District (SJRWMD) has the following questions and comments;

1. Please provide a statistical trend analyses for chloride concentration (milligrams per liter) sampled from the SJRPP production and monitoring wells that includes the following:
 - a. A screening test such as LOWESS (“locally weighted scatterplot smoothing”) for determining that a trend is monotonic or non-monotonic over the period and for detecting break points.
 - b. Nonparametric Mann-Kendall regression Sen’s test for quantifying trends over single or multiple (piecewise) periods detected in initial screening tests.
 - c. A nonparametric test for evaluating the presence of autocorrelation and/or seasonality (if appropriate).
 - d. A report that documents procedures and tabulates results including period of record, break points (if present), MK Sen slope (in milligrams per liter per year), p-value, significance and conclusions.
[Paragraphs 9.4.2 (b) (c), 10.3 (d) (h) (j), Applicant’s Handbook: Consumptive Uses of Water Chapter 40C-2, F.A.C.]

2. For water quality samples collected, as required per your Site Certification, since water quality monitoring began from the SJRPP production and monitoring wells (with an anion-cation balance less than 10% difference):

- a. Please determine the geochemical type(s) of ground water (e.g., calcium bicarbonate, calcium sulfate, sodium chloride) based upon the equivalent concentration, and
- b. Prepare Piper-trilinear diagrams that graphically represent geochemical patterns and classification (e.g., fresh recharge water, transitional water, connate water, sea water) for anion-cation pairs (Piper diagram) and for anions and cations (trilinear diagrams) according to the procedures described by Frazee in Geochemical Pattern Analysis: Method of Describing the Southeastern Limestone Regional Aquifer System (1982).
[Paragraphs 9.4.2 (b) (c), 10.3 (d) (h) (j), Applicant’s Handbook: Consumptive Uses of Water Chapter 40C-2, F.A.C.]

Pursuant to Rule 62-17.293(1)(c)2., a modification fee shall be based on the number of agencies whose review is required in order to modify the Conditions of Certification (COC). The number of agencies whose review is required shall be determined by the Department based on the changes proposed to the COC. The fee for this modification may be adjusted to more appropriately reflect agency involvement in changes to the COC for this project.

If you have any questions regarding this request, you may contact Ann Seiler at (850) 245-2143, Robert Martin at (904) 807-3341 or Caroline Silvers at (904) 448-7903. Christopher Kirts and Robert Martin in the NED Office, as well as Caroline Silvers in the SJRWMD should be copied on your response.

Sincerely,



Michael P. Halpin, P.E.
Administrator,
Siting Coordination Office