



United States Department of the Interior



National Park Service
Biscayne National Park
9700 S. W. 328th Street
Homestead, Florida 33033-5634

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Marc Harris, P. E.
Supervisor, Power Plant NPDES Permitting
Industrial Wastewater Section
Florida Department of Environmental Protection
2600 Blairstone Road, MS 3545
Tallahassee, Florida 32399-2400

Dear Mr. Harris,

I am writing to provide comments on the Florida Power and Light (FPL) National Pollutant Discharge and Elimination System (NPDES) permit renewal for Units 1-5. In general, in light of the new science and information relating to the existing operation of the Turkey Point Cooling Canals (e.g. the Industrial Wastewater Treatment Facility [IWWF]) Units 1-5, we believe that discharge to the cooling canals should be regarded as discharge to both surface and ground waters. We now know from sampling by the United States Geological Survey (USGS) that the groundwater table beneath the Industrial Wastewater Facility (cooling canals) has received an influx of cooling canal water via direct infiltration. For this reason it is apparent that the cooling canals discharge to ground water. Biscayne National Park (BISC) is concerned about the subsurface migration of impacted groundwater to the adjacent surface water of Biscayne Bay. Groundwater seepage to the bay has been documented by various hydrologic studies such as: Reich *et al.* 2006 http://sofia.usgs.gov/publications/reports/bisc_gw_char/pdf.html; and Stalker, J. C., R. M. Price, and P. K. Swart, 2009. Determining Spatial and Temporal Inputs of Freshwater Including Submarine Groundwater Discharge to a Tropical Estuary Using Geochemical Tracers, Biscayne Bay South Florida. *Estuaries and Coasts*. 32:694-708. Additional sampling as part of the Uprate permitting process has shown that there is a very high likelihood that water from the cooling canals already is making its way from the cooling canals to groundwater and migrating to surface water, as evidenced by the existing salt water plume documented in the groundwater and the inland salt water intrusion line (FPL Turkey Point Power Plant Groundwater, Surface Water, and Ecological Monitoring Plan, October 14, 2009, South Florida Water Management District, Florida Department of Environmental Protection, and Miami-Dade County Department of Environmental Resource Management).

We believe that any NPDES permit that is granted should contain monitoring requirements additional to the Turkey Point Plan Groundwater, Surface Water Ecological Monitoring Plan agreed to with the South Florida Water Management District as part of the FPL-Turkey Point Units 1-5 Uprate project. We also believe that the sampling should include contaminants characteristic of those that may arise from plant operations and include sampling for these suite of compounds in the groundwater, the groundwater plume off site, in the adjacent interceptor ditch and the L-31e as well as downstream in the Sea Dade canal to the outflow from the L-31e to Card Sound. This additional monitoring would supplement the proposed monitoring from the Uprate in both the groundwater and surface waters, in areas around the plant as well as in the Bay, and in surrounding freshwater and saltwater wetlands. We recommend that these monitoring requirements include expanded sampling for tritium and compounds characteristic of the cooling canal water as negotiated under the Turkey Point Groundwater, Surface Water and Ecological Monitoring Plan as tracers of the fate and transport of the water. Suggested NPDES sampling may need to be broader and designed to identify the fate and transport of contaminants and associated waters known to originate in the facility into the environment.

Additionally we believe that ecological monitoring should be included to look at the fate and transport of compounds from the IWWF and the potential for ecological effects on the National Park. Further, we recommend that the NPDES conditions be subject to modifications based on the results of this monitoring and the results of the monitoring required as part of the Uprate process and that the multi-agency committee reviewing monitoring for the Uprate process be re-convened to review and comment on this NPDES permit application and provide recommendations.

Thank you for your consideration in this matter. Please feel free to contact me at (786) 335-3646 or Ecologist Sarah Bellmund at (786) 335-3624 if you have further questions.

Sincerely,



for: Mark Lewis
Superintendent
Attachments

Cc: Dan Kimball, Superintendent Everglades National Park
Paul Sosa, Supervisor South Florida Field Office, USFWS
Barry Rosen, Director, Integrated Science Center, USGS
Mark Nuhfer, IV EPA Municipal and Industrial Section, USEPA
Carlos Espinosa, Director Miami-Dade County DERM
Carol Wehle, Director SFWMD
Tim Powell, Supervisor, FDEP Southeast District Office