

July 30, 2012

MEMORANDUM TO: William F. Burton, Branch Chief
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Division of New Reactor Licensing
Office of New Reactors

Ryan Whited, Branch Chief
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Office of New Reactors

FROM: Alicia Williamson, Project Manager **/RA/**
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Office of New Reactors

SUBJECT: SUMMARY OF MEETING WITH SOUTH FLORIDA WATER
MANAGEMENT DISTRICT RELATED TO THE ALTERNATIVE SITES
FOR THE PROPOSED TURKEY POINT UNITS 6 AND 7
ENVIRONMENTAL REVIEW

On Wednesday, June 6, 2012 members of the U.S. Nuclear Regulatory Commission (NRC) staff met with the South Florida Water Management District (SFWMD) to discuss water availability for three of the four alternative sites chosen by Florida Power and Light (FPL) in their combined license application (COLA) for Turkey Point Units 6 & 7. The discussion focused on the Glades, Okeechobee 2, and Martin sites. These three sites are clustered around Lake Okeechobee and within the jurisdictional boundaries of the SFWMD. The list of attendees was as follows:

<u>List of Attendees</u>	
P. Madden	NRC
W. Burton	NRC
A. Kugler	NRC
A. Williamson	NRC
S. Trost	SFWMD
M. Elsner	SFWMD
R. Braun	SFWMD
D. Powell	SFWMD
E. Ross	SFWMD
J. Morgan	SFWMD
T. Colios	SFWMD
S. Sculley	SFWMD

The meeting started with a brief welcome and introductions by NRC and SFWMD. Next, Alicia Williamson, the environmental project manager, provided a status update on the NRC's environmental review for Turkey Point Units 6 & 7. Andrew Kugler, alternatives technical

reviewer, started technical the discussion by describing the review team's issue with the three alternative sites and how NRC reached the conclusion to stop work on the alternative sites section of the environmental impact statement (EIS) until additional information was provided by FPL as described in a letter dated, May 4, 2012. (This letter can be found on the NRC's Agencywide Documents Access Management System (ADAMS) using Accession No. ML120740390.) The discussion continued and focused on SFWMD's regulatory process for consumptive water use permits as well as their letter dated February 23, 2012 to the NRC on the water availability at the aforementioned sites. (This letter can also be accessed in ADAMS using Accession No. ML12068A433.) As an example, the SFWMD talked about a recent request from the Okeechobee Utility Authority to withdraw an additional 1 million gallons of water per day (MGD) from Lake Okeechobee for drinking water. They indicated the process was extremely difficult but eventually approved, mainly because the utility was already an existing user of lake water and had completed construction to increase the treatment capacity of the drinking water treatment plant from 4 MGD to 5 MGD. In addition, the Okeechobee Utility Authority had to show the additional 1 MGD of lake water was no longer being utilized by other users. Most public water suppliers around Lake Okeechobee have terminated their historic use of the lake and developed groundwater sources for drinking water. In addition, water rights (according to Florida law) have been terminated by other users who no longer have a demand for surface water. Water rights have also been terminated due to the SFWMD acquiring agricultural lands for water resource restoration projects. As a result, the surface water associated with these terminated water rights is available, but most of this water is needed to support the implementation of the Comprehensive Everglades Restoration Plan (CERP). At the public meeting where the Okeechobee Utility Authority's request for additional lake water was considered, representatives from the Department of the Interior (DOI) commented they supported Okeechobee Utility Authority's need, but expected the remainder of the terminated water rights to be made available for CERP.

Next, the discussion covered another contributor to the water management issues in the area, the Lake Okeechobee Regulation Schedule. The U.S. Army Corps of Engineers – Jacksonville District is in charge of managing lake levels for Lake Okeechobee. At this time, lower lake levels are being maintained due to major issues with the lake's Herbert Hoover Dike levee system. Some sections of the levee system have been repaired but funding repairs for remaining sections are subject to Congressional appropriations. The SFWMD mentioned that the repairs being implemented by the Corps of Engineers are scheduled to span two decades. SFWMD also stated, there are periods (in the wet season) when large quantities of water are released from the lake to maintain the regulated level. The discharge of these larger quantities of water can contribute to poor ecological conditions in the downstream estuaries. The water could be made available but storage, such as a reservoir, would be needed to ensure it is a steady, sustainable source.

Next, the discussion focused on the Kissimmee River Restoration Project. One of the proposed alternative sites would withdraw water from Pool E of the Kissimmee River, which is part of the Lake Okeechobee Service Area and subject to the Restricted Allocation Rule for the Lake Okeechobee Service Area. New projects would have to go through the process of identifying allocations that were no longer being used, such as terminated water rights, as mentioned in the Okeechobee Utility Authority example above. SFWMD said approximately \$600M has been spent restoring the Kissimmee River to its natural path and restoring floodplain habitat that also improves water quality before flowing into Lake Okeechobee. The SFWMD indicated that they likely would not support any withdrawals that would negatively impact the river.

Finally, the NRC review team asked about the possibility of using groundwater as well as alternatives to groundwater. The SFWMD described how in August 2008, it passed regulations capping groundwater usage in Central Florida to projected 2013 demands. The currently proposed alternative sites are not in the region affected by this cap on groundwater allocations, which will expire in 2013. SFWMD indicated it might be possible to get the required quantities from a deep aquifer but this could potentially affect the artesian flow (water rises to the surface via underground pressure) for the wells providing irrigation supply for nearby farmers. In addition, large pumping operations might cause more saline water to “up-cone” into the aquifer causing more problems. This would be of particular concern if the power plant blowdown is disposed of by underground injection; it could become a pumping loop and cause cross contamination. In the SFWMD letter to NRC dated February 23, 2012, alternatives to groundwater were mentioned. The SFWMD indicated they consider re-use water and saline groundwater alternative water sources. After a lengthy discussion, it was determined that because of the low population density in the rural areas proposed as alternative sites, the quantity of available re-use water is not currently sufficient to meet the needs for the plant. However, it was mentioned that a pipeline delivering reclaimed water from coastal areas may be able to provide the amounts of water needed for a plant that size. The meeting was then adjourned.

Okeechobee Utility Authority example above. SFWMD said approximately \$600M has been spent restoring the Kissimmee River to its natural path and restoring floodplain habitat that also improves water quality before flowing into Lake Okeechobee. The SFWMD indicated that they likely would not support any withdrawals that would negatively impact the river.

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cc: See next page

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