TurkeyPointCEm Resource

From: Tom Walker [twalker@fkaa.com]
Sent: Monday, August 16, 2010 5:29 PM
To: TurkeyPointCOLEIS Resource
Subject: FW: FPL Licensing Request for New Reactors
Attachments: FKAA ltr to NRC 8.13.2010.pdf

Importance: High

Please accept our attached comments for the referenced project.

Thanks, Tom Walker

Tom Walker

TOM G. WALKER, P.E.
DIRECTOR OF ENGINEERING
FLORIDA KEYS AQUEDUCT AUTHORITY

305.295-2140

From: Tom Walker
Sent: Sunday, August 15, 2010 7:25 PM
To: Manny.Comar@nrc.gov
Cc: Jim Reynolds
Subject: FPL Licensing Request for New Reactors
Importance: High

Mr. Comar, please find comments attached from the Florida Keys Aqueduct Authority regarding the Environmental Impact Statement scoping for the referenced power project. The hard copy being mailed includes a copy of our Wellfield Protection Plan which is mentioned in the comment letter.

We appreciate your agency's interest in our comments for the upcoming EIS.

Thank-you,

Tom Walker, PE, BCEE
Director of Engineering
Florida Keys Aqueduct Authority

Federal Register Notice: 75FR33851
Comment Number: 24

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From: Tom Walker

Created By: twalker@fkaa.com

Recipients:
"TurkeyPointCOLEIS Resource" <TurkeyPointCOLEIS.Resource@nrc.gov>
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August 13, 2010

Chief, Rules, Announcements, and Directives Branch
Division of Administrative Services
Office of Administration
Mailstop TWB-05-B01M
U.S. Nuclear Regulatory Commission (NRC)
Washington, DC 20555-0001

RE: Turkey Point Units 6 and 7
Florida Power & Light (FPL) Nuclear Power Plant
Environmental Impact Statement (EIS)

Attention EIS Scoping Committee for the NRC:

The Florida Keys Aqueduct Authority (FKAA) has been notified of FPL's proposed nuclear power project. We attended the July 15th scoping meeting in Homestead for the upcoming Environmental Impact Statement (EIS) which is to provide a comprehensive analysis of all potential impacts relating to this proposed nuclear power plant expansion. Since the FKAA has significant interest in this upcoming project, this letter is to accompany and elaborate upon the comments made at the scoping meeting by FKAA and to establish our keen interest in development of the EIS.

The FKAA owns and operates a critical ground water supply and treatment system within less than ten miles of the existing Turkey Point operation. The proposed activities by FPL may be even closer. The ground water resources which are used by FKAA to supply drinking water to residents throughout the Florida Keys is primarily provided by the Biscayne Aquifer. This aquifer system is surficial in nature and is located in a very porous limestone structure, just beneath the surface of the ground in South Miami-Dade County. The porosity of this is significant, with transmissivities measured up to 15,000,000g/d/ft; some of the highest porosity found in similar drinking water aquifers. Currently, the water quality and quantity in the Biscayne are of very high value.
Recently, FKAA completed a Wellfield Protection Program (2/2010); attached is a copy for your review. As you will see, the amount of groundwater monitoring over the past years is significant in the Biscayne Aquifer in and around our well field. The United States Geological Survey (USGS) is another partner that shares information and assists the FKAA in ground water monitoring. The monitoring primarily focuses on ground water levels and salt water intrusion; the water surface elevations of this Biscayne Aquifer are critical as they are quite low in comparison to elevations in other parts of the

county and, in relation to the surface of the ocean. This low elevation and the high porosity of the Biscayne Aquifer make our water supply very vulnerable to changes.

In addition to the Biscayne Aquifer water supply, the FKAA recently completed a new, very costly treatment system with supply from the Floridan Aquifer located below the Biscayne Aquifer. This brackish water supply is to be treated by reverse osmosis. Other than chlorides, the water quality from the upper Floridan is relatively pure and free from other contaminants. Its capacity, however, is limited. Any negative impacts to this aquifer would be detrimental to the water quality, causing a major setback to our newly developed brackish water treatment capability.

As an agency with responsibility to provide our customers with a clean and sustainable fresh water supply for Monroe County which is surrounded by seawater, we have concerns for any potential impacts to our water supply. As the proposed project is significant in size and nature, conducting a comprehensive EIS to address key concerns and impacts to the natural resources is a necessary part of the evaluation process. It is our understanding that FPL's existing cooling water canal system, located west and south of the power plant contains high salinity concentrations. This high salinity is derived from evaporation of natural sea water discharged within these cooling water canals. As the highly concentrated seawater enters the groundwater along the bottom and the sides of the canals, the receiving groundwater becomes more saline. Without adequately operating system controls, this hydrogeological process can continue with a resultant salt load into a fresher groundwater aquifer. The higher saline groundwater with a higher specific gravity can increase the rate and amount of salt water intrusion from east to west in the Biscayne Aquifer and toward the FKAA wellfield.

Furthermore, we understand that the FPL has negotiated a new ground water monitoring program with the South Florida Management District (SFWMD.) Unfortunately, the prior ground water monitoring plan has been questioned and from what we have understood, had compliance issues which were never quite resolved. Subsequently, a new monitoring plan was laid out and approved by the SFWMD; yet, much of the historic information may provide important trending information which would be helpful for the EIS to evaluate. We request that the NRC obtain the previous ground water monitoring information relative to these cooling canals and analyze their past and present impacts to the ground water in the adjacent aquifer.
As such, the FKAA requests the following criteria be incorporated into the EIS study program, if not already addressed in your current outline:

1. The FKAA requests that additional ground water modeling and monitoring be presented at the current salt/fresh water interface of the Biscayne Aquifer. As you see in the attached ground water monitoring plan, a trend has been shown and interface presented in collaboration with the USGS and Miami-Dade County to demonstrate the current interface location and its movement. For the EIS, modeling of potential changes to the interface position of this salt/fresh interface resulting from the proposed impacts from the construction and operation of the facility is requested.
2. At the NRC scoping meeting held in July, a handout (USNRC BACKGROUNDER, February 2010) was available which stated that "Nuclear power plants have reported abnormal releases of water containing Tritium, resulting in groundwater contamination." This is also discussed on your website under "operating reactors". Obviously, the potential leakage of Tritium from the Turkey Point nuclear power plant is a concern to be analyzed. With this in mind, FKAA request that any Tritium test results from the existing cooling water canals and the aquifer system adjacent to these canals be

released for review. If there has been leakage above the background levels in the existing system, continued rate of analysis should be required at more stations, and the source and remedy be found. Also, whether or not there is Tritium above background levels in the existing system, the EIS should include the requirement for continued measurements of Tritium at the interface of the reactors including water canals, strategic monitoring points, and downstream monitoring locations.

3. The proposed project requires a significant amount of borrow material to build the platform for the new reactors. Such volumes of borrow in high quantities requires significant movement of material in and around the aquifers in such low lying areas as South Miami-Dade County. Such excavation can disturb the water resources. The EIS should do a quantification of the amount of material required and its potential impact to see if in fact such borrow material can be moved or can be excavated in the vicinity of the existing power plant and the FKAA well field. If not, material must be obtained elsewhere where such impacts are not detrimental to local well fields.

4. The primary source of cooling water is supposedly reclaimed water from Miami-Dade Water & Sewer Authority. The daily flow rate for cooling is supposedly 60mgd. The EIS should confirm that the cooling water concentrate from the reclaimed water source will be disposed of in the boulder zone through a class one deep injection well. Similarly, if the Floridian Aquifer water is used for cooling, concentrated brine reject should be disposed of in the deep well injection system in the boulder zone.

5. The potential impacts from sea level rise are continuing to be a prime focus for FKAA. In South Florida, these impacts will be significant. Impacts to the water resources may accompany any large development or existing operation. The existing cooling canals at Turkey Point will have a direct response from sea level rise. As these canals are within close proximity to the Biscayne Aquifer, the rise in the sea level and the accompanying water surface rise in these canals will exacerbate the effect of sea level rise in the adjacent aquifer. EIS should take these phenomena into consideration and identify what can be done to minimize impacts from the existing canals prior to making a larger footprint; using future resources could also lead to a heightened impact from sea level rise.

The FKAA appreciates the opportunity to provide these comments and include the elements of our water resource concerns within the outline and analysis of the upcoming EIS for the proposed project. Further correspondence and coordination would be appreciated as this project evaluation unfolds. More information which is shared and analyzed between stake holders will provide the needed transparency to have a realistic discourse with those affected by such a large and important project.

Please address future correspondence to both me (jreynolds@fkaa.com) and Tom Walker, Director of Engineering (twalker@fkaa.com). You can also reach me by phone at 305-296-2454.

Sincerely,
FLORIDA KEYS AQUEDUCT AUTHORITY

James C. Reynolds, P.E.
Executive Director

JCR/cma

C: David C. Ritz, FKAA Chairman
Rose M. Dell, FKAA Vice-Chairman
Antoinette M. Appell, FKAA Secretary/Treasurer
J. Robert Dean, FKAA Board Member
Elena Z. Herrera, FKAA Board Member
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Mayor Sylvia Murphy, District Five