Progress Energy

Serial: NPD-NRC-2011-050 10CFR52.80
June 10, 2011

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555-0001

LEVY NUCLEAR PLANT, UNITS 1 AND 2
DOCKET NOS. 52-029 AND 52-030
RESPONSE TO SUPPLEMENTAL REQUEST FOR ADDITIONAL INFORMATION REGARDING THE ENVIRONMENTAL REVIEW – THERMAL PLUME ANALYSIS

Reference: Letter from Douglas W. Bruner (NRC) to John Elnitsky (PEF), dated May 16, 2011, "Supplemental Request for Additional Information Regarding the Environmental Review of the Combined License Application for Levy Nuclear Power Plant Units 1 and 2"

Ladies and Gentlemen:

Progress Energy Florida, Inc. (PEF) hereby submits our response to the Nuclear Regulatory Commission's (NRC) request for additional information provided in the referenced letter. A response to the NRC request is addressed in the enclosure.

If you have any further questions, or need additional information, please contact Bob Kitchen at (919) 546-6992, or me at (727) 820-4481.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on June 10, 2011.

Sincerely,

John Elnitsky
Vice President
New Generation Programs & Projects

Enclosure

cc : U.S. NRC Region II, Regional Administrator
Mr. Brian C. Anderson, U.S. NRC Project Manager
Mr. Douglas W. Bruner, U.S. NRC Environmental Project Manager

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NRO

Progress Energy Florida, Inc.
P.O. Box 14042
St. Petersburg, FL 33733

Levy Nuclear Plant Units 1 and 2
Response to NRC Supplemental Request for Additional Information Regarding the Environmental Review for the Combined License Application,
Dated May 16, 2011

NRC RAI #	Progress Energy RAI #	Progress Energy Response
5.3.2.1-2 Supplemental	L-0938	Response enclosed – see following pages

NRC Letter No.: LNP-ER-NRC-Supplemental

NRC Letter Date: May 16, 2011

NRC Environmental Review

NRC RAI NUMBER: 5.3.2.1-2 Supplemental

Text of NRC RAI:

In the draft environmental impact statement, the U.S. Nuclear Regulatory Commission (NRC) staff discussed results from its independent analysis of the thermal plume resulting from combined Crystal River Energy Complex (CREC) and Levy County Nuclear Power Plant (LNP) discharges to the Gulf of Mexico from the CREC discharge canal. For its analysis, the staff used Progress Energy Florida's (PEF) responses to the State of Florida's Site Characterization Analysis completeness questions and PEF responses to NRC RAIs to determine the discharge, temperature, and salinity of outflow from the CREC discharge canal into the Gulf of Mexico under various scenarios. Because the data were acquired from various sources, NRC staff is requesting clarification on the summer-time and winter-time discharge, temperature, and salinity of the outflow from the CREC discharge canal for the following scenarios: (1) CREC Units 1-5 in operation, (2) CREC Units 1-5 plus LNP Units 1 and 2 in operation, (3) CREC Units 1-5 with CREC Unit 3 uprate plus LNP Units 1 and 2 in operation, and (4) CREC Units 3-5 with CREC Unit 3 uprate plus LNP Units 1 and 2 in operation.

The requested information would allow the staff to completely fill the following table.

Scenario	Properties of Outflow from CREC Discharge Canal					
	Discharge (Mgd)		Temperature (F)		Salinity (psu)	
	Summer	Winter	Summer	Winter	Summer	Winter
CREC Units 1-5						
CREC Units 1-5 plus LNP Units 1 and 2						
CREC Units 1-5 with CREC Unit 3 uprate plus LNP Units 1 and 2						
CREC Units 3-5 with CREC Unit 3 uprate plus LNP Units 1 and 2						

PGN RAI ID #: L-0938

PGN Response to NRC RAI:

The table below provides the values requested, and was developed using the same method described in the previous RAI 5.3.2.1-2 responses (PEF letter dated July 29, 2009, Serial NPD-NRC-2009-167; and PEF letter dated May 11, 2010, Serial NPD-NRC-2010-040).

Scenario	Properties of Outflow from CREC Discharge Canal					
	Discharge (Mgd)		Temperature (F)		Salinity (psu)	
	Summer	Winter	Summer	Winter	Summer	Winter
CREC Units 1-5	1,838	1,595	96.5	76.1	36.3	35.4
CREC Units 1-5 plus LNP Units 1 and 2	1,926	1,682	96.5	77.1	37.0	36.3
CREC Units 1-5 with CREC Unit 3 uprate plus LNP Units 1 and 2	1,948	1,686	95.6	78.1	36.6	36.3
CREC Units 3-5 with CREC Unit 3 uprate plus LNP Units 1 and 2	1,029	1,052	84.8	78.1	38.0	37.1

Associated LNP COL Application Revisions:

No COLA changes have been identified associated with this response.

Attachments/Enclosures:

None.