PMLevyCOLNPEm Resource

From: Wilkins, Tillie [tillie.wilkins@pgnmail.com]
Sent: Thursday, May 13, 2010 1:36 PM
To: Anderson, Brian; Bruner, Douglas
Cc: Snead, Paul; Rose, Dana
Subject: Supplemental Environmental RAI Response
Attachments: NPD-NRC-2010-040 - Final Response to NRC.pdf

Our supplemental RAI response to RAI 5.3.2.1-2 is attached. CDs with the native files are being sent with the hard copy to Doug and the Document Control Desk.

Tillie Wilkins
Nuclear Plant Development Licensing
Progress Energy
VNet: 770-6754
Bell: 919-546-6754

Hearing Identifier: Levy_County_COL_NonPublic
Email Number: 1829

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Subject: Supplemental Environmental RAI Response
Sent Date: 5/13/2010 1:35:36 PM
Received Date: 5/13/2010 1:38:25 PM
From: Wilkins, Tillie

Created By: tillie.wilkins@pgnmail.com

Recipients:
"Snead, Paul" <paul.snead@pgnmail.com>
Tracking Status: None
"Rose, Dana" <Dana.Rose@pgnmail.com>
Tracking Status: None
"Anderson, Brian" <Brian.Anderson@nrc.gov>
Tracking Status: None
"Bruner, Douglas" <Douglas.Bruner@nrc.gov>
Tracking Status: None

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Files	**Size**	**Date & Time**
MESSAGE	285	5/13/2010 1:38:25 PM
NPD-NRC-2010-040 - Final Response to NRC.pdf	525073	

Options
Priority: Standard
Return Notification: No
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Sensitivity: Normal
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Progress Energy

Serial: NPD-NRC-2010-040
May 11, 2010

10CFR52.79

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
SUPPLEMENTAL RESPONSE TO SUPPLEMENTAL REQUEST FOR ADDITIONAL INFORMATION REGARDING THE ENVIRONMENTAL REVIEW – HYDROLOGY 5.3.2.1-2

References:

1. Letter from Douglas Bruner (NRC) to James Scarola (Progress Energy), dated June 23, 2009, "Supplemental Request for Additional Information Regarding the Environmental Review of the Combined License Application for the Levy Nuclear Power Plant, Units 1 and 2"

2. Letter from Garry D. Miller (PEF) to U. S. Nuclear Regulatory Commission, dated July 29, 2009, "Response to Supplemental Request for Additional Information Regarding the Environmental Review – Hydrology 5.3.2.1-2", Serial: NPD-NRC-2009-167

3. Letter from Robert Kitchen (PEF) to U.S. Nuclear Regulatory Commission, dated April 29, 2010, "Notification of Modification Submitted for LNP SCA", Serial: NPD-NRC-2010-039

Ladies and Gentlemen:

Progress Energy Florida, Inc. (PEF) hereby submits additional supplemental information to the Nuclear Regulatory Commission's (NRC) supplemental request for additional information pertaining to Hydrology Request for Additional Information (RAI) 5.3.2.1-2 as requested by Mr. Douglas Bruner (NRC) of Mr. Paul Snead (Progress Energy) on May 3, 2010. This additional information is provided in the enclosure. The additional information also includes an attached disc which contains native files (MXDs and associated shapefiles) which were requested for the Pipeline Corridor Comparison Overlay figure provided in referenced letter NPD-NRC-2010-039.

The information contained in the attached native files disc is provided to support the NRC's review of the LNP Combined License Application, but does not comply with the requirements for electronic submission. The NRC staff requested the files be submitted in their native formats for utilization by their GIS experts and graphic specialists. A listing of the files provided on the attached disc is provided in the enclosure.

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

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 May 11, 2010.

Sincerely,

John Elnitsky
Vice President
New Generation Programs & Projects

Enclosure/Attachment

cc : Mr. Douglas Bruner, U.S. NRC Environmental Project Manager (w/4 copies of attachment)
U.S. NRC Region II, Regional Administrator (without attachment)
Mr. Brian C. Anderson, U.S. NRC Project Manager (without attachment)

Levy Nuclear Power Plant Units 1 and 2
Supplemental Response to NRC Supplemental Request for Additional Information Letter Regarding the Environmental Review, dated June 23, 2009

NRC RAI #	Progress Energy RAI #	Progress Energy Response
General-1	L-0507	July 17, 2009; Serial: NPD-NRC-2009-150
5.3.2.1-2	L-0503 & L-0815	July 29, 2009; Serial: NPD-NRC-2009-167 & supplemental response enclosed – see following pages
4.1.1-1	L-0504, L-0559 & L-0676	August 12, 2009; Serial: NPD-NRC-2009-182, October 9, 2009; Serial: NPD-NRC-2009-213 & December 2, 2009; Serial: NPD-NRC-2009-235
USACE-12	L-0506	July 22, 2009; NPD-NRC-2009-146
USACE-13	L-0505	July 22, 2009; NPD-NRC-2009-146

NRC Letter No.: ER-NRC

NRC Letter Date: June 23, 2009

NRC Review of Environmental Report

NRC RAI #: 5.3.2.1-2

Text of NRC RAI:

Provide details regarding addition of LNP discharge to existing CREC discharge canal and to the thermal plume in the Gulf of Mexico related to the power uprate planned for CREC Unit 3. The staff has recently become aware that CREC Unit 3 [CR3], a nuclear power plant, will request a power uprate from the NRC. Due to this uprate, the discharges and temperatures in the CREC discharge canal will likely change and need to be considered as a cumulative assessment with the combination of the proposed LNP units as the new units will discharge the CWS and service water system blowdown, and effluents from demineralized use and sanitary system to the CREC discharge canal.

Provide information regarding the following:

1. The time frame of the uprate when the discharges to the canal from CREC Unit 3 would change and its relation with the timing of the commencement of LNP operations.
2. A description of the new operational discharges and associated temperatures from CREC Units 1-5,
3. A description of the operation of the existing and any new helper cooling towers and their effect on discharges from CREC Units 1-3,
4. A schematic representation at the CREC discharge canal showing the locations of various discharges from the CREC units and the LNP units and the locations of intakes and discharges for the helper cooling towers,
5. The discharges and temperatures of the effluents in (4) above,
6. A description of how changes to the canal associated with CREC Unit 3 uprate are included in the effluent plume analysis at the discharge point in the Gulf of Mexico,
7. A table showing the effluent discharges, effluent temperatures, effluent salinities, ambient temperature, and ambient salinity at the discharge point in the Gulf or Mexico for summer, and winter conditions (a) before the addition of the LNP discharge and (b) after the addition of the LNP discharge, and
8. Figures showing the extent of the effluent plume in the Gulf of Mexico along with the dilution contours (a) before the addition of the LNP discharge and (b) after the addition of the LNP discharge.

Additionally, in an e-mail from Mr. Douglas Bruner to Mr. Paul Snead dated May 3, 2010, a supplemental request was made to provide the following:

> What are the (1) discharge flow rate (mgd), (2) intake temperature (deg F), (3) discharge temperature (deg F), and (4) discharge salinity (psu) for CREC Units 1 and 2 (a) during summer and (b) during winter?

A request was also made to provide native files (MXDs and associated shapefiles) for the Pipeline Corridor Comparison Overlay figure provided in letter NPD-NRC-2010-039.

PGN RAI ID #: L-0815

PGN Response to NRC RAI:

The response for the first eight items noted above were provided in the RAI response L-0503 provided to the NRC in letter NPD-NRC-2009-167. Please refer to that response for that information.

Provided below are the (1) discharge flow rate (MGD), (2) intake temperature (deg F) and (3) discharge temperature (deg F), for CREC Units 1 and 2 (a) during summer and (b) during winter. CREC is not required to monitor the discharge canal for salinity. A single sampling for (4) salinity (ppt) was done on February 4, 2009 and the information is listed below:

1) Discharge Flow (MGD)

	Summer[1]	Winter[2]
Unit 1	446.4	308.1
Unit 2	472.3	325.9

[1]Data from NPDES Renewal Application dated October 28, 2009.

[2]Allowable Flow calculated from NPDES Permit limits for Units 1-3 with all units operating.

2) Units 1 & 2 Average Intake Temperature (^{o}F)[1, 3]

Summer	Winter
85.6	63.5

[1]Data from NPDES Renewal Application dated October 28, 2009.

[3]Unit 1 and 2 intake temperature are the same due to the same intake canal.

3) Units 1 & 2 Average Discharge Temperature (^{o}F)[1, 4]

Summer	Winter
93.4	78.1

[1]Data from NPDES Renewal Application dated October 28, 2009.

[4]Unit 1 and 2 temperature are the same because the compliance point is at the point of discharge at the end of the discharge canal.

4) Salinity - Discharge Canal (ppt)[5]

2/4/2009	23.68

[5] CREC is not required to monitor the discharge canal for salinity. The information provided here is a single sampling noted in 338884-TMEM-098, Rev 0.

The native files for the Pipeline Corridor Comparison Overlay are provided on a disc with the letter transmitting this response. The native files include the following:

Filename	Description
NPD-NRC-2010-039 Attachment.mxd	ArcGIS Map file
Certified_Pipeline_Corridor.dbf	Native File
Certified_Pipeline_Corridor.prj	Native File
Certified_Pipeline_Corridor.sbn	Native File
Certified_Pipeline_Corridor.sbx	Native File
Certified_Pipeline_Corridor.shp	Native File
Certified_Pipeline_Corridor.shp.xml	Native File
Certified_Pipeline_Corridor.shx	Native File
LNP_Site_Boundary.dbf	Native File
LNP_Site_Boundary.prj	Native File
LNP_Site_Boundary.sbn	Native File
LNP_Site_Boundary.sbx	Native File
LNP_Site_Boundary.shp	Native File
LNP_Site_Boundary.shp.xml	Native File
LNP_Site_Boundary.shx	Native File
Proposed_Pipeline_Corridor.dbf	Native File
Proposed_Pipeline_Corridor.prj	Native File
Proposed_Pipeline_Corridor.sbn	Native File
Proposed_Pipeline_Corridor.sbx	Native File
Proposed_Pipeline_Corridor.shp	Native File
Proposed_Pipeline_Corridor.shp.xml	Native File
Proposed_Pipeline_Corridor.shx	Native File

Associated LNP COL Application Revisions:

No COLA revisions have been identified associated with this response.

Attachments:

Disc containing Native Files for Pipeline Corridor Comparison Overlay