Progress Energy

Serial: NPD-NRC-2010-087 10CFR52.79
November 10, 2010

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
SUPPLEMENT 1 TO RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 087 RELATED TO SEISMIC DESIGN PARAMETERS

References:
1. Letter from Terri Spicher (NRC) to Garry Miller (PEF), dated March 17, 2010, "Request for Additional Information Letter No. 087 Related to SRP Section 3.7.1 for the Levy County Nuclear Plant, Units 1 and 2 Combined License Application"

2. Letter from John Elnitsky (PEF) to U. S. Nuclear Regulatory Commission (NRC), dated July 19, 2010, "Response to Request for Additional Information Letter No. 087 Related to Seismic Design Parameters," Serial: NPD-NRC-2010-060

Ladies and Gentlemen:

Progress Energy Florida, Inc. (PEF) hereby submits a supplemental response to the Nuclear Regulatory Commission's (NRC) request for additional information provided in Reference 1.

A supplemental response to NRC question 03.07.01-2 is addressed in the enclosure. The enclosure also identifies a change that will be made in a future revision of the Levy Nuclear Plant Units 1 and 2 application.

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 November 10, 2010.

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

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NRO

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

Levy Nuclear Plant Units 1 and 2
Supplement 1 to Response to NRC Request for Additional Information Letter No. 087
Related to SRP Section 3.7.1 for the Combined License Application,
Dated March 17, 2010

NRC RAI #	Progress Energy RAI #	Progress Energy Response
03.07.01-2	L-0727 & L-0865	July 19, 2010; Serial: NPD-NRC-2010-060 & Supplemental response enclosed – see following pages

NRC Letter No.: LNP-RAI-LTR-087

NRC Letter Date: March 17, 2010

NRC Review of Final Safety Analysis Report

NRC RAI NUMBER: 03.07.01-2

Text of NRC RAI:

In the applicant's response to Question 03.07.01-1 of RAI 2318 (NRC Letter No. 046), the applicant describes the approach used to develop revised site specific seismic ground motions (response spectra). These analyses include engineered fill as part of the soil columns used to develop the ground surface spectra. However, it is not clear from the discussion what the extent of the changes to the site (excavation and placement of engineered fill) are planned and if these changes are to such an extent as to affect the seismic ground motion. Thus, the staff is requesting the applicant to provide information regarding the extent of planned excavation and placement of engineered backfill and an assessment of whether these changes are sufficiently extensive such that the surface ground motion would be modified. Additionally, please provide a discussion that summarizes the planned construction sequence of removal of near surface soils, placement of engineered fill, drilled shaft installation for adjacent structures, construction of the diaphragm wall, and excavation of soil material beneath the NI structures as it relates to potentially changing the ground motion as is inferred by incorporating the engineered fill in the SSI soil columns.

PGN RAI ID #: L-0865

PGN Response to NRC RAI:

This supplementary response is a follow-up to the August 11, 2010 telecon with NRC on LNP SSI Analysis. The response to NRC Letter 087 RAI 03.07.01-02 (PGN RAI ID #: L-0727) submitted via Progress Energy Letter NPD-NRC-2010-060 dated July 19, 2010 is revised as follows:

Revise the following paragraph related to SSI analysis in the response from:

"For the SSI analysis of the nuclear island (NI) being performed in response to NRC RAI 03.07.02-2 the best estimate (BE), lower bound (LB), and upper bound (UB) soil profiles presented in RAI 03.07.01-01 Table 2, RAI 03.07.01-01 Table 3, and RAI 03.07.01-01 Table 4 respectively will be considered. To account for the potential degradation of soil due to foundation installation, an additional Lower LB case (LLB) will also be considered to evaluate the sensitivity of the NI SSI response to degradation of soil shear modulus due to foundation installation activities."

To read:

"For the SSI analysis of the nuclear island (NI) being performed in response to NRC RAI 03.07.02-2 the best estimate (BE), lower bound (LB), and upper bound (UB) soil profiles presented in RAI 03.07.01-01 Table 2, RAI 03.07.01-01 Table 3, and RAI 03.07.01-01 Table 4 respectively will be considered. To account for the potential degradation of soil due to foundation installation, an additional Lower LB case (LLB) will also be considered in the NI SSI response to account for degradation of soil shear modulus due to foundation installation activities."

Associated LNP COL Application Revisions:

The following text change will be made to Section 3.7 of the FSAR in a future revision:

COLA Part 2, FSAR Subsection 3.7.1.1.1 paragraph on SSI analysis modified in response to NRC RAI 03.07.01-2 (PGN RAI ID #: L-0727) will be modified from:

"For the SSI analysis of the nuclear island (NI) being performed in response to NRC RAI 03.07.02-2 the best estimate (BE), lower bound (LB), and upper bound (UB) soil profiles presented in RAI 03.07.01-01 Table 2, RAI 03.07.01-01 Table 3, and RAI 03.07.01-01 Table 4 respectively will be considered. To account for the potential degradation of soil due to foundation installation, an additional Lower LB case (LLB) will also be considered to evaluate the sensitivity of the NI SSI response to degradation of soil shear modulus due to foundation installation activities."

To read:

"For the SSI analysis of the nuclear island (NI) being performed in response to NRC RAI 03.07.02-2 the best estimate (BE), lower bound (LB), and upper bound (UB) soil profiles presented in RAI 03.07.01-01 Table 2, RAI 03.07.01-01 Table 3, and RAI 03.07.01-01 Table 4 respectively will be considered. To account for the potential degradation of soil due to foundation installation, an additional Lower LB case (LLB) will also be considered in the NI SSI response to account for degradation of soil shear modulus due to foundation installation activities."

Attachments/Enclosures:

None.