



Serial: NPD-NRC-2009-122  
June 23, 2009

10 CFR 52.79

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

**LEVY COUNTY NUCLEAR POWER PLANT, UNITS 1 AND 2  
DOCKET NOS. 52-029 AND 52-030  
PARTIAL RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 034  
RELATED TO BASIC GEOLOGIC AND SEISMIC INFORMATION**

Reference: Letter from Brian C. Anderson (NRC) to Garry Miller (PEF), dated May 8, 2009,  
"Request for Additional Information Letter No. 034 Related to SRP Section 2.5.1 for  
the Levy County Nuclear Plant Units 1 and 2 Combined License Application"

Ladies and Gentlemen:

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

A partial response to the NRC request is addressed in the enclosure. The enclosure also identifies changes that will be made in a future revision of the Levy County Nuclear Power 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 (919) 546-6107.

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

Executed on June 23, 2009.

Sincerely,

A handwritten signature in black ink, appearing to read 'Garry D. Miller', written over a horizontal line.

Garry D. Miller  
General Manager  
Nuclear Plant Development

Enclosures/Attachment

cc : U.S. NRC Region II, Regional Administrator  
Mr. Brian Anderson, U.S. NRC Project Manager

**Levy Nuclear Power Plant Units 1 and 2  
Response to NRC Request for Additional Information Letter No. 034 Related to  
SRP Section 2.5.1 for the Combined License Application, dated May 8, 2009**

<u>NRC RAI #</u>	<u>Progress Energy RAI #</u>	<u>Progress Energy Response</u>
02.05.01-08	L-0292	Future Response
02.05.01-09	L-0293	Future Response
02.05.01-10	L-0294	Future Response
02.05.01-11	L-0295	Future Response
02.05.01-12	L-0296	Future Response
02.05.01-13	L-0297	NPD-NRC-2009-105 dated June 9, 2009
02.05.01-14	L-0298	Future Response
02.05.01-15	L-0299	NPD-NRC-2009-105 dated June 9, 2009
02.05.01-16	L-0300	Future Response
02.05.01-17	L-0301	Future Response
02.05.01-18	L-0302	Future Response
02.05.01-19	L-0303	Future Response
02.05.01-20	L-0304	NPD-NRC-2009-105 dated June 9, 2009
02.05.01-21	L-0305	Future Response
02.05.01-22	L-0306	Future Response
02.05.01-23	L-0307	Future Response
02.05.01-24	L-0308	Future Response
02.05.01-25	L-0309	NPD-NRC-2009-105 dated June 9, 2009
02.05.01-26	L-0310	NPD-NRC-2009-105 dated June 9, 2009
02.05.01-27	L-0311	NPD-NRC-2009-105 dated June 9, 2009
02.05.01-28	L-0312	NPD-NRC-2009-105 dated June 9, 2009
02.05.01-29	L-0313	Future Response
02.05.01-30	L-0314	Future Response
02.05.01-31	L-0315	Future Response
02.05.01-32	L-0316	Response enclosed – see following pages

02.05.01-33	L-0317	Future Response
02.05.01-34	L-0318	Future Response
02.05.01-35	L-0319	Future Response
02.05.01-36	L-0320	Future Response
02.05.01-37	L-0321	Response enclosed – see following pages
02.05.01-38	L-0322	Future Response
02.05.01-39	L-0323	Future Response
02.05.01-40	L-0324	Future Response
02.05.01-41	L-0325	Future Response
02.05.01-42	L-0326	Future Response
02.05.01-43	L-0327	Future Response
02.05.01-44	L-0328	Future Response
02.05.01-45	L-0330	Future Response

**NRC Letter No.:** LNP-RAI-LTR-034

**NRC Letter Date:** May 8, 2009

**NRC Review of Final Safety Analysis Report**

**NRC RAI #: 02.05.01-32**

**Text of NRC RAI:**

FSAR Section 2.5.1.2.2 (pg 2.5-65) discusses geologic history of the site vicinity and cites FSAR Figures 2.5.1-208 and 2.5.1-209 as showing the South Georgia basin. However, neither figure appears to locate this feature.

In order for the staff to understand geologic history of the site vicinity, please locate the South Georgia basin on the figures cited.

**PGN RAI ID #: L-316**

**PGN Response to NRC RAI:**

The Mesozoic South Georgia basin will be added to Revised Figure 2.5.1-209 in a future revision.

**Associated LNP COL Application Revisions:**

Figure 2.5.1-209 is being revised to show the Mesozoic South Georgia basin in addition to other changes for RAI 02.05.01-18.

**Attachments/Enclosures to Response to NRC:**

Revised Figure 2.5.1-209

**NRC Letter No.:** LNP-RAI-LTR-034

**NRC Letter Date:** May 8, 2009

**NRC Review of Final Safety Analysis Report**

**NRC RAI #: 02.05.01-37**

**Text of NRC RAI:**

FSAR Section 2.5.1.2.3.11 (pg 2.5-74) discusses surficial geology of the site vicinity and cites Figure 2.5.1-246, which is a 1:2,000,000-scale map prepared for the central and eastern United States by Fullerton and others (2003). This map may lack sufficient detail to properly portray surficial geology at the scale of the site vicinity.

In order for the staff to understand pertinent details of the surficial geology of the site vicinity, please justify use of a 1:2,000,000-scale map to illustrate surficial geology at the site vicinity scale.

**PGN RAI ID #:** L-321

**PGN Response to NRC RAI:**

Very few surficial geologic maps have been compiled in Florida due to the pervasive sand cover in much of the State. Most maps remove some amount of the sand overburden and identify the identifiable geologic units beneath the sand (for example, Reference RAI 02.05.01-37 01 and Reference RAI 02.05.01-37 02). The surficial geology map of Fullerton et al. (Reference 2.5.1-242) was compiled from 31 published maps included in the USGS Quaternary Geologic Atlas of the United States. The published map that was used in the USGS Quaternary Geologic Atlas of the United States and in Fullerton et al. (2003) for the site vicinity is the "Quaternary Geologic Map of the Jacksonville 4°x 6° Quadrangle, United States" (Reference RAI 02.05.01-37 03), at a scale of 1:100,000. D. S. Fullerton, the Senior author for the Fullerton et al. map (Reference 2.5.1-242), was a co-author of this map. Although the Scott et al. (Reference RAI 02.05.01-37 03) Quaternary geologic map is at a more detailed scale, Fullerton et al. (Reference 2.5.1-242) has modified Quaternary units for the area and is the most recent mapping. No more detailed surficial Quaternary maps are available for the site vicinity at this time. The site vicinity is included in a Proposed Map Area under the Florida Geologic Survey's STATEMAP program..

References

Reference RAI 02.05.01-37 01

Vernon, R.O., and Puri, H.S., "Geologic map of Florida", Florida Bureau of Geology Map Series 18, 1964.

Reference RAI 02.05.01-37 02

Scott, T.M., Campbell, K.M., Rupert, F.R., Arthur, J.D., Missimer, T.M., Lloyd, J.M., Yon, J.W. and Duncan, J.G., "Geologic Map of the State of Florida", Florida Geological Survey Open File Report No. 80, Produced by the Florida Geological Survey in cooperation with the Florida Department of Environmental Protection, 2001.

Reference RAI 02.05.01-37 03

Scott, T.M., Knapp, M.S., Friddell, M.S., Weide, D.L., Richmond, G.M., Fullerton, D.S.,  
"Quaternary Geologic Map of the Jacksonville 4°x 6° Quadrangle, United States", U.S.  
Geological Survey Miscellaneous Investigations Series Map I-1420 (NH-17), 1986.

**Associated LNP COL Application Revisions:**

Reference RAI 02.05.01-37 02 will be added as new reference to the FSAR.

**Attachments/Enclosures to Response to NRC:**

None

List of Attachments:

1. NRC RAI # 02.05.01-34(PGN RAI ID # L-0316):  
Revised Figure 2.5.1-209

