



Serial: NPD-NRC-2009-240  
December 4, 2009

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  
SUPPLEMENT 6 TO RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION LETTER NO.  
034 RELATED TO BASIC GEOLOGIC AND SEISMIC INFORMATION**

- References:
1. 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"
  2. Letter from Garry D. Miller (PEF) to U.S. Nuclear Regulatory Commission, dated June 9, 2009, "Partial Response to Request for Additional Information Letter No. 034 Related to Basic Geologic and Seismic Information," Serial: NPD-NRC-2009-105
  3. Letter from Garry D. Miller (PEF) to U.S. Nuclear Regulatory Commission, dated June 23, 2009, "Partial Response to Request for Additional Information Letter No. 034 Related to Basic Geologic and Seismic Information," Serial: NPD-NRC-2009-122
  4. Letter from Garry D. Miller (PEF) to U.S. Nuclear Regulatory Commission, dated July 1, 2009, "Response to Request for Additional Information Letter No. 034 Related to Basic Geologic and Seismic Information," Serial: NPD-NRC-2009-134
  5. Letter from Garry D. Miller (PEF) to U.S. Nuclear Regulatory Commission, dated July 13, 2009, "Supplement 3 to Response to Request for Additional Information Letter No. 034 Related to Basic Geologic and Seismic Information," Serial: NPD-NRC-2009-143
  6. Letter from Garry D. Miller (PEF) to U.S. Nuclear Regulatory Commission, dated July 20, 2009, "Response to Request for Additional Information Letter No. 034 Related to Basic Geologic and Seismic Information," Serial: NPD-NRC-2009-151
  7. Letter from Robert Kitchen (PEF) to U.S. Nuclear Regulatory Commission, dated August 19, 2009, "Response to Request for Additional Information Letter No. 034 Related to Basic Geologic and Seismic Information," Serial: NPD-NRC-2009-196

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.

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

DO94  
NRC

A supplemental response to one of the NRC questions (02.05.01-30) 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 December 4, 2009.

Sincerely,



John Elnitsky  
Vice President  
Nuclear Plant Development

Enclosure/Attachment

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

**Levy Nuclear Plant Units 1 and 2**  
**Supplement 6 to 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>
02.05.01-8	L-0292	NPD-NRC-2009-151; July 20, 2009
02.05.01-9	L-0293	NPD-NRC-2009-134; July 1, 2009
02.05.01-10	L-0294	NPD-NRC-2009-143; July 13, 2009
02.05.01-11	L-0295	NPD-NRC-2009-134; July 1, 2009
02.05.01-12	L-0296	NPD-NRC-2009-151; July 20, 2009
02.05.01-13	L-0297	NPD-NRC-2009-105; June 9, 2009
02.05.01-14	L-0298	NPD-NRC-2009-134; July 1, 2009
02.05.01-15	L-0299	NPD-NRC-2009-105; June 9, 2009
02.05.01-16	L-0300	NPD-NRC-2009-134; July 1, 2009
02.05.01-17	L-0301	NPD-NRC-2009-151; July 20, 2009 & NPD-NRC-2009-196; August 19, 2009.
02.05.01-18	L-0302	NPD-NRC-2009-134; July 1, 2009
02.05.01-19	L-0303	NPD-NRC-2009-151; July 20, 2009 & NPD-NRC-2009-196; August 19, 2009
02.05.01-20	L-0304	NPD-NRC-2009-105; June 9, 2009
02.05.01-21	L-0305	NPD-NRC-2009-151; July 20, 2009
02.05.01-22	L-0306	NPD-NRC-2009-143; July 13, 2009
02.05.01-23	L-0307	NPD-NRC-2009-143; July 13, 2009
02.05.01-24	L-0308	NPD-NRC-2009-143; July 13, 2009
02.05.01-25	L-0309	NPD-NRC-2009-105; June 9, 2009
02.05.01-26	L-0310	NPD-NRC-2009-105; June 9, 2009
02.05.01-27	L-0311	NPD-NRC-2009-105; June 9, 2009
02.05.01-28	L-0312	NPD-NRC-2009-105; June 9, 2009
02.05.01-29	L-0313	NPD-NRC-2009-134; July 1, 2009
02.05.01-30	L-0314 & L-0585	NPD-NRC-2009-134; July 1, 2009 & Supplemental response enclosed – see following pages
02.05.01-31	L-0315	NPD-NRC-2009-151; July 20, 2009
02.05.01-32	L-0316	NPD-NRC-2009-122; June 23, 2009
02.05.01-33	L-0317	NPD-NRC-2009-151; July 20, 2009

<u>NRC RAI #</u>	<u>Progress Energy RAI #</u>	<u>Progress Energy Response</u>
02.05.01-34	L-0318	NPD-NRC-2009-134; July 1, 2009
02.05.01-35	L-0319	NPD-NRC-2009-151; July 20, 2009 & NPD-NRC-2009-196; August 19, 2009
02.05.01-36	L-0320	NPD-NRC-2009-134; July 1, 2009
02.05.01-37	L-0321	NPD-NRC-2009-122; June 23, 2009
02.05.01-38	L-0322	NPD-NRC-2009-143; July 13, 2009
02.05.01-39	L-0323	NPD-NRC-2009-143; July 13, 2009
02.05.01-40	L-0324	NPD-NRC-2009-151; July 20, 2009 & NPD-NRC-2009-196; August 19, 2009
02.05.01-41	L-0325	NPD-NRC-2009-143; July 13, 2009
02.05.01-42	L-0326	NPD-NRC-2009-151; July 20, 2009
02.05.01-43	L-0327	NPD-NRC-2009-143; July 13, 2009
02.05.01-44	L-0328	NPD-NRC-2009-143; July 13, 2009
02.05.01-45	L-0330	NPD-NRC-2009-143; July 13, 2009

Attachments

Figure 2.5.1-237 (Revised)

Associated NRC RAI #

02.05.01-30

Pages Included

1

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

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

**NRC Review of Final Safety Analysis Report**

**NRC RAI #: 02.05.01-30**

**Text of NRC RAI:**

FSAR Section 2.5.1.2.1.3 (pg 2.5-61) states that Figure 2.5.1-237 shows the LNP site is located where sinkholes are few and gradually develop. For sinkhole type, the figure legend indicates that solution sinkholes dominate. However, the inset map in that same figure apparently assesses future sinkhole risk and appears to indicate that a high density of sinkholes could develop at the site, with a moderate intensity of surface collapse possible. There is no quantitative expression of the future risk of sinkhole development at the site.

In order for the staff to assess the risk of future sinkhole development at the site, please discuss information presented in the inset map of Figure 2.5.1-237 in regard to potential implications for increased hazard due to future sinkhole development at the site.

**PGN RAI ID #:** L-585

**PGN Response to NRC RAI:**

This RAI was previously responded to in NPD-NRC-2009-134 (July 1, 2009). This update is provided to revise the figure title to more accurately describe the contents of the revised figure. A copy of the revised figure is attached and will be incorporated in a future revision of the FSAR.

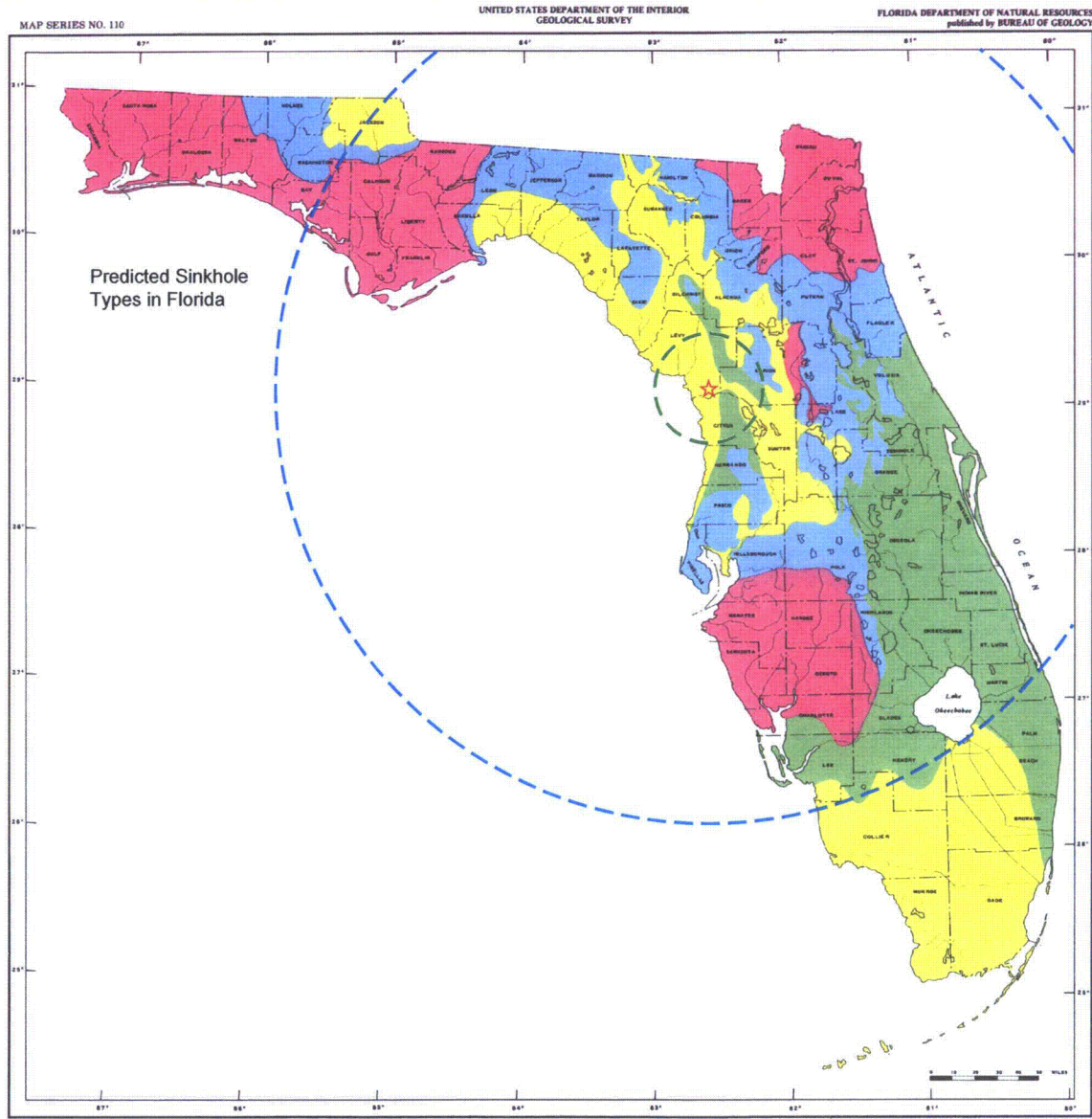
**Associated LNP COL Application Revisions:**

Figure 2.5.1-237 will be updated in a future revision of the FSAR as follows:

The term "Sinkhole Risk" will be removed from the title (see Attachment 02.05.01-30A). This version of the figure supersedes that submitted with letters NPD-NRC-2009-134 and NPD-NRC-2009-151.

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

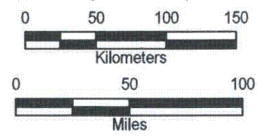
Attachment 02.05.01-30A: Revised Figure 2.5.1-237 [1 page]



**LEGEND**

- ★ LNP Site
- 320-km (200-mi) Radius from Site
- 40-km (25-mi) Radius from Site
- AREA I. BARE OR THINLY COVERED LIMESTONE**  
Sinkholes are few, generally shallow and broad, and develop gradually. Solution sinkholes dominate.
- AREA II. COVER IS 30 TO 200 FEET THICK**  
Consists mainly of incohesive and permeable sand. Sinkholes are few, shallow, of small diameter, and develop gradually. Cover-subsidence sinkholes dominate.
- AREA III. COVER IS 30 TO 200 FEET THICK**  
Consists mainly of cohesive clayey sediments of low permeability. Sinkholes are most numerous, of varying size, and develop abruptly. Cover-collapse sinkholes dominate.
- AREA IV. COVER IS MORE THAN 200 FEET THICK**  
Consists of cohesive sediments interlayered with discontinuous carbonate beds. Sinkholes are very few, but several large diameter, deep sinkholes occur. Cover-collapse sinkholes dominate.

Source: Upchurch and Randazzo (1997), modified from Sinclair and Stewart (1985, FGS Map Series 110)



Progress Energy Florida  
**Levy Nuclear Plant  
 Units 1 and 2**  
 Part 2, Final Safety Analysis Report

Sinkhole Types Map

Figure 2.5.1-237 (Revised)