



Serial: NPD-NRC-2010-028  
March 26, 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  
RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 082 RELATED TO  
PHYSICAL SECURITY – FITNESS FOR DUTY**

Reference: Letter from Denise L. McGovern (NRC) to Garry Miller (PEF), dated March 1, 2010, "Request for Additional Information Letter No. 082 Related to SRP Section 13.6, Fitness for Duty, for the Levy County Nuclear Plant, Units 1 and 2 Combined License Application"

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. The enclosure also identifies changes 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 March 26, 2010.

Sincerely,

A handwritten signature in black ink, appearing to read "John Elnitsky".

John Elnitsky  
Vice President  
Nuclear Plant Development

Enclosure

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

**Levy Nuclear Plant Units 1 and 2  
Response to NRC Request for Additional Information Letter No. 082 Related to  
SRP Section 13.6 for the Combined License Application, dated March 1, 2010**

<u>NRC RAI #</u>	<u>Progress Energy RAI #</u>	<u>Progress Energy Response</u>
13.06.01-1	L-0732	Response enclosed – see following pages
13.06.01-2	L-0733	Response enclosed – see following pages
13.06.01-3	L-0734	Response enclosed – see following pages
13.06.01-4	L-0735	Response enclosed – see following pages

**NRC Letter No.:** LNP-RAI-LTR-082

**NRC Letter Date:** March 1, 2010

**NRC Review of Final Safety Analysis Report**

**NRC RAI NUMBER:** 13.06.01-1

**Text of NRC RAI:**

Under 10 CFR 52.79(a)(44), the Applicant's FSAR must contain a description of the fitness for duty (FFD) program required by 10 CFR Part 26 and its implementation. How does the Applicant intend to update its FFD program for the construction phase? NEI 06-06 provides examples of the FFD program that is required and, if this guidance is endorsed by the NRC, will provide an acceptable method of complying with the NRC's regulations. If the NRC endorses NEI 06-06, does the Applicant intend to update its FFD program for the construction phase to comply with NEI 06-06? If future revisions to NEI 06-06 are endorsed by the NRC, does the Applicant intend to update its FFD program for the construction phase to comply with certain clarifications, additions, and exceptions in these future, endorsed revisions, as necessary?"

**PGN RAI ID #:** L-0732

**PGN Response to NRC RAI:**

PGN will implement a construction phase FFD program that follows the guidance in the NRC endorsed NEI 06-06. Currently the LNP COLA commits to NEI 06-06 Rev. 4 and will be changed in a future revision to commit to NEI 06-06 Rev.5. PGN will evaluate substantial changes in subsequent revisions and modify the construction phase FFD program to incorporate those substantial changes determined to be appropriate.

A future revision of the COLA will reflect the changes discussed in this response.

**Associated LNP COL Application Revisions:**

The following changes will be made to the LNP COLA in a future revision:

1. COLA Part 2, FSAR, Section 13.7, will be revised from:

The Fitness for Duty (FFD) Program (Program) is implemented and maintained in two phases; the construction phase program and the operating phase program. The construction and operations phase programs are implemented as identified in Table 13.4-201.

The construction phase program is consistent with NEI 06-06 (Reference 201). The workforce population subject to random testing during construction is determined on a weekly basis by averaging the total number of active construction badges over each preceding seven-day period. The random selection from each week's workforce population is identified by a standard computer-generated random number generator

using this number of active badges as the range of numbers considered in the weekly random testing selection.

The operations phase program is consistent with 10 CFR Part 26.

To read:

[Reviewer's Note: The first, second, and fourth paragraphs are annotated with left-margin annotation (LMA) STD SUP 13.7-1; the third paragraph, including bullets, is annotated with LMA LNP SUP 13.7-1]

The Fitness for Duty Program (FFD) is implemented and maintained in multiple and progressive phases dependent on the activities, duties, or access afforded to certain individuals at the construction site. In general, two different FFD programs will be implemented: a construction FFD program and an operations FFD program. The construction and operations phase programs are illustrated in Table 13.4-201.

The construction FFD program is consistent with NEI 06-06 (Reference 201). NEI 06-06 applies to persons constructing or directing the construction of safety- and security-related structures, systems, or components performed onsite where the new reactor will be installed and operated. Management and oversight personnel, as further described in NEI 06-06, and security personnel prior to the receipt of special nuclear material in the form of fuel assemblies (with certain exceptions) will be subject to the operations FFD program that meets the requirements of 10 CFR Part 26, Subparts A through H, N, and O. At the establishment of a protected area, all persons who are granted unescorted access will meet the requirements of an operations FFD program. Prior to issuance of a Combined License, the construction FFD program at a new reactor construction site for those subject to Subpart K will be reviewed and revised as necessary should substantial revisions occur to either NEI 06-06 following NRC endorsement or the requirements of 10 CFR Part 26.

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The following site-specific information is provided:

- The construction site area is defined in the Physical Security Plan and will be under the control of Shaw Stone & Webster (Shaw). The 10 CFR Part 26 requirements will be implemented for the construction site area based on the descriptions provided in Table 13.4-201.
- Construction Workers & First Line Supervisors (Shaw employees and subcontractors) are covered by the PGN-approved Shaw FFD Program (elements Subpart K).
- PGN employees and PGN subcontractor's construction management and oversight personnel are covered by a PGN Operations FFD Program and Shaw's employees and Shaw's subcontractors, construction management, and oversight personnel will be covered by the PGN-approved Shaw FFD Program (elements Subpart A - H, N and O).
- PGN security personnel are covered by a PGN Operations FFD Program and Shaw's security personnel are covered by the PGN-approved Shaw FFD Program (elements Subpart A - H, N and O). This coverage is applicable from the start of construction activities to the earlier of (1) the receipt of SNM in the form of fuel

assemblies, or (2) the establishment of a Protected Area, or (3) the 10 CFR 52.103(g) finding.

- PGN FFD Program personnel are covered by a PGN Operations FFD Program and Shaw's FFD Program personnel will be covered by the PGN-approved Shaw FFD Program (elements Subpart A - H, N and O).
  - PGN security personnel protecting fuel assemblies are covered by a PGN Operations FFD Program (elements Subpart A - I, N and O).
  - Personnel required to physically report to the Technical Support Center (TSC) or Emergency Operations Facility (EOF) when that requirement is in effect are covered by a PGN Operations FFD Program.
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The operations phase FFD program is consistent with the applicable subparts of 10 CFR Part 26.

2. COLA Part 2, FSAR, Section 13.7.1, will be revised from:

201. Nuclear Energy Institute "Fitness for Duty Program Guidance for New Nuclear Power Plant Construction Sites," NEI 06-06, Revision 4, February 2009.

To read:

[Reviewer's Note: This reference is standard supplemental information and is included with the STD SUP 13.7-1 LMA from the fourth paragraph of Section 13.7.]

201. Nuclear Energy Institute (NEI) NEI 06-06, "Fitness for Duty Program Guidance for New Reactor Power Plant Construction Sites," Revision 5, [August 2009] (ML092430016).

**Attachments/Enclosures:**

None.

**NRC Letter No.:** LNP-RAI-LTR-082

**NRC Letter Date:** March 1, 2010

**NRC Review of Final Safety Analysis Report**

**NRC RAI NUMBER:** 13.06.01-2

**Text of NRC RAI:**

Under 10 CFR 52.79(a)(44), the Applicant's FSAR must contain a description of the fitness for duty (FFD) program required by 10 CFR Part 26 and its implementation. Describe how the COL Application, FSAR, Part 2, Table 13.4-201, item 15, (Sheet 5 of 7), comports with 10 CFR 26, Sections 26.3 and 26.4, and guidance in NRC's letter to the Nuclear Energy Institute dated December 2, 2009, entitled "Status of U.S. Nuclear Regulatory Commission Review and Endorsement of NEI 06-06, 'Fitness for Duty Program Guidance for New Nuclear Power Plant Construction Sites'"? Provide site-specific information to clearly and sufficiently describe your FFD program. This information may include, but is not limited to, any condition in which the Applicant intends to deviate from or take exception to the requirements of 10 CFR Part 26 as further described in NEI 06-06 or as endorsed by the NRC.

**PGN RAI ID #:** L-0733

**PGN Response to NRC RAI:**

The response to RAI 13.06.01-1 provides the changes to the COLA that will describe the FFD program required by 10 CFR Part 26. The site-specific information is also provided in that response to clarify which program will be used to cover the various classifications of workers that must be covered per 10 CFR Part 26. The response to RAI 13.06.01-3 provides the information on modifications to FSAR, Table 13.4-201, Item 20 to address the guidance provided in the NRC's December 2, 2009 letter. That RAI response also includes the changes to COLA Part 10 Section 3, Items A, C, and D to align with the changes to FSAR Table 13.4-201.

A future revision of the COLA as noted in RAI 13.06.01-1 and 13.06.01-3 responses will reflect the changes discussed in this response.

**Associated LNP COL Application Revisions:**

See the responses to RAI 13.06.01-1 and 13.06.01-3 for associated changes to COLA Part 2, FSAR Chapter 13 and to COLA Part 10.

**Attachments/Enclosures:**

None.

**NRC Letter No.:** LNP-RAI-LTR-082

**NRC Letter Date:** March 1, 2010

**NRC Review of Final Safety Analysis Report**

**NRC RAI NUMBER:** 13.06.01-3

**Text of NRC RAI:**

Under 10 CFR 52.79(a)(44), the Applicant's FSAR must contain a description of the fitness for duty (FFD) program required by 10 CFR Part 26 and its implementation. Will the proposed license conditions described in the COL Application, Part 10,3, A, D and G comport with FSAR, Part 2, Table 13.4-201, item 15, (Sheet 5 of 7)?

**PGN RAI ID #:** L-0734

**PGN Response to NRC RAI:**

The response to R-COLA RAI 13.06-35 (VEGP eRAI 4216) is also applicable to Levy Nuclear Plant and does not require additional review.

**Associated LNP COL Application Revisions:**

The following changes will be made in a future revision of the Levy COLA:

1. COLA Part 2, FSAR, Table 13.4-201, will be revised from:

Item	Program Title	Program Source (Required by)	FSAR Section	Implementation	
				Milestone	Requirement
20.	Fitness for Duty Program (Construction - Mgt. & Oversight Personnel)	10 CFR Part 26 Subparts A – H, N, and O	13.7	Prior to initiating onsite construction	License Condition
	Fitness for Duty Program (Construction - Workers & First Line Supv.)	10 CFR Part 26 Subpart K	13.7	Prior to initiating construction	License Condition
	Fitness for Duty Program (Operation)	10 CFR Part 26	13.7	Prior to initial fuel load	License Condition

To read:

Item	Program Title	Program Source (required by)	FSAR Section	Implementation	
				Milestone	Requirements
20.	Fitness for Duty (FFD) Program for Construction (workers and first-line supervisors)	10 CFR Part 26.4(f), Subpart K	13.7	Prior to initiating 10 CFR Part 26 construction activities	License Condition
	FFD Program for Construction (management and oversight personnel)	10 CFR Part 26.4(e), Subparts A-H, N, and O	13.7	Prior to initiating 10 CFR Part 26 construction activities	License Condition
	FFD Program for Security Personnel	10 CFR Part 26.4(e)(1), Subparts A-H, N, and O	13.7	Prior to initiating 10 CFR Part 26 construction activities	License Condition
		10 CFR 26.4(a)(5), Subparts A-I, N, and O		Prior to the earlier of: A. Licensee's receipt of SNM in the form of fuel assemblies, or B. Establishment of a Protected Area or C. The 10 CFR 52.103(g) finding	License Condition
	FFD Program for FFD Program personnel	10 CFR Part 26.4(g), Subparts A-H, N, and O and C per licensee's discretion	13.7	Prior to initiating 10 CFR Part 26 construction activities	License Condition
	FFD Program for persons required to physically report to the Technical Support Center (TSC) or Emergency Operations Facility (EOF)	10 CFR Part 26.4(c), Subparts A-I, N, and O, except for §§ 26.205-209	13.7	Prior to the conduct of the first full- participation emergency preparedness exercise under 10 CFR Part 50, App. E, Section F.2.a	License Condition
FFD Program for Operation	10 CFR Part 26.4(a) and (b), Subparts A-I, N, and O, except for individuals listed in § 26.4(b), who are not subject to §§ 26.205-209	13.7	Prior to the earlier of: A. Establishment of a protected area or B. The 10 CFR 52.103(g) finding	License Condition	

2. COLA Part 10, License Conditions and ITAAC, will be revised from:

PROPOSED LICENSE CONDITION:

The licensee shall implement the programs or portions of programs identified below on or before the associated milestones identified below.

- A. Construction Initiation – The licensee shall implement each operational program identified below prior to initiating construction of nuclear safety or security related structures, systems, or components.
  - A.1 – Fitness for Duty (Construction)
- B. 18 Months Prior to Fuel Load – The license shall implement each operational program identified below at least 18 months prior to scheduled date of initial fuel load.
  - B.1 – Reactor Operator Training
- C. Receipt of Materials – The licensee shall implement each operational program identified below prior to initial receipt of byproduct, source, or special nuclear materials onsite (excluding Exempt Quantities as described in 10 CFR 30.18).
  - C.1 – Radiation Protection (applicable portions)
  - C.2 – Fire Protection Program (applicable portions)
  - C.3 – Non Licensed Plant Staff Training Program (applicable portions)
  - C.4 – Emergency Planning (applicable portions)
  - C.5 – Security Program (applicable portions)
- D. Fuel Receipt – The licensee shall implement each operational program identified below prior to initial receipt of fuel onsite.
  - D.1 – Fire Protection (applicable portions)
  - D.2 – Radiation Protection (applicable portions)
  - D.3 – Security Program (applicable portions)
- E. Construction Testing – The licensee shall implement each operational program identified below prior to initial construction testing.
  - E.1 – Initial Test Program – Construction Testing
- F. Preoperational Testing – The licensee shall implement each operational program identified below prior to initial preoperational testing.
  - F.1 – Initial Test Program – Preoperational Testing
- G. Fuel Loading – The licensee shall implement each operational program identified below prior to initial fuel load.
  - G.1 – Environmental Qualification
  - G.2 – Pre-Service Testing
  - G.3 – Process and Effluent Monitoring and Sampling
  - G.4 – Radiation Protection (applicable portions)
  - G.5 – Motor-Operated Valve Testing
  - G.6 – Fire Protection
  - G.7 – Fitness for Duty (Operations)
  - G.8 – Containment Leakage Rate Testing
  - G.9 – Physical Security
  - G.10 – Cyber Security

To read:

**PROPOSED LICENSE CONDITION:**

The licensee shall implement the programs or portions of programs identified below on or before the associated milestones identified below.

- A. Construction Initiation – The licensee shall implement each operational program identified below prior to initiating construction of nuclear safety or security related structures, systems, or components.
  - A.1 – Fitness for Duty (Construction)
  - A.2 – Fitness for Duty (Security)
  - A.3 – Fitness for Duty (FFD Program Personnel)
- B. 18 Months Prior to Fuel Load – The licensee shall implement each operational program identified below at least 18 months prior to scheduled date of initial fuel load.
  - B.1 – Reactor Operator Training
- C. Receipt of Materials – The licensee shall implement each operational program identified below prior to initial receipt of byproduct, source, or special nuclear materials onsite (excluding Exempt Quantities as described in 10 CFR 30.18).
  - C.1 – Radiation Protection (applicable portions)
  - C.2 – Fire Protection Program (applicable portions)
  - C.3 – Non Licensed Plant Staff Training Program (applicable portions)
  - C.4 – Emergency Planning (applicable portions)
  - C.5 – Security Program (applicable portions)
  - C.6 – Fitness for Duty (Security)
- D. Fuel Receipt – The licensee shall implement each operational program identified below prior to initial receipt of fuel onsite.
  - D.1 – Fire Protection (applicable portions)
  - D.2 – Radiation Protection (applicable portions)
  - D.3 – Security Program (applicable portions)
  - D.4 – Fitness for Duty (Security)
- E. Construction Testing – The licensee shall implement each operational program identified below prior to initial construction testing.
  - E.1 – Initial Test Program – Construction Testing
- F. Preoperational Testing – The licensee shall implement each operational program identified below prior to initial preoperational testing.
  - F.1 – Initial Test Program – Preoperational Testing
- G. Fuel Loading – The licensee shall implement each operational program identified below prior to initial fuel load.
  - G.1 – Environmental Qualification
  - G.2 – Pre-Service Testing
  - G.3 – Process and Effluent Monitoring and Sampling
  - G.4 – Radiation Protection (applicable portions)
  - G.5 – Motor-Operated Valve Testing
  - G.6 – Fire Protection
  - G.7 – Fitness for Duty (Operations)
  - G.8 – Containment Leakage Rate Testing
  - G.9 – Physical Security
  - G.10 – Cyber Security

**Attachments/Enclosures:**

None.

**NRC Letter No.:** LNP-RAI-LTR-082

**NRC Letter Date:** March 1, 2010

**NRC Review of Final Safety Analysis Report**

**NRC RAI NUMBER:** 13.06.01-4

**Text of NRC RAI:**

Under 10 CFR 52.79(a)(44), the Applicant's FSAR must contain a description of the fitness for duty (FFD) program required by 10 CFR Part 26 and its implementation. In the COL application, Part 2, FSAR, Table 13.4-201 (Sheet 7 of 7), item number 20, for FFD Programs for Construction – Mgt & Oversight Personnel, in the milestone description, you include the word “onsite”. This is in contrast to your description for the FFD Program for Construction – Workers & First Line Supervisors, which is the same, but does not include “onsite” in its wording. Construction is defined in 10CFR 50.10 and 10 CFR 26.5 and these definitions do not include the additional word “onsite”. Please explain how your use of the word “onsite” comports with the construction definitions and why Levy elects to apply “onsite” to management and oversight personnel, but not to workers and first line supervisors.

**PGN RAI ID #:** L-0735

**PGN Response to NRC RAI:**

As stated in RAI Response 13.06.01-3, FSAR Table 13.4-201 will be modified to address the guidance in NRC's letter to the Nuclear Energy Institute dated December 2, 2009, entitled “Status of U.S. Nuclear Regulatory Commission Review and Endorsement of NEI 06-06, ‘Fitness for Duty Program Guidance for New Nuclear Power Plant Construction Sites.’”

This will make the implementation milestones consistent for FFD Programs for Construction – Mgt & Oversight Personnel and FFD Program for Construction – Workers & First Line Supervisors.

**Associated LNP COL Application Revisions:**

See the response to RAI 13.06.01-3 for the revisions to COLA Part 2, FSAR Table 13.4-201.

**Attachments/Enclosures:**

None.