

## LevyCountyRAIsPEm Resource

---

**From:** Habib, Donald  
**Sent:** Wednesday, May 20, 2015 12:42 PM  
**To:** LevyCountyRAIsPEm Resource  
**Subject:** RAI Letter No. 127 Related to SRP Section 7.3, Engineered Safety System Features, for the Levy Nuclear Plant Units 1 and 2 COLA  
**Attachments:** 2015-05-20 RAI Letter 127 for MCR Heatup ICE.docx

**Hearing Identifier:** Levy\_County\_COL\_eRAIs  
**Email Number:** 123

**Mail Envelope Properties** (E3D0DF334F617344BE38EB00C881B1B302232C6779E9)

**Subject:** RAI Letter No. 127 Related to SRP Section 7.3, Engineered Safety System Features, for the Levy Nuclear Plant Units 1 and 2 COLA  
**Sent Date:** 5/20/2015 12:41:39 PM  
**Received Date:** 5/20/2015 12:41:40 PM  
**From:** Habib, Donald

**Created By:** Donald.Habib@nrc.gov

**Recipients:**  
"LevyCountyRAIsPEm Resource" <LevyCountyRAIsPEm.Resource@nrc.gov>  
Tracking Status: None

**Post Office:** HQCLSTR01.nrc.gov

<b>Files</b>	<b>Size</b>	<b>Date &amp; Time</b>
MESSAGE	3	5/20/2015 12:41:40 PM
2015-05-20 RAI Letter 127 for MCR Heatup ICE.docx		80627

**Options**  
**Priority:** Standard  
**Return Notification:** No  
**Reply Requested:** No  
**Sensitivity:** Normal  
**Expiration Date:**  
**Recipients Received:**



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

May 20, 2015

Mr. Christopher M. Fallon  
Vice President, Nuclear Development  
Duke Energy Florida, Inc.  
P.O. Box 1006 – EC12L  
Charlotte, NC 28201-1006

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 127 RELATED  
TO STANDARD REVIEW PLAN SECTION 7.3, ENGINEERED SAFETY SYSTEM  
FEATURES, FOR THE LEVY NUCLEAR PLANT, UNITS 1 AND 2, COMBINED  
LICENSE APPLICATION

Dear Mr. Fallon:

By letter dated July 28, 2008, as supplemented by a letter dated September 12, 2008, Progress Energy Florida, Inc., now Duke Energy Florida, submitted its application to the U. S. Nuclear Regulatory Commission (NRC) for a combined license (COL) for two AP1000 advanced passive pressurized water reactors pursuant to 10 CFR Part 52. The NRC staff is performing a detailed review of this application to enable the staff to reach a conclusion on the safety of the proposed application.

The NRC staff has identified that additional information is needed to continue portions of the review. The staff's request for additional information (RAI) is contained in the enclosure to this letter.

To support the review schedule, you are requested to respond within 30 days of the date of this letter. If changes are needed to the final safety analysis report, the staff requests that the RAI response include the proposed wording changes.

C. Fallon

If you have any questions or comments concerning this matter, you may contact me at 301-415-1035.

Sincerely,

Donald Habib, Project Manager  
Licensing Branch 4  
Division of New Reactor Licensing  
Office of New Reactors

Docket Nos. 52-029  
52-030

eRAI Tracking Nos. 7904

Enclosures:  
Requests for Additional Information

C. Fallon

If you have any questions or comments concerning this matter, you may contact me at 301-415-1035.

Sincerely,

Donald Habib, Project Manager  
Licensing Branch 4  
Division of New Reactor Licensing  
Office of New Reactors

Docket Nos. 52-029  
52-030

eRAI Tracking Nos. 7904

Enclosures:  
Requests for Additional Information

Distribution:

Public	LBurkhart	TGalletta	DChien
RidsNroDnrLB4	DHabib	KRoach	JHoellman
RidsRgn2MailCenter	BHughes	MComar	RReyes
RidsOgcMailCenter	DMcGovern	JODriscoll	HLe
RidsAcrsAcnw_MailCenter	ADias	TJackson	JZhao

NRO-002

OFFICE	DE/ICE	OGC/AGCNRP	LB4/PM
NAME	TJackson*	KRoach*	DHabib*
DATE	5/12/15	5/13/15	5/20/15

\*Approval captured electronically in the electronic RAI system.

**OFFICIAL RECORD COPY**

## **Request for Additional Information Letter No. 127 (7904)**

Issue Date: 05/20/2015

Application Title: Levy County, Units 1 and 2 - Dockets 52-029 and 52-030

Operating Company: Duke Energy Florida

Review Section: 07.03 - Engineered Safety Features Systems

### QUESTIONS

#### 07.03-1

Provide design information on isolation and separation between the proposed, safety-related main control room (MCR) load shedding panels and their non-safety electrical loads or explain why such information is not necessary. Also clarify how the proposed change to provide two new MCR load shedding panels meets the single failure criterion. In addition, clarify how the post-accident monitoring (PAM) parameters are revised to include the status of the two safety-related MCR load shedding panels.

10 CFR 50.55a(h), "Protection and Safety Systems," requires compliance with IEEE Std. 603-1991, "IEEE Standard Criteria for Safety Systems for Nuclear Power Generating Stations," and the correction sheet dated January 30, 1995. Clause 5.1 of IEEE Std. 603-1991 requires, in part, that safety systems shall perform all safety functions required for a design basis event in the presence of: (1) any single detectable failure within the safety systems concurrent with all identifiable but non-detectable failures; (2) all failures caused by the single failure; and (3) all failures and spurious system actuations that cause or are caused by the design basis event requiring the safety functions. Clause 5.6.3 requires, in part, that the safety system design shall be such that credible failures in and consequential actions by other systems, as documented in 4.8 of the design basis, shall not prevent the safety systems from meeting the requirements of this standard. 10 CFR Part 50, Appendix A, General Design Criterion 13, requires, in part, that instrumentation shall be provided to monitor variables and systems over their anticipated ranges for normal operation, for anticipated operational occurrences, and for accident conditions as appropriate to assure adequate safety.

In response to NRC RAI Number 06.04-4 on the MCR heat-up concern, the applicant proposed two safety-related MCR load shedding panels to de-energize some non-safety-related electrical loads. However, it is not clear how physical separation and electrical isolation are achieved between the new safety-related MCR load shedding panels and non-safety electrical loads to be controlled. Also in the response to NRC RAI Number 06.04-4, there is inconsistent description on how the non-safety electrical loads will be controlled by the two new MCR load shedding panels. For example, in Section 3.0 of Enclosure 2, it states that two redundant MCR load shed panels are added. However, later it states that each panel de-energizes separate nonessential nonsafety-related electrical loads. Provide a functional diagram to demonstrate how the proposed two MCR load shedding panels will be used to control the non-safety electrical loads. In response to NRC RAI Number 06.04-4, it mentioned that the PAM system will be revised to include the status of the two new MCR load shedding panels. However, in the revised Table 7.5-1, it says that MCR electrical load status will be added. Clarify how many new parameters will be added, what they are, and their associated parameters.