

## NRR-PMDAPEm Resource

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**From:** Feintuch, Karl  
**Sent:** Monday, July 16, 2012 11:17 AM  
**To:** Browning, Tony; Catron, Steve  
**Cc:** Lapinsky, George; Shoop, Undine; Bucholtz, Kristy; Razzaque, Muhammad; Mazumdar, Subinoy  
**Subject:** FW: ME8572 - DAEC - Core Spray logic amendment - Request for Additional Information from Health Physics and Human Performance Branch (AHPB)  
**Attachments:** ME8572 DAEC AHPB RAI items 2012-07-16 .docx

This message only differs from the message below by correcting the typo: ME8579 should be ME8572.

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**From:** Feintuch, Karl  
**Sent:** Monday, July 16, 2012 11:11 AM  
**To:** Browning, Tony; 'Catron, Steve'  
**Cc:** Lapinsky, George; Shoop, Undine; Bucholtz, Kristy; Razzaque, Muhammad; Mazumdar, Subinoy  
**Subject:** ME8579 - DAEC - Core Spray logic amendment - Request for Additional Information from Health Physics and Human Performance Branch (AHPB)

REQUEST FOR ADDITIONAL INFORMATION REGARDING  
LICENSE AMENDMENT REQUEST (TSCR-135) FOR ONE-TIME CHANGE TO TECHNICAL  
SPECIFICATION 3.3.5.1 REGARDING CORE SPRAY OPERABILITY DURING SHUTDOWN  
DOCKET NUMBER 50-331

By a letter dated May 1, 2012, NextEra Energy Duane Arnold, LLC, requested a license amendment to Technical Specifications (TS) 3.3.5.1 of Operating License No. DPR-49. The proposed amendment would make a one-time change to allow operation in Modes 4 and 5 of Refueling Outage 23 without operable Emergency Core Cooling equipment. Accident mitigation under the proposed change would rely solely on the available, but technically inoperable, Core Spray System (CS). The May 1, 2012 submittal was supplemented on June 27, 2012 in a response to an e-mailed NRC Request for Additional Information (RAI).

The Health Physics and Human Performance Branch performed a preliminary review of the human performance associated changes in the license amendment request. The licensee's responses to the following request for additional information items (RAII) with regard to the human performance aspects of the proposed license amendment will enable the NRC staff to complete its review in a timely manner.

The NRC staff requests that the response to these RAI be expedited. Please contact me with any need to clarify items and with an estimate of when we could expect a response.

Karl Feintuch  
USNRC  
301-415-3079

**Hearing Identifier:** NRR\_PMDA  
**Email Number:** 412

**Mail Envelope Properties** (Karl.Feintuch@nrc.gov20120716111700)

**Subject:** FW: ME8572 - DAEC - Core Spray logic amendment - Request for Additional Information from Health Physics and Human Performance Branch (AHPB)  
**Sent Date:** 7/16/2012 11:17:28 AM  
**Received Date:** 7/16/2012 11:17:00 AM  
**From:** Feintuch, Karl

**Created By:** Karl.Feintuch@nrc.gov

**Recipients:**

"Lapinsky, George" <George.Lapinsky@nrc.gov>  
Tracking Status: None  
"Shoop, Undine" <Undine.Shoop@nrc.gov>  
Tracking Status: None  
"Bucholtz, Kristy" <Kristy.Bucholtz@nrc.gov>  
Tracking Status: None  
"Razzaque, Muhammad" <Muhammad.Razzaque@nrc.gov>  
Tracking Status: None  
"Mazumdar, Subinoy" <Subinoy.Mazumdar@nrc.gov>  
Tracking Status: None  
"Browning, Tony" <Tony.Browning@fpl.com>  
Tracking Status: None  
"Catron, Steve" <Steve.Catron@fpl.com>  
Tracking Status: None

**Post Office:**

| <b>Files</b>                                | <b>Size</b> | <b>Date &amp; Time</b> |
|---|-------------|------------------------|
| MESSAGE                                     | 1919        | 7/16/2012 11:17:00 AM  |
| ME8572 DAEC AHPB RAI items 2012-07-16 .docx |             | 25269                  |

**Options**

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**Sensitivity:** Normal  
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**Recipients Received:**

REQUEST FOR ADDITIONAL INFORMATION REGARDING  
LICENSE AMENDMENT REQUEST (TSCR-135) FOR ONE-TIME CHANGE TO TECHNICAL  
SPECIFICATION 3.3.5.1 REGARDING CORE SPRAY OPERABILITY DURING SHUTDOWN  
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The Health Physics and Human Performance Branch (AHPB) performed a preliminary review of the human performance associated changes in the license amendment request. The licensee's responses to the following request for additional information items (RAII) with regard to the human performance aspects of the license amendment will enable the NRC staff to complete its review in a timely manner.

Six RAII follow. The tracking number applied to each item expedites delivery to the cognizant reviewer. The "issued date" within the tracking number is approximate to your actual receipt date. Please apply the tracking number in your response. Please expedite responding to RAII. Please contact me to clarify any item.

**ME8572-RAII-Lapinsky-001-2012-07-16**

1. In addition to the following operator actions, are there any other operator actions necessary to support the proposed LAR?

Pre-staged actions:

- 1a. Isolate the CS minimum flow path to the Suppression Chamber;
- 1b. Ensure that one CS pump flow path to the reactor is established;

Post-initiation actions:

- 1c. verify flow to be  $\geq 600$  gpm immediately following CS initiation;
- 1d. if CST level falls too low align alternate sources of coolant.

**ME8572-RAII-Lapinsky-002-2012-07-16**

2. For the actions identified above and any others that may be inferred by Question 1, answer the following, keeping in mind the conditions appropriate to Modes 4 and 5:
  - 2a. How will personnel know when to initiate the action(s)?
  - 2b. Are any actions performed outside of the control room? If yes, what are the expected conditions in the location of the action(s)?
  - 2c. How will personnel know that the action(s) was performed correctly?

- 2d. How will personnel know when the action(s) should be terminated?
- 2e. Are required alarms, annunciators, and displays available, readable, and based on direct measurement of the variable of interest, and not just the reflection of a demand signal?
- 2f. For action 1d, how low is “too low”? Is the supporting display incremented so that TS values, procedure values, and display values are consistent, e.g., in feet or inches or gallons, but not more than one of these.

For additional actions inferred by Question 1, continue the numbering in Question 1 (that is, use 1e., 1f., 1g. and so forth).

**ME8572-RAI-Lapinsky-003-2012-07-16**

- 3. Describe any changes to procedures or any new procedures that will be required to support the proposed LAR. List by the procedure number(s) and title(s).

**ME8572-RAI-Lapinsky-004-2012-07-16**

- 4. In its response to the NRC’s previous RAI, the licensee stated that there are alternative sources of coolant if the CST is completely drained. Are the alternative sources of coolant listed in a relevant procedure(s)? In priority order?

If yes, please provide relevant pages from those procedures.

If in a priority order, please describe the prioritization that was applied.

**ME8572-RAI-Lapinsky-005-2012-07-16**

- 5. What specific changes to the training program will be required?

**ME8572-RAI-Lapinsky-006-2012-07-16**

- 6. The licensee stated in the proposed LAR, “Strict administrative and procedural controls, operator training, and use of human performance tools will be essential to preventing these types of consequential human errors. Furthermore, both CS subsystems will be guarded and no work or testing will be permitted on either of the CS subsystems during RFO 23...”

- 6a. What human performance tools are planned?
- 6b. What does “guarded” mean?
- 6c. What barriers are being credited for preventing an operator from putting an isolated CS pump minimum bypass flow valve in its normally open position, i.e., un-isolating the minimum bypass flow?