



February 24, 2014

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U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Duane Arnold Energy Center
Docket No. 50-331
Renewed Op. License No. DPR-49

NextEra Energy Duane Arnold Energy Center, LLC's Six-Month Status Report in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation (Order Number EA-12-051)

- References: 1) Order EA-12-051, "Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation" dated March 12, 2012 (ML12054A682)
- 2) Letter, R. Anderson (NextEra Energy Duane Arnold, LLC) to U. S. NRC, "NextEra Energy Duane Arnold, LLC's Overall Integrated Plan in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation (Order Number EA-12-051)," NG-13-0086, dated February 28, 2013 (ML13063A014)

On March 12, 2012, the Nuclear Regulatory Commission (NRC) issued Reference 1, an immediately effective Order to all licensees including NextEra Energy Duane Arnold, LLC (hereafter NextEra Energy Duane Arnold). In Reference 2, NextEra Energy Duane Arnold submitted an Overall Integrated Plan for the implementation of this Order. The Order required Licensees to provide periodic status reports for the Overall Integrated Plan. The purpose of this letter is to provide the six-month status report pursuant to Section IV, Condition C.2, of Reference 1, that delineates progress made in implementing the requirements of Reference 1. The enclosure to this letter provides an update of milestone accomplishments since the last status report, including any changes to the compliance method, schedule, or need for relief and the basis, if any. The enclosure also provides previously requested information.

If you have any questions or require additional information contact Ken Putnam at 319-851-7238.

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I declare under penalty of perjury that the foregoing is true and correct.
Executed on February 24, 2014

A handwritten signature in black ink that reads "Richard L. Anderson". The signature is written in a cursive style with a large initial "R".

Richard L. Anderson
Vice President, Duane Arnold Energy Center
NextEra Energy Duane Arnold, LLC

Enclosure

cc: Regional Administrator, USNRC, Region III
Resident Inspector, USNRC, Duane Arnold Energy Center
Project Manager, USNRC, Duane Arnold Energy Center

Enclosure to NG-14-0068

NextEra Energy Duane Arnold, LLC's Six Month Status Report for the
Implementation of Order EA-12-051, Order Modifying Licenses with Regard to
Reliable Spent Fuel Pool Instrumentation

6 pages follow

**NEXTERA ENERGY DUANE ARNOLD, LLC
DUANE ARNOLD ENERGY CENTER**

**Six Month Status Report for the Implementation of Order EA-12-051, Order
Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation**

1. Introduction

NextEra Energy Duane Arnold, LLC (hereafter NextEra Energy Duane Arnold), developed an Overall Integrated Plan (Reference 1), documenting the planned modification with regard to Reliable Spent Fuel Pool Instrumentation (SFPI) in response to Reference 2. This enclosure provides an update of milestone accomplishments since submittal of the Overall Integrated Plan and last status update, including any changes to the compliance method, schedule, or need for relief/relaxation and the basis, if any.

2. Milestone Accomplishments

No Milestones have been completed since the submittal of the Integrated Plan on February 28, 2013.

3. Milestone Schedule Status

There are no changes to Milestone dates or status since the first status update submitted on August 27, 2013. (ML13242A008)

Milestone	Target Completion Date	Activity Status	Revised Target Completion Date
Commence Engineering and Design	In Progress	Started	N/A
Complete Design	4Q 2015	Started	N/A
Complete Procurement of SFP Instruments	2Q 2016	Started	N/A
Complete Installation of SFP Instruments	4Q 2016	Not Started	N/A
Instruments Operational and Training Complete	4Q 2016	Not Started	N/A

4. Changes to Compliance Method

There are no changes to the compliance method as documented in the Overall Integrated Plan (Reference 1).

5. Need for Relief/Relaxation and Basis for the Relief/Relaxation

Duane Arnold is not requesting relief from the requirements of Order EA-12-051 (Reference 2) or guidance document JLD-ISG-2012-03 (Reference 3) at this time.

Consistent with the requirements of Order EA-12-051 (Reference 2) and the guidance in NEI 12-02 (Reference 4), the status updates will delineate progress made, any proposed changes in compliance methods, updates to the schedule, and if needed, requests for relief and their bases.

6. Requests for Additional Information

An Interim Staff Evaluation with Request for Additional Information (RAI) was received on November 26, 2013 (Reference 5) and corrected on January 17, 2014 (Reference 6).

The following table provides a summary of the status of those Requests for Information.

RAI	Status
RAI – 1	In progress
RAI - 2 a, b, c	In progress
RAI – 3	In progress
RAI – 4	In progress
RAI-5 a, b, c	In progress
RAI-6	In progress
RAI-7 a, b	In progress
RAI-8 a, b	In progress
RAI-9 a, b	In progress
RAI-10 a, b, c, d	In progress
RAI-11 a, b	In progress
RAI-12 a, b	Provided below
RAI-13 a, b, c	Provided below
RAI-14	In progress

The RAI responses showing “in progress” require design information that is not available at this time. Responses to those RAIs will be provided when available.

The following RAI responses are included:

RAI-12 a and b

- a) Please provide a list of the procedures addressing operation (both normal and abnormal response), calibration, test, maintenance, and inspection that will be developed for use of the SFP instrumentation.
- b) Please provide a brief description of the specific technical objectives to be achieved within each procedure.

(This information was previously requested as RAI-10 in the NRC letter dated September 16, 2013.)

DAEC Response to RAI-12 a and b

The modification review process will be used to ensure all necessary procedures are developed for maintaining and operating the installed spent fuel level instruments. These procedures will be developed in accordance with the NextEra procedural control process.

The objectives of each procedural area are described below:

Inspection, Calibration, and Testing - Guidance on the performance of periodic inspections, as well as calibration and testing, to ensure that each SFP channel is operating and indicating level within its design accuracy.

Preventative Maintenance - Guidance on scheduling of, and performing, appropriate preventative maintenance activities necessary to maintain the instruments in a reliable condition.

Maintenance - To specify troubleshooting and repair activities necessary to address system malfunctions.

Programmatic controls - Guidance on actions to be taken if one or more channels is out of service.

System Operations - To provide instructions for operation and use of the system by plant staff.

Response to inadequate levels - Action to be taken on observations of levels below normal level will be addressed in site Off Normal procedures and /or FLEX Support Guidelines.

RAI-13a

- a) Further information describing the maintenance and testing program the licensee will establish and implement to ensure that regular testing and calibration is performed and verified by inspection and audit to demonstrate conformance with design and system readiness requirements. Include a description of plans to ensure necessary channel checks, functional tests, periodic calibration, and maintenance will be conducted for the level measurement system and its supporting equipment.

(This information was previously requested as RAI-11 in the NRC letter dated September 16, 2013.)

DAEC Response to RAI-13a

SFPI channel/equipment maintenance/preventative maintenance and testing program requirements to ensure design and system readiness will be established in accordance with NextEra's processes and procedures. The design modification process will take into consideration the vendor recommendations to ensure that appropriate regular testing, channel checks, functional tests, periodic calibration, and maintenance is performed (and available for inspection and audit).

Once the maintenance and testing program requirements for the SFPI are determined, the requirements will be documented in Maintenance program documents.

Performance checks, described in the Vendor Operator's Manual, and the applicable information will be contained in plant procedures. Operator performance tests will be performed periodically as recommended by the vendor.

Channel functional tests with limits established in consideration of vendor equipment specifications will be performed at appropriate frequencies.

Channel calibration tests per maintenance procedures with limits established in consideration of vendor equipment specifications are planned to be performed at frequencies established in consideration of vendor recommendations.

RAI-13b

- b) A description of the NextEra/DAEC procedure/process to implement the guidance in NEI 12-02 section 4.3 regarding compensatory actions for one or both nonfunctioning channels.

(This information was previously requested as RAI-11 in the NRC letter dated September 16, 2013.)

DAEC Response to RAI-13b

Both primary and backup SFPI channels incorporate permanent installation (with no reliance on portable, post-event installation) of relatively simple and robust augmented quality equipment. Permanent installation coupled with stocking of adequate spare parts reasonably diminishes the likelihood that a single channel (and greatly diminishes the likelihood that both channels) is (are) out-of-service for an extended period of time. Planned compensatory actions for unlikely extended out-of-service events are summarized as follows:

<u># Channel(s) Out-of-Service</u>	<u>Required Restoration Action</u>	<u>Compensatory Action if Required Restoration Action not completed within Specified Time</u>
1	Restore channel to functional status within 90 days (or if channel restoration not expected within 90 days, then proceed to Compensatory Action)	Immediately initiate action in accordance with Note below
2	Initiate action within 24 hours to restore one channel to functional status and restore one channel to functional status within 72 hours	Immediately initiate action in accordance with Note below

Note: Present a report to the on-site safety review committee within the following 14 days. The report shall outline the planned alternate method of monitoring, the cause of the non-functionality, and the plans and schedule for restoring the instrumentation channel(s) to functional status.

RAI 13c

- c) A description of the compensatory actions planned in the event that one of the instrument channels cannot be restored to functional status within 90 days.

(This information was previously requested as RAI-11 in the NRC letter dated September 16, 2013.)

DAEC Response to RAI-13c

See RAI-13b response above.

7. References

The following references support the updates to the Overall Integrated Plan described in this enclosure.

1. NextEra Energy Duane Arnold, LLC's Overall Integrated Plan in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation (Order Number EA-12-051)," dated February 28, 2013 (ML13063A014)
2. NRC Order Number EA-12-051, "Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation," dated March 12, 2012 (ML12054A682)

3. U.S. Nuclear Regulatory Commission, Interim Staff Guidance JLD-ISG-2012-03, "Compliance with Order EA-12-051, Reliable Spent Fuel Pool Instrumentation," Revision 0, dated August 29, 2012 (ML12221A339)
4. NEI 12-02, Revision 1, "Industry Guidance for Compliance with NRC Order EA-12-051, 'To Modify Licenses with Regard to Reliable Spent Fuel Pool Instrumentation,'" dated August 24, 2012 (ML12240A307)
5. NRC Letter, "Interim Staff Evaluation and Request for Additional Information Regarding the Overall Integrated Plan for Implementation of Order EA-12-051, Reliable Spent Fuel Pool Instrumentation (TAC No. MF1001)," dated November 26, 2013 (ML13323B443)
6. NRC Correction Letter, "Duane Arnold Energy Center Regarding Interim Staff Evaluation and Request for Additional Information for Reliable Spent Fuel Pool Instrumentation (Order No EA-12-051) (TAC No. MF1001)," dated January 17, 2014 (ML14007A215)