



February 21, 2013

NG-13-0060  
10 CFR 50.55a

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

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

Inservice Inspection Report

In accordance with the Code of Federal Regulations, Title 10, Part 50.55a, NextEra Energy Duane Arnold, LLC, submits the attached Inservice Inspection (ISI) Summary Report (Owner's Activity Report, Form OAR-1) for the Duane Arnold Energy Center (DAEC). This report has been prepared in accordance with Section XI of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, 2001 Edition with addenda through 2003, and ASME Code Case N-532-4, as approved in Regulatory Guide 1.147. This report includes the examinations performed at the DAEC during Cycle 23 operations and Refueling Outage No. 23 (RFO23) of the fourth 10-year ISI interval.

This letter contains no new commitments nor revises any previous commitments.

If you have any questions, please contact Thomas R. Byrne at (319) 851-7929.

A handwritten signature in cursive script that reads "Richard L. Anderson".

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

Enclosure

**ENCLOSURE  
TO NG-13-0060**

**Inservice Inspection  
Summary Report  
For  
Cycle 23 and RFO 23**

6 Pages Follow

NextEra Energy Duane Arnold, LLC  
Duane Arnold Energy Center

Inservice Inspection  
Summary Report  
For  
Cycle 23 and RFO 23

Duane Arnold Energy Center  
3277 DAEC Rd  
Palo, IA 52324

Date of Commercial Service  
February 1, 1975

# INDEX

Summary .....	Section 1
OAR-1 Form, Owner's Activity Report.....	Section 2
Table 1 .....	Section 3
Table 2 .....	Section 4

# Section 1

## Summary

The Duane Arnold Energy Center, Fourth Ten-Year Inservice Inspection (ISI) Plan was developed to comply with 10 CFR 50.55a(g), which implements, by reference, the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, 2001 Edition with 2003 Addenda.

The following summary report is being submitted pursuant to the reporting requirements of ASME Section XI as amended by ASME Code Case N-532-4.

This summary report contains the Form OAR-1 Owner's Activity Report and Tables 1 and 2 of the Code Case for Duane Arnold Energy Center during Cycle 23 and Refueling Outage No. 23 (RFO23). Indications found on the Torus that required evaluation are included as part of Engineering Change EC-274627. RFO23 is the second outage of the second period in the fourth inspection interval. This report includes Repair/Replacement Activities from December 9, 2010 (the last submittal) to November 27, 2012.

## Section 2

# OAR-1 Form Owner's Activity Report

### FORM OAR-1 OWNER'S ACTIVITY REPORT

Report Number NG-13-0060

Plant Duane Arnold Energy Center, 3277 DAEC Road, Palo, IA 52324

Unit No. 1 Commercial Service Date February 1, 1975 Refueling Outage No. RFO-23

Current Inspection Interval Fourth Interval

Current Inspection period Second period

Edition and Addenda of Section XI applicable to the inspection plan 2001 Edition with 2003 Addenda

Date and revision of inspection plan August 21, 2012 Rev. 8

Edition and Addenda of Section XI applicable to repairs and replacements, if different than the inspection plan Same

Code Cases used: N-532-4

#### CERTIFICATE OF CONFORMANCE

I certify that (a) the statements made in this Owner's Activity Report are correct; (b) and the examinations and tests met the Inspection Plan as required by the ASME Code, Section XI; and (c) the repair/replacement activities and evaluations supporting the completion of RFO22 conform to the requirements of Section XI.

Signed Richard L. Anderson Date February 20, 2013  
Site Vice President

#### CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Iowa and employed by HSBCT of Hartford Connecticut have inspected the items described in this Owner's Activity Report, and state that, to the best of my knowledge and belief, the Owner has performed all activities represented by this report in accordance with the requirements of Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the repair/replacements activities and evaluation described in this report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Inspector's Signature [Signature] Commissions NB1408ANI, IA1622  
National Board, State, Province, and Endorsements

Date 2-21-2013

## Section 3

### Table 1

#### Items with Flaws or Relevant Condition that Required Evaluation for Continued Service

Examination Category and Item Number	Item Description	Evaluation Description
IWE E-A1.11, E-A1.12	Torus Shell Thickness Accessible areas and Wetted Areas	EC 274627 Item 1.3.5.3 evaluation of pits with comparison to allowable corrosion allowance in accordance with calculation CAL-M12-030

## Section 4

### Table 2

#### Abstract of Repair/Replacement Activities Required for Continued Service

<b>Code Class</b>	<b>Item Description</b>	<b>Description of Work</b>	<b>Date Completed</b>	<b>Repair / Replacement Plan number</b>
2	ECB008	1.5" four bolt pipe clamp (replaced bolting)	5/31/12	40148952-01
2	HBB-008-SR-004	Install replacement strut	11/9/12	40081340-01
2	EBB-14-H-14	HPCI Pipe Hanger threaded rod replacement	1/7/13	1287016-01
3	1E053B	Weld and machine channel head cover	1/31/13	40132849-11
IWE	Torus	Weld repair of pits	11/6/12	40132857-75
IWE	Torus	Weld repair of structural fillet welds	11/6/12	40132857-78