FPL Energy Duane Arnold, LLC
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Palo, Iowa 52324

FPL Energy
Duane Arnold Energy Center

December 5, 2007

NG-07-0933
10 CFR 50.55a

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

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

Use of the Provisions of Appendix VIII, Article VIII-4000, in the Evaluation of Changes in Maximum Cable Length for In-Service Inspection Examination Equipment at the Duane Arnold Energy Center

References: 1) Letter, G. Van Middlesworth (FPL Energy Duane Arnold) to USNRC, "Request to Extend the Third 10-Year Inservice Inspection (ISI) Interval for Reactor Vessel Welds: VLA-A001, VLA-A002, VLB-A001, VLB-A002, VLC-B001, VLC-B002, VLD-B001, VLD-B002, and VCB-C005," NG-07-0164, dated February 19, 2007 (ML070600122)

2) Letter, L. Raghaven (USNRC) to G. Van Middlesworth (FPL Energy Duane Arnold), "Duane Arnold Energy Center - Safety Evaluation for Request to Extend the Third 10-Year Inservice Inspection Interval (TAC No. MD4293)," dated May 8, 2007 (ML070930079)

FPL Energy Duane Arnold requested relief in Reference 1 regarding the subject ISI examinations at the DAEC on the basis of conference calls held with the Staff on February 16, 2007. The NRC Staff subsequently granted the Reference 1 relief request in Reference 2.

Reference 1 stated the following:

"Extension of the interval for the subject welds is requested until either:

- [Criterion 1] the completion of refuel outage (RFO) 21, currently scheduled to begin in January of 2009; or,

A047
NRR

- [Criterion 2] until the current inspection procedure is certified by the Electric Power Research Institute (EPRI) through the Performance Demonstration Initiative (PDI); or

- [Criterion 3] the American Society of Mechanical Engineers (ASME) Code Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," is revised and accompanying interpretation is approved to allow equivalence evaluation of cables and connectors as "essential variables" pursuant to Supplement 1 to Appendix VIII,

whichever comes first."

Enclosure 1 of this letter provides the ASME interpretation with regards to the subject sections of the ASME Code. In addition, Enclosure 2 includes the Performance Demonstration Initiative Qualification Summary (PDQS) for the cabling used at the DAEC for the examination of the Reactor Vessel Longitudinal welds.

Accordingly, based on the interpretation provided by ASME and the qualification of the cabling configuration used by the PDI Program, two of the three criteria (Criteria 2 and 3) above in Reference 1 regarding extension of the interval for the subject welds have been met. Also, with respect to Criterion 3, an ASME Section XI Code Revision is in progress to clarify the intent of the requirement. Therefore, the weld examinations performed in RFO 20 are acceptable and the subject welds in Reference 1 are not planned to be re-inspected during RFO 21 currently scheduled for the first quarter of 2009.

This letter contains no new commitments and no revisions to existing commitments.

Questions regarding this matter should be directed to Steve Catron, Licensing Manager, at (319) 851-7234.

Richard L. Anderson
Vice President, Duane Arnold Energy Center
FPL Energy Duane Arnold

Enclosures

cc: Administrator, Region III, USNRC
Project Manager, DAEC, USNRC
Resident Inspector, DAEC, USNRC

Enclosure 1

ASME Letter dated November 1, 2007, ASME BPVC Section XI, Mandatory Appendix VIII, VIII-4110(d), 1989 Edition with the 1989 Addenda through the 2007 Edition

1 Page Follows

ASME
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November 1, 2007

Michael E. Gothard
Project Manager
Electric Power Research Inst
1300 W T Harris Blvd
Charlotte, NC 28262-8550

Subject: ASME BPVC Section XI, Mandatory Appendix VIII, VIII-4110(d), 1989 Edition with the 1989 Addenda through the 2007 Edition

File #: IN07-02

Dear Mr. Gothard:

Our understanding of the question in your letter and our reply is as follows:

Question: Is it the intent of VIII-4110(d) to allow the use of Supplement 1 for evaluation and substitution of other components of the examination system identified as essential variables including search unit cables, preamplifiers, signal conversion, and filtering hardware?

Reply: Yes.

Sincerely,

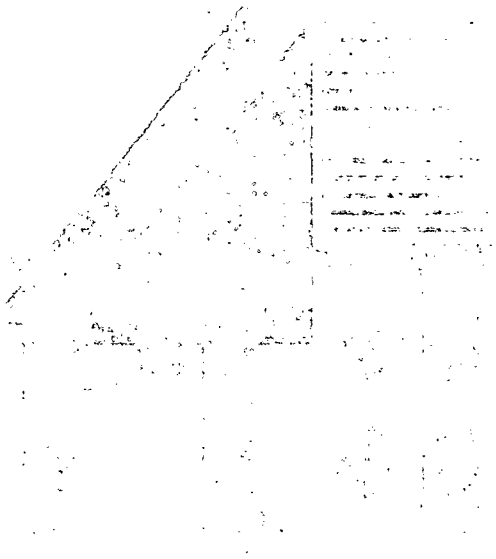
Ryan L. Crane, P.E.
Secretary, SC XI Interpretation Committee
(212) 591-7004
FAX: (212)-591-8501
craner@asme.org

CC: Joel Feldstein
Thomas Pastor
Gary Park
Rick Swayne

Enclosure 2

Performance Demonstration Initiative Qualification (PDQA) for DAEC Cabling

3 Pages Follow



Performance Demonstration Initiative Program

In Accordance with the PDI Implementation of Section XI, Appendix VIII

Specific Detail of Qualifications

Printed: 14-Aug-07
PDQS No: 554
04061103

Owner: IHI Southwest Technologies, Inc.

Procedure: ISwT-PDI-AUT1; Revision: 1; Addenda: 0

Automated Inside Surface Ultrasonic Examination of Ferritic Vessel Wall greater than 4.0 inches in Thickness

PDQS Rev:	0	**Hardware:**	Enhanced Data Acquisition System (EDAS II)
Date of Issue:	13-Aug-07	**Aquisition SW Type/Rev:**	AUT-CAL Software, 1.37
Category:	RPV	**Analysis SW Type/Rev:**	EDAS Software, 1.1
Scan Application:	Fully-Automatic		

Ranges Demonstrated:

Supplement:	Supplement 4 of ASME Appendix VIII	**TestDate:**	09-Aug-07
Material:	Ferritic with SMAW as Ground, Cladding		
Surface:	Inner Diameter		
Access:	Dual Sided		
Examination:	Detection	**Thickness Range:**	N/A to N/A
Access:	Single Sided		
Examination:	Detection	**Thickness Range:**	N/A to N/A

Supplement:	Supplement 6 of ASME Appendix VIII	**TestDate:**	09-Aug-07
Material:	Ferritic with SMAW as Ground, Cladding		
Surface:	Inner Diameter		
Access:	Dual Sided		
Examination:	Detection	**Thickness Range:**	4.00 to 12.29
Access:	Single Sided		
Examination:	Detection	**Thickness Range:**	4.00 to 12.29

Performance Demonstration Initiative Program

Printed: 14-Aug-07
PDQS No: 554

In Accordance with the PDI Implementation of Section XI, Appendix VIII

Specific Detail of Qualifications

04061103

Owner: IHI Southwest Technologies, Inc.

Procedure: ISwT-PDI-AUT1; Revision: 1; Addenda: 0

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PDQS Rev:	0	**Hardware:**	Enhanced Data Acquisition System (EDAS II)
Date of Issue:	13-Aug-07	**Aquisition SW Type/Rev:**	AUT-CAL Software, 1.37
Category:	RPV	**Analysis SW Type/Rev:**	EDAS Software, 1.1
Scan Application:	Fully-Automatic		

Supplement 4 Acceptance Criteria:

When "Length Sizing" is indicated, the 0.750 RMS acceptance criteria per the PDI Program Description has been achieved.
When "Through Wall Extension" is indicated, the 0.150 RMS acceptance criteria per the PDI Program Description has been achieved.

Supplement 6 Acceptance Criteria:

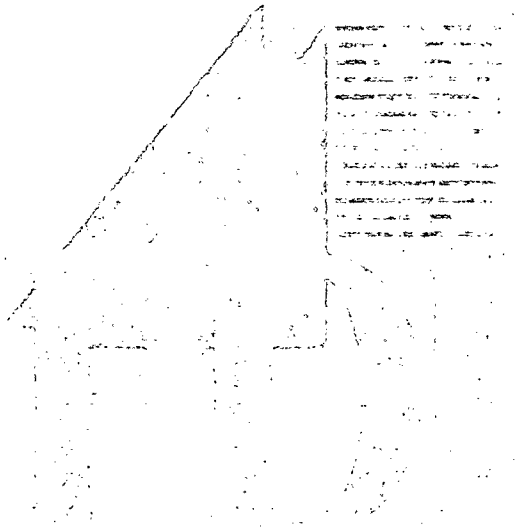
When "Length Sizing" is indicated, the 0.750 RMS acceptance criteria per the PDI Program Description has been achieved.
When "Through Wall Extension" is indicated, the 0.250 RMS and 0.7 Slope acceptance criteria per the PDI Program Description has been achieved.

Comments:

1. Single Side Endorsement has been issued in accordance with EPRI Document 1001037, meeting the requirements of 10CFR50.55a (b) (2) (xv) for the examination of ferritic vessels.
2. This procedure includes the same essential variables as SwRI-PDI-AUT1 rev. 3 chg. 0.
3. The Specimen set used to demonstrate the procedure included specimens with a maximum thickness of 6.88" and 11.06" (excluding clad).
4. Based on the specimen set thickness, referenced in the previous comment, the "Thickness Range" specified as Range Demonstrated on page 1 of 3 includes the "90% of Maximum Thickness" allowance per Appendix VIII.
5. The minimum range of the supplement 4 volume starts at the "clad to base metal interface" (0.000) and extends into the base metal (supplement 6 volume).
6. Revision 1 of this procedure was qualified to extend cable lengths and increases the number of intermediate connectors.
7. Candidates qualified to earlier revisions of this procedure are also qualified to utilize this revision without requalification, within the bounds of their personal PDQS.

Limitations:

1. This procedure is qualified for detection only.



Performance Demonstration Initiative Program

Printed: 14-Aug-07
PDQS No: 554

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Specific Detail of Qualifications

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Date of Issue:	13-Aug-07	**Aquisition SW Type/Rev:**	AUT-CAL Software, 1.37
Category:	RPV	**Analysis SW Type/Rev:**	EDAS Software, 1.1
Scan Application:	Fully-Automatic		

The above procedure has met the requirements of The Performance Demonstration Initiative's Implementation of The American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section XI, Appendix VIII as stated in this document.

Date: 8/14/07

John G. Abbott
Performance Demonstration Initiative
Reactor Pressure Vessel Supervisor/Level III

Date: 8/14/07

Sherrie L. Whiddon
Performance Demonstration Initiative
Reactor Pressure Vessel Project Manager

This document is not authentic without a raised seal.