



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

June 15, 2018

Mr. Dean Curtland  
NextEra Energy  
Duane Arnold Energy Center  
3277 DAEC Road  
Palo, IA 52324-9785

SUBJECT: DUANE ARNOLD ENERGY CENTER – RELIEF REQUEST NO.  
NDE-R017 - FOURTH INSERVICE INSPECTION INTERVAL - DUANE ARNOLD  
ENERGY CENTER (EPID L-2017-LLR-0135)

Dear Mr. Curtland:

By letter dated October 31, 2017 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML17304B201), NextEra Energy Duane Arnold, LLC (the licensee) submitted relief request (RR) No. NDE-R017 to the U.S. Nuclear Regulatory Commission (NRC) for review and approval.

The RR is applicable to the fourth 10-year inservice inspection (ISI) interval at Duane Arnold Energy Center (DAEC) and addresses examination requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code), Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," for reactor pressure vessel and residual heat removal (RHR) welds.

Specifically, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, Section 50.55a(g)(5)(iii), the licensee requested to use the proposed alternative on the basis that compliance with the ASME Code requirements is impractical for DAEC.

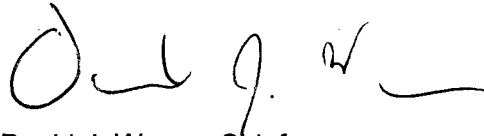
As set forth above, the NRC staff determines that it is impractical for the licensee to comply with the requirement, that the proposed inspection provides reasonable assurance of structural integrity of the subject components, and that granting relief pursuant to 10 CFR 50.55a(g)(6)(i) is authorized by law and will not endanger life or property of the common defense and security, and is otherwise in the public interest giving due consideration to the burden upon the licensee that could result if the requirements were imposed on the facility.

Accordingly, the NRC staff concludes that the licensee has adequately addressed all of the regulatory requirements set forth in 10 CFR 50.55a(g)(6)(i). Therefore, the NRC staff grants the use of Relief Request No. NDE-R017 at Duane Arnold, Unit 1 for the closeout of the fourth ISI interval which began November 1, 2006, and ended October 31, 2016.

All other requirements of the ASME Code, Section XI, for which relief has not been specifically requested remain applicable, including third party review by the Authorized Nuclear Inservice Inspector.

If you have any questions, please contact the Project Manager, Mahesh Chawla at 301-415-8371 or via e-mail at [Mahesh.chawla@nrc.gov](mailto:Mahesh.chawla@nrc.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "D. J. Wrona", with a long horizontal flourish extending to the right.

David J. Wrona, Chief  
Plant Licensing Branch III  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-331

Enclosure:  
Safety Evaluation

cc: ListServ



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REGULATORY REGULATION

RELIEF REQUEST NO. NDE-R017

FOURTH INSERVICE INSPECTION INTERVAL

DUANE ARNOLD ENERGY CENTER

NEXTERA ENERGY DUANE ARNOLD, LLC

DOCKET NO. 50-331

EPID: L-2017-LLR-0135

1.0 INTRODUCTION

By letter dated October 31, 2017 (Agencywide Documents Access and Management System (ADAMS) Accession Number ML17304B201), NextEra Energy Duane Arnold, LLC (the licensee) submitted Relief Request No. NDE-R017 to the U.S. Nuclear Regulatory Commission (NRC) for review and approval. The relief request is applicable to the fourth 10-year inservice inspection (ISI) interval at Duane Arnold Energy Center (DAEC) and addresses examination requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code), Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," for reactor pressure vessel (RPV) and residual heat removal (RHR) heat exchanger welds.

Specifically, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR), Part 50, Section 50.55a(g)(5)(iii), the licensee requested to use the proposed alternative on the basis that compliance with the ASME Code requirements is impractical for DAEC.

2.0 REGULATORY REQUIREMENTS

Pursuant to 10 CFR 50.55a(g)(4), ASME Code Class 1, 2, and 3 components (including supports) must meet the requirements, except design and access provisions and preservice examination requirements, set forth in ASME Code, Section XI, to the extent practical within the limitations of design, geometry, and materials of construction of the components. The regulations require that inservice examination of components and system pressure tests conducted during 120-month inspection intervals subsequent to the first inspection interval comply with the latest edition and addenda of the ASME Code incorporated by reference in 10 CFR 50.55a(a) 12 months before the start of the 120-month inspection interval.

The regulations in 10 CFR 50.55a(g)(5)(iii) state that if licensees determine that conformance with an ASME Code requirement is impractical for its facility, the licensee must notify the NRC

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and submit information in support of its determination. Determinations of impracticality must be based on the demonstrated limitations experienced when attempting to comply with the ASME Code requirements during the ISI interval for which the request is being submitted. Requests for relief must be submitted to the NRC no later than 12 months after the expiration of the 120-month inspection interval for which relief is sought.

The regulations in 10 CFR 50.55a(g)(6)(i) state that the NRC will evaluate determinations that ASME Code requirements are impractical. The NRC may grant such relief and may impose such alternative requirements as it determines are authorized by law, will not endanger life or property or the common defense and security, and are otherwise in the public interest giving due consideration to the burden upon the licensee that could result if the requirements were imposed on the facility.

Based on the above, and subject to the following technical evaluation, the NRC staff finds that regulatory authority exists for the licensee to request and the NRC to grant the relief requested.

### 3.0 TECHNICAL EVALUATION

#### 3.1 ASME Code Component Affected

The relief requests address the following components for the fourth ISI interval at DAEC. The examination category and item numbers are the ASME Code, 2001 Edition through 2003 Addenda.

<b>Component Description</b>	<b>Weld Number</b>	<b>ASME Code Class</b>	<b>ASME Code Table</b>	<b>Examination Category</b>	<b>Item Number</b>
RPV Course 1 Vertical Welds	VLA-A001 VLA-A002	1	IWB-2500-1	B-A	B1.12
RPV Meridional Head Welds	HMA-B001 HMA-B002 HMA-B003 HMA-B004 HMA-B005 HMA-B006 HMA-B007 HMA-B008 HMA-B009	1	IWB-2500-1	B-A	B1.22
RPV Head-to-Flange Weld	HCC-C001	1	IWB-2500-1	B-A	B1.40
RPV Nozzle-to-Shell Welds	FWD-D001 LCA-D001 MSC-D001 VIB-D001	1	IWB-2500-1	B-D	B3.90
RPV Threads in Flange	Ligaments (Stud Holes 1-60)	1	IWB-2500-1	B-G-1	B6.40
RHR Nozzle-to-Shell Weld	HEA-CB-2	2	IWC-2500-1	C-B	C2.21

3.2 ASME Code, Applicable Edition and Addenda

For the fourth 10-year ISI interval at Duane Arnold, Unit 1, the Code of record for the inspection of ASME Code Class 1, 2, and 3 components is ASME Code, Section XI, 2001 Edition through the 2003 Addenda.

3.3 Applicable Code Requirements

The relief requests address the following examination requirements from the ASME Code through 2003 Addenda.

<b>Component Description</b>	<b>ASME Code Table</b>	<b>Examination Method</b>	<b>Coverage</b>
RPV Course 1 Vertical Welds	IWB-2500-1	Volumetric	Essentially 100% of all welds
RPV Meridional Head Welds	IWB-2500-1	Volumetric	Essentially 100% of all welds
RPV Head-to-Flange Weld	IWB-2500-1	Volumetric and Surface	Essentially 100% of all welds
RPV Nozzle-to-Shell Welds	IWB-2500-1	Volumetric	All nozzles
RPV Threads in Flange	IWB-2500-1	Volumetric	All bolts, studs, nuts, bushings, threads in flange stud holes
RHR Nozzle-to-Shell Weld	IWC-2500-1	Volumetric and Surface	All nozzles at terminal ends of piping runs

3.4 Reason for Request

3.4.1 *RPV Course 1 Vertical Welds*

The licensee stated that the mechanized scanning device used for the examination of the Course 1 Vertical Welds encountered physical obstructions from permanent component integral attachments and instrumentation supports. Specifically, the licensee stated that examination volume requirement is limited because access to 18% of weld VLA-A001 and 13.5% of weld VLA-A002 was physically obstructed by the jet pump restraint bracket, the jet pump sensing brackets, the jet pump sensing line bracket, and the jet pump support plate. The licensee further stated that access to the outside surface is not possible due to the Sacrificial Shield (Bio-shield) surrounding the reactor vessel.

The licensee calculated that the coverage credit is 82.01% for weld VLA-A001 and 86.65% for weld VLA-A002, using a procedure and techniques qualified by demonstration to the ASME Code Section XI, Appendix VIII, 2001 Edition through the 2003 Addenda, Supplements 4 and 6.

3.4.2 *RPV Meridional Head Welds*

The licensee stated that the examination volume requirement is limited due to the obstruction from the RPV skirt support and control rod drive (CRD) penetrations.

The licensee calculated that the coverage credit is 80.3% for welds HMA-B001 through HMA-B006, 66% for weld HMA-B007, 43.47% for weld HMA-B008, and 47% for weld HMA-B009, using the latest procedures, techniques, equipment, and personnel qualified to the requirements of the Performance Demonstration Initiative (PDI) Program, in accordance with ASME Code Section XI, Appendix VIII, 2001 Edition through the 2003 Addenda.

#### 3.4.3 *RPV Head-to-Flange Weld*

The licensee stated that the examination consisted of the weld circumference between stud holes 40 to 60 only. Because of the head-to-flange configuration, the licensee stated that the weld is examined from the head side only and that the examination volume requirement is limited as this weld is examined in 1/3<sup>rd</sup> sections each ISI period.

The licensee calculated that the coverage credit is 76.05% for weld HCC-C001, using the NDE procedure that incorporates examination techniques qualified to the requirements of the PDI Program, in accordance with ASME Code Section XI, Appendix VIII, 2001 Edition through the 2003 Addenda. This procedure was approved under Relief Request NDE-R008 on January 31, 2007.

#### 3.4.4 *RPV Nozzle-to-Shell Weld*

The licensee stated that the examination volume requirement is limited due to the RPV nozzle-to-shell configuration.

The licensee calculated that the coverage credit is 87.67% for weld FWD-D001, 63.71% for weld LCA-D001, 79.38% for weld MSC-D001, and 82.4% for weld VIB-D001, using the latest procedures, techniques, equipment, and personnel qualified to the requirements of the PDI Program, in accordance with ASME Code Section XI, Appendix VIII, 2001 Edition through the 2003 Addenda.

#### 3.4.5 *RPV Threads in Flange*

The licensee stated that manual scanning of the 1 inch annulus surface around the RPV flange stud hole 1 through 60 is performed from the RPV flange surface and that the RPV flange surface limitation is due to interference from a machined step on the flange surface where the O-rings are seated which causes a loss of contact for the 0-degree ultrasonic (UT) examination. The licensee further stated that examination volume is limited when scanning the carbon steel base material surrounding the stud holes due to a machined step which prohibits access to approximately 12.85% of the required examination volume.

The licensee calculated that the coverage credit is 87.15% for the ligaments (studs 1-60), using the latest procedures, techniques, equipment, and personnel qualified to the requirements of the PDI Program, in accordance with ASME Code Section XI, Appendix VIII, 2001 Edition through the 2003 Addenda.

#### 3.4.6 *RHR Nozzle-to-Shell Weld*

The licensee stated that the examination volume requirement is limited due to interference from the adjacent shell to flange weld.

The licensee calculated that the coverage credit is 71% for weld HEA-CB-2, using the latest procedures, techniques, equipment, and personnel qualified to the requirements of the PDI Program, in accordance with ASME Code Section XI, Appendix VIII, 2001 Edition through the 2003 Addenda.

### 3.5 Proposed Alternative and Basis for Use

The alternative that the licensee has proposed is: 1) periodic system pressure test in accordance with ASME Section XI, Category B-P, Table IWB-2500-1 and ASME Section XI, Category C-H, Table IWC-2500-1, and 2) conduct ultrasonic examinations to the maximum extent possible.

The licensee stated that the inservice examinations of the selected welds and surfaces were performed in accordance with the requirements of 10 CFR Part 50.55a, plant Technical Specifications, and the ASME Section XI Code, 2001 Edition through the 2003 Addenda. The licensee stated that it performed the examinations to the extent possible. The licensee further stated that the UT techniques for each weld were reviewed to determine if additional coverage could be achieved for those areas limited from the inside surface and that the interior of the reactor vessel, including weld attachments, also received a visual examination in accordance with Table IWB-2500-1, Examination Categories B-N-1 and B-N-2. The licensee stated that: 1) the examination of the subject welds during the fourth 10-year ISI Interval reactor vessel examination did not identify any flaws, and 2) the VT-1 and VT-3 visual examinations revealed no relevant indications.

The licensee stated that there is no plant-specific or industry operating experience regarding potential degradation of the subject welds included in this relief request. The licensee further stated that, in the unlikely event of a through wall flaw occurrence, leakage monitoring inside containment is provided by the reactor cavity (containment) sump monitoring system, which has high level and alert status alarms in the control room. The licensee stated that this system has required monitoring at least once every 12 hours per Technical Specifications requirements.

The licensee stated that the extent of the examination volume achieved ultrasonically and the system pressure tests provided assurance of an acceptable level of quality and safety.

### 3.6 Duration of Proposed Alternative

The relief request is applicable to the Duane Arnold Unit 1 fourth ISI Interval which began November 1, 2006 and ended October 31, 2016.

### 3.7 NRC Staff Technical Evaluation

Pursuant to 10 CFR Part 50.55a(g)(5)(iii), the licensee submitted this request for relief from the examination requirements of the ASME Code, Section XI. The NRC staff evaluation of the licensee's request for relief focused on: 1) whether the ASME Code requirement is impractical, 2) whether the imposition of the ASME Code required inspections would result in a burden to the licensee, and 3) whether the licensee's examination coverage provides reasonable assurance of structural integrity and leak tightness of the subject welds.

#### 3.7.1 *RPV Course 1 Vertical Welds*

As previously stated, ASME Code, Section XI, Table IWB-2500-1, Category B-A, Item B1.12

requires volumetric examination of essentially 100 percent of these vertical welds. The licensee is requesting relief from this requirement because of the proximity of the shroud support, jet pump restraint brackets, and jet pump sensing brackets and because access to the outside surface is not possible due to the Bio-shield surrounding the reactor vessel. The licensee stated that the weld was examined from both sides of the weld, in both parallel and perpendicular directions and that UT revealed no indications in either weld.

The NRC staff reviewed the licensee's diagram of the RPV showing the location of the welds and the shroud and jet pump components, as well as detailed drawings showing the areas for which examination access is limited. The NRC staff concludes that the weld volume identified by the licensee is inaccessible, and therefore, it is impractical for the licensee to comply with the specified requirement. The licensee stated that it was not possible to remove the obstructions without significant work, increased radiation, and/or damage to the plant. The NRC staff determined that this would be a burden on the licensee if the specified requirement was imposed. Furthermore, the licensee included measurements and calculations that were used to determine the stated examination coverages. The NRC finds that the UT procedure and techniques were qualified by demonstration to the 2001 Edition of the ASME Code through the 2003 Addenda, Section XI, Appendix VIII, Supplements 4 and 6 in accordance with the requirements of 10 CFR 50.55a(b)(2)(xv) and verified that the licensee achieved the maximum coverage practical without burdensome and extensive alterations based on its evaluation of the licensee's schematics and calculations.

Based on the above discussion, the NRC staff determined that obtaining the ASME Code required examination volume is impractical. Significant modification would be needed for ASME Code compliance, which imposes a burden upon the licensee. The staff also determined that the licensee performing volumetric examination to the maximum extent possible and the required system pressure tests and leakage monitoring inside the containment provides reasonable assurance of the structural integrity of the subject welds.

### 3.7.2 *RPV Meridional Head Welds*

As previously stated, ASME Code, Section XI, Table IWB-2500-1, Category B-A, Item B1.22 requires volumetric examination of essentially 100 percent of these meridional welds. The licensee is requesting relief from this requirement due to obstruction from the RPV skirt support and CRD penetrations. The licensee stated that the ultrasonic examinations revealed no indications in these welds.

The NRC staff reviewed the licensee's detailed drawings of the location of the welds and the RPV support skirt showing the areas for which examination access is limited. The NRC staff concludes that the weld volume identified by the licensee is inaccessible, and therefore, it is impractical for the licensee to comply with the specified requirement. The licensee stated that it was not possible to remove the obstructions without significant work, increased radiation, and/or damage to the plant. The NRC staff determined that this would be a burden on the licensee if the specified requirement was imposed. Furthermore, the licensee included measurements and calculations that were used to determine the stated examination coverages. The NRC staff finds that the UT procedure and techniques were qualified to requirements of the PDI Program, in accordance with ASME Code Section XI, Appendix VIII, 2001 Edition through the 2003 Addenda and verified that the licensee achieved the maximum coverage practical without burdensome and extensive alterations based on its evaluation of the licensee's schematics and calculations.



Based on the above discussion, the NRC staff determined that obtaining the ASME Code required examination volume is impractical. Significant modification would be needed for ASME Code compliance, which imposes a burden upon the licensee. The staff also determined that the licensee performing volumetric examination to the maximum extent possible and the required system pressure tests and leakage monitoring inside the containment provides reasonable assurance of the structural integrity of the subject welds.

### 3.7.3 *RPV Head-to-Flange Weld*

As previously stated, ASME Code, Section XI, Table IWB-2500-1, Category B-A, Item B1.40 requires volumetric and surface examination of essentially 100 percent of the RPV head-to-flange welds. The licensee is requesting relief from the volumetric examination coverage requirement because the weld is examined from the head side only due to the head-to-flange configuration and because the examination volume requirement is limited as this weld is examined in 1/3<sup>rd</sup> sections each ISI period. The licensee stated that the ultrasonic examinations revealed no indications in this weld. The licensee also stated that for the surface examination, magnetic particle examination was performed obtaining 100% coverage and revealed no recordable indications.

The NRC staff reviewed the licensee's detailed drawing of the top head assembly showing the location of the weld and vessel studs and ligaments. The NRC staff concludes that the weld volume identified by the licensee is inaccessible, and therefore, it is impractical for the licensee to comply with the specified requirement. The licensee stated that it was not possible to redesign the configuration without significant work, increased radiation, and/or damage to the plant. The NRC staff determined that this would be a burden on the licensee if the specified requirement was imposed. Furthermore, the licensee included measurements and calculations that were used to determine the stated UT examination coverages. The NRC staff finds that the UT procedure and techniques were qualified to requirements of the PDI Program, in accordance with ASME Code Section XI, Appendix VIII, 2001 Edition through the 2003 Addenda and verified that the licensee achieved the maximum coverage practical without burdensome and extensive alterations based on its evaluation of the licensee's schematics and calculations.

Based on the above discussion, the NRC staff determined that obtaining the ASME Code required volumetric examination volume is impractical. Significant modification would be needed for ASME Code compliance, which imposes a burden upon the licensee. The staff also determined that the licensee performing: 1) volumetric examination to the maximum extent possible, 2) visual inspection with 100% coverage, and 3) the required system pressure tests and leakage monitoring inside the containment provides reasonable assurance of the structural integrity of the subject weld.

### 3.7.4 *RPV Nozzle-to-Shell Weld*

As previously stated, ASME Code, Section XI, Table IWB-2500-1, Category B-D, Item B3.90 requires volumetric examination of essentially 100 percent of the RPV nozzle-to-shell weld. The licensee is requesting relief from this requirement due to the RPV nozzle-to-shell configuration. The licensee stated that the ultrasonic examinations revealed no indications in these welds.

The NRC staff reviewed the licensee's drawings of the scan limitations and location of the areas of incomplete coverages. The NRC staff concludes that the weld volume identified by the licensee is inaccessible, and therefore, it is impractical for the licensee to comply with the specified requirement. The licensee stated that it was not possible to redesign the configuration

without significant work, increased radiation, and/or damage to the plant. The NRC staff determined that this would be a burden on the licensee if the specified requirement was imposed. Furthermore, the licensee included measurements and calculations that were used to determine the stated examination coverages. The NRC staff finds that the UT procedure and techniques were qualified to requirements of the PDI Program, in accordance with ASME Code Section XI, Appendix VIII, 2001 Edition through the 2003 Addenda and verified that the licensee achieved the maximum coverage practical without burdensome and extensive alterations based on its evaluation of the licensee's schematics and calculations.

Based on the above discussion, the NRC staff determined that obtaining the ASME Code required examination volume is impractical. Significant modification would be needed for ASME Code compliance, which imposes a burden upon the licensee. The staff also determined that the licensee performing volumetric examination to the maximum extent possible and the required system pressure tests and leakage monitoring inside the containment provides reasonable assurance of the structural integrity of the subject welds.

#### 3.7.5 *RPV Threads in Flange*

As previously stated, ASME Code, Section XI, Table IWB-2500-1, Category B-G-A, Item B6.40 requires volumetric examination of essentially 100 percent of the 1 inch annular surface of flange surrounding each stud hole. The licensee is requesting relief from this requirement due to limitation to the RPV flange surface due to interference from a machined step on the flange surface where the O-rings are seated which causes a loss of contact for the 0-degree UT examination. The licensee stated that the ultrasonic examinations revealed no indications in these welds.

The NRC staff reviewed the licensee's detailed drawing of the reactor stub ligament and location of the areas of inadequate probe contact. The NRC staff concludes that the ligament area identified by the licensee is inaccessible, and therefore, it is impractical for the licensee to comply with the specified requirement. The licensee stated that it was not possible to remove the obstructions without significant work, increased radiation, and/or damage to the plant. The NRC staff determined that this would be a burden on the licensee if the specified requirement was imposed. Furthermore, the licensee included measurements and calculations that were used to determine the stated examination coverages. The NRC staff finds that the UT procedure and techniques were qualified to requirements of the PDI Program, in accordance with ASME Code Section XI, Appendix VIII, 2001 Edition through the 2003 Addenda and verified that the licensee achieved the maximum coverage practical without burdensome and extensive alterations based on its evaluation of the licensee's schematics and calculations.

Based on the above discussion, the NRC staff determined that obtaining the ASME Code required examination volume is impractical. Significant modification would be needed for ASME Code compliance, which imposes a burden upon the licensee. The staff also determined that the licensee performing volumetric examination to the maximum extent possible and the required system pressure tests and leakage monitoring inside the containment provides reasonable assurance of the structural integrity of the subject welds.

#### 3.7.6 *RHR Nozzle-to-Shell Weld*

As previously stated, ASME Code, Section XI, Table IWC-2500-1, Category C-B, Item C2.21 requires volumetric and surface examination of essentially 100 percent of the nozzle-to-shell weld. The licensee is requesting relief from this volumetric examination coverage requirement

due to interference from the adjacent shell to flange weld. The licensee stated that the ultrasonic examinations revealed no indications in this weld. The licensee also stated that for the surface examination, magnetic particle examination was performed obtaining 100% coverage and revealed no recordable indications.

The NRC staff reviewed the licensee's drawing of the nozzle-to-head configuration. The NRC staff concludes that the weld volume identified by the licensee is inaccessible, and therefore, it is impractical for the licensee to comply with the specified requirement. The licensee stated that it was not possible to redesign the configuration without significant work, increased radiation, and/or damage to the plant. The NRC staff determined that this would be a burden on the licensee if the specified requirement was imposed. Furthermore, the licensee included measurements and calculations that were used to determine the stated UT examination coverages. The NRC staff finds that the UT procedure and techniques were qualified to requirements of the PDI Program, in accordance with ASME Code Section XI, Appendix VIII, 2001 Edition through the 2003 Addenda and verified that the licensee achieved the maximum coverage practical without burdensome and extensive alterations based on its evaluation of the licensee's schematics and calculations.

Based on the above discussion, the NRC staff determined that obtaining the ASME Code required volumetric examination volume is impractical. Significant modification would be needed for ASME Code compliance, which imposes a burden upon the licensee. The staff also determined that the licensee performing: 1) volumetric examination to the maximum extent possible, 2) visual inspection with 100% coverage, and 3) the required system pressure tests and leakage monitoring inside the containment provides reasonable assurance of the structural integrity of the subject weld.

#### 4.0 CONCLUSION

As set forth above, the NRC staff determines that it is impractical for the licensee to comply with the requirement, that the proposed inspection provides reasonable assurance of structural integrity of the subject components, and that granting relief pursuant to 10 CFR 50.55a(g)(6)(i) is authorized by law and will not endanger life or property of the common defense and security, and is otherwise in the public interest giving due consideration to the burden upon the licensee that could result if the requirements were imposed on the facility. Accordingly, the NRC staff concludes that the licensee has adequately addressed all of the regulatory requirements set forth in 10 CFR 50.55a(g)(6)(i). Therefore, the NRC staff grants the use of Relief Request No. NDE-R017 at Duane Arnold, Unit 1 for the closeout of the fourth ISI interval which began November 1, 2006, and ended October 31, 2016.

All other requirements of the ASME Code, Section XI, for which relief has not been specifically requested remain applicable, including third party review by the Authorized Nuclear Inservice Inspector.

Principal Contributor: M. Yoo

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NDE -R017 - FOURTH INSERVICE INSPECTION INTERVAL - DUANE  
ARNOLD ENERGYCENTER (EPID L-2017-LLR-0135) DATED JUNE 15, 2018

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