



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

April 24, 2015

Mr. Mano Nazar
President and Chief Nuclear Officer
Nuclear Division
NextEra Energy
P.O. Box 14000
Juno Beach, FL 33408-0420

SUBJECT: ST. LUCIE PLANT, UNIT NO. 2 – RELIEF REQUEST NUMBER 14 –
ALTERNATIVE FROM EXAMINATION REQUIREMENTS FOR THE WELDS IN
THE CONTROL ELEMENT DRIVE MECHANISM HOUSING (TAC NO. MF4341)

Dear Mr. Nazar:

By letter dated June 30, 2014 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML14203A046), as supplemented by letter dated November 3, 2014 (ADAMS Accession No. ML14314A034), Florida Power & Light Company (FPL, the licensee) submitted Relief Request (RR) No. 14 to the U.S. Nuclear Regulatory Commission (NRC) for relief from the examination requirements of Table IWB-2500-1 and Subarticle IWB-2412(b)(2) of American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code), Section XI, 1998 Edition with Addenda through 2000, for welds in the control element drive mechanism housing at the St. Lucie Plant, Unit No. 2 (SL-2).

Specifically, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.55a(g)(5)(iii), the licensee requested relief and to use alternative requirements, for in-service testing items on the basis that the code requirement is impractical.

The NRC staff has reviewed RR No. 14 and determined that it is impractical for the licensee to comply with the inspection requirements of the ASME Code, Section XI. The NRC staff also determined that FPL demonstrated reasonable assurance of structural integrity and leak tightness of the subject welds.

Granting relief pursuant to 10 CFR 50.55a(g)(6)(i) is authorized by law, will not endanger life or property or 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 RR No. 14 at SL-2 for the third 10-year ISI interval, which commenced on August 8, 2003, and will end on August 7, 2013.

All other ASME Code, Section XI requirements for which relief was not specifically requested and approved remain applicable, including third-party review by the Authorized Nuclear Inservice Inspector.

M. Nazar

- 2 -

The bases for the NRC staff's conclusion are contained in the enclosed safety evaluation. If you have any questions, please contact the Project Manager, Farideh E. Saba, at 301-415-1447 or Farideh.Saba@nrc.gov.

Sincerely,

A handwritten signature in black ink that reads "Shana R. Helton". The signature is written in a cursive style with a large, stylized initial "S".

Shana R. Helton, Branch Chief
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-389

Enclosure:
Safety Evaluation

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELIEF REQUEST NUMBER 14 REGARDING

EXAMINATION OF WELDS IN CONTROL ELEMENT DRIVE MECHANISM HOUSING

ST. LUCIE PLANT, UNIT NO. 2

FLORIDA POWER AND LIGHT COMPANY

DOCKET NUMBER 50-389

1.0 INTRODUCTION

By letter dated June 30, 2014 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML14203A046) with supplement dated November 3, 2014 (ADAMS Accession No. ML14314A034), Florida Power & Light (FPL, the licensee) requested relief from the examination requirements of Table IWB-2500-1 and Subarticle IWB-2412(b)(2) of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code) Section XI, 1998 Edition with Addenda through 2000, for the welds in the control element drive mechanism (CEDM) housing.

Specifically, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) 50.55a(g)(5)(iii), the licensee requested to use the proposed alternative in Relief Request (RR) No. 14 on the basis that it is impractical to examine CEDM housing welds. This RR is applicable to the third 10-year inservice inspection (ISI) interval, which began on August 8, 2003, and ends on August 7, 2013.

2.0 REGULATORY EVALUATION

In the RR, the licensee requested authorization of an alternative to the requirements of Table IWB-2500-1 and Subarticle IWB-2412(b)(2) of the ASME Code, Section XI, pursuant to 10 CFR 50.55a(g)(5)(iii).

Pursuant to 10 CFR 50.55a(g)(4), the ASME Code Class 1, 2, and 3 components (including supports) must meet the requirements, except the design and access provisions and the preservice examination requirements, set forth in the ASME Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," to the extent practical within the limitations of design, geometry and materials of construction of the components.

Pursuant to 10 CFR 50.55a(g)(5)(iii), if the licensee has determined that conformance with certain ASME Code requirements is impractical for its facility, the licensee shall notify the Commission and submit, as specified in 10 CFR 50.4, information to support the determinations. Pursuant to 10 CFR 50.55a(g)(6)(i), the Commission will evaluate determinations under

Enclosure

paragraph (g)(5) of 10 CFR 50.55a that ASME Code requirements are impractical. The Commission 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 U.S. Nuclear Regulatory Commission (NRC) staff finds that it has the regulatory authority to authorize an alternative proposed by the licensee.

3.0 TECHNICAL EVALUATION

3.1 ASME Code Components Affected

The affected components are the welds in the CEDM housing. The welds are classified as ASME Code Class 1, Examination Category B-O, Item No. B14.10, in accordance with the ASME Code, Section XI, Table IWB-2500-1.

3.2 Applicable Code Edition and Addenda

The code of record is the ASME Code, Section XI, 1998 Edition with 2000 Addenda.

3.3 Applicable Code Requirement

ASME Code, Section XI, Table IWB-2500-1, Examination Category B-O, Item No. B 14.10, requires volumetric or surface examination of 10 percent peripheral CEDM housing welds.

ASME Code, Section XI, IWB-2412(b)(2), requires that when items or welds are added during the second period of an ISI interval, at least 25 percent of the examinations required by the applicable examination category and item number for the added items or welds shall be performed during the third period of the ISI interval.

3.4 Proposed Alternative

FPL replaced the original reactor vessel head (RVH) during the second period of the third 10-year ISI interval in 2007. The replacement RVH contains 91 CEDM housings. Of the 91 CEDM housings, 32 are classified as the periphery CEDMs. Each CEDM housing contains five full penetration butt welds (weld numbers 1 through 5). FPL is required to perform either a volumetric or surface examination of all five welds of at least one peripheral CEDM housing (25 percent of 10 percent of 31 peripheral housings) during the third period of the third 10-year ISI interval in accordance with the ASME Code, Section XI, Table IWB-2500-1, and Subarticle IWB-2412(b)(2).

In lieu of performing examinations in accordance with the ASME Code, Section XI, under the proposed alternative, FPL performed the following: (a) a surface examination of weld number 5 on two CEDM housings, (b) a bare metal visual examination of the entire reactor pressure vessel surface and head to penetration interface for evidence of leakage, and (c) a VT-2 visual

examination of all remaining CEDM housings associated with the system leakage test of the reactor coolant pressure boundary conducted prior to startup from every refueling outage.

3.5 Basis for Use

Configuration of the CEDM Housing

The CEDM housing consists of the upper pressure housing, motor housing and coil stack assemblies, seismic shroud assembly, and cooling shroud assembly.

The motor housing assembly contains the motor assembly. The coil stack assembly with electromagnetic coils and grippers is mounted outside of the motor housing assembly. The motor housing assembly is fabricated from Type 403 stainless steel with upper end fittings of 348 stainless steel and lower end fittings of alloy 690.

The seismic shroud assembly extends from the top of the coil stack assembly to the top of the upper pressure housing.

The cooling shroud assembly surrounds the coil stack assembly, producing an annulus through which air can flow.

CEDM weld numbers 1 and 2 are located in the upper and lower part of the upper pressure housing, respectively. Both welds are covered by the seismic shroud assembly. CEDM weld numbers 3 and 4 are located in the upper and lower part of the motor housing assembly, respectively. Both welds are covered by the coil stack assembly and cooling shroud assembly. CEDM weld number 5 is located between the lower part of the motor housing assembly and the top of the reactor vessel penetration nozzle. Weld number 5 is not covered by any shroud and is accessible for examination.

Impracticality of Compliance

FPL stated that only CEDM weld number 5 is accessible for surface or volumetric examination. FPL further stated that it is not possible to perform the surface or volumetric examinations of CEDM weld numbers 1 through 4 without significant RVH disassembly.

FPL explained that direct access to the CEDM weld numbers 1 through 4 requires extensive disassembly of the CEDM coil stack assembly and seismic shroud assembly that covers the CEDM pressure and motor housings. FPL noted that these activities would be considered a high risk, because they involve disassembly of sensitive electrical components that position control rods that function to control reactivity and also have a safe shutdown function. There is also the risk of damage to components during disassembly and restoration, as well as alignment and post-maintenance testing that could severely impact the plant with an extended off-line condition to properly obtain long lead replacement parts, if required.

FPL further explained that access inside the RVH service structure that surrounds all 91 CEDMs and acts as part of the seismic supported RVH ductwork is required to perform inspections on CEDM weld numbers 2, 3, and 4. To gain access to these welds would require service structure modifications, a significant level of service structure disassembly, or removal entirely.

Any modification would be a significant level of effort, as the service structure is an engineered structure.

According to FPL, removal and reinstallation of the CEDM coil stacks and sensitive control rod position indicators would also require post-maintenance testing that could not be performed until reactor vessel reassembly. Although testing of the CEDM assembly is a normal part of startup testing, the possibility of a post-maintenance testing failure is increased as a result of handling these sensitive components.

FPL estimated that the disassembly, examination, and re-assembly of the CEDM housing could result in 3.7 roentgen equivalent man of radiological dose.

Welding and Weld Material

FPL stated that the replaced CEDM housings use material that is resistant to primary water stress corrosion cracking (PWSCC). The CEDM upper pressure housing sub-components and weld numbers 1 and 2 are made of 316/316L austenitic stainless and are the same grade as previously used at St. Lucie Plant, Unit No. 2 (SL-2) without any service-related degradation. The replacement weld joint designs are in compliance with the design, fabrication, inspection, and testing requirements of the ASME Code, Section III, 1998 Edition, through the 2000 Addenda for Class 1 appurtenances.

FPL explained that the replaced CEDM motor housing is similar to the original CEDM motor housing, except the alloy 600 material and weld material (weld numbers 3, 4, and 5) have been replaced with alloy 690 material and alloy 52/152 weld material, which have superior resistance to PWSCC.

FPL used the gas tungsten arc welding (GTAW) process to construct the CEDM housings.

Examination History

FPL performed preservice surface examinations (liquid penetrant) of all five welds of all 91 CEDM housings prior to placing the new RVH into operation in accordance with the requirements of ASME Code, Section III, 1989 Edition, No Addenda.

FPL also performed a preservice volumetric (radiography) examination of all five welds of all 91 CEDM housings at the completion of fabrication in accordance with the ASME Code, Section III, Subarticle NB-5111(a).

For the ISI, FPL used the solvent removable visible dye technique and the acceptance criteria of the ASME Code, Section XI, IWB-3523, to examine the surface of two CEDM weld number 5 during the third period of the third ISI interval.

FPL performed the required VT-2 examination of all CEDM housings from the 62-foot containment elevation and looking down from the platform above the CEDM housings.

FPL performs a visual examination at the beginning of each outage prior to RVH disassembly. The inspection is also performed from the incore instrument column access doors inside the RVH shroud during disassembly for evidence of leakage, as well as all the accessible CEDMs.

Additionally, during the third refueling outage after installation of the replacement RVH (August 2012), FPL performed a bare metal visual inspection in accordance with the requirements of ASME Code Case N-729-1, as modified by 10 CFR 50.55a, of the entire head surface and the CEDM to RVH interface for evidence of leakage.

FPL did not identify any leakage in previous examinations.

Potential for Degradation

FPL stated that austenitic stainless steel weld material used in weld numbers 1 and 2, and alloy 690 weld material used in welds 3, 4, and 5, are resistant to PWSCC in the controlled reactor coolant system (RCS) environment. FPL noted that while residual stresses are always present as a result of welding, the inside diameter stresses are minimized, since all welding is performed from the component outside diameter, and the small diameter precludes the possibility for inside diameter repairs.

FPL stated that the RCS chemistry is controlled to reduce oxygen to less than 5 parts per billion (ppb) during normal operation. Contaminants known to increase the susceptibility of austenitic stainless steels are also strictly controlled in the RCS environment by technical specifications (TSs). The low temperature of the CEDM column also tends to decrease the susceptibility to stress corrosion cracking mechanisms.

Operating Experience

FPL noted that Combustion Engineering designed latch driven CEDMs with butt welds used in SL-2 have had excellent service performance history. FPL stated that it did not identify operational failures of CEDM butt welds of the design described above in the Institute of Nuclear Power Operations database.

RCS Leakage Detection Capability

FPL noted that because stress corrosion cracking is a time dependent degradation mechanism, if a CEDM housing or weld leaks, there would be time for detection prior to a 360 degree circumferential break to occur. FPL stated that SL-2 has several methods for early detection of RCS leakage prior to a guillotine break, which is highly unlikely.

According to FPL, the primary method for quantifying and characterizing RCS leakage is by means of a reactor coolant water inventory balance. FPL performs the inventory balance in accordance with SL-2 TS 4.4.6.2.1c. at least once every 72 hours, except when operating in the shutdown cooling mode. However, the surveillance procedure requires the inventory balance calculation be performed once every 24 hours. FPL noted that its water balance inventory method can determine RCS leakage to the nearest 0.01 gallons per minute (gpm).

FPL has implemented administrative action levels on the absolute value of Unidentified RCS Inventory Balance (from surveillance data).

FPL stated that these Action Levels trigger condition report initiation, various investigations of leakage up to and including containment entry to identify the source of the leakage.

According to FPL, RCS leakage can also be detected by three separate monitoring systems: (1) reactor cavity (containment) sump inlet flow monitoring system, (2) containment atmosphere radiation gas monitoring system, and (3) containment atmosphere radiation particulate monitoring system. These systems have high level and alert status alarms in the control room and they are required to be monitored frequently per TS 3.4.6.1.

FPL explained that the containment atmosphere radiation monitors are capable of detecting a change of 1 gpm in the leak rate within 1 hour, using design basis reactor water activity assuming 0.1 percent failed fuel. The combination of TS required inventory balance, reactor cavity sump monitoring, and gas and particulate monitoring systems provide diverse monitoring of RCS leakage.

3.6 NRC Staff Evaluation

Pursuant to 10 CFR 50.55a(g)(6)(i), the NRC staff evaluated whether the ASME Code required inspection of the subject welds is impractical, imposing the inspection requirements could result in a burden upon the facility, and the structural integrity and leak tightness of the component is reasonably assured.

Impracticality of Compliance

The NRC staff has determined that it is impractical for FPL to perform either surface or volumetric examinations of CEDM weld numbers 1 through 4, because the design of the CEDM housing restricts the accessibility of these welds. To perform the required examination, FPL would need to disassemble the CEDM housing, such as removing the seismic shroud, cooling shroud, coil stack assembly, electrical cables, and other components. The removal and reinstall of these assemblies would expose the personnel to a radiological dose and is a burden to FPL. In addition, the assembly and disassembly of the CEDM housing may introduce human errors that may cause adverse effects on the operation of the CEDM.

Welding and Weld Material

The NRC staff finds that the material selection and weld design of the CEDM housing minimize the potential for cracking. The NRC staff notes that based on laboratory testing, stainless steel and alloy 690/52/152 metals used in the CEDM housing are less susceptible to PWSCC than alloy 600/82/182 metals. The GTAW process used in CEDM housing, in general, provides a better quality weld than the shielded metal arc welding process.

The subject welds are designed with a narrow V-groove configuration that uses less weld material, thereby reducing the chance of fabrication defects. Also, the V-groove weld would have minimum deposit at the inside surface of the housing. This reduces the chance of the weld in contact with water on the inside surface of the housing, which in turn minimizes the

potential for stress corrosion cracking. FPL also stated that the welds were made from the outside diameter of the housing and there were no weld repairs at the inside diameter of the housing during the fabrication. This also minimizes the chance of having flaws initiated at the site of the weld repair.

Examination History

The NRC staff notes that FPL performed preservice surface and volumetric examinations of all welds in all CEDM housings. FPL also performed ISI (surface examinations) of weld number 5 on two CEDM housings in 2012. FPL performs VT-2 examinations as part of the system leakage test during every refueling outage. FPL performs a visual examination of the RVH through the inspection port holes at the beginning of each refueling outage. In addition, FPL performed a bare metal visual examination in 2012.

The results of preservice examination performed demonstrate that the subject welds have no fabrication defects. The ISI performed in 2012 on the two number 5 welds shows that these two welds have no service-induced indications. So far, the examination results are favorable; however, FPL is still required to continue performing ISI examinations in accordance with the ASME Code, Section XI, for the remaining life of the plant.

Operating Experience

Based on literature searches, NRC staff identified the same two nuclear plants that have had degraded welds in the control rod drive mechanism (CRDM) housings that FPL has also identified as discussed above. Plant A has had degraded welds in CRDM housings since the 1980s. Plant A replaced CRDM housings in the 1990s and 2001 to eliminate weld degradations. Flaws were detected in the welds of the CRDM housing in 2001 and 2012. The flaws were caused by transgranular stress corrosion cracking. The major attributors to the degradation in the affected welds in Plant A are that (a) significant cold work was identified on the inside surface of the weld, (b) extra weld buildup at the inside surface for the alignment purpose and the CRDM was rubbing against the weld, and (3) possible elevated oxygen and chloride level in the environment at the degraded weld location.

Plant B detected flaws in welds in two spare CRDM housings in 1990. The flaws were caused by transgranular stress corrosion cracking. One of the degraded welds was also used for the alignment purpose. The failure analysis showed that the oxygen content in the spare CRDM housings was in the range of 300 to 1300 parts per million, because the affected CRDM housings were not vented and are dead legs. Dead legs are thought to retain higher oxygen and chloride levels from refueling outages than areas of the RCS, which are exposed to active flow. As a comparison, the bulk primary coolant has an oxygen content of 5 ppb at Plant B. The key attributors to the degraded weld could be elevated oxygen and chloride level in the environment at the degrade weld location and the impact of the pressure and/or temperature cycles.

The NRC staff did not identify degradation in CEDM housing welds in domestic nuclear plants that use the same type of the CEDM housing design used at SL-2.

Potential for Degradation

Although the operating experience of Plants A and B may be isolated and not generically applicable to SL-2's CEDM housings, the NRC staff is concerned about the potential degradation of weld numbers 1 through 5. The NRC staff focused its assessment on weld numbers 1 through 4, because they will not be examined by surface or volumetric examination as proposed in this RR. The NRC staff is particularly interested in weld number 1, because it is located high above the upper pressure housing where the environment may not be circulating sufficiently, which may cause concentration of oxygen content.

The NRC staff assessed the potential for degradation in CEDM weld numbers 1 through 4 as follows:

- (a) Weld numbers 1 through 4 do not have weld buildup at the inside surface of the housing and they are not used to provide alignment for the CEDM internals as the affected welds in Plants A and B discussed above. Therefore, potential cracking resulting from cold work (CEDM internals banging on the welds) or wear (CEDM internals rubbing) on these welds at SL-2 is not a concern.
- (b) The diameter of weld numbers 1 and 2 at SL-2 is smaller than the affected welds in the CRDM housing used in Plants A and B. Weld numbers 3 and 4 are made with the narrow V-groove design. A weld with a narrow groove design and a smaller diameter contains less weld metal than the normal groove weld with a large diameter. This minimizes the chance of fabrication defects. In addition, the V-groove weld design limits the exposure of the weld material on the inside surface of the housing. This minimizes the contact between the weld and primary water environment inside the housing, thereby reducing susceptibility to stress corrosion cracking.
- (c) As FPL stated above, the RCS chemistry is controlled to reduce oxygen to less than 5 ppb during normal operation. This low oxygen content will minimize the susceptibility of welds to PWSCC.
- (d) In the November 3, 2014, letter, FPL stated that the CEDM upper pressure housing sub-components and weld numbers 1 and 2 are 316/316L austenitic stainless and are the same grade as previously used at SL-2 without any service-related degradation. The CEDM motor housing is similar to the original CEDM motor housing, except that the alloy 600 and weld materials have been replaced with alloy 690 and its compatible alloy 52/152 weld material. Weld numbers 1 and 2 in the original CEDM housing did not experience degradation with about 24 years of operation. This implies that the environment in the upper pressure housing at SL-2 is not as adverse as compared to Plants A and B discussed above. Otherwise, these welds would have already been degraded.
- (e) Weld numbers 1 and 2 are made of 316L stainless steel filler metal, which is less susceptible to stress corrosion cracking than 304 or 316 stainless steel.
- (f) Weld number 1 is located at the upper part of the upper pressure housing and, therefore, supports minimal loads. This means that the stresses in weld number 1 from the applied

load would be small. Stress corrosion cracking is caused by a combination of high stresses, a susceptible material, and a corrosive environment. If stresses are low, or if the environment is not corrosive, the potential for stress corrosion cracking would be minimal.

- (g) As FPL stated, weld number 1 is the only weld potentially not in contact with coolant during operation. As the RCS pressure increases during startup, the trapped volume of air in the CEDM housing is squeezed until the remaining volume is reduced to a fraction of its original volume. During startup, FPL performs control rod drop testing that results in a rapid exchange of RCS coolant, with the coolant in the CEDM housing, to further reduce the air volume at the weld number 1 location in the upper pressure housing. Eventually, the gas pocket would be expected to nearly disappear during plant operations as the gas was forced into solution and exchanged with the bulk RCS coolant. The mixture of coolants and dissipation of the gas would reduce the oxygen level at the upper region of the upper pressure housing, thereby minimizing the potential for degradation at weld number 1.
- (h) Weld numbers 3 and 4 in the replaced CEDM housing are made of alloy 52/152 filler material, which is known to be less susceptible to PWSCC as compared to alloy 82/182 filler material, which was used in the original CEDM housing. FPL did not report degradation in weld numbers 3 and 4, which use the alloy 82/182 filler material, in the original CEDM housing. Weld numbers 3 and 4, which use alloy 52/152 filler material in the replaced CEDM housing, would be less likely to be degraded.
- (i) The NRC staff determined that a guillotine break at the subject welds would not be likely, because they are fabricated with either stainless steel or alloy 690 material that have sufficient fracture toughness to resist catastrophic failure, based on operating experience and laboratory tests.

Based on the above, the NRC staff finds that the potential for degradation in weld numbers 1 through 4 is small.

RCS Leakage Detection Capability

The NRC staff determines that as a defense-in-depth measure, if a through-wall leak developed in the CEDM housing welds, FPL would be able to detect the leak based on the following methods: (1) reactor coolant water inventory calculations, (2) the reactor cavity (containment) sump inlet flow monitoring system, (3) the containment atmosphere radiation gas monitoring system, and (4) the containment atmosphere radiation particulate monitoring system. The NRC staff notes that FPL also has stringent administrative leakage limits. This means that the plant personnel would take appropriate actions earlier before the leak rate reaches the TS leakage limit of 1 gpm. The corrective actions performed early would reduce the challenges to the structural integrity of the housings. Therefore, the NRC staff finds that the diverse RCS leakage detection systems and administrative leakage limits safeguard the structural integrity of the CEDM housings.

4.0 CONCLUSION

As set forth above, the NRC staff determined that it is impractical for the licensee to comply with the inspection requirements of the ASME Code, Section XI. The NRC staff also determined that FPL has demonstrated reasonable assurance of structural integrity and leak tightness of the subject welds as discussed above.

Granting relief pursuant to 10 CFR 50.55a(g)(6)(i) is authorized by law, will not endanger life or property or 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 RR No. 14 at SL-2 for the third 10-year ISI interval, which commenced on August 8, 2003, and will end on August 7, 2013.

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

Principal Contributor: John Tsao

Date: April 24, 2015

M. Nazar

- 2 -

The bases for the NRC staff's conclusion are contained in the enclosed safety evaluation. If you have any questions, please contact the Project Manager, Farideh E. Saba, at 301-415-1447 or Farideh.Saba@nrc.gov.

Sincerely,

/RA/

Shana R. Helton, Branch Chief
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-389

Enclosure:
Safety Evaluation

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