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

May 27, 2016

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. 1 – INSERVICE INSPECTION PLAN FOURTH 10-YEAR INTERVAL RELIEF REQUEST NO. 10, REVISION 0 (CAC NO. MF6685)

Dear Mr. Nazar:

By letter dated August 27, 2015 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15251A209), as supplemented by a letter dated April 21, 2016 (ADAMS Accession No. ML16120A050), Florida Power and Light Company submitted a request for relief to the U.S. Nuclear Regulatory Commission (NRC), proposing an alternative to certain American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (ASME Code), Section XI requirements at the St. Lucie Plant Unit No. 1 (SL-1). Relief Request (RR) No. 10 (RR-10) pertains to the examination requirements for Control Element Drive Mechanism (CEDM) housing welds at SL-1.

Specifically, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.55a(z)(2), the licensee proposed an alternative examination procedure on the basis that complying with the specified requirement would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

The NRC staff has reviewed the subject request and concludes, as set forth in the enclosed safety evaluation, that the ASME Code required examinations of the CEDM housing welds would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety for SL-1. Therefore, the NRC staff authorizes the use of the proposed alternative in RR-10 at SL-1 for the fourth 10-year Inservice Inspection interval, which commenced on February 11, 2008, and will end on February 10, 2018.

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

If you have any questions, please contact Perry H. Buckberg at 301-415-1383 or Perry.Buckberg@nrc.gov.

Sincerely,

Benjamin G. Beasley, Chief
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-335

Enclosure:
Safety Evaluation

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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELIEF REQUEST NUMBER 10 REGARDING

EXAMINATION OF WELDS IN CONTROL ELEMENT DRIVE MECHANISM HOUSING

ST. LUCIE PLANT UNIT NO. 1

FLORIDA POWER AND LIGHT COMPANY

DOCKET NUMBER 50-335

1.0 INTRODUCTION

By letter dated August 27, 2015 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15251A209) as supplemented by a letter dated April 21, 2016 (ADAMS Accession No. ML16120A050), Florida Power & Light (FPL, the licensee) requested relief from the examination requirements of Table IWB-2500-1 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 the welds in the control element drive mechanism (CEDM) housing at St. Lucie Plant, Unit 1 (SL-1).

Specifically, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.55a(z)(2), the licensee requested to use the proposed alternative in Relief Request (RR) No. 10 (RR-10) on the basis that to examine specific CEDM housing welds creates a hardship or causes unusual difficulty without a compensating increase in the level of quality or safety.

2.0 REGULATORY EVALUATION

In the RR, the licensee requested to use a proposed alternative to the requirements of Table IWB-2500-1 of the ASME Code, Section XI, pursuant to 10 CFR 50.55a(z)(2).

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, to the extent practical within the limitations of design, geometry and materials of construction of the components.

It states, in part, in 10 CFR 50.55a(z), that alternatives to the requirements of paragraph (g) of 10 CFR 50.55a may be used, when authorized by the U.S. Nuclear Regulatory Commission (NRC), if the licensee demonstrates (1) the proposed alternatives would provide an acceptable level of quality and safety or (2) compliance with the specified requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

Enclosure

Based on the above, and subject to the following technical evaluation, the 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 housings. 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, 2001 Edition with 2003 Addenda.

3.3 Applicable Code Requirement

ASME Code, Section XI, Table IWB-2500-1, Examination Category B-O, Item No. B14.10, requires volumetric or surface examination of 10 percent of peripheral CEDM housings.

3.4 Proposed Alternative

FPL stated that they propose performing nondestructive examination of 15 CEDM weld number 5 locations (as opposed to examining 15 welds on 3 CEDMs) of the periphery to align with the ASME Table IWB-2500-1, Category B-O, B14.10 requirement of 10% of the periphery CEDM housings as an alternative providing an acceptable level of quality and safety. This is in lieu of inspecting all 5 welds on 3 of the periphery CEDMs in order to meet the requirements of the ASME Code.

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.

Hardship Due to 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 reactor vessel head (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 if an extended off-line condition to properly obtain long-lead replacement parts is required.

FPL further explained that access inside the RVH service structure that surrounds all 69 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 postmaintenance 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 postmaintenance 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 3.36 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 SL-1 without any service-related degradation. The replacement weld joint designs are in compliance with the design, fabrication, inspection, and testing requirements of the original Construction Code, 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 69 CEDM housings prior to placing the new RVH into operation. The equipment, procedures and personnel used for the inspections were qualified in accordance with the requirements of ASME Code, Section XI, Appendix VIII.

FPL also performed a preservice volumetric (radiography) examination of all five welds of all 69 CEDM housings at the completion of fabrication. The equipment, procedures and personnel used for the inspections were qualified in accordance with the ASME Code, Section XI, Appendix VIII.

Additionally, after installation of the replacement RVH (August 2005), FPL performed two (in 2010 and 2015) bare metal visual inspections of the entire head surface and the CEDM-to-RVH interface for evidence of leakage in accordance with the requirements of ASME Code Case N-729-1, as modified by 10 CFR 50.55a,

FPL performs a visual walkdown examination after shutdown and at the beginning of startup for each refueling outage to look for leakage or other abnormal conditions. FPL states that they perform a visual examination at the beginning of each outage prior to RVH disassembly. This examination is performed from the upper cavity elevation utilizing the inspection ports surrounding the vessel head. 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 of the accessible CEDMs. In addition to general recording requirements, the procedure requires "evidence of leakage or indeterminate inspections shall be indicated with an asterisk and recorded." Any evidence of leakage is required to be entered in the corrective action program and dispositioned. While this examination does not require VT-2 qualified personnel, typically the personnel utilized are VT-2 qualified.

At the end of each refueling outage, with the system at normal operating temperature and normal operating pressure (NOT/NOP), FPL performs the required Class 1 VT-2 examination of all CEDM housings. These inspections take place after a 4-hour hold at NOT/NOP after reactor vessel re-assembly and occur from the 62-foot containment elevation, looking down from the platform above the CEDM housings.

FPL did not identify any leakage in its 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. FPL noted that while CEDM weld number 5 is near the RVH, the CEDM weld number 1 has been measured to be below 135 degrees Fahrenheit (°F) when the reactor is at NOT).

<u>Operating Experience</u>

FPL noted that Combustion Engineering-designed latch driven CEDMs with butt welds used in SL-1 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.

<u>RCS Leakage Detection Capability</u>

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-1 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. SL-1 TS Surveillance Requirement (SR) 4.4.6.2.c now requires inventory balance be performed in accordance with the St. Lucie Surveillance Frequency Control Program, except when operating in the shutdown cooling mode. According to FPL however, the plant specific 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 now required to be monitored in accordance with the St. Lucie Surveillance Frequency Control Program per TSs 4.4.6.2.a and 4.4.6.2.b.

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(z)(2) the NRC staff evaluated whether the ASME Code-required inspection of the subject welds results in a hardship without a compensating increase in quality and safety. The NRC staff also evaluated whether the structural integrity and leak tightness of the component is reasonably assured through the use of the proposed alternative.

Hardship due to Compliance

The NRC staff has determined that it is a hardship 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 reinstallation of these assemblies would expose the personnel to a radiological dose and is a burden to FPL. In addition, damage or human errors during the assembly and disassembly of the CEDM housing 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 housings minimizes 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 on the 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. FPL also stated that the welds were made from the outside diameter of the housing and the small diameter precludes any weld repairs to the inside diameter of the housing. The NRC staff notes that weld repairs to the internal diameter of pipes tends to lead to tensile residual stresses in this area, which are a contributing factor to stress corrosion cracking. Therefore, the lack of any repairs to the internal diameter of the weld helps to decrease the chance of stress corrosion cracking in these areas.

Examination History

The NRC staff notes that FPL performed preservice surface and volumetric examinations of all welds in all CEDM housings in 2005 when the RVH was replaced. 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. Prior to start up after each refueling outage, with the system at NOP/NOT, the NRC staff notes that FPL performs the required VT-2 examination on all of the CRDMs, from the 62 foot containment elevation.

In addition, FPL performed a bare metal visual examination in 2010 and 2015, in accordance with the requirements of ASME Code Case N-729-1 as conditioned by 10 CFR 50.55a. The results of preservice examination performed demonstrate that the subject welds have no fabrication defects. The bare-metal visuals performed in 2010 and 2015 on the CRDM welds showed that these welds had no service-induced indications. So far, the examination results are favorable; however, FPL is still required to continue performing inservice inspections (ISIs) in accordance with the ASME Code, Section XI, for the remaining life of the plant.

Operating Experience

FPL has identified two plants that have had issues with degraded welds in the control rod drive mechanism (CRDM) housings. Literature searches performed by NRC staff have identified the same two plants, and have failed to identify any additional plants. Both of these plants use a CEDM of different design than those used at FPL. The CEDMs used at FPL are of the magnetic jack-type, while the other two plants that have experienced weld degradation issues use a screw-type CEDM. Plant A has experienced several incidences of 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 contributors 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 levels 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 purpose of alignment. 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 levels in the environment at the degraded weld location and the impact of the pressure and/or temperature cycles. Additionally, the screw-type CEDMs are known to have issues with trapping contaminants that lead to weld degradation. The NRC staff notes that the nickel alloys used in FPL's CEDMs are not susceptible to the stress corrosion cracking due to chlorides, as was the case at Plant B.

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-1.

Potential for Degradation

Although the operating experience of Plants A and B may be isolated and not generically applicable to SL-1's CEDM housings, the NRC staff considered 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 circulation is limited. This may cause oxygen content to remain high, and may lead to crack initiation.

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-1 is not a concern.

    The diameter of the CRDM housings at SL-1 weld numbers 1 and 2 is smaller than the CRDM housing used in Plants A and B. Consequently, there is less linear-length of weld metal in welds 1 and 2 at SL-1 than at 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 welds were made from the outside diameter of the housing and the small diameter precludes any weld repairs to the inside diameter of the housing. Therefore, the lack of any possible repairs to the internal diameter of the weld (and the lack of resulting tensile residual stresses) helps to decrease the chance of stress corrosion cracking in these areas.

(b) As FPL stated, the RCS chemistry is controlled to reduce oxygen to less than 5 ppb during normal operation. The NRC staff also notes that weld 1 is at a temperature below 135 °F during NOP/NOT. The low oxygen content, coupled with the low operating temperature, will minimize the susceptibility of welds to PWSCC.

(c) FPL stated that the CEDM upper pressure housing subcomponents and weld numbers 1 and 2 are 316/316L austenitic stainless and are the same grade as previously used at SL-1 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 approximately 29 years of operation. This implies that the environment in the upper pressure housing at SL-1 is not as adverse as compared to Plants A and B discussed above. Otherwise, these welds would have already been degraded.

(d) 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.

(e) 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. Also during startup, FPL performs control rod drop testing that results in a rapid exchange of RCS coolant with the coolant in the CEDM housing. This further reduces the air volume at the weld number 1 location in the upper pressure housing. Eventually, any remaining gas pocket would be expected to nearly disappear during plant operations as the gas is 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.

(f) 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 than 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.

(g) The NRC staff has determined that the use of alloy 690 and the 52/152 filler materials precludes stress corrosion cracking due to chlorides, as these alloys are not susceptible.

(h) 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 has 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 determines that the proposed alternative provides reasonable assurance of structural and leak tightness of the subject component and that complying with the specified requirement would result in hardship or unusual difficulty without a compensating increase in the level of quality or safety. Accordingly, the NRC staff concludes that the licensee has adequately addressed all of the regulatory requirements set forth in 10 CFR 50.55a(z)(2) Therefore, the NRC staff authorizes the use of RR-10 at SL-1 for the fourth 10-year ISI interval, which commenced on February 11, 2008, and will end on February 10, 2018.

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

Principal Contributors: Donald Becker
Perry Buckberg

Date:

If you have any questions, please contact Perry H. Buckberg at 301-415-1383 or Perry.Buckberg@nrc.gov.

Sincerely,

/RA/

Benjamin G. Beasley, Chief
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-335

Enclosure:
Safety Evaluation

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