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

January 30, 2014

Mr. Mano Nazar
Executive Vice President and
Chief Nuclear Officer
Florida Power and Light Company
P.O. Box 14000
Juno Beach, Florida 33408-0420

SUBJECT: ST. LUCIE PLANT, UNIT NO. 1 – RELIEF REQUEST NO. 7 REGARDING ALTERNATE REPAIR FOR INTAKE COOLING PIPING (TAC NO. MF2529)

Dear Mr. Nazar:

By letter dated August 5, 2013 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13220A029), as supplemented by letter dated August 30, 2013, and e-mail dated November 22, 2013 (ADAMS Accession Nos. ML13283A011 and ML13329A594, respectively), Florida Power and Light Company (the licensee) requested relief from certain requirements of American Society of Mechanical Engineers (ASME) *Boiler and Pressure Vessel Code* (Code) at the St. Lucie Plant, Unit No. 1 (St. Lucie Unit 1).

Specifically, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR), Part 50, Section 50.55a(a)(3)(ii), the licensee requested to use the proposed alternative in Relief Request No. 7, Revision 0, on the basis that compliance with the specified ASME requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety. Relief Request No. 7 proposes an alternative repair for the degraded intake cooling piping using bolted patch plates. The relief request is applicable to the fourth 10-year inservice inspection (ISI) interval, which ends on February 10, 2018.

On September 25, 2013, the U.S. Nuclear Regulatory Commission (NRC) staff verbally authorized (as documented in ADAMS Accession No. ML13268A510) the use of Relief Request No. 7 at St. Lucie Unit 1 for the remainder of the fourth 10-year ISI interval, which ends on February 10, 2018.

The NRC staff determines that the proposed alternative provides reasonable assurance of structural integrity and leak tightness of the intake cooling water piping, 1-30"-CW-29 and 1-30"-CW-30 (discharge piping downstream of Component Cooling Water Heat Exchangers only). The NRC staff finds that complying with the specified ASME Code requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety. Accordingly, the NRC staff concludes that the licensee has adequately addressed all of the regulatory requirements set forth in 10 CFR 50.55a(a)(3)(ii) and is in compliance with the requirements of the ASME Code, Section XI for which relief was not requested. Therefore, the NRC staff authorizes the use of Relief Request No. 7 at the St. Lucie Unit 1 for the remainder of the fourth 10-year ISI interval, which ends on February 10, 2018.

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

If you have any questions, please contact the Project Manager, Mr. Siva P. Lingam by phone at 301-415-1564 or via e-mail at Siva.Lingam@nrc.gov.

Sincerely,

Jessie F. Quichocho, Chief
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-335

Enclosure:
Safety Evaluation

cc w/encl: Distribution via Listserv

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELIEF REQUEST NO. 7

ALTERNATE REPAIR FOR INTAKE COOLING PIPING

FLORIDA POWER AND LIGHT COMPANY, ET AL.

ST. LUCIE PLANT, UNIT NO. 1

DOCKET NO. 50-335

1.0 INTRODUCTION

By letter dated August 5, 2013 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13220A029), as supplemented by letter dated August 30, 2013 and e-mail dated November 22, 2013 (ADAMS Accession Nos. ML13283A011 and ML13329A594, respectively), Florida Power and Light Company (the licensee) requested relief from certain requirements of American Society of Mechanical Engineers (ASME) *Boiler and Pressure Vessel Code* (Code) at St. Lucie Plant, Unit No. 1 (St. Lucie Unit 1).

Specifically, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR), Part 50, Section 50.55a(a)(3)(ii), the licensee requested to use the proposed alternative in Relief Request No. 7, Revision 0, on the basis that compliance with the specified ASME requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety. Relief Request No. 7 proposes an alternative repair for the degraded intake cooling piping using bolted patch plates. The relief request is applicable to the fourth 10-year inservice inspection (ISI) interval, which ends on February 10, 2018.

On September 25, 2013, the U.S. Nuclear Regulatory Commission (NRC) staff verbally authorized (as documented in ADAMS Accession No. ML13268A510) the use of Relief Request No. 7 at St. Lucie Unit 1 for the remainder of the fourth 10-year ISI interval, which ends on February 10, 2018. This safety evaluation documents the NRC staff's technical basis for the verbal authorization.

2.0 REGULATORY EVALUATION

Pursuant to 10 CFR 50.55a(g)(4), 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 (ISI) of Nuclear Power Plant Components," 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 the first 10-year interval and subsequent intervals comply with the requirements in the latest edition and addenda of Section XI of the ASME Code, incorporated by reference in 10 CFR 50.55a(b), 12 months prior to the start of the 120-month interval, subject to the conditions listed therein.

Section 50.55a(a)(3) of 10 CFR Part 50 states, in part, that alternatives to the requirements of paragraph (g) of 10 CFR 50.55a may be authorized by the NRC if the licensee demonstrates that: (i) the proposed alternative provides an acceptable level of quality and safety, or (ii) compliance with the specified requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

Based on the above, subject to the following technical evaluation, the NRC staff finds that regulatory authority exists to authorize the alternative proposed by the licensee.

3.0 TECHNICAL EVALUATION

3.1 Relief Request No. 7

The affected components are ASME Class 3 Intake Cooling Water (ICW) System 30-inch diameter piping, System 21, 1-30"-CW-29 and 1-30"-CW-30 (Discharge piping downstream of Component Cooling Water (CCW) Heat Exchangers only).

The licensee stated that the code of record for the fourth 10-year ISI interval is the ASME Code, Section XI, 2001 edition with addenda through 2003. USAS B31.7 Class 3, 1969 edition is the Construction Code for St. Lucie Unit 1. The ASME Code, Section III, Class 3, 1971 edition with addenda through summer 1973, is the code of record for St. Lucie Unit 1 based on reconciliation with the Construction Code.

The ASME Code, Section XI, Paragraph IWA-4421 of the 2001 edition with addenda through 2003 requires that defects shall be removed or mitigated in accordance with IWA-4422.1, which requires that a defect is considered removed when it has been reduced to an acceptable size.

The licensee stated that the safety-related ICW System is comprised of two redundant trains, train A (1-30"-CW-30) and train B (1-30"-CW-29). These lines are open ended discharge pipes to the ocean discharge canals. The nominal pipe size is 30-inches with a wall thickness of 0.375 inch and is made of A-155 KC-65 (equivalent to SA 106 Grade B) carbon steel. The buried ICW piping has a 1/8-inch thick internal liner of cement or epoxy to preclude the loss of internal pipe wall due to corrosion from seawater. The outer surface of the piping is coated with coal-tar epoxy. The ICW piping is qualified in accordance with ASME Code, Section III, Subsection ND criteria. Burial depths range from 4 feet 3 inches to 16 feet below grade.

The licensee performs single train internal pipe inspections each refueling outage, resulting in 100-percent inspection every other outage. The licensee inspects the subject piping in accordance with NRC Generic Letter 89-13, "Service Water System Problems Affecting Safety-Related Equipment." The routine inspection ensures that corrosion, erosion, protective coating failure, silting, and bio fouling do not degrade the performance of the ICW piping. The

licensee drains the pipe, removes a section to allow internal access, cleans the pipe surface, and visually examines the cement or epoxy liner. The licensee observes for signs of corrosion deposits, staining, cracks, missing lining, area blisters, peeling/delamination, surface irregularities, or discoloration. If degradation is observed on pipe base metal, the licensee uses ultrasonic testing to measure wall thickness.

Once the wall thickness corrodes to thinner than the ASME Code required minimum thickness, the licensee is required to either repair or replace the pipe in accordance with the ASME Code, Section XI. In lieu of the repair or replacement in accordance with the ASME Code requirement, the licensee proposed an alternative to install internal bolted patch plate to cover the damaged areas of the inside surface of the pipe. The licensee stated that the internal bolted patch plates are designed to meet the criteria of the applicable code of record, as required by ASME Code, Section XI, IWA-4221.

The licensee has installed several bolted patch plates at St. Lucie Unit 1, and is requesting relief to leave the existing bolted plates in place and to allow installation of additional bolted plates in the future to repair similarly damaged areas. The licensee stated that periodic inspections completed to date have not identified any degradation of the existing internal bolted plate repairs.

The licensee determined the minimum pipe wall thickness using design formulas of ASME Code, Section III and the criteria presented within Final Safety Analysis Report Table 3.9-3 for pressure stress and longitudinal bending stresses.

Before installing the bolted plate, the licensee cleans the defective area and fills the area with epoxy material to the profile of the pipe inside diameter. A section of the pipe lining centered on the affected area is removed. The licensee marks the bolt hole locations on pipe and ultrasonically inspects the pipe wall thickness in the degraded area to ensure that all readings outside of the areas of degradation are within the manufacturer's tolerance of nominal wall thickness. The licensee drills and taps 1/4-inch deep bolt holes into the inside surface of the pipe. The licensee installs the studs and applies epoxy to pipe beneath the closure plate area including corrosion holes previously filled and the gasket area. The gasket, closure plate, washers and nuts are installed before the epoxy hardens. The entire repair area is covered with epoxy coating and the coating is blended to provide smooth transitions to minimize flow turbulence.

After the bolted plate is installed, the licensee performs a visual inspection and a hammer test to determine acceptable bonding. If a patch is suspect based on visual examination or hammer test results, the patch is removed from the pipe surface for further examination.

The licensee stated that because the bolted patch plate is installed on the inside surface of the piping and it completely covers the damaged area with a gasket and plate, the damaged area is isolated from the corrosive environment. Also, the degraded area is covered with an epoxy coating prior to installing the plate, including filling the damaged areas for a smooth repair surface, and after the repair, further isolating the degraded area from the corrosion surface. The licensee noted that there is minimal potential for the degraded area to expand over time during service. The licensee stated that based on a typical corrosion rate of carbon steel exposed to seawater of 30 mils per year (mpy), the maximum extent of corrosion should the epoxy coating and gasket be breached to allow access to the original defect area would be

0.09 inch, assuming a 3-year inspection interval. The licensee further stated that the extent of the bolted plate beyond the defect area is always much greater than 0.09 inch so any additional corrosion of the defected area would be identified and corrected during the next inspection. The licensee noted that the minimum nominal thickness of the bolted plate is at least as thick as the undamaged piping so the potential corrosion of the plate is no greater than that of the undamaged piping.

The licensee proposed that the relief request is applicable to the St. Lucie Unit 1 fourth inservice inspection interval which began February 11, 2008, and ends February 10, 2018.

3.2 NRC Staff Evaluation

The NRC staff evaluated the design, installation, flaw evaluation, and inspection of the bolted patch plate repair and raised the following questions and concerns.

The NRC staff questioned any limitation on the use of the proposed repair. By letter dated August 30, 2013, the licensee stated that the bolted plate repair is only applicable to wall loss defects resulting from general corrosion and flow erosion. The licensee noted that the bolted plate repair is not applicable for any other types of defects (e.g., planar cracks) or any other local degradation mechanisms (e.g., stress corrosion cracking). The NRC staff finds this limitation is desirable and acceptable because the proposed bolted patch plate design is not applicable to planar flaws such as stress corrosion cracking.

The licensee stated that the open end of the subject pipe is discharged to the ocean. In the affected section of piping, the licensee estimated that the normal operation pressure range would be slightly less than 0 pounds per square inch gauge (psig) to 5.2 psig. Temperatures in the subject piping during normal operation vary a few degrees above seawater temperatures because there is little heat load on the component cooling water heat exchangers during normal operation. The licensee stated that the recorded minimum and maximum ocean water temperatures as 52 to 87 degrees F. Based on the low temperature and internal pressure, the NRC staff finds that the applied loading for the pipe would be low. As such, the NRC staff finds that it is acceptable that the bolted plate does not provide structural support to the pipe. Also, the bolted plate would experience insignificant loading because of the low energy operating conditions.

The proposed design specifies that the bolt hole drilled into the pipe wall will not exceed 1/4-inch deep to preserve the pipe minimum wall thickness requirement. The NRC staff questioned how the tolerance on the bolt hole depth is controlled so that the ASME Code required minimum pipe wall thickness will be maintained. By letter dated August 30, 2013, the licensee explained that the depth of the bolt holes is controlled and documented. The licensee stated that the ASME Code-required minimum pipe wall thickness based on the design pressure and temperature is 0.090 inch. The proposed repair specifies a minimum pipe wall thickness of greater than 0.350 inch to permit drilling of the bolt hole. With a specified bolt hole depth of 0.250 inches, the remaining pipe wall thickness will be 0.100 inch (0.350 inch - 0.250 inch) underneath the bolt hole. Based on the required minimum pipe wall thickness of 0.090 inch, a margin of 0.01 inch (0.100 - 0.090) is maintained. The licensee noted that the pipe wall thickness readings at the bolt hole locations range from 0.362 inch up to maximum of 0.435 inch. The NRC staff finds that the licensee has implemented appropriate

controls on the bolt hole depth to maintain a minimum margin of 0.01 inch such that the Code required minimum pipe wall thickness is ensured.

By letter dated August 30, 2013, the licensee explained that the design life of the bolted plate is the same as the pipe. To monitor the condition of the bolted plate, the licensee stated that it will inspect the pipe and bolted patch plates every other refueling outage based on a commitment dated January 10, 2013, "Clarification of NRC Commitment Regarding Generic Letter 89-13." The licensee would ultrasonically examine the pipe metal or plate where there is degradation.

The licensee demonstrated by analysis that reinforcement on the defect area of the pipe is not needed if the repair is applied from a minimum assumed hole size of 0.25 inch to a maximum assumed hole size of 30 inches. The licensee further explained that no reinforcement of the buried pipe is required when installing the bolted patch plate and no structural support of the pipe from the patch plate is credited. The NRC staff has reservations regarding applying the proposed repair to a 30-inch hole on the pipe. By letter dated August 30, 2013, the licensee explained that the stress calculation using a bounding 30-inch hole eliminates the need to re-calculate for each individual hole size. The licensee stated that it does not intend to cover a 30-inch hole with a bolted plate. The proposed alternative specifies that the plate thickness is maintained the same as the pipe wall thickness of 0.375 inch. As such, the size of the hole that the bolted plate can cover is limited. The licensee explained that at present, the largest qualified plate by area is the 11 inch X 11 inch plate on an approximately 9-inch corroded hole/area. The NRC staff finds that the 11 inch x 11 inch plate is acceptable as the maximum allowable size because it is supported by licensee's calculations. The NRC staff finds that the proposed relief request is not applicable to any plate size that exceeds 11 inch x 11 inch and a defect hole exceeding 9 inches in diameter.

Based on the maximum allowed plate of 11 inches x 11 inches with an area of 121 square inches and the maximum allowed defect size is a 9-inch hole with an area of 63.6 square inches, the plate design has a margin of 1.9 (121/63.6 = 1.9). The licensee stated that based on previously installed plates in the field, the margin is typically higher than 1.9 as a result of the presence of localized pitting instead of wide scale degradation. The NRC staff finds that the proposed design has considered a margin of at least 1.9. This margin will ensure that the defect area will not grow beyond the installed plate between examinations every 3 years. The NRC staff finds that the margin of 1.9 is acceptable

The proposed repair includes the use of a gasket and epoxy. These components are important to the overall integrity of the bolted plate repair. As such, the NRC staff questioned the qualification and integrity of the gasket and epoxy in the seawater environment. By letter dated August 30, 2013, the licensee explained that the gasket is cut from a sheet of 1/16-inch red rubber, which is Styrene Butadiene Rubber (SBR). Electric Power Research Institute Report NP-6608, May 1994, "Shelf Life of Elastomer Components" provides a shelf life of 32 years for SBR. The gasket is encapsulated between the carbon steel pipe, plate and epoxy material. The licensee explained that the gasket is not exposed to the seawater, air, sunlight, high temperatures or the pipe external environment and has a long shelf life. The NRC finds that based on the service conditions, the gasket is not expected to degrade significantly.

The licensee stated that the epoxy coatings used on the carbon steel surfaces of the internal piping and bolted plate are Carboline Splash Zone A-788 and Duromar SAR-UW. These are

solvent-free compounds that are formulated for both wet and underwater applications and will cure in either environment. The licensee used the coating to isolate the plate from the seawater environment and to fill the degraded pipe cavity. The coatings were smoothed by hand to provide an optimized surface for fluid flow resulting in a total coating thickness over the patch plate in excess of 3/8 inch. The licensee noted that these barrier coatings have service histories of over 25 years installed as immersion repair compounds protecting steel surfaces from corrosion.

The licensee explained that the epoxy compounds that were specified for this repair are subject to the internal seawater environment of the ICW system, which is within normal operating conditions for both epoxies. No elevated temperatures above 140 degrees fahrenheit or sunlight (ultraviolet radiation) are present to degrade epoxies. Both Carboline and Duromar compounds cure chemically by cross-linking and are inert or non-reactive when maintained in seawater at normal ICW operating conditions. The licensee stated that should epoxy compounds degrade, it would degrade locally and does not fail catastrophically. The licensee noted that the most likely cause of coating failure would be due to scissorization or the breaking of the cross linked bonds that cause embrittlement. This reaction is driven by elevated temperatures and time which are outside the operating conditions for the ICW system and the effects would be detected by visual inspection. Visual inspection of localized coating defects caused by scissorization will reveal cracking at which time physical examinations for embrittlement can be performed. The licensee stated that this is not considered a credible cause of coating failure in the operating seawater environment of the ICW system. The NRC staff finds that the gasket and epoxy are acceptable for use in the seawater environment as demonstrated by the operating experience and by their qualifications.

The licensee states that should the epoxy coating and gasket be breached and the original defect area is in contact with seawater the maximum extent of corrosion would be 0.09 inch, assuming a 3-year inspection interval with a corrosion rate of 30 mpy. The NRC staff noted that the licensee did not apply any safety factor to cover potential uncertainties when using a corrosion rate of 30 mpy. By letter dated August 30, 2013, the licensee explained that the 30 mpy was not used in the design of the repair; however, the repair is adequate for this corrosion rate without a safety factor. The licensee searched literature and found that the limiting corrosion rate of carbon steel in oxygen saturated flowing seawater is approximately 30 mpy. The NRC staff finds that even though the licensee did not use any safety factor to project the corrosion growth in the defect area, there is a margin between the bolted plate size and the hole size. In addition, the licensee will visually inspect the bolted plates every 3 years, which is adequate for monitoring the potential corrosion growth at the bolted plate and associated defect area.

The NRC staff questioned the potential for galvanic corrosion because the design involves different metals contacting each other. The subject pipe and the plate are made of carbon steel. The bolt and nut are made of low alloy steel, SA-193 Grade B7 and SA-194 Grade 2H, respectively. In the August 30, 2013, letter, the licensee noted that based on the data for galvanic or electromotive series for various metals and alloys exposed to seawater, electrode potentials for carbon steel and low alloy steel in seawater are approximately the same. Therefore, there would be minimal electrochemical driving force between them to facilitate measurable accelerated corrosion of the carbon steel. In addition, the licensee noted that a small area cathode (e.g., low alloy steel bolts) coupled to a large area anode (e.g., carbon steel bolted plate repair) provides a favorable configuration to minimize galvanic corrosion.

The NRC finds that based on the electromotive data and the design configuration, galvanic corrosion is not a concern with the proposed design.

The relief request stated that the bolted plate design may be used to repair a 100-percent through-wall defect. The NRC staff has reservations regarding repairing a 100-percent through-wall defect because the outside surface of the pipe may not have coating to protect the repaired location and the corrosion may continuously grow at the outside surface. By letter dated August 30, 2013, the licensee explained that the corrosion hole is cleaned and filled with epoxy material to the profile of the pipe inside diameter. The application of epoxy to the through-wall hole provides protection for the pipe and patch plate. The licensee stated that based on ultrasonic test readings around repair areas, external corrosion has not been observed. In the November 22, 2013, e-mail, the licensee clarified that the subject pipe has a cathodic protection system which provides corrosion resistance on the external surface of the pipe. In addition, the external surface of the pipe is covered with Coal-Tar epoxy coating to minimize corrosion. The NRC staff finds that if the external corrosion causes the repaired 100-percent through wall hole to exceed the size of the bolted plate, the periodic inspections will be able to detect such degradation and the licensee will take corrective action. The NRC staff notes that the subject pipe discharges coolant into the ocean. The subject pipe can tolerate certain leakage without affecting plant safety. The NRC staff determines that this concern has been adequately addressed by the licensee.

With respect to the hardship of compliance to IWA-4000 of the ASME Code, Section XI, the licensee explained that removing localized wall thinning per IWA-4000 may result in a through-wall defect. This case and in those instances where a through-wall defect is discovered, would result in the potential for leakage due to damage to the external coating. If the external coating was not damaged during the defect removal, a traditional repair of cutting a hole and installing a welded rolled plate to return the piping to its original design condition is not possible as the pipe is buried and the outside of the pipe is not easily accessible. Welding would destroy the surrounding exterior coating and the location would prevent nondestructive examination of the exterior of the pipe. The NRC staff finds that the licensee could excavate the degraded buried pipe and repair it in accordance with the ASME Code. However, the NRC staff finds that an ASME Code repair, as compared to the proposed repair, would not increase the quality of the pipe and since the plates are not needed for structural integrity of the pipe, would not increase the safety of the plant. As the pipe discharges coolant into ocean, the NRC staff finds that requiring an ASME Code repair of the subject piping would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

In summary, the NRC staff finds that the proposed alternative will provide reasonable assurance of structural integrity and leak tightness of the subject pipe and is acceptable for use for the fourth ISI interval. However, the NRC staff finds that the proposed relief request is not applicable to any bolted patch plate size that exceeds 11 inch x 11 inch or a defect hole that exceeds 9 inches in diameter.

4.0 CONCLUSION

As set forth above, the NRC staff has determined that the proposed alternative provides reasonable assurance of structural integrity and leak tightness of the intake cooling water piping, 1-30"-CW-29 and 1-30"-CW-30 (discharge piping downstream of CCW Heat Exchangers only). The NRC staff finds that complying with the specified ASME Code

requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety. Accordingly, the NRC staff concludes that the licensee has adequately addressed all of the regulatory requirements set forth in 10 CFR 50.55a(a)(3)(ii) and is in compliance with the requirements of the ASME Code, Section XI, for which relief was not requested. Therefore, the NRC authorizes the use of Relief Request No. 7 at St. Lucie Unit 1 for the remainder of the fourth 10-year ISI interval which ends on February 10, 2018.

The NRC staff further concludes that the proposed relief request cannot be used for any bolted patch plate size that exceeds 11 inch x 11 inch or a defect area/hole that exceeds 9 inches in diameter.

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

Principal Contributor: John Tsao

Date: January 30, 2014

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

If you have any questions, please contact the Project Manager, Mr. Siva P. Lingam by phone at 301-415-1564 or via e-mail at Siva.Lingam@nrc.gov.

Sincerely,

/RA/

Jessie F. Quichocho, 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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