



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

March 20, 2014

Mr. C. R. Pierce
Regulatory Affairs Director
Southern Nuclear Operating Company, Inc.
P.O. Box 1295, Bin-038
Birmingham, AL 35201-1295

SUBJECT: VOGTLE ELECTRIC GENERATING PLANT, UNITS 1 AND 2 - REQUEST FOR ALTERNATIVES VEGP-ISI-ALT-05 AND VEGP-ISI-ALT-06 (TAC NOS. MF2596 AND MF2597)

Dear Mr. Pierce:

By letters dated August 29, 2012, November 25, 2013 and January 31, 2014, Southern Nuclear Operating Company (the licensee) submitted for U.S. Nuclear Regulatory Commission (NRC) approval, a request for alternatives (RFA) VEGP-ISI-ALT-05 and VEGP-ISI-ALT-06. Specifically, the licensee proposed alternatives pursuant to Section 50.55a(a)(3)(i) of Title 10 of the *Code of Federal Regulations* (10 CFR) to extend the ISI interval for examinations of the reactor pressure vessel (RPV) welds (Category B-A) as well as the nozzle-to-vessel welds and inner radius sections (Category B-D) from 10 to 20 years.

The NRC staff has reviewed the subject request, and concludes that the proposed alternative provides an acceptable level of quality and safety. Therefore, the NRC staff authorizes the proposed alternative in accordance with 10 CFR 50.55a (a)(3)(i). The NRC staff's safety evaluation is enclosed.

Sincerely,

A handwritten signature in cursive script, appearing to read "R. Pascarelli".

Robert Pascarelli, Chief
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-424 and 50-425

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
REQUESTS FOR RELIEF VEGP-ISI-ALT-05 AND VEGP-ISI-ALT-06
REGARDING THIRD TEN-YEAR INSERVICE INSPECTION PROGRAM INTERVAL
SOUTHERN NUCLEAR OPERATING COMPANY, INC.
VOGTLE ELECTRIC GENERATING PLANT, UNITS 1 AND 2
DOCKET NUMBERS 50-424 AND 50-425

1.0 INTRODUCTION

By letters dated August 29, 2012, November 25, 2013, and January 31, 2014, (Agencywide Document Access and Management System (ADAMS) Accession Numbers ML12243A248, ML13329A494, and ML14031A429 respectively), Southern Nuclear Operating Company, Inc. (SNC or the licensee) proposed an extension of the inservice inspection (ISI) interval requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code), Section XI, ISI Program for Vogtle Electric Generating Plant (VEGP), Units 1 and 2. Enclosure 1 of the submittal contains Relief Request VEGP-ISI-ALT-05 for Unit 1, and Enclosure 2 of the submittal contains Relief Request VEGP-ISI-ALT-06 for Unit 2, requesting to use an alternative to the requirements of the ASME Code, Section XI, Table IWB-2500-1.

Specifically, Relief Requests VEGP-ISI-ALT-05 and VEGP-ISI-ALT-06 propose alternatives pursuant to Section 50.55a(a)(3)(i) of Title 10 of the *Code of Federal Regulations* (10 CFR) to extend the ISI interval for examinations of the reactor pressure vessel (RPV) welds (Category B-A) as well as the nozzle-to-vessel welds and inner radius sections (Category B-D) from 10 to 20 years.

The current third ten-year interval ends on May 30, 2017 for both VEGP units.

2.0 REGULATORY EVALUATION

2.1 Regulations and Guidance

In accordance with 10 CFR 50.55a(g)(4), the licensee is required to perform ISI of ASME Code Class 1, 2, and 3 components and system pressure tests during the first 10-year interval and subsequent 10-year intervals that 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), subject to the limitations and modifications listed therein.

Enclosure

For the third ten-year ISI intervals at VEGP, the Code of record for the inspection of ASME Code Class 1, 2, and 3 components is the 2001 Edition through the 2003 Addenda of the ASME Code, Section XI. The regulation in 10 CFR 50.55a(a)(3) states, in part, that the Director of the Office of Nuclear Reactor Regulation may authorize an alternative to the requirements of 10 CFR 50.55a(g). There are two justifications for an alternative to be authorized. First, per 10 CFR 50.55a(a)(3)(i), the licensee must demonstrate that the proposed alternative would provide an acceptable level of quality and safety. For the second possible justification for an alternative to be authorized, described in 10 CFR 50.55a(a)(3)(ii), the licensee must show that following the ASME Code requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

Regulatory Guide (RG) 1.99, Revision (Rev.) 2, "Radiation Embrittlement of Reactor Vessel Materials," describes general procedures acceptable to the staff for calculating the effects of neutron radiation embrittlement of the low-alloy steels currently used for light-water-cooled RPVs.

RG 1.174, Rev. 1, "An Approach For Using Probabilistic Risk Assessment In Risk-Informed Decisions On Plant-Specific Changes To The Licensing Basis," describes a risk-informed approach, acceptable to the NRC, for assessing the nature and impact of proposed licensing basis changes by considering engineering issues and applying risk insights.

RG 1.190, "Calculational and Dosimetry Methods for Determining Pressure Vessel Neutron Fluence," describes methods and assumptions acceptable to the staff for determining the RPV neutron fluence.

2.2 Background

The ISI of Categories B-A and B-D components consists of visual and ultrasonic examinations intended to discover whether flaws have initiated, whether pre-existing flaws have extended, and whether pre-existing flaws may have been missed in prior examinations. These examinations are required to be performed at regular intervals, as defined in Section XI of the ASME Code.

2.3 Summary of WCAP-16168-NP-A, Rev. 2

In June 2008, the Pressurized Water Reactor Owners Group (PWROG) issued the NRC-approved topical report WCAP-16168-NP-A, Rev. 2, "Risk-Informed Extension of the Reactor Vessel In-Service Inspection Interval" (ML082820046), which is in support of a risk-informed assessment of extensions to the ISI intervals for Categories B-A and B-D components. Specifically, WCAP-16168-NP-A, Rev. 2 took data associated with three different PWR plants (referred to as the pilot plants), one designed by each of the three main vendors (Westinghouse, Combustion Engineering (CE), and Babcock and Wilcox (B&W)) for domestic PWR nuclear power plants, and performed studies on these pilot plants to justify the proposed extension of the ISI interval for Categories B-A and B-D components from 10 to 20 years.

The analyses in WCAP-16168-NP-A, Rev. 2 used probabilistic fracture mechanics (PFM) tools and inputs from the work described in NUREG-1806, "Technical Basis for Revision of the Pressurized Thermal Shock (PTS) Screening Limit in the PTS Rule (10 CFR 50.61)"

(ML061580318) and NUREG-1874, "Recommended Screening Limits for Pressurized Thermal Shock (PTS)" (ML070860156). The PWROG analyses incorporated the effects of fatigue crack growth and ISI. Design basis transient data was used as input to the fatigue crack growth evaluation. The effects of ISI were modeled consistent with a previously-approved PFM Code in WCAP-14572-NP-A, "Westinghouse Owners Group Application of Risk-Informed Methods to Piping Inservice Inspection" (ML012630327, ML012630349, and ML012630313). These effects were considered in the PFM evaluations, using the Fracture Analysis of Vessels - Oak Ridge (FAVOR) computer code (ML042960391). All other inputs were identical to those used in the PTS risk re-evaluation underlying 10 CFR 50.61a.

From the results of the studies, the PWROG concluded that the ASME Code, Section XI 10-year inspection interval for Categories B-A and B-D components in PWR RPVs can be extended to 20 years. Their conclusion from the results for the pilot plants was considered to apply to any plant designed by the three vendors as long as the critical, plant-specific parameters (defined in Appendix A of WCAP-16168-NP-A, Rev. 2) are bounded by the pilot plants.

2.4 Summary of the July 26, 2011, NRC Safety Evaluation (SE) for WCAP-16168-NP-A, Rev. 2

The original SE in WCAP-16168-NP-A, Rev. 2 that was published in 2008, was superseded by the July 26, 2011, SE (ML111600303) to address the PWROG's request for clarification of the information needed in applications utilizing WCAP-16168-NP-A, Rev. 2. The staff's conclusion in this latter SE indicates that the methodology presented in WCAP-16168-NP-A, Rev. 2 is consistent with RG 1.174, Rev. 1 and is acceptable for referencing in requests to implement alternatives to ASME Code inspection requirements for PWR plants in accordance with the limitations and conditions in the SE. In addition to showing that the subject plant parameters and inspection history are bounded by the critical parameters identified in Appendix A in WCAP-16168-NP-A, Rev. 2, the licensee's application must provide the following plant-specific information:

- (1) Licensees must demonstrate that the embrittlement of their RPV is within the envelope used in the supporting analyses. Licensees must provide the 95th percentile total through-wall cracking frequency ($TWCF_{TOTAL}$) and its supporting material properties at the end of the period in which the relief is requested to extend the ISI from 10 to 20 years. The 95th percentile $TWCF_{TOTAL}$ must be calculated using the methodology in NUREG-1874. The RT_{MAX-X} and the shift in the Charpy transition temperature produced by irradiation defined at the 30 ft-lb energy level, ΔT_{30} , must be calculated using the methodology documented in the latest revision of RG 1.99 or other NRC-approved methodology.
- (2) Licensees must report whether the frequency of the limiting design basis transients during prior plant operation are less than the frequency of the design basis transients identified in the PWROG fatigue analysis that are considered to significantly contribute to fatigue crack growth.
- (3) Licensees must report the results of prior ISI of RPV welds and the proposed schedule for the next 20-year ISI interval. The 20-year inspection interval is a maximum interval.

In its request for an alternative, each licensee shall identify the years in which future inspections will be performed. The dates provided must be within plus or minus one refueling cycle of the dates identified in the implementation plan provided to the NRC in PWROG letter OG-10-238 (ML11153A033).

- (4) Licensees with B&W plants must (a) verify that the fatigue crack growth of 12 heat-up/cool-down transients per year that was used in the PWROG fatigue analysis bound the fatigue crack growth for all of its design basis transients and (b) identify the design bases transients that contribute to significant fatigue crack growth.
- (5) Licensees with RPVs having forgings that are susceptible to underclad cracking and with RT_{MAX-FO} values exceeding 240 °F must submit a plant-specific evaluation to extend the inspection interval for ASME Code, Section XI, Category B-A and B-D RPV welds from 10 to a maximum of 20 years because the analyses performed in the WCAP-A are not applicable.
- (6) Licensees seeking second or additional interval extensions shall provide the information and analyses requested in Section (e) of 10 CFR 50.61a.

WCAP-16168-NP-A, Rev. 3, which contains this latter SE for WCAP-16168-NP-A, Rev. 2, was issued in October 2011 (ML11306A084, referred to as the WCAP-A in the rest of this SE).

3.0 PROPOSED ALTERNATES FOR VEGP, UNITS 1 AND 2

3.1 Description of Authorized Alternatives

In its August 29, 2012 letter, including Enclosure 1 for Unit 1's VEGP-ISI-ALT-05 and Enclosure 2 for Unit 2's VEGP-ISI-ALT-06, the licensee proposed to defer the ASME Code required Categories B-A and B-D weld ISI for VEGP, Unit 1 until as late as Spring 2026, and for Unit 2, until as late as Fall, 2026, plus or minus (\pm) one refueling cycle (RFO). Since the dates in the cover letter and its Enclosures 1 and 2 are not in the same form the NRC staff requested clarification in RAI-1. The licensee responded in its letter of November 25, 2013. The staff finds that the terminology "plus or minus one RFO" in VEGP-ISI-ALT-05 and VEGP-ISI-ALT-06 introduce uncertainty regarding the potential for the examinations to be scheduled later than the end of the extended third interval, which is May 30, 2027.

The NRC staff notes that if the examinations were planned to be are conducted as late as Spring 2026 for Unit 1 and Fall 2026 for Unit 2, plus one RFO, that this date would be beyond an extension of the third ISI interval to 20 years plus the one year period addressed by ASME Code Section XI, Paragraph IWA 2430(d)(1) of the 2001 Edition with 2003 Addenda. This authorization approves an extension of the schedule for the examinations to the end of the extended third interval, which is May 30, 2027, with no provision for a further extension pursuant to Paragraph IWA-2430(d)(1).

3.2 Components for Which Relief is Requested

The affected components are the subject plant RPVs and their interior attachments and core support structures. The following examination categories and item numbers from IWB-2500 and

Table IWB-2500-1 of the ASME Code, Section XI, are addressed in VEGP-ISI-ALT-05 and VEGP-ISI-ALT-06:

<u>Exam Category</u>	<u>Item Number</u>	<u>Description</u>
B-A	B1.11	Circumferential Shell Welds
B-A	B1.12	Longitudinal Shell Welds
B-A	B1.21	Circumferential Head Welds
B-A	B1.22	Meridional Shell Welds
B-A	B1.30	Shell-to-Flange Weld
B-A	B1.40	Head-to-Flange Weld
B-D	B3.90	Nozzle-to-Vessel Welds
B-D	B3.100	Nozzle Inner Radius Section

3.3 Basis for Proposed Alternatives

The licensee stated that the methodology used to demonstrate the acceptability of extending the inspection intervals for Examination Category B-A and B-D components is contained in the WCAP-A. This methodology used the estimated TWCF as a measure of the risk of RPV failure, and it was demonstrated that the inspection interval for the affected components can be extended from 10 to 20 years, meeting the change in risk guidelines in RG 1.174. The licensee addressed the plant-specific information discussed in Section 2.4 of this SE as follows:

- (1) A plant-specific analysis, with identified critical parameters and detailed TWCF calculations demonstrated that the VEGP RPVs' parameters are bounded by corresponding pilot plant parameters. The total TWCFs were calculated as $7.66E-14$ for Unit 1 and $1.22E-13$ for Unit 2, less than the value of $1.76E-08$ for the Westinghouse pilot plant in the WCAP-A.
- (2) The frequencies of the VEGP RPVs' limiting design basis transients are bounded by the frequencies identified in the PWROG fatigue analysis.
- (3) The results of the previous RPV inspections for the VEGP units are provided, which confirm that satisfactory examinations have been performed on the VEGP RPVs. The RPV examinations currently scheduled for 2015 for VEGP, Unit 1 and 2016 for VEGP, Unit 2 will be deferred until 2026, plus or minus one refueling cycle. The dates provided must be within plus or minus one refueling cycle of the date identified in PWROG letter OG-10-238, dated July 12, 2010.

Plant-specific information items (4), (5), and (6) have not been addressed by the licensee because they do not apply to VEGP, Units 1 and 2. Since VEGP units are bounded by the pilot plant application, the licensee concluded that use of this proposed alternative will provide an acceptable level of quality and safety and requested, pursuant to 10 CFR 50.55a(a)(3)(i), that the NRC authorize the reliefs.

3.4 Duration of Authorized Alternatives

The duration of the authorized alternatives is the third ISI interval, that is extended by 10 years, for the ASME Categories B-A and B-D RPV weld examinations for VEGP 1 and 2.

4.0 STAFF TECHNICAL EVALUATION

The NRC staff reviewed Relief Requests VEGP-ISI-ALT-05 and VEGP-ISI-ALT-06. In Table 1 of each relief request, the "Frequency and Severity of Design Transients" of VEGP, Units 1 and 2 were found to be bounded by the WCAP-A based on the information in the license renewal application (LRA) that was approved in 2009 for the VEGP units. This LRA information revealed that the projected number of the 60-year design basis transients is below the number specified in the 40-year design bases. Therefore, the NRC staff determined that the licensee has addressed Plant-Specific Information 2 satisfactorily and confirmed that, regarding design transients, the WCAP-A methodology is applicable to the VEGP units. Also, the VEGP, Units 1 and 2 RPVs have a single-layer cladding on the inside like the assumption used in the WCAP-A analysis. Considering these critical plant-specific parameters, the licensee performed TWCF calculations using the WCAP-A methodology in its address of Plant-Specific Information 1.

These TWCF calculations used inputs from Table 3 of each relief request. The relief requests used RG 1.99, Rev. 2, Position 1.1 and Position 2.1 when credible surveillance data was available to calculate ΔT_{30} for all RPV beltline materials for the VEGP units. The NRC staff noted that the neutron fluence for all RPV materials and the chemistry factors for the RPV materials based on surveillance data are different from their corresponding values in the LRA (about 10 % increase in fluence for Unit 1 and 6 % increase for Unit 2 and about 10 % decrease in chemistry factor for Unit 1 and 4 % increase for Unit 2). RAI-3 requested the licensee to provide the basis for these changes, including a list of additional surveillance capsule reports and updated neutron fluence evaluations which contributed to the changes. The licensee's response to RAI-3 indicated that the neutron fluence values used for the VEGP units were based on ex-vessel neutron dosimetry data documented in WCAP-17239-NP, Revision 1, "Ex-Vessel Neutron Dosimetry Program for A. W. Vogtle Unit 1 Cycle 15," and WCAP-17350-NP, "Ex-Vessel Neutron Dosimetry Program for A. W. Vogtle Unit 2 Cycle 14." In addition, the licensee revealed that the chemistry values used for the VEGP units were based on additional surveillance data in WCAP-17009-NP, Revision 1, "Analysis of Capsule W from the Vogtle Unit No. 1 Reactor Vessel Radiation Surveillance Program" and WCAP-17343-NP, "Analysis of Capsule Z from the Southern Nuclear Operating Company Vogtle Unit 2 Reactor Vessel Radiation Surveillance Program."

The NRC staff determined that the updated fluence values are acceptable for this application because the licensee's calculated total TWCFs of 7.66E-14 for Unit 1 and 1.22E-13 for Unit 2 are several orders of magnitude lower than the value of 1.76E-08 for the Westinghouse pilot plant in the WCAP-A. For the updated chemistry values, the NRC staff determined that they are acceptable because additional surveillance data were included in the chemistry factor evaluation in the relief requests in accordance with RG 1.99, Revision 2. Hence, RAI-3 is resolved. After resolution of issues related to TWCF inputs in Table 3 of the relief requests, the NRC staff determined that the licensee has addressed Plant-Specific Information 1 satisfactorily and confirmed that the embrittlement of the VEGP RPVs is within the envelope used in the Westinghouse pilot plant analysis.

Table 2 in each relief request contains additional information pertaining to previous RPV inspections and the schedule for future inspections. Table 2 was provided to address Plant-Specific Information 3. Specifically, Table 2 in VEGP-ISI-ALT-05 reveals that two indications

were identified in the most recent ISI of the Unit 1 RPV beltline region, and Table 2 in VEGP-ISI-ALT-06 reveals six indications for the Unit 2 RPV beltline region. The licensee concluded that the indications for both units are acceptable per Table IWB-3510-1 of Section XI of the ASME Code. RAI-2 requested the licensee provide evaluations to support this conclusion. The licensee's response to RAI-2 contains detailed information regarding these evaluations, including how and to what ASME Code acceptance criterion that they were dispositioned. Therefore, the NRC staff determined that the subsequently provided evaluations of the detected flaws according to ASME Code, Section XI, Paragraph IWB-3500 for VEGP, Units 1 and 2 are acceptable. RAI-2 is resolved.

Regarding the 10 CFR 50.61a requirements on allowable flaws within the inner one-tenth of the RPV wall thickness, one indication associated with VEGP, Unit 1 is within the thickness range and is required to be evaluated. This indication is characterized as an embedded axial flaw, 0.55 inches from the cladding-metal interface, 1.6 inches long, and 0.32 inch in through-wall extent. The licensee reproduced in Table 2 in VEGP-ISI-ALT-05 information from the 10 CFR 50.61 table for allowable number of flaws in various through-wall extents for plates and compare this information with the number of relevant detected flaws associated with VEGP, Unit 1. This comparison indicated that the number of detected flaws from the VEGP, Unit 1 RPV is bounded by those specified in 10 CFR 50.61a. All flaws associated with VEGP, Unit 2 are outside the thickness range and are not required to be evaluated.

The licensee's initial letter of August 29, 2012 states that the next inspection for VEGP, Units 1 and 2 would be conducted as late as the Spring and Fall of 2026, respectively. The staff has reviewed the revised PWROG plan and finds that this is consistent with the inspection plan for the PWR fleet.

Based on the above evaluation, the NRC staff concludes that the licensee has addressed Plant-Specific Information 3 satisfactorily because the licensee demonstrated that the plant-specific flaw information for VEGP, Units 1 and 2 in VEGP-ISI-ALT-05 and VEGP-ISI-ALT-06 is bounded by the WCAP-A, supporting the plant-specific applicability of the WCAP-A to the VEGP units.

In summary, the NRC staff has reviewed the licensee's submittal and the responses to the NRC staff's RAIs supplementing the relief requests. In addition, the NRC staff performed independent calculations to verify the input data and output results in Table 3 of each relief request. As discussed in the resolution of RAI-3, the input data has considered the most recent surveillance data information in the surveillance capsule reports for VEGP, Units 1 and 2. The difference between the licensee's and staff's calculated $TWCF_{95-TOTAL}$ is insignificant. With this information, the NRC staff concluded that the $TWCF_{95-TOTAL}$ value in Table 3 of each relief request is bounded by the WCAP-A results. Consequently, the licensee has demonstrated that the proposed alternatives will provide an acceptable level of quality and safety and meets the guidance provided by RG 1.174, Rev. 1 for risk-informed decisions.

5.0 CONCLUSION

Pursuant to 10 CFR 50.55a(a)(3)(i), alternatives to the requirements of 10 CFR 50.55a(g) may be used, when authorized by the NRC, if the licensee demonstrates that the proposed alternatives will provide an acceptable level of quality and safety. The staff has completed its

review of alternative VEGP-ISI-ALT-05 for Unit 1 and alternative VEGP-ISI-ALT-06 for Unit 2. The staff concludes that increasing the ISI interval for Categories B-A and B-D components from 10 to 20 years will result in no appreciable increase in risk. This conclusion is based on the fact that the plant-specific information provided by the licensee is bounded by the data in the WCAP-A and the requests meet all the conditions and limitations described in the WCAP-A. Therefore, alternatives VEGP-ISI-ALT-05 and VEGP-ISI-ALT-06 provide an acceptable level of quality and safety, and the alternatives are authorized for Categories B-A and B-D components pursuant to 10 CFR 50.55a(a)(3)(i) until the end of the third interval, which is now May 30, 2027 for VEGP, Units 1 and 2 for the subject components.

All other requirements of the ASME Code, Section XI, not specifically included in the request for the proposed alternatives, remain in effect.

Principal Contributors: S. Sheng

Date: March 20, 2014

March 20, 2014

Mr. C. R. Pierce
Regulatory Affairs Director
Southern Nuclear Operating Company, Inc.
P.O. Box 1295, Bin-038
Birmingham, AL 35201-1295

SUBJECT: VOGTLE ELECTRIC GENERATING PLANT, UNITS 1 AND 2 - REQUEST FOR ALTERNATIVES VEGP-ISI-ALT-05 AND VEGP-ISI-ALT-06 (TAC NOS. MF2596 AND MF2597)

Dear Mr. Pierce:

By letters dated August 29, 2012, November 25, 2013 and January 31, 2014, Southern Nuclear Operating Company (the licensee) submitted for U.S. Nuclear Regulatory Commission (NRC) approval, a request for alternatives (RFA) VEGP-ISI-ALT-05 and VEGP-ISI-ALT-06. Specifically, the licensee proposed alternatives pursuant to Section 50.55a(a)(3)(i) of Title 10 of the *Code of Federal Regulations* (10 CFR) to extend the ISI interval for examinations of the reactor pressure vessel (RPV) welds (Category B-A) as well as the nozzle-to-vessel welds and inner radius sections (Category B-D) from 10 to 20 years.

The NRC staff has reviewed the subject request, and concludes that the proposed alternative provides an acceptable level of quality and safety. Therefore, the NRC staff authorizes the proposed alternative in accordance with 10 CFR 50.55a (a)(3)(i). The NRC staff's safety evaluation is enclosed.

Sincerely,
/ra/
Robert Pascarelli, Chief
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-424 and 50-425
Enclosure: Safety Evaluation
cc w/encl: Distribution via Listserv

DISTRIBUTION:

PUBLIC	RidsNrrDorlDpr Resource	RidsNrrPMVogtle Resource
LPL2-1 Reading File	RidsNrr DorlLpl2-1 Resource	RidsRgn2Mail Center Resource
RidsNrrLASFiguroa	RidsAcrcAcnw_MailCTR Resource	

ADAMS Accession No.: ML14030A570

***transmitted by email dated 01/22/14**

OFFICE	NRR/LPL2-1/PM	NRR/LPL2-1/LA	NRR/DCI/APLA*	NRR/LPL2-1/BC
NAME	RMartin	SFiguroa	SRosenberg	RPascarelli
DATE	03/12/14	02/06/14	01/22/14	03/20/14

OFFICIAL RECORD COPY