September 11, 2000

Mr. William T. Cottle
President and Chief Executive Officer
STP Nuclear Operating Company
South Texas Project Electric
Generating Station
P. O. Box 289
Wadsworth, TX 77483

SUBJECT: SOUTH TEXAS PROJECT, UNITS 1 AND 2 - REQUEST FOR RELIEF FROM ASME CODE REQUIREMENTS FOR THE SECOND 10-YEAR INTERVAL INSERVICE INSPECTION PROGRAM BASED ON RISK-INFORMED ALTERNATIVE APPROACH (RELIEF REQUEST RR-ENG-2-16) (TAC NOS. MA7789 AND MA7790)

Dear Mr. Cottle:

By letter dated December 30, 1999, as supplemented April 17, 2000, the STP Nuclear Operating Company (STPNOC) submitted a request (RR-ENG-2-16) seeking relief from the American Society of Mechanical Engineers (ASME) Code, Section XI inservice inspection (ISI) requirements for certain Class 1 piping welds, based on a risk-informed alternative approach. This relief request is for the second 10-year ISI interval, which begins on September 25, 2000, and October 19, 2000, for South Texas Project, Units 1 and 2, respectively.

The risk-informed ISI program proposed by STPNOC was developed in accordance with the methodology contained in the Electric Power Research Institute (EPRI) report, EPRI TR-112657, Revision B, “Revised Risk-Informed Inservice Inspection Evaluation Procedure.” This EPRI report was reviewed and approved by the NRC staff.

Based on its review of the STPNOC submittal, the staff has concluded that the proposed risk-informed ISI program, for a subset of Class 1 piping welds (Categories B-F and non-socket B-J welds only), provides an acceptable level of quality and safety as an alternative to the current ISI program based on ASME Code, Section XI requirements. Therefore, pursuant to 10 CFR 50.55a(a)(3)(i), the risk-informed ISI program as proposed in Relief Request RR-ENG-2-16 is authorized.

The staff is currently reviewing your requests for risk-informed exemption from the special treatment requirements for safety-related systems and components categorized as low safety-significant or non-risk significant. These requests include exemption from the requirements of 10 CFR 50.55a that govern ISI programs. Given that the NRC has authorized your risk-informed ISI program, as proposed in Relief Request RR-ENG-2-16, please clarify how the risk-informed ISI program will be integrated into your request for exemption from the requirements of 10 CFR 50.55a.

The staff's evaluation and conclusions on the proposed risk-informed ISI program are contained in the enclosed safety evaluation. Should you have questions regarding this relief request, please contact Mr. T. J. Kim, of my staff at (301) 415-1392.

Sincerely,

/RA by John A. Nakoski Acting for/

Robert A. Gramm, Chief, Section 1
Project Directorate IV & Decommissioning
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-498 and 50-499

Enclosure: Safety Evaluation

cc w/encl: See next page

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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

REQUEST FOR RELIEF FROM ASME CODE REQUIREMENTS FOR

SECOND 10-YEAR INSERVICE INSPECTION PROGRAM

BASED ON RISK-INFORMED ALTERNATIVE APPROACH

SOUTH TEXAS PROJECT, UNITS 1 AND 2

SOUTH TEXAS PROJECT NUCLEAR OPERATING COMPANY

DOCKET NOS. 50-498 AND 50-499

1.0 INTRODUCTION

By letter dated December 30, 1999, as supplemented April 17, 2000, the STP Nuclear Operating Company (the licensee) submitted Relief Request RR-ENG-2-16 (Ref. 1). The submittal proposed a risk-informed inservice inspection (RI-ISI) program as an alternative to the current ISI program for a subset of Class 1 piping welds including Categories B-F welds (pressure retaining dissimilar metal welds in vessel nozzle) and non-socket B-J welds (pressure retaining welds in piping). The licensee stated that its RI-ISI program was developed in accordance with the methodology contained in the Electric Power Research Institute (EPRI) report EPRI TR-112657 (Ref. 2), which was previously reviewed and approved by the staff. This relief request by the licensee was made pursuant to 10 CFR 50.55a(a)(3)(i) for the second 10-year ISI interval for South Texas Project (STP), Units 1 and 2.

2.0 BACKGROUND

2.1 Applicable Requirements

Section 50.55a(g) of Title 10 of the *Code of Federal Regulations* (10 CFR), requires that ISI of the American Society of Mechanical Engineers (ASME) Code Class 1, 2, and 3 components shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code (hereafter called ASME Code) and the applicable addenda, except where specific written relief has been granted by the Commission pursuant to 10 CFR 50.55a(g)(6)(i). The regulation at 10 CFR 50.55a(a)(3) states in part that alternatives to the requirements of paragraph (g) may be used, when authorized by the NRC, if the proposed alternatives would provide an acceptable level of quality and safety.

Pursuant to 10 CFR 50.55a(g)(4), ASME Code Class 1, 2, and 3 components (including supports) shall meet the 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. The regulations require that ISI of components 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 limitations and modifications listed therein. For STP Units 1 and 2, the applicable edition of Section XI of the ASME Code for the second 10-year ISI interval, which begins on September 25, 2000, and October 19, 2000, for Units 1 and 2, respectively, is the 1989 edition.

2.2 Summary of Proposed Approach

The licensee has proposed to use an RI-ISI program for a subset of ASME Class 1 piping (Categories B-F and non-socket B-J welds only), as an alternative to the ASME Code, Section XI requirements. The ASME Code, Section XI, requires in part, that for each successive 10-year ISI interval, 100 percent of Category B-F welds and 25 percent of Category B-J welds for ASME Code Class 1 piping greater than 1 inch in nominal diameter are selected for volumetric and/or surface examination based on existing stress analyses and cumulative usage factors. The current ISI program requirements of the ASME Code, Section XI will be unaffected for components other than ASME Class 1 piping with Categories B-F and non-socket B-J welds only. The proposed RI-ISI program follows a previously approved RI-ISI methodology delineated in EPRI TR-112657.

The licensee indicated that the existing augmented ISI program implemented in response to NRC Bulletin 88-08, "Thermal Stresses in Piping Connected to Reactor Coolant Systems," has been subsumed into the proposed RI-ISI program for those components that are within the scope of the proposed RI-ISI, since the potential for thermal fatigue is explicitly considered in the application of the EPRI RI-ISI process.

3.0 EVALUATION

Pursuant to 10 CFR 50.55a(a)(3)(i), the staff has reviewed and evaluated the licensee's proposed RI-ISI program, including those portions related to applicable methodology and processes contained in EPRI TR-112657, based on guidance and acceptance criteria provided in Regulatory Guides (RGs) 1.174 (Ref. 3) and 1.178 (Ref. 4), and in Standard Review Plan (SRP) Chapter 3.9.8 (Ref. 5).

3.1 Proposed Changes to the ISI Program

The scope of the licensee's proposed RI-ISI program is limited to include Category B-J non-socket piping welds and Category B-F dissimilar metal nozzle welds only. The RI-ISI program was proposed as an alternative to the existing ISI program which is based on requirements of the ASME Code, Section XI. A general description of the proposed changes to the ISI program was provided in Sections 3 and 5 of Reference 1.

During the course of its review, the staff verified that the proposed RI-ISI program is consistent with the guidelines contained in EPRI TR-112657, which state in part that industry and plant-specific piping failure information, if any, is to be utilized to identify piping degradation

mechanisms and failure modes, and consequence evaluations are to be performed using probabilistic risk assessments (PRAs) to establish piping segment safety ranking for determining new inspection locations.

It should be noted that the licensee, in its submittal, described the inclusion of Category B-F dissimilar metal nozzle welds in its RI-ISI program as a deviation to the EPRI guideline. However, the staff's review and approval of EPRI TR-112657 included application of RI-ISI methodology not only to Category B-J welds, but also to Category B-F welds. The staff also notes that application of the EPRI TR-112657 methodology to B-F welds has been implemented in the RI-ISI programs at Surry Power Station Unit 1 and Arkansas Nuclear One Unit 2. Therefore, contrary to the licensee's statement in its submittal, the inclusion of B-F welds in the RI-ISI program is not a deviation from the EPRI-TR methodology.

In Table 5-1 of Reference 1, a comparison between the current ISI program and the proposed RI-ISI program is provided for inspection location selection criteria. The staff finds that the information submitted adequately defines the proposed changes to the ISI program.

3.2 Engineering Analysis

In accordance with the guidance provided in RGs 1.174 and 1.178 (Ref. 3 and Ref. 4), the licensee provided the results of an engineering analysis of the proposed changes using a combination of traditional engineering analysis and a PRA. The licensee stated that results of the engineering analysis demonstrate that the proposed changes are consistent with the principles of defense-in-depth and that adequate safety margins will be maintained. The licensee performed an evaluation to determine susceptibility of components (i.e., a weld on a pipe) to a particular degradation mechanism that may be a precursor to leak or rupture, and then performed an independent assessment of the consequence of a failure. The proposed RI-ISI program will result in a reduction of required examination locations from 151 in Unit 1 and 132 in Unit 2 to 59 in each unit.

The licensee stated that for the Class 1 piping at STP, the augmented inspection program implemented during the first inspection interval in response to NRC Bulletin 88-08 regarding thermal fatigue will be subsumed in the RI-ISI program for those components within the scope of the RI-ISI program, since the potential for thermal fatigue is explicitly considered in the application of the EPRI RI-ISI process. The licensee also stated that the existing augmented inspection program for the rest of the Class 1 piping at STP is unaffected by the proposed RI-ISI program. The staff concludes that this approach to the augmented inspection program is consistent with the EPRI TR-112657 guidelines, and therefore, acceptable.

Piping systems within the scope of the RI-ISI program were divided into piping segments. Pipe segments are defined as lengths of pipe whose failure (anywhere within the pipe segment) would lead to the same consequence and which are exposed to the same degradation mechanisms. That is, some lengths of pipe whose failure would lead to the same consequences may be split into two or more segments when two or more regions are exposed to different degradation mechanism. The staff finds this appropriate, and necessary, because the methodology combines separate consequence categories with degradation mechanism categories and therefore the two characteristics should not be mixed within a segment. The

licensee’s submittal also states that failure potential estimates were generated utilizing industry failure history, plant-specific failure history, and other relevant information using the guidance provided in EPRI TR-112657. The staff concludes that the licensee has met the SRP 3.9.8 guidelines to confirm that a systematic process was used to identify the component’s (pipe segments) susceptibility to common degradation mechanisms, and to categorize these degradation mechanisms into the appropriate degradation categories with respect to their potential to result in a postulated leak or rupture.

Additionally, the licensee stated that the consequences of pressure boundary failures were evaluated and ranked based on their impact on core damage and containment performance (isolation, bypass, and large early release), and that the impact due to both direct and indirect effects was considered using guidance provided in the EPRI TR-112657. The licensee reported no deviations from the consequence evaluation methodology approved by the staff in the EPRI topical report. Therefore, the staff finds the consequence evaluation performed by the licensee for this application to be acceptable.

3.3 Probabilistic Risk Assessment

The licensee used its Individual Plant Examination (IPE) Level 2 PRA, supplemented by the current PRA model, STP-1997, to evaluate the consequences of pipe rupture for the RI-ISI assessment. In its submittal, the licensee reported a base core damage frequency (CDF) of 1.17E-5 /year and a base large early release frequency (LERF) of 5.50E-7/year.

The STP IPE was submitted in August 1992 and supplemented in November 1994. The IPE identified a point estimate of the total CDF as 4.4E-5/year from both internal events (97 percent, 4.3E-5/year) and external events (3 percent, 1.3E-6/year). Additionally, the IPE identified a LERF of about 1E-6/year. The staff evaluation report, dated August 9, 1995, concluded that the STP IPE satisfied the intent of Generic Letter 88-20, “Individual Plant Examination for Severe Accident Vulnerabilities.” The staff evaluation also concluded that the licensee's intent to continue to use and maintain its Probabilistic Safety Assessment (PSA) will enhance plant safety and provide additional assurance that any potentially unrecognized vulnerabilities would be identified and evaluated during the lifetime of the plant.

The staff evaluation report identified four items that the licensee planned to incorporate in its “living” PSA. These items included (1) implementation of the RISKMAN 3.0 system conversions for calculating internally generated initiating events, (2) revision of the system analyses and event tree rules to reflect the practice of operating two emergency cooling water (ECW) trains and one standby train instead of one train “on,” one train “off,” and one train in “standby,” (3) incorporation of new system analyses and split fractions data for new top events and, (4) consideration of accident management strategies of intentional primary system depressurization and post core damage recovery.

The December 1999 RI-ISI submittal (Ref. 1) identified that the RISKMAN 3.0 system conversions for calculating internally generated initiating events were implemented in the 1994 model update and are maintained and upgraded in accordance with the licensee’s PRA control program. The licensee stated that the system analyses and event tree rules to reflect the practice of ECW trains were revised in 1994 and expanded to include any possible

configuration of operating and standby trains in 1996. The licensee also stated that new system analyses and split fractions data for new top events were included in 1994 and are maintained in accordance with the licensee's PRA control program. The licensee addressed the issue of accident management strategies by adopting the Severe Accident Management Guidelines (SAMGs) published in June 1997 and by including SAMGS in the current Level 2 analyses for the current PRA model, STP-1997.

The staff did not review the IPE analysis to assess the accuracy of the quantitative estimates. The staff recognizes that the quantitative results of the IPE are used as order of magnitude estimates for several risk and reliability parameters used to support the assignment of segments into three broad consequence categories. Any inaccuracies in the models or in assumptions large enough to invalidate the broad categorizations developed to support RI-ISI would have been identified by the licensee, and also during the staff review of the licensee's proposed RI-ISI program. Minor errors or inappropriate assumptions will affect only the consequence categorization of a few segments and will not invalidate the general results or conclusions. The staff finds the quality of the licensee's PRA sufficient to support the proposed RI-ISI program.

The degradation category and the consequence category were combined according to the approved methodology described in the EPRI TR-112657 to categorize the risk significance of each segment. The risk significance of each segment is used to determine the number of weld inspections required in each segment.

The licensee proposes to reduce the number of welds to be examined for ASME Code, Section XI, category B-F and B-J welds from 151 welds to 59 welds (from 26 percent to 10 percent) for Unit 1, and from 132 welds to 59 welds (from 24 percent to 10.6 percent) for Unit 2, and to change the location of some of the ASME Code, Section XI weld inspections. The licensee conducted a bounding analysis to estimate the change in risk expected from replacing the current ISI program with the RI-ISI program. The calculations estimated the change in risk due to removing locations and adding locations to the inspection program. For high consequence category segments, the licensee used the conditional core damage probability (CCDP) based on the highest evaluated CCDP. For medium and low consequence category segments, bounding estimates of CCDP were used. The licensee estimated the change in risk using bounding failure rates from the EPRI methodology. The licensee performed its bounding analysis with and without taking credit for an increased probability of detection (POD). The results of the analysis for Units 1 and 2, shown below, indicate that even without credit for improved POD, the estimates are less than the EPRI methodology guideline values.

	ΔCDF using EPRI TR-112657 piping failure frequency	
	No Improved POD	**Improved POD**
Unit 1	8.76E-08	-1.06E-07
Unit 2	7.62E-08	-1.11E-07

The licensee did not calculate the change in LERF in its risk impact assessment. However, in the consequence evaluation, the licensee evaluated the consequence of pressure boundary failures based on core damage and containment performance, including isolation, bypass, and large early release. The licensee found that there were no segments that would create a concern for containment isolation or bypass. Additionally, there were no sequences arising from pipe rupture that had a conditional containment failure probability given core damage greater than 0.1. Since the estimated change in CDF for each evaluation is below 1E-7 (as shown in the table above), and the conditional LERF given core damage is below 0.1, the estimated change in LERF will not exceed 1E-8 and does not exceed the safety goal guidelines recommended in RG 1.174.

The staff finds the licensee's bounding analysis of the change in risk acceptable because it accounts for the change in the number of elements inspected, recognizes the difference in degradation mechanism related to failure likelihood, and considers the effects of enhanced inspection. The staff finds that the risk impact assessment follows the approach of EPRI TR-112657 and that redistributing the welds to be inspected with consideration of the safety-significance of the segments provides assurance that segments whose failure has a significant impact on plant risk receive an acceptable level of inspection. Therefore, the staff concludes that the implementation of the RI-ISI program as described in the licensee's application will have a small impact on risk consistent with the guidelines of RG 1.174, and, thus, will not cause the NRC safety goals to be exceeded.

3.4 Integrated Decisionmaking

As described in the licensee's submittal, an integrated approach is utilized in defining the proposed RI-ISI program by considering in concert the traditional engineering analysis, risk evaluation, and the implementation and performance monitoring of piping under the program. This is consistent with the guidelines of RG 1.178.

The selection of pipe segments to be inspected is described in Section 3.5 of the submittal using the results of the risk category rankings and other operational considerations.
Table 3.5-1 of the submittal provides the number of locations and inspections by risk category for the various STP Unit 1 and Unit 2 systems. Table 5-1 of the submittal provides a summary table comparing the number of inspections required under the existing ASME Section XI ISI program with the alternative RI-ISI program. Tables 3.7-1 identifies on a per system basis each applicable risk category based on EPRI TR-112657 upper bound failure rates, and Table 3.7-2 identifies on a per system basis each applicable risk category based on EPRI TR-111880, "Piping System Failure Rates and Rupture Frequencies for Use in Risk Informed Inservice Inspection Applications" (Proprietary information. Not publicly available.), best-estimate failure rates. The licensee used the methodology described in EPRI TR-112657 to guide the selection of examination elements within high and medium risk ranked piping segments. The licensee included Category B-F dissimilar metal weld locations in the scope of its application, as discussed in Section 3.1 of this safety evaluation. The methodology described in EPRI TR-112657 requires that existing augmented programs, other than thermal fatigue which the RI-ISI program supersedes, be maintained. The EPRI report describes targeted examination volumes (typically associated with welds) and methods of examination based on the type(s) of

degradation expected. The staff has reviewed these guidelines and has determined that, if implemented as described, the RI-ISI examinations should result in improved detection of service-related degradations over that currently required by ASME Code, Section XI.

The staff finds that the location selection process is acceptable since it is consistent with the process approved for EPRI TR-112657, takes into account defense-in-depth, and includes coverage of systems subjected to degradation mechanisms in addition to those covered by augmented inspection programs.

The objective of ISI required by ASME Section XI is to identify conditions (i.e., flaw indications) that are precursors to leaks and ruptures in the pressure boundary that may impact plant safety. Therefore, the RI-ISI program should meet this objective if found to be acceptable for use. Further, since the risk-informed program is based on inspection for cause, element selection should target specific degradation mechanisms.

Chapter 4 of EPRI TR-112657 provides guidelines for the areas and/or volumes to be inspected as well as the examination method, acceptance standard, and evaluation standard for each degradation mechanism. Based on review of the cited portion of the EPRI report, the staff concludes that the examination methods for the proposed RI-ISI program are appropriate since they are selected based on specific degradation mechanisms, pipe sizes, and materials of concern.

3.5 Implementation and Monitoring

Implementation and performance monitoring strategies require careful consideration by the licensee and are addressed in Element 3 of RG 1.178 and SRP 3.9.8. The objective of Element 3 is to assess performance of the affected piping systems under the proposed RI-ISI program by implementing monitoring strategies that confirm the assumptions and analyses used in the development of the RI-ISI program. Pursuant to 10 CFR 50.55a(a)(3)(i), a proposed alternative, in this case the implementation of the RI-ISI program, including inspection scope, examination methods, and methods of evaluation of examination results, must provide an adequate level of quality and safety.

The licensee stated that upon approval of the RI-ISI program, procedures that comply with the EPRI TR-112657 guidelines will be prepared to implement and monitor the RI-ISI program. The licensee confirmed that the applicable portions of the ASME Code, such as inspection methods, acceptance guidelines, pressure testing, corrective measures, documentation requirements, and quality control requirements would be retained.

The licensee stated in Section 4 of the submittal that the RI-ISI program is a living program and its implementation will require feedback of new relevant information to ensure the appropriate identification of high safety significant piping locations. The submittal also states that, as a minimum, risk ranking of piping segments will be reviewed and adjusted on an ISI period basis and that significant changes may require more frequent adjustment as directed by NRC bulletin or generic letter requirements, or by industry and plant-specific feedback.

The proposed periodic reporting requirements meet existing ASME Code requirements and applicable regulations and, therefore, are considered acceptable. The staff finds that the proposed process for RI-ISI program updates meets the guidelines of RG 1.174 which provide that risk-informed applications should include performance monitoring and feedback provisions; therefore, the licensee's proposed process for program updates is acceptable.

4.0 CONCLUSION

The regulation at 10 CFR 50.55a(a)(3)(i) permits alternatives to specified regulatory requirements when authorized by the NRC on the basis that an alternative provides an acceptable level of quality and safety. In this case, the licensee's proposed alternative is to use the risk-informed process described in the NRC-approved EPRI-TR 112657. As discussed in Section 3.0 above, the staff concludes that the licensee's proposed RI-ISI program, as described in its submittal, will provide an acceptable level of quality and safety pursuant to 10 CFR 50.55a with regard to the number of inspections, locations of inspections, and methods of inspections.

The staff finds that the results of the different elements of the engineering analysis are considered in an integrated decisionmaking process. The impact of the proposed change in the ISI program is founded on the adequacy of the engineering analysis and acceptable change in plant risk in accordance with RG 1.174 and 1.178 guidelines.

The STP methodology also considers implementation and performance monitoring strategies. Inspection strategies ensure that failure mechanisms of concern have been addressed and there is adequate assurance of detecting damage before structural integrity is affected. The risk significance of piping segments is taken into account in defining the inspection scope for the RI-ISI program.

System pressure tests and visual examination of piping structural elements will continue to be performed on all Class 1, 2, and 3 systems in accordance with the ASME Code Section XI program. The RI-ISI program applies the same performance measurement strategies as existing ASME Code requirements and, in addition, increases the inspection volumes at weld locations that are exposed to thermal fatigue.

The STP methodology provides for conducting an engineering analysis of the proposed changes using a combination of engineering analysis with supporting insights from a PRA. Defense-in-depth quality is not degraded in that the methodology provides reasonable confidence that any reduction in existing inspections will not lead to degraded piping performance when compared to existing performance levels. Inspections are focused on locations with active degradation mechanisms as well as selected locations that monitor the performance of system piping.

As discussed above, the staff's review of the licensee's proposed "limited scope" RI-ISI program concludes that the program is an acceptable alternative to the current ISI program, which is based on ASME Code, Section XI, requirements for Class 1, Categories B-F and non-socket B-J welds. Therefore, the licensee's request for relief, RR-ENG-2-16, is authorized pursuant to 10 CFR 50.55a(a)(3)(i) on the basis that the request provides an acceptable level of

quality and safety. This safety evaluation authorizes implementation of the proposed RI-ISI program for the second 10-year ISI interval, which begins at STP Units 1 and 2 on September 25, 2000, and October 19, 2000, respectively.

5.0 REFERENCES

1. Letter, dated December 30, 1999, as supplemented April 17, 2000, T. J. Jordan (South Texas Project, Units 1 and 2, Manager, Systems Engineering), to U.S. Nuclear Regulatory Commission, containing *Risk-Informed Inservice Inspection Program Plan - South Texas Project Units 1 and 2*.

2. EPRI TR-112657, Revision B, *Revised Risk-Informed Inservice Inspection Evaluation Procedure*, July 29, 1999 (ACN 9908120170). NRC staff safety evaluation on EPRI TR-112657, Revision B, is dated October 28, 1999 (ADAMS ML993190477).

3. NRC Regulatory Guide 1.174, *An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis*, July 1998.

4. NRC Regulatory Guide 1.178, *An Approach for Plant-Specific Risk-Informed Decisionmaking: Inservice Inspection of Piping*, September 1998.

5. NRC NUREG-0800, Chapter 3.9.8, *Standard Review Plan for Trial Use for the Review of Risk-Informed Inservice Inspection of Piping*, September 1998.

Principal Contributors: S. Hou
S. Malik

Date: September 11, 2000

The staff's evaluation and conclusions on the proposed risk-informed ISI program are contained in the enclosed safety evaluation. Should you have questions regarding this relief request, please contact Mr. T. J. Kim, of my staff at (301) 415-1392.

Sincerely,

/RA by John A. Nakoski Acting for/

Robert A. Gramm, Chief, Section 1
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Office of Nuclear Reactor Regulation

Docket Nos. 50-498 and 50-499

Enclosure: Safety Evaluation

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