February 7, 2002

Mr. Ted C. Feigenbaum
Executive Vice President and
Chief Nuclear Officer
North Atlantic Energy Service Corporation
c/o Mr. James M. Peschel
P.O. Box 300
Seabrook, NH 03874

SUBJECT: SEABROOK STATION, UNIT NO. 1 - RISK-INFORMED INSERVICE INSPECTION ALTERNATIVE REQUEST (TAC NO. MB1799)

Dear Mr. Feigenbaum:

North Atlantic Energy Service Corporation (NAESC) currently performs Inservice Inspection (ISI) activities for the Second 10-Year Interval in accordance with the 1995 Edition (including the 1996 addenda) of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section XI (ASME Code). By letter dated March 16, 2001, NAESC requested approval of a Risk-Informed Inservice Inspection Plan (RI-ISI) as an alternative to the ASME Section XI inspection requirements for ASME Code Class 1 category B-F and B-J piping welds.

The staff has concluded that your proposed RI-ISI program, which is consistent with the methodology described in EPRI TR-112657, will provide an acceptable level of quality and safety pursuant to 10 CFR 50.55a(a)(3)(i) and is approved for use during the second 10-year ISI interval at Seabrook Station. The staff's safety evaluation is provided in the Enclosure. This completes the staff's efforts on TAC No. MB1799.

Sincerely,

/RA by VNerses for JClifford/

James W. Clifford, Chief, Section 2
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-443

Enclosure: Safety Evaluation

cc w/encl: See next page

Seabrook Station, Unit No. 1
cc:

William J. Quinlan, Esq.
Assistant General Counsel
Northeast Utilities Service Company
P.O. Box 270
Hartford, CT 06141-0270

Mr. Peter Brann
Assistant Attorney General
State House, Station #6
Augusta, ME 04333

Resident Inspector
U.S. Nuclear Regulatory Commission
Seabrook Nuclear Power Station
P.O. Box 1149
Seabrook, NH 03874

Town of Exeter
10 Front Street
Exeter, NH 03823

Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Office of the Attorney General
One Ashburton Place
20th Floor
Boston, MA 02108

Board of Selectmen
Town of Amesbury
Town Hall
Amesbury, MA 01913

Mr. Dan McElhinney
Federal Emergency Management Agency
Region I
J.W. McCormack P.O. &
Courthouse Building, Room 401
Boston, MA 02109

Mr. Stephen McGrail, Director
ATTN: James Muckerheide
Massachusetts Emergency Management Agency
400 Worcester Road
Framingham, MA 01702-5399

Philip T. McLaughlin, Attorney General
Steven M. Houran, Deputy Attorney General
33 Capitol Street
Concord, NH 03301

Mr. Woodbury Fogg, Director
New Hampshire Office of Emergency Management
State Office Park South
107 Pleasant Street
Concord, NH 03301

Mr. Daniel G. Roy
Nuclear Training Manager
Seabrook Station
North Atlantic Energy Service Corp.
P.O. Box 300
Seabrook, NH 03874

Mr. James M. Peschel
Manager - Regulatory Programs
Seabrook Station
North Atlantic Energy Service Corp.
P.O. Box 300
Seabrook, NH 03874

Mr. Gene F. St. Pierre
Station Director
Seabrook Station
North Atlantic Energy Service Corporation
P.O. Box 300
Seabrook, NH 03874

Mr. Frank W. Getman, Jr.
President and Chief Executive Officer
BayCorp Holdings, LTD
20 International Drive, Suite 301
Portsmouth, NH 03801-6809

Seabrook Station, Unit No. 1
cc:

Mr. Bruce D. Kenyon
President and Chief Executive Officer
Northeast Utilities Service Company
P.O. Box 270
Hartford, CT 06141-0270

Mr. Steve Allen
Polestar Applied Technology, Inc.
77 Franklin Street, Suite 507
Boston, MA 02110

February 7, 2002

Mr. Ted C. Feigenbaum
Executive Vice President and
Chief Nuclear Officer
North Atlantic Energy Service Corporation
c/o Mr. James M. Peschel
P.O. Box 300
Seabrook, NH 03874

SUBJECT: SEABROOK STATION, UNIT NO. 1 - INSERVICE INSPECTION PROGRAM RELIEF REQUEST 2IR-13 (TAC NO. MB1800)

Dear Mr. Feigenbaum:

North Atlantic Energy Service Corporation (NAESC) currently performs Inservice Inspection (ISI) activities for the Second 10-Year Interval in accordance with the 1995 Edition (including the 1996 addenda) of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section XI (ASME Code). By letter dated March 16, 2001, NAESC requested approval of a Risk-Informed Inservice Inspection Plan (RI-ISI) as an alternative to the ASME Section XI inspection requirements for ASME Code Class 1 category B-F and B-J piping welds.

The staff has concluded that your proposed RI-ISI program, which is consistent with the methodology described in EPRI TR-112657, will provide an acceptable level of quality and safety pursuant to 10 CFR 50.55a(a)(3)(i) and is approved for use during the second 10-year ISI interval at Seabrook Station. The staff's safety evaluation is provided in the Enclosure. This completes the staff's efforts on TAC No. MB1799.

Sincerely,

/RA by VNerses for JClifford/

James W. Clifford, Chief, Section 2
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-443

Enclosure: Safety Evaluation

cc w/encl: See next page

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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

FOR SECOND 10-YEAR INTERVAL INSERVICE INSPECTION PROGRAM

REQUEST FOR RELIEF 2IR-13

FOR SEABROOK STATION, UNIT NO. 1

NORTH ATLANTIC ENERGY SERVICE CORPORATION

DOCKET NO. 50-443

1.0 INTRODUCTION

Current inservice inspection (ISI) requirements for the Seabrook Station are contained in the 1995 Edition, including the 1996 addenda, of Section XI, Division 1 of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code), entitled Rules for Inservice Inspection of Nuclear Power Plant Components. By letter dated March 16, 2001, North Atlantic Energy Service Corporation (NAESC), proposed a new Risk-Informed Inservice Inspection (RI-ISI) program as an alternative to a portion of their current ISI program. Additional clarifying information was provided in a letter from NAESC dated November 9, 2001.

The RI-ISI program is limited to ASME Class 1 piping welds. The program was developed in accordance with the Electric Power Research Institute (EPRI) methodology contained in the Nuclear Regulatory Commission (NRC)-approved EPRI Topical Report TR-112657, Revision B-A. In the proposed RI-ISI program, piping failure potential estimates were determined using the EPRI TR-112657 guidance, which utilizes industry piping failure history, plant-specific piping failure history, and other relevant information. Using the failure potential and supporting insights on piping failure consequences from the licensee's probabilistic risk assessment (PRA), a safety ranking of piping segments was established for determination of new inspection locations. The proposed program maintains the fundamental requirements of the ASME Code, such as the examination technology, examination frequency, and acceptance guidelines. However, the proposed program reduces the required examination locations significantly while demonstrating that an acceptable level of quality and safety is maintained. Thus, the proposed alternative approach is based on the conclusion that it provides an acceptable level of quality and safety and, therefore, is in conformance with Title 10 of the *Code of Federal Regulations* (10 CFR), Part 50.55a(a)(3)(i).

The licensee submitted the proposed RI-ISI program pursuant to 10 CFR 50.55a(a)(3)(i) for the second 10-year ISI interval for Seabrook Station.

2.0 BACKGROUND

The ASME Code, Section XI, requires that for each successive 10-year ISI interval, 100% of Category B-F welds and 25% of Category B-J welds for ASME Code Class 1 piping greater

than 1 inch in nominal diameter be selected for volumetric and/or surface examination based on existing stress analyses and cumulative usage factors.

The licensee submitted the application as an RI-ISI "template" application. Template applications are short overview submittals intended to expedite preparation and review of RI-ISI submittals that comply with a pre-approved methodology. The licensee proposed to implement the NRC-approved RI-ISI methodology delineated in EPRI TR-112657.

The licensee stated that no augmented programs were affected by the RI-ISI application on Class 1 piping at Seabrook Station. The licensee also stated that in instances where a location may be found at the time of the examination that does not meet the greater than 90% coverage requirement, the process outlined in EPRI TR-112657 will be followed. Section 6.4 of the EPRI Topical Report states that a new relief request will be generated for any RI-ISI piping element selection for which greater than 90% examination coverage is not achieved. The licensee also indicated that the Seabrook Station will not need to withdraw any existing relief request to implement the RI-ISI program.

Seabrook Station is currently at the start of the first period of its second 10-year interval. By letter dated May 6, 2000, NAESC requested to delay the implementation of certain aspects of the second interval ISI program for a period of 2 years in order to prepare an alternative piping ISI program based on a risk-informed approach. This request was submitted in accordance with the guidance provided in NRC Information Notice 98-44, "10-Year Inservice Inspection (ISI) Program Update for Licensees That Intend to Implement Risk-Informed ISI of Piping." The NRC authorized the 2-year extension pursuant to 10 CFR 50.55a(g)(4)(iv) by letter dated August 30, 2000. The licensee has requested approval of this RI-ISI alternative for Class 1 piping for implementation during the second ISI interval for the Seabrook Station.

The implementation of an RI-ISI program for piping should be initiated at the start of a plant's 10-year inservice inspection interval consistent with the requirements of the ASME Code Edition and Addenda committed to by the licensee in accordance with 10 CFR 50.55a. However, the implementation may begin at any point in an existing interval as long as the examinations are scheduled and distributed consistent with the ASME Code requirements (e.g., the minimum examinations completed at the end of the three inspection periods under ASME Code Program B should be 16%, 50%, and 100%, respectively, and the maximum examinations credited at the end of the respective periods should be 34%, 67%, and 100%).

It is also the staff's view that the inspections for the RI-ISI program and for the balance of the ISI program should be on the same interval start and end dates. This can be accomplished by either implementing the RI-ISI program at the beginning of the interval or merging the RI-ISI program into the ISI program for the balance of the inspections if the RI-ISI program is to begin during an existing ISI interval. One reason for this view is that it eliminates the problem of having different Codes of Record for the RI-ISI program and for the balance of the ISI program. A potential problem with using two different interval start dates and hence two different Codes of record would be having two sets of repair/replacement rules depending upon which program identified the need for repair (e.g., a weld inspection versus a pressure test). In their submittal, the licensee stated that 100% of the required RI-ISI program inspections would be completed in the second interval and that the examinations would be performed during the interval such that the period examination percentage requirements of ASME Section XI, paragraph IWB-2412 are met.

The staff finds that the Seabrook Station RI-ISI program meets the ASME Code and 10 CFR 50.55a requirements for minimum and maximum inspections during inspection periods and intervals, and for program submittal to the NRC.

3.0 EVALUATION

NAESC's submittal was reviewed with respect to the methodology and criteria contained in EPRI TR-112657. Further guidance in defining acceptable methods for implementing an RI-ISI program is also provided in Regulatory Guide (RG) 1.174, RG 1.178, and Standard Review Plan (SRP) Chapter 3.9.8.

3.1 Proposed Changes to ISI Program

Pursuant to 10 CFR 50.55a(a)(3)(i), the licensee has proposed to implement an RI-ISI program in accordance with the methodology contained in EPRI TR-112657 as an alternative to the ASME Code examination requirements for ASME Code Class 1 piping for Seabrook Station. A general description of the proposed changes to the ISI program was provided in Section 3 of the licensee's submittal.

3.2 Engineering Analysis

In accordance with the guidance provided in RGs 1.174 and 1.178, an engineering analysis of the proposed changes is required using a combination of traditional engineering analysis and supporting insights from the PRA. The licensee elaborated as to how the engineering analyses conducted for Seabrook Station's RI-ISI program ensures that the proposed changes are consistent with the principles of defense-in-depth. This is accomplished by evaluating a location's susceptibility to a particular degradation mechanism and then performing an independent assessment of the consequence of a failure at that location. No changes to the evaluation of design basis accidents in the final safety analysis report (FSAR) are being made by the RI-ISI process. Therefore, sufficient safety margins will be maintained.

The licensee's RI-ISI program at the Seabrook Station is applicable to ASME Code Class 1 Categories B-F and B-J piping welds. NAESC stated in its submittal that other non-related portions of the ASME Code will be unaffected by this program. Piping systems defined by the scope of the RI-ISI program were divided into piping segments. Pipe segments are defined as lengths of pipe whose failure leads to similar consequences and that 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 mechanisms.

The submittal states that failure potential categories were generated utilizing industry failure history, plant-specific failure history, and other relevant information using the guidance provided in EPRI TR-112657. The degradation mechanisms identified in the submittal include thermal fatigue, including thermal stratification, cycling, and striping (TASCS) and thermal transients (TT), and intergranular stress corrosion cracking (IGSCC). The licensee stated that no degradation mechanisms managed by augmented inspection programs, such as flow assisted corrosion (FAC), exist in the scope of their Class 1 piping application at Seabrook Station. Therefore, no adjustments were required in the performance of the quantitative analysis to

account for the impact of augmented inspection program managed degradation mechanisms on the risk ranking.

Section 3 of the licensee's March 16, 2001, submittal describes a deviation to the EPRI RI-ISI methodology for assessing the potential for TASCS that was implemented by the licensee for the Seabrook Station. In response to the staff's request for additional information, the licensee stated that the methodology for assessing TASCS potential was in conformance with the updated criteria described in an EPRI letter to the NRC dated March 28, 2001. The licensee's description of its deviation is identical to other licensee submittals that have been reviewed and accepted by the staff. Specifically, the staff has reviewed the guidance for evaluating TASCS, as described in Materials Reliability Project (MRP) methodology in EPRI Report 1000701, "Interim Thermal Fatigue Management Guideline (MRP-24)," January 2001 and finds it to be acceptable. Further, NAESC stated in their November 9, 2001, letter that it will update the RI-ISI program based on the final EPRI MRP guidance, as appropriate.

NAESC stated that the consequences of pressure boundary failure were evaluated and ranked based on their impact on core damage probability and containment performance (e.g., isolation, bypass, and large, early release). Both direct and indirect effects of pipe ruptures were evaluated and included in the consequence characterization. NAESC reported no deviations from the segment definition and consequence characterization methodology approved by the staff in EPRI TR-112657 and therefore, their analyses are acceptable.

3.3 Probabilistic Risk Assessment

To support this RI-ISI submittal, NAESC used the Seabrook Station Probabilistic Safety Study (SSPSS), which is a full-scope, Level 3 risk analysis of power operations. The 1999 model update (SSPSS-1999) was used to evaluate the consequences of pipe rupture for the RI-ISI assessment. NAESC reported a core damage frequency (CDF) of 4.6E-5/yr and a large early release frequency (LERF) of 5.0E-8/yr for the Seabrook Station.

NAESC stated that the SSPSS has evolved since the original risk analysis was completed in 1983. The SSPSS has been updated a number of times to reflect changes in plant design and operation, plant-specific data, severe accident research and analysis, and modeling methodology. The 1990 model update (SSPSS-1990) included plant changes through July 1990 and was the basis for their individual plant examination (IPE) report that was submitted in 1991. The IPE staff evaluation report of the Seabrook Station IPE submittal concluded that NAESC had met the intent of Generic Letter 88-20. No deficiencies or weaknesses were identified by the staff in the methodology or models used by NAESC. The staff did note, however, that the documentation of the process employed for developing explicit human error probabilities (HEPs) was weak, but based on further discussions with NAESC the staff concluded that NAESC was capable of identifying severe accident vulnerabilities that could result from pre-initiating through post-initiating human interactions.

Since the 1990 model update, the SSPSS has been updated three more times, bringing it up to the current SSPSS-1999. This model reflects the plant configuration as of March 1999. NAESC has used the SSPSS for plant applications, such as for risk ranking of motor-operated valves and for the maintenance rule, and has also developed an on-line risk monitor (EOOS) model based on the SSPSS to support operation and maintenance activities. The SSPSS-1999 was reviewed by a Westinghouse Owners Group (WOG) Peer Review Team in October of

1999. The WOG Peer Review concluded that the SSPSS-1999 was adequate to support regulatory applications when combined with deterministic insights.

The approved EPRI TR-112657 requires that functions relied upon to mitigate external events and to mitigate transients during operation modes outside the scope of the PRA also be systematically included in the categorization. NAESC reported no deviations from the approved methodology in this area and, therefore, the staff finds its evaluation acceptable.

The staff did not review the PRA analysis to assess the accuracy of the quantitative estimates. Quantitative results of the PRA are used, in combination with a quantitative characterization of the pipe segment failure likelihood, to support the assignment of segments into broad safety significance categories reflecting the relative importance of pipe segment failures on CDF and LERF and to provide an illustrative estimate of the change in risk. Inaccuracies in the models or assumptions large enough to invalidate the analyses developed to support RI-ISI should have been identified in NAESC's or the staff's reviews. Minor errors or inappropriate assumptions will only affect the consequence categorization of a few segments and will not invalidate the general results or conclusions. Furthermore, the continuous use and documented maintenance of the PRA provide further opportunities to identify inaccuracies, if any, in the PRA models and assumptions. The staff finds that the quality of the Seabrook Station PRA is sufficient to support this submittal.

As required by Section 3.7 of EPRI TR-112657, NAESC evaluated the change in risk expected from replacing the current ISI program with the RI-ISI program. The analysis estimates the net change in risk due to the positive and negative influence of adding and removing locations from the inspection program. The expected change in risk was quantitatively evaluated using the "Simplified Risk Quantification Method" described in Section 3.7 of EPRI TR-112657. The conditional core damage probability (CCDP) and the conditional large early release probability (CLERP) used for the high consequence category segments was based on the highest evaluated CCDP and CLERP. For the medium consequence category segments, bounding estimates of CCDP and CLERP were used.

NAESC performed its bounding analysis with and without taking credit for an increased probability of detection (POD). In their March 16, 2001, submittal, NAESC estimated the aggregate change in CDF to be about 1.04E-9/yr and estimated the aggregate change in LERF to be about 1.83E-11/yr, excluding credit for any increased POD due to the use of improved inspection techniques. Including the expected increase in POD results in an aggregate estimated change in CDF of -1.15E-8/yr (a risk reduction) and an aggregate estimated change in LERF of -2.33E-10/yr (a risk reduction).

The staff finds that NAESC's process to evaluate the potential change in risk is reasonable because it accounts for the change in the number and location of elements inspected, recognizes the difference in degradation mechanism related to failure likelihood, and considers the effects of enhanced inspection. System level and aggregate estimates of the changes in CDF and LERF are less than the corresponding guideline values in EPRI TR-112657. The staff finds that redistributing the welds to be inspected with consideration of the safety significance of the segments provides assurance that segments whose failures have a significant impact on plant risk receive an acceptable and often improved level of inspection. Therefore, the staff concludes that the implementation of the RI-ISI program as described in the application is acceptable and, based on the reported quantitative results, any increase in risk associated with

the implementation of the RI-ISI program is small and is consistent with the intent of the Commission's Policy Statement, and therefore, is consistent with RG 1.178.

3.4 Integrated Decision-Making

As described in NAESC's March 16 and November 9, 2001, submittals, 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. The submittal states that in accordance with EPRI TR-112657, 25% of high safety-significant (HSS) and 10% of medium safety-significant (MSS) elements are selected for inspection. The inspections are generally selected on a system-by-system basis. Using this approach for Seabrook Station, the overall percentage of Class 1 welds selected for examination per the RI-ISI process is 9.5%, when considering both socket and non-socket piping welds. Excluding the socket welds, the percentage of Class 1 welds selected for examination increases to 10.3%.

Table 3.3-1 of the submittal provides the failure potential assessment summary. Tables 3.4-1 and 3.5-1 of the submittal identify on a per system basis, the number of segments and number of elements (welds), respectively, by risk category. Tables 5-1 and 5-2 provide a summary comparing the number of inspections required under the existing ASME Code ISI program with the alternative RI-ISI program for each applicable system. Table 3.6-1 provides the risk impact analysis results for each system. NAESC used the methodology described in EPRI TR-112657 to guide the selection of examination elements within high- and medium-ranked piping segments. 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 discontinuities over that currently required by the ASME Code. The staff finds the location selection process to be acceptable since it is consistent with the process approved in EPRI TR-112657 and takes into account defense-in-depth.

The objective of ISI required by the ASME Code 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 must meet this objective to be found 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 the review of the cited portion of EPRI TR-112657, the staff concludes that the examination methods 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 NAESC and are addressed in Element 3 of RG 1.178 and SRP 3.9.8. The objective of Element 3 is to

assess the 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. To approve an alternative pursuant to 10 CFR 50.55a(a)(3)(i), implementation of the RI-ISI program, including inspection scope, examination methods, and methods of evaluation of examination results, must provide an acceptable level of quality and safety.

NAESC stated in its submittal 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. NAESC confirmed that the applicable portions of the ASME Code not affected by the change, such as inspection methods, acceptance guidelines, pressure testing, corrective measures, documentation requirements, and quality control requirements would be retained.

NAESC stated in their March 16, 2001, submittal, and further clarified in their November 9, 2001, response to the staff's request for additional information, 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 HSS piping locations. As a minimum, risk ranking of piping segments will be reviewed and adjusted on an ASME-period basis and that significant changes may require more frequent adjustment as directed by NRC bulletin or generic letter requirements, or by industry or plant-specific feedback. In the November 9, 2001, letter, NAESC also stated that the RI-ISI program will be updated and submitted to the NRC every 10 years, consistent with the ASME Code requirements. NAESC also indicated that it would resubmit their RI-ISI program to the NRC prior to the end of any 10-year interval if there are changes that affect the basis for the NRC's plant-specific approval of the RI-ISI application (i.e., safety evaluation) such as a change in methodology or an extension of the application to additional classes of piping (e.g., Class 2 piping).

NAESC's submittal presented the criteria for engineering evaluations and additional examinations if unacceptable flaws or relevant conditions are found during examinations. The submittal stated that the evaluation will include whether other elements in the segment or segments are subject to the same root cause conditions. Additional examinations will be performed on these elements up to a number equivalent to the number of elements required to be inspected on the segment or segments scheduled to be inspected in the current outage. If unacceptable flaws or relevant conditions are again found similar to the initial problem, the remaining elements identified as susceptible will be examined. No additional examinations will be performed if there are no additional elements identified as being susceptible to the same root cause conditions. In their November 9, 2001, letter NAESC further stated that the elements selected for additional examinations will be selected based on root cause or damage mechanisms and the scope of additional examinations will include HSS and MSS elements, if needed.

The proposed periodic reporting requirements meet existing ASME Code requirements and applicable regulations and, therefore, are considered acceptable. The proposed process for RI-ISI program updates meets the guidelines of RG 1.174 that risk-informed applications must include performance monitoring and feedback provisions. Therefore, the process for program updates is considered acceptable.

4.0 CONCLUSIONS

In accordance with 10 CFR 50.55a(a)(3)(i), proposed alternatives to regulatory requirements may be used when authorized by the NRC when the applicant demonstrates that the alternative provides an acceptable level of quality and safety. In this case, NAESC's proposed alternative is to use the risk-informed process described in the NRC-approved EPRI TR-112657. The staff concludes that NAESC's proposed RI-ISI program, which is consistent with the methodology described in EPRI TR-112657, will provide an acceptable level of quality and safety pursuant to 10 CFR 50.55a(a)(3)(i) for the proposed alternative to the piping ISI requirements with regard to the number of inspections, locations of inspections, and methods of inspection.

The staff finds that the results of the different elements of the engineering analysis are considered in an integrated decision-making 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 RG 1.178 guidelines.

The Seabrook Station 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 ASME Class 1, 2, and 3 systems in accordance with the ASME Code program. The RI-ISI program applies the same performance measurement strategies as existing ASME Code requirements and, in addition, increases the inspection volumes at some weld locations.

The Seabrook Station 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 and quality are 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 piping systems. As discussed in Section 3.2 above, NAESC will address any issues, if applicable, that might arise in the final version of the EPRI MRP on TASCS screening criteria that is the subject of a separate ongoing review by the staff.

NAESC has stated that the ASME Code minimum and maximum inspection requirements for Program B will be met and that the RI-ISI inspections will be on the same interval start and end dates. The staff finds that the Seabrook Station RI-ISI program meets the ASME Code requirements for minimum and maximum inspections during inspection periods and intervals. The staff also finds that the Seabrook Station RI-ISI program meets the 10 CFR 50.55a requirements for program submittal to the NRC.

The staff approves the use of the proposed RI-ISI program during the second 10-year ISI interval for the Seabrook Station.

Date: February 7, 2002

Principal Contributors: S. Ali
D. Harrison