September 19, 2005

Mr. Michael Kansler
President
Entergy Nuclear Operations, Inc.
440 Hamilton Avenue
White Plains, NY 10601

SUBJECT: SAFETY EVALUATION OF RELIEF REQUEST B-5 - VERMONT YANKEE NUCLEAR POWER STATION (TAC NO. MC0959)

Dear Mr. Kansler:

By letter dated October 1, 2003, as supplemented on May 11, and August 24, 2005, Entergy Nuclear Vermont Yankee, LLC and Entergy Nuclear Operations, Inc. (Entergy or the licensee) submitted Relief Request B-5 for Vermont Yankee Nuclear Power Station (VYNPS). The relief request pertains to the third 10-year inservice inspection (ISI) interval at VYNPS, which concluded on August 31, 2003. During this interval, 49 welds were identified that received less than the "essentially 100%" coverage examination required by Section XI of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code). Therefore, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.55a(g)(5)(iii), Entergy requested relief on the basis that the required "essentially 100%" coverage examination was impractical due to physical obstructions and limitations imposed by design, geometry, and materials of construction of the subject components. Most of the welds are associated with reactor vessel nozzles.

The Nuclear Regulatory Commission (NRC) staff has completed its review of Relief Request B-5 as documented in the enclosed Safety Evaluation (SE). Our SE concludes that compliance with the ASME Code requirements for the volumetric or surface coverage of the subject welds is impractical due to component configurations. The staff finds that the examination coverage of the accessible weld volume or area, as completed by the licensee, provides reasonable assurance of structural integrity of the subject welds. Therefore, relief is granted pursuant to 10 CFR 50.55a(g)(6)(i) for the third 10-year ISI interval of VYNPS. This granting of relief is authorized by law and will not endanger life or property or the common defense and security, and is otherwise in the public interest giving due consideration to the burden upon the licensee that could result if the requirements were imposed on the facility.

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

If you have any questions regarding this matter, please contact the VYNPS Project Manager, Mr. Richard B. Ennis, at (301) 415-1420.

Sincerely,

/RA/

Darrell J. Roberts, Chief, Section 2
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-271

Enclosure: As stated

cc w/encl: See next page

If you have any questions regarding this matter, please contact the VYNPS Project Manager, Mr. Richard B. Ennis, at (301) 415-1420.

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Vermont Yankee Nuclear Power Station

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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO RELIEF REQUEST B-5

FOR THE THIRD 10-YEAR INTERVAL OF THE INSERVICE INSPECTION PROGRAM

ENTERGY NUCLEAR VERMONT YANKEE, LLC

AND ENTERGY NUCLEAR OPERATIONS, INC.

VERMONT YANKEE NUCLEAR POWER STATION

DOCKET NO. 50-271

1.0 INTRODUCTION

By letter dated October 1, 2003, as supplemented on May 11, and August 24, 2005, Entergy Nuclear Vermont Yankee, LLC and Entergy Nuclear Operations, Inc. (Entergy or the licensee) submitted Relief Request B-5 for Vermont Yankee Nuclear Power Station (VYNPS). The relief request pertains to the third 10-year inservice inspection (ISI) interval at VYNPS, which concluded on August 31, 2003. During this interval, 49 welds were identified that received less than the "essentially 100%" coverage examination required by Section XI of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code). Therefore, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.55a(g)(5)(iii), Entergy requested relief on the basis that the required "essentially 100%" coverage examination was impractical due to physical obstructions and limitations imposed by design, geometry, and materials of construction of the subject components. Most of the welds are associated with reactor vessel nozzles.

2.0 REGULATORY REQUIREMENTS

The ISI of the ASME Code Class 1, 2, and 3 components is to be performed in accordance with Section XI of the ASME Code and applicable Edition and Addenda as required by 10 CFR 50.55a(g), except where specific written relief has been granted by the Nuclear Regulatory Commission (NRC or Commission) pursuant to 10 CFR 50.55a(g)(6)(i). Pursuant to 10 CFR 50.55a(a)(3), alternatives to the requirements of paragraph (g) may be used, when authorized by the NRC, if the licensee demonstrates that: (i) the proposed alternatives would provide 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.

Pursuant to 10 CFR 50.55a(g)(4), ASME Code Class 1, 2, and 3 components (including supports) shall meet the requirements, except the design and access provisions and the pre-service 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 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. The applicable ASME Section XI Code for the VYNPS third 10-year ISI interval is the 1986 Edition with no Addenda. The components (including supports) may meet the requirements set forth in subsequent Editions and Addenda of the ASME Code incorporated by reference in 10 CFR 50.55a(b), subject to the limitations and modifications listed therein and subject to Commission approval.

Pursuant to 10 CFR 50.55a(g)(5), if the licensee determines that conformance with an examination requirement of Section XI of the ASME Code is not practical for its facility, information shall be submitted to the Commission in support of that determination and a request made for relief from the ASME Code requirement. After evaluation of the determination, pursuant to 10 CFR 50.55a(g)(6)(i), the Commission may grant relief and may impose alternative requirements that are determined to be authorized by law, will not endanger life, property, or the common defense and security, and are otherwise in the public interest, giving due consideration to the burden upon the licensee that could result if the requirements were imposed.

3.0 RELIEF REQUEST B-5

3.1 Components for Which Relief is Requested

Table 1 lists the components pertaining to VYNPS Relief Request B-5.

Table 1

Section XI Category Item No.	Component System and Number	Description	Condition Limiting Coverage	Examination Coverage %
B-D B3.90	RPV N1A	Vessel-to-Nozzle (recirculation)	Weld proximity to nozzle blend radius limits scanning to one side	Ultrasonic testing (UT) 50.4%
B-D B3.90	RPV N1B	Vessel-to-Nozzle (recirculation)	Weld proximity to nozzle blend radius limits scanning to one side	UT 50.4%
B-D B3.90	RPV N2A	Nozzle-to-Vessel (recirculation)	Weld proximity to nozzle blend radius limits scanning to one side	UT 51.6%

Section XI Category Item No.	Component System and Number	Description	Condition Limiting Coverage	Examination Coverage %
B-D B3.90	RPV N2B	Nozzle-to-Vessel (recirculation)	Weld proximity to nozzle blend radius limits scanning to one side	UT 51.6%
B-D B3.90	RPV N2C	Nozzle-to-Vessel (recirculation)	Weld proximity to nozzle blend radius limits scanning to one side	UT 51.6%
B-D B3.90	RPV N2D	Nozzle-to-Vessel (recirculation)	Weld proximity to nozzle blend radius limits scanning to one side.	UT 51.6%
B-D B3.90	RPV N2E	Nozzle-to-Vessel (recirculation)	Weld proximity to nozzle blend radius limits scanning to one side.	UT 51.6%
B-D B3.90	RPV N2F	Nozzle-to-Vessel (recirculation)	Weld proximity to nozzle blend radius limits scanning to one side.	UT 51.6%
B-D B3.90	RPV N2G	Nozzle-to-Vessel (recirculation)	Weld proximity to nozzle blend radius limits scanning to one side.	UT 51.6%
B-D B3.90	RPV N2H	Nozzle-to-Vessel (recirculation)	Weld proximity to nozzle blend radius limits scanning to one side.	UT 51.6%
B-D B3.90	RPV N2J	Nozzle-to-Vessel (recirculation)	Weld proximity to nozzle blend radius limits scanning to one side.	UT 51.6%
B-D B3.90	RPV N2K	Nozzle-to-Vessel (recirculation)	Weld proximity to nozzle blend radius limits scanning to one side.	UT 51.6%
B-D B3.90	RPV N3A	Vessel-to-Nozzle (main steam)	Weld proximity to nozzle blend radius limits scanning to one side.	UT 51.6%
B-D B3.90	RPV N3B	Vessel-to-Nozzle (main steam)	Weld proximity to nozzle blend radius limits scanning to one side.	UT 51.6%
B-D B3.90	RPV N3C	Vessel-to-Nozzle (main steam)	Weld proximity to nozzle blend radius limits scanning to one side.	UT 51.6%

Section XI Category Item No.	Component System and Number	Description	Condition Limiting Coverage	Examination Coverage %
B-D B3.90	RPV N3D	Vessel-to-Nozzle (main steam)	Weld proximity to nozzle blend radius limits scanning to one side.	UT 51.6%
B-D B3.90	RPV N4A	Nozzle-to-vessel (feed water)	Weld proximity to nozzle blend radius limits scanning to one side.	UT 63.3%
B-D B3.90	RPV N4B	Nozzle-to-vessel (feed water)	Weld proximity to nozzle blend radius limits scanning to one side.	UT 63.3%
B-D B3.90	RPV N4C	Nozzle-to-vessel (feed water)	Weld proximity to nozzle blend radius limits scanning to one side.	UT 63.3%
B-D B3.90	RPV N4D	Nozzle-to-vessel (feed water)	Weld proximity to nozzle blend radius limits scanning to one side.	UT 63.3%
B-D B3.90	RPV N5A	Nozzle-to-vessel (core spray)	Weld proximity to nozzle blend radius limits scanning to one side.	UT 67.1%
B-D B3.90	RPV N5B	Nozzle-to-vessel (core spray)	Weld proximity to nozzle blend radius limits scanning to one side.	UT 67.1%
B-D B3.90	RPV N6A	Nozzle-to-vessel (head spray)	Weld proximity to nozzle blend radius limits scanning to one side.	UT 52.5%
B-D B3.90	RPV N6B	Nozzle-to-vessel (head spray)	Weld proximity to nozzle blend radius limits scanning to one side.	UT 52.5%
B-D B3.90	RPV N7	Vessel-to-nozzle (head vent)	Weld proximity to nozzle blend radius limits scanning to one side.	UT 49.1%
B-D B3.90	RPV N8A	Vessel-to-nozzle (jet pump inst)	Weld proximity to nozzle blend radius limits scanning to one side.	UT 65.9%
B-D B3.90	RPV N8B	Vessel-to-nozzle (jet pump inst)	Weld proximity to nozzle blend radius limits scanning to one side.	UT 65.9%

Section XI Category Item No.	Component System and Number	Description	Condition Limiting Coverage	Examination Coverage %
B-D B3.90	RPV N9	Vessel-to nozzle (CRD-capped)	Weld proximity to nozzle blend radius limits scanning to one side.	UT 61.6%
B-D B3.90	RPV N10	Nozzle-to-vessel (SLC)	Weld proximity to nozzle blend radius limits scanning to one side. Additional limitation due to RPV support skirt	UT 42.8%
B-D B3.100	RPV N10-IR	Nozzle inner radius (SLC)	Support skirt	UT 88.3%
B-F B5.10	RPV N6A-SE	Nozzle-to-safe end (head spray)	Flange bolting and surface depression	UT 58%
B-F B5.10	RPV N6B-SE	Nozzle-to-safe end (head spray)	Flange bolting	UT 89.9%
B-H B8.10	RPV support skirt	Bottom head to support skirt	Outside diameter (OD) of weld inaccessible due to biological shield wall and insulation	Penetrant testing (PT) 50%
B-J B9.11	Core Spray CS4B-MF5	Valve-to-pipe	Pipe-to-valve configuration (one-sided exam)	UT 38.6%
B-J B9.11	RHR RH28-12	Pipe-to-valve	Pipe-to-valve configuration (one-sided exam)	UT 82.5%
B-J B9.11	RHR RH29-10	Valve-to-elbow	Elbow-to-valve configuration (one-sided exam) and branch connection obstruction	UT 82.1%
B-J B9.11	RHR RH32-8	Valve-to-pipe	Pipe-to-valve configuration (one-sided exam) and OD surface configuration	UT 73.8%
B-K B10.10	Recirc RR-89,90	8 Lug welds	Pipe clamp on bottom of shear lugs	PT 77.8%
B-O B14.10	CRD 02-27HF	CRD Housing-to-flange	Two 1"-diameter support rods	UT 85.2%
B-O B14.10	CRD 02-27SH	CRD Housing-to-flange	Two 1"-diameter support rods	UT 85.2%

Section XI Category Item No.	Component System and Number	Description	Condition Limiting Coverage	Examination Coverage %
B-O B14.10	CRD 26-03HF	CRD Housing-to-flange	Two 1"-diameter support rods	UT 85.2%
B-O B14.10	CRD 34-39HF	CRD Housing-to-flange	Two 1"-diameter support rods	UT 85.2%
C-A C1.10	RHR A-HTEX 10-4	RHR Heat exchanger shell-to-flange	Flange geometry and 12 welded attachments	UT 80.2%
C-C C3.10	RHR A-RHR-CC-4	RHR Heat exchanger welded support	Limited access between shell and floor	Magnetic particle testing 80.1%
C-F-2 C5.51	Condensate CT27-S30	Pipe-to-valve	Valve configuration	UT 84.5%
C-F-2 C5.51	Feedwater FW-17-S5	Valve-to-pipe	Valve configuration (one-sided exam)	UT 79.8%
C-F-2 C5.51	RHR RH3D-S206	Valve-to-pipe	Weld OD profile configuration (limited circumferential scan)	UT 79.0%
C-F-2 Augment	RCIC RC3-S15	Pipe-to-valve (0.280" thick)	Valve configuration	UT 80.5%
NUREG 0313	RWCU CU54-16	Pipe-to-flange (class 3)	Flange configuration	UT 57.3%

3.2 Applicable ASME Code Edition and Addenda

The Section XI ASME Code of record for the third 10-year ISI interval at VYNPS is the 1986 Edition with no Addenda.

3.3 ASME Code Requirements

ASME Code, Section XI, 1986 Edition, in examination categories B-D (Full Penetration Welds of Nozzles in Vessels), B-F (Pressure-Retaining Dissimilar Metal Welds), B-H (Integral Attachments for Vessels), B-J (Pressure-Retaining Welds in Piping), B-K (Integral Attachments for Piping, Pumps, and Valves), B-O (Pressure-Retaining Welds in Control Rod Housings), C-A (Pressure-Retaining Welds in Pressure Vessels), C-C (Integral Attachments for Vessels, Piping, Pumps, and Valves), and C-F-2 (Pressure-Retaining Welds in Carbon or Low Alloy Steel Piping) requires essentially 100% volumetric and/or surface examinations of the above welds.

ASME Section XI Code Case N-460, which has been approved for use by the NRC in Regulatory Guide (RG) 1.147, Revision 13, allows credit for full volume coverage of welds if it can be shown that greater than 90% of the required volume has been examined.

3.4 ASME Code Requirement from Which Relief is Requested

Relief is requested from the requirement to examine essentially 100% of the required volume specified in the ASME Code, Section XI, 1986 Edition. Due to physical obstructions, and limitations imposed by design, geometry and materials of construction of the subject components the ultrasonic examination coverage did not meet the 90% examination requirements of ASME Code Case N-460.

3.5 Licensee's Basis for Relief

Pursuant to 10 CFR 50.55a(g)(5)(iii), relief is requested on the basis that the required "essentially 100%" coverage examination is impractical due to physical obstructions and limitations imposed by design, geometry, and materials of construction of the component.

Relief is requested from performing a complete "essentially 100%" coverage examination of the required volume and/or area as applicable for the identified components in Table 1.

VYNPS obtained a construction permit on July 7, 1967. The piping systems and associated components were designed and fabricated before the examination requirements of ASME Code Section XI were formalized and published. Since this plant was not specifically designed to meet the requirements of ASME Code Section XI, literal compliance is not feasible or practical within the limits of the current plant design.

Physical obstructions imposed by design, geometry and materials of construction are typical of vessel appurtenances, biological shield wall, insulation support rings, structural and component support members, adjacent component weldments in close proximity, unique component configurations (valves and pumps), and dissimilar metal weldments.

As a minimum, all components received the required coverage examination(s) to the extent practical with regard to the limited or lack of available access. The examinations conducted confirmed satisfactory results evidencing no unacceptable flaws present. The licensee has concluded that if any active degradation mechanisms were to exist in the subject welds, those degradations would have been identified in the examinations performed. The basis for this conclusion derives from the statistical approach put forth in Appendix A (of the licensee's submittal dated October 1, 2003). The licensee states that the statistical approach concludes that even for large reductions in coverage, the reduction in degradation detection confidence is insignificant.

Examination Category B-D, Full Penetration Welds of Nozzles in Vessels
Item B3.90, Nozzle to Reactor Vessel Welds

For the subject Examination Category B-D, Item B3.90 welds as listed in Table 1, the nozzle material is carbon steel (CS) and the vessel material is CS. The licensee stated that during the ultrasonic examination of the welds, approximately 42.8% to 67.1% coverages of the required examination volumes were obtained. The coverage reported represents the aggregate

coverage of all scans performed using 0E, 40E and 60E scan angles. Scanning was unable to be performed from the nozzle side of the welds. The licensee stated the scanning limitations were caused by the close proximity of the weld to the nozzle blend radius which prevented scanning from both sides of the weld. In order to scan all of the required surfaces for the inspection of these welds, the nozzles would have to be redesigned to allow scanning from both sides of the welds, which is impractical. There were no recordable indications found during the inspections of these welds.

Examination Category B-D, Full Penetration Welds of Nozzles in Vessels
Item B3.100, Reactor Vessel Nozzle Inside Radius Section

For the subject Examination Category B-D, Item B3.100 inside radius section as listed in Table 1, the licensee stated that during the ultrasonic examination of the inside radius approximately 88.3% coverage of the required examination volume was obtained. Scanning was limited due to the reactor pressure vessel support skirt. There were no recordable indications found during the inspections of the subject component.

Examination Category B-F, Pressure-Retaining Dissimilar Metal Welds
Item B5.10, Reactor Vessel Nozzle to Safe End Welds

For the two subject Examination Category B-F, Item B5.10 head spray nozzles, the licensee was able to obtain approximately 58% of the required volume for N6A-SE and 89.9% of the required volume of N6B-SE. The examinations were limited by the flange bolting and for N6A-SE had an additional limitation due to a surface depression. There were no recordable indications found during the inspections of these welds.

Examination Category B-H, Integral Attachments for Vessels
Item B8.10, Reactor Vessel Bottom Head to Support Skirt

For the subject bottom head to support skirt weld, the licensee performed a surface examination from the inner surface. The outside surface of the support skirt weld received a surface examination on a very limited area. The licensee stated that the examination coverage obtained is approximately 50% for the inner and outer surfaces of the weld. The licensee performed a complete surface examination on the inner surface of the weld. Access to the outside surface is limited by non-removable insulation. Only two access regions are available for examination on the outside of the skirt.

Examination Category B-J, Pressure-Retaining Welds in Piping
Item B9.11, Circumferential Welds 4-inch Nominal Pipe Size or Larger

For the core spray component CS4B-MF5 valve-to-pipe weld, the licensee stated that only 38.6% of the required examination volume was obtained in accordance with Appendix VIII requirements. The coverage reported represents the aggregate coverage of all scans performed. The licensee stated that scanning was limited due to the configuration of the pipe to valve which prevented scanning from both sides of the weld. In order to scan all of the required surfaces for the inspection of this weld, the pipe-to-valve would have to be redesigned to allow scanning from both sides of the weld, which is impractical. There were no recordable indications found during the inspection of this weld.

For the residual heat removal (RHR) components RH28-12 pipe-to-valve, RH29-10 valve-to-elbow and RH32-8 valve-to-pipe welds, the licensee stated that 82.5%, 82.1%, and 73.8% of the required examination volumes were obtained. These examinations were performed prior to the implementation of Appendix VIII requirements. The licensee stated that scanning was limited due to the configuration of the pipe-to-valve which prevented scanning from both sides of the welds. In order to scan all of the required surfaces for the inspection of these welds, the pipe-to-valve interfaces would have to be redesigned to allow scanning from both sides of the weld, which is impractical. There were no recordable indications found during the inspection of these welds.

Examination Category B-K, Integral Attachments for Piping, Pumps, and Valves
Item B10.10, Integrally Welded Attachments - Piping

The licensee was able to inspect 77.8% of the required surface area using PT of the subject eight lug welds. The examination was limited due to a pipe clamp on the bottom of the shear lugs. There were no recordable indications found during the examination of the lugs.

Examination Category B-O, Pressure-Retaining Welds in Control Rod Housings
Item B14.10, Welds in CRD Housing - Reactor Vessel

The licensee was able to inspect 85.2% of the required volume for the four subject control rod drive (CRD) welds using UT in accordance with ASME Code Section V. The examination was limited due to two 1-inch rods located 180E from each other around the CRD. The licensee provided drawings that show the obstruction which limits the inspection in both the perpendicular and parallel scans adjacent to the rods. In order to scan all of the required surfaces for the inspection of this weld, redesign would be required to allow scanning in the region of the rods, which is impractical. There were no recordable indications found during the inspection of these welds.

Examination Category C-A, Pressure-Retaining Welds in Pressure Vessels
Item C1.10, Shell Circumferential Welds

The licensee obtained a coverage of 80.2% during the ultrasonic examination of the RHR heat exchanger shell-to-flange weld A-HTEX 10-4. The examination was limited due to the flange geometry and 12 welded attachments. Substantial burden would be incurred to achieve additional coverage of the subject weld. Based on the coverage achieved, it is judged that patterns of degradation would have been detected. There were no recordable indications found during the inspection of the weld.

Examination Category C-C, Integral Attachments for Vessels, Piping, Pumps, and Valves
Item C3.10, Pressure Vessel Integrally Welded Attachments

The licensee obtained 80.1% of the required surface area using magnetic particle testing. The examination coverage was limited due to access between the vessel shell and the floor. Substantial burden would be incurred to achieve additional coverage of the subject weld.

Examination Category C-F-2, Pressure-Retaining Welds in Carbon or Low Alloy Steel Piping Item C5.51, Circumferential Piping Welds

The licensee obtained 84.5%, 79.8%, 79.0%, and 80.5% of the required examination volumes for welds CT27-S30, FW-17-S5, RH3D-S206, and RC3-S15, respectively, performed in accordance with Appendix VIII requirements. There were no indications of reportable size recorded for these welds. Based on the examination volumes obtained, it is judged that patterns of degradation would have been detected.

Class 3, Pipe-to-Flange Weld Augmented Examination for Intergranular Stress-Corrosion Cracking (NUREG-0313)

The licensee obtained 57.3% of the required examination volume for the pipe-to-flange weld CU54-16. The examination was performed in accordance with Appendix VIII requirements. The examination was limited due to the flange configuration. The licensee believes that the examination performed would have detected any patterns of service-induced flaws.

In addition, the licensee performed Class 1, Examination Category B-P, pressure testing and VT-2 visual examinations to complement the limited scan examinations. The ASME Code requires that a pressure test be performed after each refueling outage for Class 1 components. The pressure tests require a VT-2 visual examination for evidence of leakage. This testing provides adequate assurance of pressure boundary integrity.

In addition, the licensee performed Class 2, Examination Category C-H, pressure testing and VT-2 visual examination to complement the limited examination coverage. The ASME Code requires that a pressure test be performed once each period for Class 2 items. These tests require a VT-2 visual examination for evidence of leakage. This testing provides adequate assurance of pressure boundary integrity.

4.0 NRC STAFF EVALUATION

The ASME Code, Section XI, 1986 Edition, requires volumetric and/or surface examination coverage of 100% of specific examination categories and item numbers. However, a reduction in examination coverage of less than 10% is acceptable due to interferences as provided in ASME Code Case N-460, “Alternative Examination Coverage for Class 1 and Class 2 Welds” which has been approved for use by the NRC in RG 1.147. The NRC staff has evaluated the information provided by the licensee in support of the limited volumetric or surface examinations of the subject welds identified in Table 1 as performed during the third 10-year ISI interval. The staff notes that the licensee provided, as part of its basis for relief, an argument based on a statistical study. This argument was included as “Appendix A” of the licensee’s letter dated October 1, 2003. At this time, the staff makes no judgement as to the acceptability of the statistical argument since the staff’s review was not based, in any part, on the statistical study.

The NRC staff has determined that the examination coverage of the subject welds was reduced due to component configuration and geometries which restricted scanning. In order to meet the ASME Code requirements, the components would have to be redesigned, fabricated, and installed in the systems, which would impose a burden on the licensee. The licensee examined a significant portion of the subject welds. The extent of examination should have been able to identify any patterns of significant degradation. Therefore, the staff has determined that the

licensee's limited examination coverage of the welds provide reasonable assurance of structural integrity. Based on the access limitations, it is impractical for the licensee to meet the ASME Code coverage requirements.

5.0 CONCLUSION

The NRC staff has reviewed the licensee's submittal and has concluded that compliance with the ASME Code requirements for the volumetric or surface coverage of the subject welds is impractical due to component configurations. The staff has also determined that if the ASME Code requirements were to be imposed on the licensee, the components must be redesigned, which would impose significant burden on the licensee. The staff finds that the examination coverage of the accessible weld volume or area, as completed by the licensee, provides reasonable assurance of structural integrity of the subject welds. Therefore, relief is granted pursuant to 10 CFR 50.55a(g)(6)(i) for the third 10-year ISI interval of VYNPS. This granting of relief is authorized by law and will not endanger life or property or the common defense and security, and is otherwise in the public interest giving due consideration to the burden upon the licensee that could result if the requirements were imposed on the facility. All other ASME Code, Section XI requirements for which relief was not specifically requested and authorized herein by the NRC staff remain applicable, including third-party review by the Authorized Nuclear Inservice Inspector.

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