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February 16, 2006
BVY 06-011

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

Subject: **Vermont Yankee Nuclear Power Station**
License No. DPR-28 (Docket No. 50-271)
Relief Request ISI-012, Fourth ISI Interval

Dear Sir or Madam:

Pursuant to 10 CFR 50.55a(a)(3), Entergy Nuclear Operations, Inc. (Entergy) hereby requests relief from the Inservice Inspection Program requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code), Section XI, 1998 Edition, 2000 Addenda, for the Vermont Yankee Nuclear Power Station (VY).

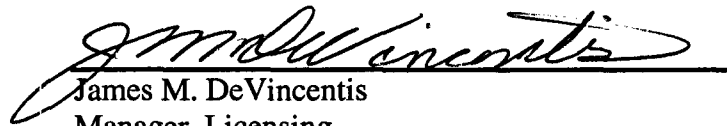
This relief request proposes to use the requirements of BWRVIP-75A, in lieu of the Section XI requirements and other augmented requirements, for the examination of Category B-F, Item 5.10, nozzle-to-safe end welds, NPS 4 or larger. The BWRVIP-75A examination requirements, schedules and frequencies will be utilized. Entergy has concluded in the attached relief request ISI-012 that the proposed alternative provides an acceptable level of quality and safety pursuant to the provisions of 10 CFR 50.55a(a)(3)(i). Relief Request ISI-012 shall apply for the remaining duration of the Fourth ISI Interval.

A similar relief request was approved for the Edwin I. Hatch Nuclear Plant – Units 1 and 2 for the 3rd Inservice Inspection Interval as RR-39 (Reference SER dated January 7, 2005 – TAC Nos. MC2383 and MC 2384).

There are no regulatory commitments contained within this letter.

If there are any questions regarding this subject, please feel free to contact me at (802) 258-4236.

Sincerely,


James M. DeVincentis
Manager, Licensing
Vermont Yankee Nuclear Power Station

A047

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**VERMONT YANKEE
FOURTH TEN-YEAR INTERVAL INSERVICE INSPECTION PROGRAM
RELIEF REQUEST ISI-012**

Proposed Alternative
In Accordance with 10CFR50.55a(a)(3)(i)

--Alternative Provides Acceptable Level of Quality and Safety--

1. ASME Code Component(s) Affected

Code Class: Class 1

Examination Category: B-F

Item Number: B5.10, Reactor Vessel Nozzle-to-Safe End Butt Welds, NPS 4 or larger

2. Applicable Code Edition and Addenda

The Code of Record for the Fourth Inservice Inspection Interval is ASME Section XI Code, 1998 Edition, 2000 Addenda.

3. Applicable Code Requirements

ASME Section XI Code, Subsection IWB-2412 requires the percentage of examinations to be completed in accordance with Table IWB-2412-1, except for the examinations that may be deferred until the end of the inspection interval. Table IWB-2412-1 defines a minimum and maximum number of examinations to be performed each inspection period.

ASME Section XI Code, Subsection IWB-2500 requires components to be examined as specified in Table IWB-2500-1. The Extent and Frequency of Examination requires that all Category B-F welds be examined over the ten-year ISI interval.

B5.10 Examine accessible areas of the reactor vessel nozzle-to-safe end butt welds, NPS 4 and larger, by volumetric and surface examination method.

These welds are covered by the augmented examination requirements of NUREG-0313 (Reference 1) and Generic Letter 88-01, including supplement 1 (References 2 and 3).

4. Reason for Request

The attached list of affected Category B-F welds (Attachment 1) is subjected to the inspection schedule and requirements of Generic Letter GL 88-01, including supplement 1. Entergy proposed to use the schedules and frequencies specified in the BWRVIP-75-A (Reference 5, Technical Basis for Revisions to Generic Letter 88-01 Inspection Schedules) in lieu of the above listed Code requirements. BWRVIP-75-A provides the technical basis for revisions to Generic

Letter 88-01 Inspection Schedules, which supports a reduction in the number of welds to be examined in some categories or an increase in the time between inspections in other categories.

5. Proposed Alternative

In lieu of the requirements of ASME Section XI, 1998 Edition, 2000 Addenda, and as augmented by the requirements of Generic Letter 88-01, the proposed alternative described herein shall be used.

Entergy will examine the affected Category B-F welds (Enclosure 1) in accordance with BWRVIP-75-A. The Examination Method listed in Table IWB-2500-1 is not affected by this request.

Basis for Use

By letter dated May 14, 2002 (Reference 4) the NRC issued their Final Safety Evaluation (SE) on BWRVIP-75. In that Safety Evaluation, the NRC staff concluded that, "licensee implementation of the guidelines of BWRVIP-75 report, as modified, will provide an acceptable level of quality for inspection of the safety-related components." Additionally, the NRC concluded that, "the revised BWRVIP-75 guidance is acceptable for licensee referencing as the technical basis for relief from, or as an alternative to, the ASME Code and 10 CFR 55.55a, in order to use the sample schedules and frequencies specified in the revised BWRVIP-75 report that are less than those required by the ASME Code." BWRVIP-75-A is the updated version of the report which incorporated proposed changes by BWRVIP in response to recommendations in the NRC Safety Evaluation and other necessary revisions identified since the previous publication of the report.

Entergy concludes that the use of BWRVIP-75-A, as defined by the NRC Final Safety Evaluation, in lieu of the above specified Code requirements will provide an acceptable level of quality and safety. Therefore, approval is requested pursuant to 10 CFR 50.55a(a)(3)(i).

6. Duration of Proposed Alternative

Entergy proposes to use the alternative for the remaining term of the Fourth Inservice Inspection Interval for Vermont Yankee Nuclear Power Station.

7. Precedents

A similar relief request was approved for Edwin I. Hatch Nuclear Plant – Units 1 and 2 for the 3rd Inservice Inspection Interval as RR-39 (Reference SER dated January 7, 2005 – TAC Nos. MC2383 and MC2384))

8. Attachment:

1. List of Affected Category B-F Welds.

9. References

1. W.S. Hazelton and W.H. Koo, "Technical Report on Material Selection and Processing Guidelines for BWR Coolant Pressure Boundary Piping, " NUREG-0313, Rev. 2, USNRC, January 1988.
2. USNRC Generic Letter 88-01, "NRC Position on IGSCC in BWR Austenitic Stainless Steel," January 25, 1988.
3. USNRC Generic Letter 88-01, Supplement 1, "NRC Position on Intergranular Stress Corrosion Cracking (IGSCC) in BWR Austenitic Stainless Steel," February 4, 1992.
4. William H. Bateman, Letter from NRC to Carl Terry, BWRVIP Chairman, "Final Safety Evaluation of the "BWRVIP Vessel and Internals Project, BWR Vessel and Internals Project, Technical Basis for Revisions to Generic Letter 88-01 Inspection Schedules (BWRVIP-75)," EPRI Report TR-113932, October 1999 (TAC NO. MA5012), dated May 14, 2002.
5. BWRVIP-75-A: BWR Vessel and Internals Project Technical Basis for Revisions to Generic Letter 88-01 Inspection Schedules, Final Report, October 2005.

**Relief Request to Use BWRVIP-75-A Guideline Requirements
In Lieu of ASME Section XI Code Requirement for the
Examination
of Category B-F Welds**

Relief Request ISI-012

Attachment 1

List of Affected Category B-F Welds

List of Affected B-F Welds

Component ID	SYSTEM ID	Description	ASME Category	Item	MATERIAL	BWRVIP Category	SIZE
N1A-SE	RECIRCULATION OUTLET	Nozzle to Safe End Butt Weld	BF	B5.10	A508 CL2 W /CLAD A182 F316	A	28.87"
N1B-SE	RECIRCULATION OUTLET	Nozzle to Safe End Butt Weld	BF	B5.10	A508 CL2 W /CLAD A182 F316	A	28.87"
N2A-SE	RECIRCULATION INLET	Nozzle to Safe End Butt Weld	BF	B5.10	A508 CL2 W /CLAD A182 F316	A	15.5"
N2B-SE	RECIRC. INLET	Nozzle to Safe End Butt Weld	BF	B5.10	A508 CL2 W /CLAD A182 F316	A	15.5"
N2C-SE	RECIRC. INLET	Nozzle to Safe End Butt Weld	BF	B5.10	A508 CL2 W /CLAD A182 F316	A	15.5"
N2D-SE	RECIRC. INLET	Nozzle to Safe End Butt Weld	BF	B5.10	A508 CL2 W /CLAD A182 F316	A	15.5"
N2E-SE	RECIRC. INLET	Nozzle to Safe End Butt Weld	BF	B5.10	A508 CL2 W /CLAD A182 F316	A	15.5"
N2F-SE	RECIRC. INLET	Nozzle to Safe End Butt Weld	BF	B5.10	A508 CL2 W /CLAD A182 F316	A	15.5"
N2G-SE	RECIRC. INLET	Nozzle to Safe End Butt Weld	BF	B5.10	A508 CL2 W /CLAD A182 F316	A	15.5"
N2H-SE	RECIRC. INLET	Nozzle to Safe End Butt Weld	BF	B5.10	A508 CL2 W /CLAD A182 F316	A	15.5"
N2J-SE	RECIRC. INLET	Nozzle to Safe End Butt Weld	BF	B5.10	A508 CL2 W /CLAD A182 F316	A	15.5"
N2K-SE	RECIRC. INLET	Nozzle to Safe End Butt Weld	BF	B5.10	A508 CL2 W /CLAD A182 F316	A	15.5"
N5A-SE	CORE SPRAY	Nozzle to Safe End Butt Weld	BF	B5.10	A508 CL2 W/CLAD B168 INCONEL 600	E	13.5"
N5B-SE	CORE SPRAY	Nozzle to Safe End Butt Weld	BF	B5.10	A508 CL2 W/CLAD B168 INCONEL 600	E	13.5"
N6A-SE	INSTRUMENTATION	Nozzle to Safe End Butt Weld	BF	B5.10	A508 CL2 W /CLAD SA336 CL F8	A	9.0"
N6B-SE	INSTRUMENTATION	Nozzle to Safe End Butt Weld	BF	B5.10	A508 CL2 W /CLAD SA336 CL F8	A	9.0"

List of Affected B-F Welds

[illegible]