



Entergy Nuclear Northeast
Indian Point Energy Center
450 Broadway, GSB
P.O. Box 249
Buchanan, NY 10511-0249

Robert Walpole
Licensing Manager
Tel (914) 734-6710

June 29, 2011

NL-11-075

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

SUBJECT: Request For Relief To Extend The Inservice Inspection Interval For The
Reactor Vessel Weld Examination
Indian Point Unit Number 2
Docket No. 50-247
License No. DPR-26

- REFERENCES:**
1. Entergy Letter NL-08-096 to NRC, "Request For Relief To Extend The Unit 2 and 3 Inservice Inspection Interval For The Reactor Vessel Weld Examination And Request For License Amendment For Submittal of ISI Information and Analyses, " dated July 8, 2008 (ML081980058)
 2. Entergy Letter NL-08-177 to NRC, "Response to Request For Additional Information on Request For Relief To Extend The Unit 2 and 3 Inservice Inspection Interval For The Reactor Vessel Weld Examination And Request For License Amendment For Submittal of ISI Information and Analyses (TAC Nos. MD9194-MD9197)" dated December 23, 2008 (ML090050020)
 3. Entergy Letter NL-09-003 to NRC, "Supplemental Response to Request For Additional Information on Request For Relief To Extend The Unit 2 and 3 Inservice Inspection Interval For The Reactor Vessel Weld Examination (TAC Nos. MD9196 and MD9197), " dated January 20, 2009 (ML090400575)
 4. NRC Letter to Entergy, "Indian Point Nuclear Generating Unit Nos. 2 and 3 – Relief Requests On Reactor Vessel Weld Examinations (TAC NOS. MD9196 AND MD9197)," dated March 6, 2009 (ML090360460)

Dear Sir or Madam:

Entergy Nuclear Operations, Inc. (Entergy) is submitting Relief Request No. 13 (IP2-ISI-RR-13) (Enclosure 1) for Indian Point Unit No. 2 (IP2). This relief request is for the Third 10-year Inservice Inspection (ISI) Interval.

Ab47
NRR

Entergy previously requested this relief until 2012 based on WCAP-16168-NP-A, Revision 2, "Risk- Informed Extension of The Reactor Vessel In-Service Inspection Interval," and the supporting information in References 1 to 3. The NRC approved this relief request in Reference 4. The relief request was to extend the reactor vessel weld inspection until 2012. The NRC approval was for 2012 and noted that relief beyond the current licenses will be considered if and when such relief requests are submitted, if the licensee's pending license renewal application is granted. This relief was for 16 of the 20 years justified by the submittal.

The purpose of this relief request is to extend the reactor vessel weld inspection until the end of the operating license for IP2 but not later than March 2014. The current operating License expires September 28, 2013. However, an application for License renewal was filed with the NRC on April 23, 2007. Therefore, the provisions of 10 CFR 2.109 are applicable "b) If the licensee of a nuclear power plant licensed under 10 CFR 50.21(b) or 50.22 files a sufficient application for renewal of either an operating license or a combined license at least 5 years before the expiration of the existing license, the existing license will not be deemed to have expired until the application has been finally determined."

Entergy requests approval of the relief request by November 2011 to support the planning of the IP2 Refueling Outage (RFO) – 2R20 in March 2012.

There are no new commitments identified in this submittal. If you have any questions or require additional information, please contact Mr. Robert Walpole, Licensing Manager at 914-734-6710.

Sincerely,

A handwritten signature in black ink that reads "A. Russen for Robert Walpole". The signature is written in a cursive style.

RW/sp

Enclosure 1. Relief Request No IP2-ISI-RR-13 - 10 Year Reactor Vessel Inservice Inspection Interval Extension

cc: Mr. John P. Boska, Senior Project Manager, NRC NRR DORL
Mr. William M. Dean, Regional Administrator, NRC Region I
NRC Resident Inspector's Office Indian Point
Mr. Paul Eddy, New York State Department of Public Service
Mr. Francis J. Murray, Jr., President and CEO, NYSERDA

ATTACHMENT 1 TO NL-11-075

RELIEF REQUEST NO IP2-ISI-RR-13

10 YEAR REACTOR VESSEL INSERVICE INSPECTION INTERVAL EXTENSION

**ENTERGY NUCLEAR OPERATIONS, INC.
INDIAN POINT NUCLEAR GENERATING UNIT NO. 2
DOCKET NO. 50-247**

Indian Point Unit 2
Third 10-year ISI Interval
Relief Request No: IP2-ISI-RR-13
Reactor Vessel Inservice Inspection Interval Extension
Proposed Alternative
In Accordance with 10 CFR 50.55a(a)(3)(i)
-Alternative Provides Acceptable Level of Quality and Safety-

1. ASME Code Component(s) Affected

The affected component is the Indian Point Unit 2 (IP2) reactor vessel (21RV), specifically the following American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (BPV) Code Section XI (Reference 1) examination categories and item numbers covering examinations of the reactor vessel (RV). These examination categories and item numbers are from IWB-2500 and Table IWB-2500-1 of the ASME BPV, Code Section XI.

Examination

Category	Item No.	Description
B-A	B1.11	Circumferential Shell Welds
B-A	B1.12	Longitudinal Shell Welds
B-A	B1.21	Circumferential Head Welds
B-A	B1.22	Meridional Shell Welds
B-A	B1.30	Shell-to-Flange Weld
B-A	B1.40	Head-to-Flange Weld
B-A	B1.50	Repair Welds
B-A	B1.51	Beltline Region
B-D	B3.90	Nozzle-to-Vessel Welds
B-D	B3.100	Nozzle Inner Radius Areas

(Throughout this request the above examination categories are referred to as “the subject examinations” and the ASME BPV Code, Section XI, is referred to as “the Code.”)

2. Applicable Code Edition and Addenda

ASME Code Section XI, “Rules for Inservice Inspection of Nuclear Power Plant Components,” Code 1989 Edition, No Addenda.

3. Applicable Code Requirement

Paragraph IWB-2412 of the Section XI of the ASME Boiler and Pressure Vessel Code, Inspection Program B, requires volumetric examination of essentially 100% of reactor pressure vessel pressure retaining welds identified in Table IWB-2500-1 once each ten year interval. This interval was extended for the third ISI interval in Relief Request RR-76 (Reference 2) until 2012

4. Reason for Request

Relief Request RR-76 and the corresponding SER require that category B-A and B-D vessel welds be inspected during the upcoming 2012 refueling outage. Since inspection of B-A and B-D welds requires that the core support barrel be removed from the vessel, these inspections had previously been planned to be performed concurrently with the vessel internals inspections required by MRP-227. However, IP2 does not anticipate that the inspection tooling, acceptance criteria and other outage resources will be available to perform the MRP-227 inspections during the March 2012 refueling outage. This relief request asks for approval to defer the vessel weld inspections from 2012 until the end of the operating license for IP2 but not later than March 2014. Approval of this request will eliminate the need to remove the core barrel during the 2012 refueling outage to perform the vessel weld inspections and again during the 2014 refueling outage to perform the vessel internals inspections. Rescheduling the inspection of the Category B-A and the B-D RPV pressure retaining welds from the 2012 refueling outage to the 2014 refueling outage will allow both the vessel welds and the vessel internals inspections to be performed during the same refueling outage. This option will eliminate the need to remove the core support barrel during the 2012 refueling outage resulting in a person-Rem savings of approximately 1.5 Rem.

5. Proposed Alternative and Basis for Use

Relief Request RR-76 (References 3 to 5) requested approval of an alternative inspection frequency for RPV pressure retaining welds category B-A and B-D in lieu of the Code requirements listed above. RR-76 was based on WCAP-16168-NP-A (Reference 6) was approved under Safety Evaluation Report (SER) (Reference 2) dated March 6, 2009. Although WCAP-16168-NP-A and the information submitted in the request provided the technical bases to extend the inspection frequency of these welds from ten to twenty years, the relief request and the corresponding SER limited this extension to 16 years for IP2 (i.e. 2012) which was within the current operating period.

Indian Point Unit 2 proposes to defer completion of the ASME Code required volumetric examination of the Reactor Pressure Vessel full penetration pressure retaining Category B-A and B-D welds from the March 2012 refueling outage to the end of the operating license for IP2 but not later than March 2014. The IP2 Operating License currently expires on September 28, 2013 but an application for License Renewal was submitted to NRC on April 2, 2007. Under the provisions of 10 CFR 2.109, the existing License will not be deemed to expire in 2013 unless the application has been finally determined.

The technical basis for deferring the inspection of the category B-A and B-D welds has been previously provided in Relief Request RR-76 (References 3 to 5) and WCAP-16168-NP-A, Revision 2 (Reference 6)

This relief request is similar to the Salem Unit Nos.1 and 2 Relief Request SC-I3R-95 approved under SER dated February 22, 2010.

6. Duration of Proposed Alternative

This request is applicable to Entergy's inservice inspection program for the third interval for Indian Point Unit 2. The proposed alternative is until the end of the operating license for IP2 but not later than March 2014.

7. References

1. ASME Boiler and Pressure Vessel Code, Section XI, 1989 Edition no Addenda, American Society of Mechanical Engineers, New York.
2. NRC Letter to Entergy, "Indian Point Nuclear Generating Unit Nos. 2 and 3 – Relief Requests On Reactor Vessel Weld Examinations (TAC NOS. MD9196 AND MD9197)," dated March 6, 2009 (ML090360460).
3. Entergy Letter NL-08-096 to NRC, "Request For Relief To Extend The Unit 2 and 3 Inservice Inspection Interval For The Reactor Vessel Weld Examination And Request For License Amendment For Submittal of ISI Information and Analyses, " dated July 8, 2008 (ML081980058).
4. Entergy Letter NL-08-177 to NRC, "Response to Request For Additional Information on Request For Relief To Extend The Unit 2 and 3 Inservice Inspection Interval For The Reactor Vessel Weld Examination And Request For License Amendment For Submittal of ISI Information and Analyses (TAC Nos. MD9194-MD9197)" dated December 23, 2008 (ML090050020).
5. Entergy Letter NL-09-003 to NRC, "Supplemental Response to Request For Additional Information on Request For Relief To Extend The Unit 2 and 3 Inservice Inspection Interval For The Reactor Vessel Weld Examination (TAC Nos. MD9196 andMD9197), " dated January 20, 2009 (ML090400575).
6. WCAP-16168-NP-A, Revision 2, "Risk-Informed Extension of Reactor Vessel In-Service Inspection Interval," June 2008.