



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

Patric Conroy
Licensing Manager
Indian Point Energy Center

June 8, 2005

Re: Indian Point Units No. 2 and 3
Docket Nos. 50-247 and 50-286
NL-05-071

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

SUBJECT: Request for Relief from System Hydrostatic Test Requirements for Small Bore (≤ 1 inch), ASME Code Class 1 Reactor Coolant Pressure Boundary (RCPB) Vent, Drain, and Branch (VTDB) Lines and Connections

References: 1. USNRC letter from D.J. Roberts to M. Kansler, dated January 6, 2005 regarding Pilgrim Nuclear Power Station Relief Request No. PRR-29, Relief from System Hydrostatic Test Requirements for Small Bore (≤ 1 -inch), ASME BPV Code Class 1 RCPB Vent, Drain and Branch Lines and Connections (TAC No. MC1472)

Dear Sir:

The purpose of this letter is to request NRC approval of the attached Indian Point Units No 2 and 3 (IPEC) Relief Request (RR) Nos. 72 and 3-41 respectively (Enclosure 1) which proposes a system leakage test to the normal operating pressure boundary rather than a hydrostatic test to the full Class 1 pressure boundary.

RR-72 and RR-3-41 request relief from the Inservice Inspection Program requirements of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, 1989 Edition. The request applies to the system hydrostatic test requirements for small bore (≤ 1 inch), ASME Code Class 1 Reactor Coolant Pressure Boundary (RCPB) VTDB lines and connections.

Entergy has concluded that the proposed alternative provides an acceptable level of quality and safety, and that compliance with the specified Code requirements would result in unnecessary hardship without a compensating increase in the level of quality and safety. This relief is requested under the provisions of 10 CFR 50.55a(a)(3)(ii).

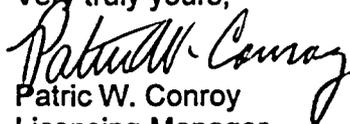
A similar relief request was approved for the Pilgrim Nuclear Power Station (Reference 1).

AD47

Entergy requests approval of the relief request by February 2006, to support IP2 Refueling Outage (RFO) - 17.

There are no new commitments identified in this submittal. If you have any questions or require additional information, please contact Mr. Patric W. Conroy, Licensing Manager at 914-734-6668.

Very truly yours,


Patric W. Conroy
Licensing Manager
Indian Point Energy Center

Enclosure 1: IPEC Unit 2 and Unit 3 Relief Request Numbers RR-72 and RR-3-41

cc: Regional Administrator, Region 1
U.S. Nuclear Regulatory Commission

Resident Inspector's Office
Indian Point Unit 2
U.S. Nuclear Regulatory Commission

Resident Inspector's Office
Indian Point Unit 3
U.S. Nuclear Regulatory Commission

Mr. John P. Boska, Sr. Project Manager, Section 2
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission

Mr. Peter R. Smith, President
NYSERDA

Mr. Paul Eddy
New York State Department of Public Service

ENCLOSURE 1 to NL-05-071

REQUEST FOR RELIEF FROM SYSTEM HYDROSTATIC TEST REQUIREMENTS FOR
SMALL BORE (≤ 1 INCH), ASME CODE CLASS 1 REACTOR COOLANT PRESSURE
BOUNDARY (RCPB) VENT, DRAIN, AND BRANCH (VTDB) LINES AND CONNECTIONS

IPEC UNIT 2 RELIEF REQUEST NUMBER RR-72
IPEC UNIT 3 RELIEF REQUEST NUMBER RR-3-41

(3 Pages)

ENERGY NUCLEAR OPERATIONS, INC.
INDIAN POINT NUCLEAR GENERATING UNITS NO. 2 and 3

DOCKET NOS. 50-247 and 50-286

**INDIAN POINT ENERGY CENTER UNITS 2 and 3
THIRD 10-YEAR INSERVICE INSPECTION INTERVAL**

**IPEC UNIT 2 RELIEF REQUEST NO. RR-72
IPEC UNIT 3 RELIEF REQUEST NO. RR-3-41**

1.0 ASME Code Component(s) Affected

Code Class: 1
References: IWB-2500, IWB-5222
Examination Category: B-P
Item Numbers: B15.51 and B15.71
Parts Examined: Piping and Valves
Description: Class 1 components within the Reactor Coolant System
Component: Reactor Coolant Pressure Boundary (RCPB) vent, drain and branch (VTDB) lines and connections, Small bore (≤ 1 inch, nominal pipe size)

2.0 Applicable Code Edition and Addenda

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

3.0 Applicable Code Requirement

ASME Section XI Code, 1989 Edition, Subsection IWB-2500 Examination and Pressure Test requirements (Class 1), Table IWB-2500-1, Examination Category B-P (All Pressure Retaining Components), Items No. B15.51 (Piping) and B15.71 (Valves) requires that a system hydrostatic pressure test be performed once each 10 year inspection interval in accordance with the requirements of IWB-5222. Furthermore, Note 2 of Table IWB-2500-1 states that "The pressure retaining boundary during system hydrostatic test shall include all Class 1 components within the system boundary." This would require the normally closed VTDB lines and connections to be opened and/or pressurized.

4.0 Reason for Request

Table IWB-2500-1 of the 1989 ASME Section XI Code requires that a system hydrostatic test be performed once per 10 year interval in accordance with the requirements of IWB-5222. Note 2 of Table IWB-2500-1, under category B-P states that "The pressure retaining boundary during the system hydrostatic test shall include all Class 1 components within the system boundary".

The Class 1 VTDB lines and connections are equipped with manual valves, which provide double isolation of the RCPB. These valves are generally maintained in the closed position during normal plant operation. The piping outboard of the first isolation valve is not normally pressurized. Under normal operating conditions, the VTDB lines and connections are subjected to reactor coolant system pressure and temperature only if leakage through the inboard valves occurs. To perform the ASME Code required pressure test, it would be necessary to manually open the inboard valves to pressurize the VTDB lines and connections. Pressurization by this method defeats the double isolation and reduces the margin of personnel safety for those performing the test. Furthermore, performing the test with the inboard isolation valves open requires several man-hours to position the valves for the test and restore the valves to their closed positions once the test is completed. These valves are

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located in close proximity to the RCS loop piping and thus would require personnel entry into high radiation areas within the containment. Estimated radiation exposure associated with the subject valve alignment and realignment would be approximately 0.5 man-Rem per test. Since this test would be performed near the end of an outage when all RCPB work has been completed, the time required to open and close these VTDB lines and connections would impact the outage schedule. Thus, compliance with this specific Code requirement results in unnecessary hardship pursuant to 10 CFR 50.55a(a)(3)(ii) without a compensating increase in the level of quality and safety.

5.0 Proposed Alternative and Basis for Use

IPEC proposes to perform a system leakage test of the Class 1 systems and components during the current 10 year inspection interval, in accordance with the 1989 Edition of the ASME Section XI Code, Table IWB-2500-1 and IWB-5221 requirements, with the isolation valves in the normally closed position. The RCPB VTDB lines and connections will be visually examined with the isolation valves in the normally closed position. This examination will be performed at nominal operating pressure associated with 100% reactor power after satisfying the code required hold time.

The proposed alternative provides an acceptable level of safety and quality based on the following:

1. The 1989 Edition, No Addenda of the ASME Section XI Code, Subsection IWA-4700, Pressure Test, provides the requirements for hydrostatic pressure testing of piping and components following repairs by welding to the pressure boundary. IWA-4700(b)(5) excludes component connections, piping, and associated valves that are nominal pipe size (NPS) 1 inch and smaller from the hydrostatic pressure test requirement following welded repairs. Therefore, requiring a system leakage pressure test and visual examination of these ≤ 1 inch diameter RCPB VTDB lines and connections once each 10-year interval is unwarranted considering that hydrostatic pressure testing a weld repair on the same connections is not required by ASME Code Section XI.
2. The non-isolable portion of the RCPB VTDB lines and connections will be pressurized and visually examined as required by the Code. Only the isolable portion of those small diameter VTDB lines and connections will not be pressurized, but a VT-2 examination will still be performed in these cases. Note that ASME Section XI, 2001 Edition, 2003 Addenda, which has been adopted under 10CFR50.55a (reference 10 CFR 50.55a(b), 69 FR 58819, dated October 1, 2004), now requires only a system leakage test in lieu of the hydrostatic test .
3. A typical VTDB line and connection includes two (2) manual valves separated by a short pipe nipple, which is connected to the RCPB via another short pipe nipple and half coupling. All connections are typically socket-welded and the welds receive a surface examination after installation. The piping and valves are normally heavy wall. The VTDB lines and connections are not subject to high

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normal operating stresses and the design ratings are significantly greater than RCPB operating or design pressure.

6.0 Duration of Proposed Alternative

This request is applicable for the remaining Third 10-Year Interval duration, which currently ends on December 31, 2006 for IPEC Unit 2 and July 21, 2009 for IPEC Unit 3.

7.0 Precedents

Similar request for relief was approved for Pilgrim Nuclear Power Station (TAC No. MC1472).