



Entergy Nuclear Northeast  
Entergy Nuclear Operations, Inc.  
Entergy Nuclear Indian Point 2, LLC  
P. O. Box 249  
Buchanan, NY 10511

November 18, 2003

Re: Indian Point Unit No. 2  
Docket No. 50-247  
NL-03-179

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Mail Station O-P1-17  
Washington, DC 20555-0001

Subject: ASME Section XI, Inservice Inspection (ISI) Program Relief Request No. 69

Reference: 1) NRC Letter (R. Correia) to Entergy (M. Kansler) dated May 17, 2001 (TAC No. MA9757)

Dear Sir:

Pursuant to 10 CFR 50.55a(a)(3)(i), Entergy Nuclear Operations, Inc. (Entergy) hereby requests relief from certain requirements of the 1989 Edition of the American Society of Mechanical Engineers (ASME) Section XI Code. In accordance with IWA-5242(a), for systems borted for the purposes of controlling reactivity, insulation shall be removed from pressure retaining bolted connections for visual examination VT-2. These examinations require the removal and reinstallation of insulation from systems subject to the required pressure testing inside containment. Removing and reinstalling insulation under these conditions is difficult to perform and is not consistent with the ALARA (as low as reasonably achievable) concept when compared to the alternate approach. Relief is requested on the basis that the proposed alternative would provide an acceptable level of quality and safety. Attachment 1 contains the basis for this relief request.

Because the subject examinations are planned for the upcoming Indian Point Unit 2 refueling outage, currently scheduled during the Fall of 2004, Entergy hereby requests NRC staff approval of this relief request no later than July 15, 2004.

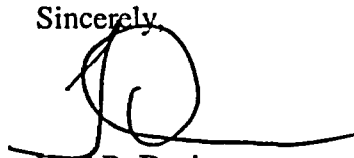
A similar relief request (RR 3-4) was approved for use at Indian Point Unit 3 as discussed in Reference 1.

Entergy is making no new commitments in this letter.

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Should you or your staff have any questions regarding this matter, please contact Mr. William S. Blair, Manager, Licensing, Indian Point Energy Center at (914) 734-5336.

Sincerely,

A handwritten signature in black ink, appearing to be 'Fred R. Dacimo', with a long horizontal line extending to the right.

Fred R. Dacimo  
Vice President, Operations  
Indian Point Energy Center

Attachment

cc: Mr. Hubert J. Miller  
Regional Administrator-Region I  
U.S. Nuclear Regulatory Commission  
475 Allendale Road  
King of Prussia, PA 19406-1415

Mr. Patrick D. Milano, Senior Project Manager  
Project Directorate I  
Division of Licensing Project Management  
U.S. Nuclear Regulatory Commission  
Mail Stop 0-8-C2  
Washington, DC 20555-0001

Senior Resident Inspector  
U.S. Nuclear Regulatory Commission  
PO Box 38  
Buchanan, NY 10511-0038

ATTACHMENT 1 TO NL-03-179

Relief Request No. 69

Entergy Nuclear Operations, Inc.  
Indian Point Unit No. 2  
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**RELIEF REQUEST 69**

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**COMPONENT IDENTIFICATION**

Code Class:	1, 2 and 3
References:	IWA-5242(a)
Examination Category:	B-P, C-H, D-A, D-B & D-C
Item Number:	Various
Description:	Insulation Removal at Mechanical Joints of Borated Systems

**CODE REQUIREMENT**

IWA-5242(a) states: For systems borated for the purpose of controlling reactivity, insulation shall be removed from pressure retaining bolted connections for visual examination VT-2.

**BASIS FOR RELIEF**

Pursuant to 10 CFR 50.55a(a)(3)(i), relief is requested on the basis that the proposed alternative would provide an acceptable level of quality and safety.

Inside containment, systems are tested in an environment that is hazardous to personnel. Removing and reinstalling insulation under these conditions is difficult to perform and is not consistent with the ALARA (as low as reasonably achievable) concept when compared to the alternate approach. In addition, the removal and reinstallation of insulation is often a critical path activity, which directly affects the duration of refueling outages, therefore placing a financial hardship on the plant.

The concern that led to the Section XI requirement for removal of insulation on bolted connections, while performing pressure testing and VT-2 examinations, is that a borated water leak from a bolted connection could cause corrosion of the bolting materials. Thus, the structural integrity of a safety-related system could be compromised by a small leak that could be unnoticed if the insulation remains in place during the pressure testing and VT-2 examination.

This relief request addresses the concern that a borated water leak at a bolted connection could go undetected. It recognizes that if a bolted connection leaks for a considerable amount of time, the leakage would be evident, even through the insulation. The proposed alternate examination would allow a VT-2 inspection to be performed, with insulation on, at Normal Operating Pressure/Normal Operating Temperature (NOP/NOT) after sustained system operation. The following supports the proposed alternate examination:

- (a) Even a small leak will be visible through insulation if enough time passes.

**RELIEF REQUEST 69**

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- (b) If an inspection is performed at NOP/NOT after sustained system operation and prior to any clean up activities (i.e. upon entering a refueling outage) any leakage would be evident.
- (c) If insulation is removed to allow maintenance to be performed, a visual examination will be performed with the insulation removed in accordance with Indian Point 2 Inservice Inspection Relief Request 29. (Reference 1)

**PROPOSED ALTERNATIVE PROVISIONS**

The following alternate rules for the pressure testing and VT-2 examination of pressure retaining bolting will be used:

- (a) A system pressure test and VT-2 visual examination shall be performed with insulation installed at NOP/NOT after sustained operation and prior to any clean up activities. If any evidence of leakage is detected, the insulation will be removed and any evidence of leakage shall be evaluated in accordance with IWA-5250.

**PERIOD FOR WHICH RELIEF IS REQUESTED**

Relief is requested for the remainder of the third inspection interval.

**JUSTIFICATION FOR RELIEF**

Relief Requests 29 and 69 are very similar and were written to be used in tandem by IP2 to allow for operational flexibility, to minimize radiation exposure, and to maximize personnel safety. The following is an example of how IP2 may use these relief requests in tandem:

Relief Request 69 would be used to perform inspections on most Class 1 bolted connections, with insulation installed, at NOP/NOT at the start of a refueling outage. The only areas not inspected using Relief Request 69 in this example would be a Reactor Coolant Pump (scheduled to have insulation removed as part of scheduled maintenance) and valves in areas of high heat stress and/or high radiation. For the components not inspected under Relief Request 69, then Relief Request 29 provisions would be used to allow a VT-2 with the insulation removed during the outage and a VT-2 examination with insulation installed at startup.

In the example given, use of Relief Request 69 would reduce the amount of insulation that would require removal during the outage, thereby reducing radiation exposure. Similarly, Relief Request 29 would allow removal of insulation from certain areas where maintenance would require the removal of insulation anyway, or where heat stress and/or high radiation fields could be encountered at NOP/NOT following sustained operation. By utilizing both Relief Requests 29 and 69, IP2 will have the operational flexibility to minimize radiation exposure, and maximize personnel safety.

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Compliance with the specified requirement would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety. The proposed alternative provides an acceptable level of quality and safety since leakage from a bolted connection would be detectable through insulation after sustained system operation. The proposed alternative inspection would be performed prior to any clean up activities to ensure that any evidence of leakage in the surrounding area (including floor areas or equipment surfaces located underneath the components) would be detected.

Reference:

- 1) NRC Letter (M. Gamberoni) to Con Edison (A. Blind) dated March 21, 2000 (TAC No. MA5918)