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January 4, 2011

NL-11-002

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

**SUBJECT:** Supplement to Response to Request for Additional Information on Relief Request RR-3-49 and RR-3-50 For Third Ten-Year Inservice Inspection Interval (TAC Nos. ME4234, ME4235)  
Indian Point Unit Number 3  
Docket No. 50-286  
License No. DPR-64

- REFERENCES:**
1. Entergy Letter NL-10-061 Regarding 10 CFR 50.55a Relief Requests RR-3-49 and RR-3-50 from Examinations of Component Welds with Less Than Essentially 100 % Examination Coverage, dated July 5, 2010.
  2. NRC Request for Additional Information on Indian Point 3 Relief Requests RR-3-49 and RR-3-50, ME4234, ME4235, dated October 28, 2010.
  3. Entergy Letter NL-10-134 Regarding Request for Additional Information on Relief Request RR-3-49 and RR-3-50 For Third Ten-Year Inservice Inspection Interval (TAC Nos. ME4234, ME4235).

Dear Sir or Madam:

Entergy Nuclear Operations, Inc. (Entergy) submitted Relief Requests RR-3-49 and RR-3-50 for the Indian Point Unit No. 3 (IP3) Third Ten-Year Inservice Inspection Interval in Reference 1 and responded to a request for additional information (Reference 2) in Reference 3. The purpose of this letter is to provide a supplement to the information provided in Reference 3. This is provided based on further NRC clarification of a phone call to discuss the questions in Reference 2. The supplement to Reference 3 is found in Attachment 1.

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NRR

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.

Very truly yours,

A handwritten signature in cursive script, appearing to read "R. Walpole", followed by the initials "RW." in a simpler, blocky font.

RW/sp

Attachment: 1. Supplement to Response to Request for Additional Information  
Regarding Relief Requests RR-3-49 and RR-3-50

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

ATTACHMENT 1 TO NL-11-002

SUPPLEMENT TO RESPONSE TO REQUEST FOR ADDITIONAL  
INFORMATION REGARDING RELIEF REQUESTS

RR-3-49 AND RR-3-50

ENTERGY NUCLEAR 0101950041PERATIONS, INC.  
INDIAN POINT NUCLEAR GENERATING UNIT NO. 3  
DOCKET NO. 50-286

Response to Request For Additional Information  
Regarding Relief Requests RR-3-49 and RR-3-50

By letter dated July 5, 2010, Agencywide Documents Access and Management System Accession No. ML101950041, Entergy Nuclear Operations, Inc. submitted an Indian Point Nuclear Generating Unit No. 3 (IP3) request to the Nuclear Regulatory Commission (NRC) for relief from the requirements of ASME Section XI, Sub-article IWB-2500, Sub-article IWC-2500 and Code Case N-460, pursuant to 10 CFR 50.55a. This was supplemented by letter dated December 8, 2010.

The NRC staff, in reviewing the submittal, requested additional information to complete its review. The NRC questions and the Entergy responses were previously addressed and the response to one question is being supplemented below.

RR-3-49 Question 1

For Examination Category R-A, Item Number AUGR, please address the following questions:

5. Fully clarify, in writing, the wave modality, insonification angles, coverage obtained for each beam direction for all ultrasonic (UT) examinations, and coverage calculations.

Supplement to Response

Welds 1-4100-15, 1-4200-15, 1-4300-15, 1-4400-15 were inspected using 70 degree L, transducers. On the Reactor Vessel inlet nozzles, a cast stainless steel (A351 Grade CF8M) elbow is welded to the safe-end upstream of the dissimilar metal weld (welds 1-4100-15, 1-4200-15, 1-4300-15, 1-4400-15). There are currently no Appendix VIII (PDI) qualified procedures to inspect cast stainless steel materials. The entire volume was examined employing the Appendix VIII procedure qualified for the examination of austenitic welds. Examinations conducted using this procedure met or exceeded the required Appendix III examinations. Additionally, supplemental eddy current examinations were performed on these welds from the nozzle ID bore and detected no reportable indications.

The discussion below is to help describe the logic and methodology used in calculating the exam coverage estimates.

1. Code Required Examination Volume

Code required examination volume that was scanned is estimated at greater than 96%. This documents the code required examination volume that was scanned utilizing both a PDI qualified technique and the use of the PDI qualified procedure for areas where there is no PDI qualified procedures (i.e. the cast elbows). This coverage calculation considers all four required examination beam directions and shows that greater than

96% of the code required examination volume was scanned on all 4 welds. The only limitations to scanning were due to ID surface condition configurations.

Weld 1-4100-15; 96.83% examined

Weld 1-4200-15; 97.19% examined

Weld 1-4300-15; 100% examined

Weld 1-4400-15; 97.87% examined

Calculation of limitations to circumferential scanning due to ID surface configurations were performed automatically in Paragon analysis software by use of the ultrasonically obtained ID profiles.

## 2. Examination Volume Coverage Credit

When disallowing examination into or from the cast material, coverage of the code required volume is estimated at 45% (Figure 1 from Relief Request 49, ML 101950041, is useful as an illustration). The limited coverage area includes any area which requires the sound to pass thru the cast stainless steel material. In the case of the axial scan from the cast side, this means no coverage is credited until the sound path travels from the transducer, thru the clad, directly into the weld, and then into the base metal of the safe-end. The same logic is applied for the axial scan from the safe-end side and the circ scans.