

## IPRenewal NPEmails

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**From:** Kimberly Green  
**Sent:** Monday, May 19, 2008 12:23 PM  
**To:** STROUD, MICHAEL D; Tyner, Donna  
**Subject:** Advanced Copy of Follow Up RAIs on Structures  
**Attachments:** ML0812303470 RAI on Structures.pdf

Mike and Donna,

Attached is an advanced copy of the follow up RAIs on structures. The formal copy is in the mail. The electronic copy will be publicly available in ADAMS on May 20, 2008.

Kimberly Green  
Safety PM  
(301) 415-1627  
[kimberly.green@nrc.gov](mailto:kimberly.green@nrc.gov)

**Hearing Identifier:** IndianPointUnits2and3NonPublic\_EX  
**Email Number:** 71

**Mail Envelope Properties** (Kimberly.Green@nrc.gov20080519122200)

**Subject:** Advanced Copy of Follow Up RAIs on Structures  
**Sent Date:** 5/19/2008 12:22:30 PM  
**Received Date:** 5/19/2008 12:22:00 PM  
**From:** Kimberly Green

**Created By:** Kimberly.Green@nrc.gov

**Recipients:**  
"STROUD, MICHAEL D" <MSTROUD@entergy.com>  
Tracking Status: None  
"Tyner, Donna" <dyner@entergy.com>  
Tracking Status: None

**Post Office:**

<b>Files</b>	<b>Size</b>	<b>Date &amp; Time</b>
MESSAGE	319	5/19/2008 12:22:00 PM
ML0812303470 RAI on Structures.pdf		105450

**Options**  
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**Return Notification:** No  
**Reply Requested:** No  
**Sensitivity:** Normal  
**Expiration Date:**  
**Recipients Received:**

May 12, 2008

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

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR THE REVIEW OF THE  
INDIAN POINT NUCLEAR GENERATING UNIT NOS. 2 AND 3, LICENSE  
RENEWAL APPLICATION – STRUCTURES

Dear Sir or Madam:

By letter dated April 23, 2007, as supplemented by letters dated May 3, 2007, and June 21, 2007, Entergy Nuclear Operations, Inc., submitted an application pursuant to Title 10 of the *Code of Federal Regulations* Part 54, to renew the operating licenses for Indian Point Nuclear Generating Unit Nos. 2 and 3, for review by the U.S. Nuclear Regulatory Commission (NRC or the staff). The staff is reviewing the information contained in the license renewal application and has identified, in the enclosure, areas where additional information is needed to complete the review. Further requests for additional information may be issued in the future.

Items in the enclosure were discussed with Mr. Robert Walpole, and a mutually agreeable date for the response is within 30 days from the date of this letter. If you have any questions, please contact me at 301-415-1627 or via e-mail at [kimberly.green@nrc.gov](mailto:kimberly.green@nrc.gov).

Sincerely,

**/RA/**

Kimberly Green, Safety Project Manager  
Projects Branch 2  
Division of License Renewal  
Office of Nuclear Reactor Regulation

Docket Nos. 50-247 and 50-286

Enclosure:  
As stated

cc w/encl: See next page

May 12, 2008

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**/RA/**

Kimberly Green, Safety Project Manager  
Projects Branch 2  
Division of License Renewal  
Office of Nuclear Reactor Regulation

Docket Nos. 50-247 and 50-286

Enclosure:  
As stated

cc w/encl: See next page

DISTRIBUTION: See next page

ADAMS Accession No.: **ML081230347**

OFFICE	PM:RPB2:DLR	LA:DLR	BC:RPB2:DLR
NAME	KGreen	YEdmonds	RFranovich (BPham for)
DATE	05/7/08	05/7/08	05/12/08

OFFICIAL RECORD COPY

Letter to Entergy from K. Green, dated May 12, 2008

DISTRIBUTION:

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR THE REVIEW OF THE  
INDIAN POINT NUCLEAR GENERATING UNIT NOS. 2 AND 3, LICENSE  
RENEWAL APPLICATION – STRUCTURES

HARD COPY:

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E-MAIL:

PUBLIC

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RidsNrrDlrRpob

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BMizuno, OGC

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Indian Point Nuclear Generating  
Units 2 and 3

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Indian Point Nuclear Generating  
Units 2 and 3

- 2 -

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**INDIAN POINT NUCLEAR GENERATING UNIT NOS. 2 AND 3  
LICENSE RENEWAL APPLICATION  
REQUEST FOR ADDITIONAL INFORMATION (RAI)  
STRUCTURES—CLARIFICATION ON RESPONSES**

Based on the staff's review of Entergy's responses dated February 27, 2008, and as discussed in a telephone conferences held on April 16, 2008, and April 28, 2008, please provide responses to the following:

**RAI 2.4-1 (Follow Up)**

With regard to Switchgear Structures and Foundation (IP3), clarify which structural components in Table 2.4-3 cover the switchgear structures and foundation. (Note that the structures listed in parentheses under line item "foundations" do not include switchgear structures).

**RAI 2.4.1-2 (Follow Up)**

- (i) The response states that the Primary Shield Wall is included as part of line item "Beams, columns, interior walls, slabs" in LRA Table 2.4-1. Note that walls with lesser safety-significance such as pressurizer shield, ring wall and cylinder walls have been listed as separate items in Table 2.4-1. Considering that the primary shield wall is subjected to a more severe environment (high temperature and radiation exposure) and has a much higher safety-significance than the general interior wall, it is prudent to include the primary shield wall as a separate line item in LRA Table 2.4-1 to make its inclusion as within the scope of license renewal and subject to AMR explicitly clear.
- (iii) The response states that the retaining wall is included as part of line item "Beams, columns, interior walls, slabs" in Table 2.4-1. The retaining wall at the equipment hatch entrance is an exterior wall and is subjected to a different environment than the interior wall. Therefore, the applicant should explicitly call out in the LRA Table 2.4-1 that the line item includes the retaining wall at the equipment hatch entrance or a separate table line item should be provided.
- (v) The response states that liner plate insulation is included with line item 'Insulation Jacket' in LRA Table 2.4-1. The materials for the insulation jacket and the insulation itself are not the same. The jacket is stainless steel but the insulation is polyvinyl chloride (PVC) for Unit 2, and Urethane foam covered with gypsum board for Unit 3 (See UFSAR Section 5.1). The insulation itself is not included in LRA Table 2.4-1 or Table 2.4-4, nor are these materials identified in LRA Sections 3.5.2.1.1 or 3.5.2.1.4. These items are also not addressed in the response to RAI 2.4.4-2. Clarify/address the scoping, screening and AMR of these in-scope insulation materials.
- (vi) The response states that protective coatings for the containment liner are not in scope because they do not perform an intended function. The staff believes that although protective coatings on the containment liner do not directly perform a license renewal function, they, however, prevent degradation of the liner if maintained. GALL AMP XI.S8 of NUREG-1801, Vol. 2 (the GALL Report), which is the AMP for protective coatings, recommends coating maintenance to avoid clogging of the sumps. The GALL Report states that if protective coatings are relied upon to manage the effects of aging, the structures monitoring program should include provisions to address protective coating

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monitoring and maintenance (See Item 25 in Table 5 of NUREG-1801, Vol. 1). Considering the above, justify the exclusion of the protective coating on the containment liner from the scope of license renewal and from being subject to an AMR.

- (ix) The response states that the reactor cavity seal ring has no license renewal intended function. The staff has determined that the reactor cavity seal ring performs as a flood barrier (FLB) to preclude borated water leaks through the seal and accumulation in the gap between the reactor vessel and the primary shield wall that could induce corrosion in the reactor vessel and its supports as well as cause degradation of the primary shield wall concrete. Considering the above, justify the exclusion of the reactor cavity seal from the scope of license-renewal and from being subject to an AMR.

**RAI 2.4.1-3 (Follow Up)**

The response states that bellows penetrations in LRA Table 2.4-1 are associated with containment piping penetrations, and that refueling bellows is not a feature of the IP2/3 design. Please describe the types of piping penetration bellows in each unit. Further, clarify if there are transfer canal bellows (with the number in each unit) at Indian Point, and if they are within the scope of license renewal. If not, please justify their exclusion.

**RAI 2.4.1-5 (Follow Up)**

The response states that the hatch locks, hinges and closure mechanisms are active components and, therefore, are not subject to AMR as discussed in LRA Table 3.5.1, Line Item 3.5.1-17. The staff has determined that these components are passive during plant operation, during which time they are (and need to remain) in a closed position, and are an integral part of the pressure boundary. The aging effect on these components is loss of leak tightness in closed position due to mechanical wear of locks, hinges and closure mechanisms (see NUREG-1801, Vol. 1, Rev. 1, Table 5, Item 17). The AMPs listed are 10 CFR Part 50, Appendix J and Plant Technical Specifications that ensure that the containment is operable and access airlocks maintain leak tightness in the closed position. Considering the above, justify the exclusion of the hatch locks, hinges and closure mechanisms from the scope of license renewal and from being subject to an AMR.

**RAI 2.4.2-1 (Follow Up)**

The response states that in-scope grating, decking and ladders are bulk commodities addressed in LRA Table 2.4-4. Since this is a generic statement, clarify if the specific components in question that were identified in the RAI (i.e. metal decking and grating of the intake structure enclosure and ladder of the service water valve pit) are included in-scope and subject to AMR as bulk-commodities addressed in LRA Table 2.4-4.

**RAI 2.4.3-4 (Follow Up)**

The response states that the component type "crane rails and girders" in LRA Table 2.4-3 includes bridge and trolley and also refers to the cranes themselves. Since the language of this line item as currently written is misleading, correct the typo in the line item "crane rails and girders" in LRA Table 2.4-3.

**RAI 2.4.2-2**

- (a) LRA Table 2.2-3 and LRA Section 2.4.2 include “Discharge Canal and Outfall Structure” as being within the scope of license renewal. The description in LRA Section 2.4.2 in the second paragraph under the subtitle “Discharge Canal and Outfall Structure,” states that the Outfall Structure does not support a license renewal function and, therefore, is not in scope. If this is the case, explain why “Outfall Structure” is included in LRA Table 2.2-3 and LRA Section 2.4.2.
  
- (b) Based on the description in LRA Section 2.4.2 with regard to the Discharge Canal, confirm/clarify if (i) the entire Discharge Canal is considered within the scope of license renewal and subject to AMR, or if (ii) only the portion adjacent to/supporting the service water pipe chase and the portion supporting and including the slab on which the Unit 3 service water backup pumps are mounted is within the scope of license renewal and subject to AMR.