

IPRenewal NPEmails

From: Kimberly Green
Sent: Wednesday, April 23, 2008 11:39 AM
To: STROUD, MICHAEL D; dyner@entergy.com
Subject: Follow Up RAIs on Structures
Attachments: RAI Set 13 - Structures Follow Up RAIs.doc

Mike and Donna,

Attached are draft follow up RAIs on structures. These follow up questions are based on a review of Entergy's responses dated February 27, 2008, and as discussed in a telephone conference held on April 16, 2008. Please let me know if you need a telecon to obtain clarification. If not, I will send the RAIs formally. Please note that I am referring to the RAIs in parentheses as "Follow Up." The purpose for doing so is solely for tracking. Also note that D-RAI 2.4.2-2 is the new RAI that was briefly discussed during the telecon. Please let me know if you have any questions.

Thanks.

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Hearing Identifier: IndianPointUnits2and3NonPublic_EX
Email Number: 109

Mail Envelope Properties (Kimberly.Green@nrc.gov20080423113800)

Subject: Follow Up RAIs on Structures
Sent Date: 4/23/2008 11:38:38 AM
Received Date: 4/23/2008 11:38:00 AM
From: Kimberly Green

Created By: Kimberly.Green@nrc.gov

Recipients:
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Tracking Status: None

Post Office:

Files	Size	Date & Time
MESSAGE	745	4/23/2008 11:38:00 AM
RAI Set 13 - Structures Follow Up RAIs.doc		50170

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

**INDIAN POINT NUCLEAR GENERATING UNIT NOS. 2 AND 3
LICENSE RENEWAL APPLICATION
DRAFT REQUEST FOR ADDITIONAL INFORMATION (D-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 conference held on April 16, 2008, please provide clarification on the following:

D-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.)

D-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 is subjected to a different environment than the interior wall and does not logically fit in as an interior wall item. Therefore, in order to include this item under the line item 'Beams, columns, interior walls, slabs' of Table 2.4-1, 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, it, however, prevents 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

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 the intended function of functional support to safety-related equipment 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. Therefore, the staff has determined that the reactor cavity seal ring should be within the scope of license renewal and screened in as a component subject to an AMR (see Item 3.5.1-44 of LRA Table 3.5.1 which is consistent with NUREG 1801, Vol 1, Table 5, Item 44). Considering the above, justify the exclusion of the reactor cavity seal from the scope of license-renewal and from being subject to an AMR.

D-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 clarify the number of such 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.

D-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, and therefore, they are subject to AMR (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.

D-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.

D-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.

D-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 :RA 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.