

NRR-PMDAPEm Resource

From: Barillas, Martha
Sent: Monday, January 12, 2015 5:46 PM
To: Richard.Hightower@duke-energy.com
Cc: Miller, Barry
Subject: Robinson NFPA-805 RAI responses follow-up RAI (round 2)
Attachments: Robinson SSA follow up RAI_DRAFT.docx; Robinson PRA follow-up RAIs_DRAFT.docx

Richard,

By letter dated September 16, 2013, Duke Energy Progress Inc., the licensee of H. B. Robinson Steam Electric Plant, Unit 2 (HBRSEP), submitted a license amendment request to change its fire protection program to one based on the National Fire Protection Association (NFPA) Standard 805, "Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants," 2001 Edition, as incorporated into Title 10 of the *Code of Federal Regulations* (10 CFR), Part 50, Section 50.48(c) (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13267A211). By letter dated November 24, 2014, and letter dated December 22, 2014, you provided responses to staff request for additional information (RAI) (ADAMS Accession Nos. ML14337A098 and ML15005A073).

To complete its review, the NRC staff has the following follow-up draft request for additional information (RAI) attached.

Please see the attached RAI in DRAFT form.

A Sensitive Unclassified Non-Safeguards Information (SUNSI) review was completed by the staff on the draft RAI and the staff concluded the RAI do not contain SUNSI.

If you find any information needs to be withheld from the public, please notify me within 5 days of receipt of this email.

Please confirm if your staff is available to support a clarification call for these on the January 15, 2015 scheduled call. We are currently scheduled to have a call on PRA RAI #3 regarding its RAI response schedule on this date.

If you are not available, please provide the next possible date for a clarification call.

We request a response to the draft RAI attached within 30 days of this email. If you are unable to meet this schedule, please inform me as soon as possible.

Respectfully,

Martha Barillas
Project Manager
Shearon Harris & H. B. Robinson
NRR/DORL/Licensing Branch II-2
US Nuclear Regulatory Commission
[301-415-2760](tel:301-415-2760)

Hearing Identifier: NRR_PMDA
Email Number: 1895

Mail Envelope Properties (Martha.Barillas@nrc.gov20150112174500)

Subject: Robinson NFPA-805 RAI responses follow-up RAI (round 2)
Sent Date: 1/12/2015 5:45:53 PM
Received Date: 1/12/2015 5:45:00 PM
From: Barillas, Martha

Created By: Martha.Barillas@nrc.gov

Recipients:

"Miller, Barry" <Barry.Miller@nrc.gov>

Tracking Status: None

"Richard.Hightower@duke-energy.com" <Richard.Hightower@duke-energy.com>

Tracking Status: None

Post Office:

Files	Size	Date & Time
MESSAGE	1976	1/12/2015 5:45:00 PM
Robinson SSA follow up RAI_DRAFT.docx	34715	
Robinson PRA follow-up RAIs_DRAFT.docx	39410	

Options

Priority: Standard

Return Notification: No

Reply Requested: No

Sensitivity: Normal

Expiration Date:

Recipients Received:

DRAFT Robinson SSA Follow-up RAI

Safe Shutdown Analysis (SSA) RAI 07.01

In the response to SSA RAI 07, item 5, the licensee stated that current transformers (CTs) located in switchgears or components that are not credited for safe shutdown (SSD) were excluded from the CTs open secondary circuit analysis. The CTs open secondary circuit analysis, however, is to determine the potential for secondary fires in other plant areas due to a postulated fire at the CTs. Therefore, whether the switchgears or components are credited for SSD or not is non-consequential. Provide additional justification or a revised analysis to demonstrate that CTs open secondary circuit is not a concern at RNP.

DRAFT Robinson PRA Follow-up RAIs to First-Round RAI Responses

Probabilistic Risk Assessment (PRA) RAI 01.I.01

The response states that duplicate large early release frequency (LERF) cutsets from fire scenarios with extensive equipment damage were eliminated. Why were duplicate LERF cutsets generated from the Fire PRA that needed to be eliminated?

PRA RAI 05.c.01

The response explains that as part of the integrated analysis provided in response to PRA RAI 3 a draft of FAQ 14-0009 will be used in scenario development of fire propagation from electrical cabinets greater than 440V. The NRC staff has provided comments on the treatment of motor control centers (MCCs) in “NRC Comments on MCC Treatment White Paper August 29, 2014” (ML14245A133). Please clarify whether the NRC staff comments, which may provide different guidance from the draft FAQ 14-0009 language, will be used in the integrated analysis provided in response to PRA RAI 3.

PRA RAI 15.01

The response explains that for circuits with inadequate breaker coordination a list of assumed failures was compiled and added to the “final damage set.” Though it appears that assumed failures of some kind were incorporated into the Fire PRA, it is not completely clear from the description what failures were assumed and modeled in the Fire PRA and whether all potential failures from lack of breaker coordination were addressed. Please clarify which failures associated with lack of breaker coordination (including secondary fires) will be modeled in the Fire PRA in the integrated analysis provided in response to PRA RAI 3.

PRA RAI 18.01

The response explains that treatment of self-ignited and cutting-and-welding fires is consistent with FAQ 13-0005 for one fire compartment and for other compartments these fires were screened out because they were determined to have “insignificant impact.” In apparent contrast to this, the response PRA RAI 08 states “cable fires due to cutting and welding are assigned no target sets because a continuous fire watch with an extinguisher is required by procedure to be present during hot work activities and is assumed to extinguish such a fire before it can spread beyond the original tray.” The cited responses to PRA RAI 08 and PRA RAI 18 appear to be inconsistent. Please clarify this apparent inconsistency and identify how these cable fires will be modeled in the integrated analysis provided in response to PRA RAI 3.

PRA RAI 21.01

Based on the response it appears that a fire resulting in a manual trip is assigned a conditional probability of manual trip that reduces the likelihood of the associated fire scenario. Please clarify how scenarios that might eventually require a manual shutdown as a result of technical specification action statements or operating procedures will be modeled in the integrated analysis provided in response to PRA RAI 3.

PRA RAI 24.01

In apparent contrast to the response to PRA RAI 24.e, the response to PRA RAI 01.f indicates that there are actions taken in the plant at the remote shutdown locations to recover equipment affected by fire not associated with main control room (MCR) abandonment that are credited in the Fire PRA. Attachment G and the response to PRA RAI 24.e seem to indicate that these actions are designated as defense in depth actions. Actions taken in the plant at the remote shutdown locations to recover equipment affected by fire not associated with MCR abandonment should be considered recovery actions since command and control is not established at the remote shutdown panel. Please clarify how the additional risk of recovery actions for the applicable scenarios in which the MCR is not abandoned will be modeled in response to PRA RAI 3.