

From: Kuntz, Robert
To: [Miller, Ed](#)
Subject: FW: FAQ 31 - Interim Actions Responses 10-29-13 Rev 4
Date: Wednesday, October 30, 2013 2:32:00 PM
Attachments: [FAQ 31 - Interim Actions Responses 10-29-13 Rev 4.doc](#)

Ed,

Here is FAQ 31 from the public meeting. The staff indicated that they were not prepared to comment on this FAQ at this point.

Rob

From: RILEY, Jim [mailto:jhr@nei.org]
Sent: Wednesday, October 30, 2013 1:21 PM
To: Kuntz, Robert
Subject: FW: FAQ 31 - Interim Actions Responses 10-29-13 Rev 4

Jim Riley

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From: RILEY, Jim
Sent: Wednesday, October 30, 2013 12:55 PM
To: Chris Cook (christopher.cook@nrc.gov); Ed Miller (Ed.Miller@nrc.gov)
Cc: Attarian, George; Brunette, Pat; Buman, Dan; Burris, Ken ; Carrie L. Stokes (carrie.stokes@bwsc.net); Colin Keller; crharris@aep.com; Dave Bucheit; Dean Hubbard (dmhubbard@duke-energy.com); Don Bentley (DBENTLE@entergy.com); Ethan W Hauser; Gambrell, David; Gary W. Smith (gsmith@enercon.com); GASPER, JOSEPH K; Geiger, Charlotte; Giddens, John; Glen D Ohlemacher (ohlemacherg@dteenergy.com); Hackerott, Alan; Hammons, Mark A.; Heather Smith Sawyer (heather.sawyer@bwsc.net); Heerman, John; Horstman, William R; 'Huffman, Ken'; HYDE, KEVIN C; Jeff Brown (jeffrey.brown@aps.com); Jim Breunig (james.breunig@cengllc.com); joe.bellini@aterrasolutions.com; John Lee (John.Lee@dom.com); Kit Ng (kyng@bechtel.com); LaBorde, Jamie; Larry Shorey (ShoreyLE@Inpo.org); Lorin.Young@CH2M.com; Maddox Jim (maddoxje@inpo.org); Mannai, David J; Matt Nienaber (mbniena@nppd.com); Maze, Scott; Michael Proctor (michael.proctor@urs.com); MICHAEL.J.MILLER@sargentlundy.com; Mike Annon - Home (ICENG2008@AOL.COM); Miller, Andrew; Murray, Mike; Nicholas.Reidenbach@aps.com; Parker, Thomas M.; Pate, Russell; Ray Schneider (schneire@westinghouse.com); RILEY, Jim; Robinson, Mike; Rogers, James G; Rudy Gil; Ruf, Gary (Gary.Ruf@pseg.com); Scarola, Jim; Selman, Penny; Shumaker, Dennis; Snyder, Kirk; Stapleton, Dan; Stone, Jeff; Terry Grebel (tlg1@pge.com); Thayer, Jay ; Vinod Aggarwal (Vinod.aggarwal@exeloncorp.com); Williams, Dane R. (INPO); Wrobel, George; Yale, Bob
Subject: FAQ 31 - Interim Actions Responses 10-29-13 Rev 4

Chris, Ed;

Attached is the most recent version of our FAQ 031 on Interim Actions. This version addresses the

comments we have received to date. We would like to discuss this during our webinar today.



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FAQ 31: HRR – Interim Action Responses

A. TOPIC: HRR - Interim Action Responses

Source document: March 1, 2013 Eric Leeds 50.54(f) Supplemental Information Letter Section:

B. DESCRIPTION:

What methods would be considered acceptable to develop interim actions as part of the Hazard Reevaluation Report, and what are the expectations for timeliness to put the interim actions into place?

March 1, 2013 Eric Leeds 50.54(f) Supplemental Information Letter:

Interim Actions (Requested Information Item 1.d) -

Licensees whose Hazard Reevaluation results are not bounded by their current design basis were requested to describe in their 50.54(f) letter response interim actions, taken or planned, to address the reevaluated flooding hazard while the staff assesses the safety and regulatory significance of the reevaluated hazard. The staff's review of the proposed interim actions will leverage appropriate sections and concepts from existing guidance documents such as NEI 1207, "Guidelines for Performing Verification Walkdowns of Plant Flood Protection Features and JLD-ISG-2012-05, "Guidance for Performing the Integrated Assessment for External Flooding to evaluate the acceptability of the interim actions.

Licensees should describe the interim actions in sufficient detail to allow the NRC staff to assess their acceptability, in order to allow licensees the time needed to perform the integrated assessment and then implement permanent plant modifications, if necessary. The NRC staff will consider the appropriateness of the interim actions in the context of a licensee's ability to respond to the reevaluated flooding hazard(s) and how these actions continue to provide assurance of the licensee's ability to maintain the plant in a safe condition.

C. Initiator:

Name: Dean Hubbard Phone:

Date: 10/10/13 E-Mail: dean.hubbard@duke-energy.com

D. RESOLUTION: (Include additional pages if necessary. Total pages: 3)

Inquiry number: 31 Priority: H

The Basis for Interim Actions

The NRC's March 2012 50.54(f) cover letter states that the current regulatory approach and the resultant plant capabilities provide confidence that an accident with consequences similar to the Fukushima accident is unlikely to occur in the United States. The NRC letter concluded that continued plant operation and the continuation of licensing activities do not pose an imminent risk to public health and safety.

The flooding reevaluations being performed in response to the NRC's March 12, 2012 50.54(f) letter are for beyond design basis events. As such, they do not constitute an immediate operability concern and are not reportable outside of the response to the 50.54(f) letter unless the reevaluation results identify concerns with the current licensing or design basis. Note however, that the new condition does need to be entered into the corrective action program for evaluation.

Methods for Developing Interim Actions

As a beyond design basis event, and based on the conservatism inherent in the deterministic approaches being used to develop the evaluated hazards, the reevaluated flooding hazard is a very low probability event. The time frame for development and deployment of interim actions should be based on the relative risk(s) and probability of occurrence of the updated extreme flooding event evaluated for the Hazard Reevaluation Report (HRR). The

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time frame will also be based on the level of effort and time required to develop and implement the interim actions. Interim actions should focus on providing margin for assurance of the ability for maintaining the critical safety functions necessary to prevent core damage, spent fuel damage, and loss of containment integrity. Interim actions to meet the new beyond design basis hazard can include:

- a. Actions taken in response to INPO IER 11-1
- b. Actions already taken or imminent actions associated with implementation of FLEX
- c. Actions taken to address small Available Physical Margins (APMs) identified as part of the recent flooding design basis walkdowns
- d. Actions taken as a result of the flooding IPEEE reviews or other site initiatives
- e. Actions taken in response to major storms
- f. Flood protection or mitigation capabilities that are not currently credited in the plant's current licensing basis

Interim actions are not expected to be extensive or permanent modifications, since the final flooding reevaluation results will not be confirmed until the NRC issues a Staff Assessment for the sites Flooding Hazard Reevaluation Report. Also, the Integrated Assessment will determine mitigation or protective actions to be considered by the NRC during the Phase 2 review to determine if any regulatory actions are needed to protect against the updated flooding related hazards (e.g., update the design basis and SSCs important to safety).

Rigor for Interim Actions

- a. All new interim flood protection features (e.g., sandbags inflatable barriers, self-inflating flood bags, ventilation louver covers) will be acquired, pre-staged and maintained to provide the required protection or mitigation.
- b. The design of the new flood mitigation equipment will be verified to withstand the environmental conditions that might accompany the applicable reevaluated flood event.
- c. Station procedures will be revised to direct installation of the new flood mitigation equipment including appropriate event triggers to activate the procedures.
- d. Guidance on the use of the new flood mitigation equipment will be developed to ensure that it can be used effectively in an emergency.
- e. Installation of the new flood mitigation equipment will be verified to ensure that it can be properly installed within the required timeframes using reasonable simulations, or other appropriate methods.

Examples

The interim action responses will be described by addressing two cases ; one case for a Small Increase in Flooding Hazard(s) Impact, and one case for a Large Increase in Flooding Hazard(s) Impact:

- a. **Small Increase in the Impact of the Flooding Hazard(s)** - The site HRR has identified a new flooding hazard with a small increase in the flooding hazard above CLB flooding levels (water levels or other flooding impacts). The site is able to develop interim actions where a majority of the interim actions include flooding barriers that can easily be raised and existing procedures that can be modified to address the new hazard. Any interim actions that have not been implemented when the HRR report is submitted should be included in the HRR as planned actions. The site should take the following actions:
 - 1. Document the beyond design basis hazard in the site corrective action program.
 - 2. Include in the HRR actions taken and include a plan and schedule to complete any remaining interim actions to mitigate the hazard.
 - 3. The interim actions should ideally be completed by the time the HRR report is submitted. If not, the remaining items would typically be fully implemented within 3 to 6 months after the submittal of the HRR.

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- b. **Large Increase in the Impact of the Flooding Hazard(s)** - The site HRR has resulted in a new flooding hazard that is well beyond CLB levels (water levels or other flooding impacts) such that existing barriers and flood response procedures cannot be easily modified to protect or mitigate the new flooding levels and/or associated effects. The interim actions will require more extensive engineering analysis to develop interim actions, due to the magnitude of the change in the flooding hazard. The site should take the following actions:

1. Document the beyond design basis hazard in the site corrective action program.
2. Include in the HRR a plan and schedule to develop interim actions to mitigate the hazard.
3. In some cases the new severe flooding hazard may challenge the site's ability to develop interim actions that completely mitigate the new hazard due to the magnitude of the event. In this case interim actions should be developed to address the hazard as completely as possible. These interim actions will provide additional margin for the beyond design basis flooding events while the complete solution is being developed through the Integrated Assessment (i.e., protect or mitigate above the current CLB but less than the new hazard). If this occurs, each site should contact the NRC to discuss appropriate actions to take based on the site specific limitations and the likelihood of the event.
4. The interim actions should fully implemented as soon as feasible but typically be within 12 months after the submittal of the HRR.

Revision: 4 Date: 10/30/13

E. NRC Review:

Not Necessary _____

Necessary X

Explanation: _____

F. Industry Approval:

Documentation Method: _____

Date: _____

G. NRC Acceptance:

Interpretation _____

Agency Position _____

Documentation Method: _____

Date: _____