

PMLevyCOLPEm Resource

From: Habib, Donald
Sent: Friday, September 19, 2014 10:08 AM
To: Kitchen, Robert (Robert.Kitchen@duke-energy.com); Waters, David (David.Waters2@duke-energy.com); larry.taylor@duke-energy.com; Wilkins, Tillie (tillie.wilkins@pgnmail.com)
Subject: Draft RAIs 7661 and 7667
Attachments: RAI_7661 2014-09-19.docx; RAI_7667 2014-09-19.docx

To All,

Attached are draft RAIs 7661 and 7667 for the Levy Nuclear Plant Units 1 and 2 Combined License Application. If you would like to schedule a conference call to discuss these RAIs, please let me know before Noon on Tuesday, September 24, 2014. If no request for a conference call is received, these RAIs will be issued as final.

Thank you,

Donald C. Habib
Project Manager
U.S. Nuclear Regulatory Commission
Office of New Reactors, DNRL/NWE1
Room T-6D14
Washington, DC 20555
301-415-1035
donald.habib@nrc.gov

Hearing Identifier: Levy_County_COL_Public
Email Number: 1256

Mail Envelope Properties (E3D0DF334F617344BE38EB00C881B1B3016C6429DCC3)

Subject: Draft RAIs 7661 and 7667
Sent Date: 9/19/2014 10:08:22 AM
Received Date: 9/19/2014 10:08:24 AM
From: Habib, Donald

Created By: Donald.Habib@nrc.gov

Recipients:

"Kitchen, Robert (Robert.Kitchen@duke-energy.com)" <Robert.Kitchen@duke-energy.com>
Tracking Status: None
"Waters, David (David.Waters2@duke-energy.com)" <David.Waters2@duke-energy.com>
Tracking Status: None
"larry.taylor@duke-energy.com" <larry.taylor@duke-energy.com>
Tracking Status: None
"Wilkins, Tillie (tillie.wilkins@pgnmail.com)" <tillie.wilkins@pgnmail.com>
Tracking Status: None

Post Office: HQCLSTR01.nrc.gov

Files	Size	Date & Time
MESSAGE	618	9/19/2014 10:08:24 AM
RAI_7661 2014-09-19.docx	32610	
RAI_7667 2014-09-19.docx	29835	

Options

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

Request for Additional Information

Issue Date:

Application Title: Levy County, Units 1 and 2 - Dockets 52-029 and 52-030

Operating Company: Duke Energy Florida

Review Section: 06.04 - Control Room Habitability System

Application Section:

QUESTIONS

06.04-XX

1. At a meeting with the NRC staff on July 23, 2014 (See ADAMS Accession Nos. ML14220A110, ML14220A111, ML14220A113), Westinghouse Electric Company presented some self-identified discrepancies in underlying calculations supporting the AP1000 DCD, Rev. 19, design basis accident main control room (MCR) habitability dose analyses. Westinghouse identified the need to update the analyses in order to show compliance with GDC-19 because

- the analyses did not account for the MCR emergency ventilation system (VES) filter direct dose in the control room,
- the control room ventilation system actuation setpoints did not account for all design basis accident (DBA) release scenarios, and
- the MCR dose contribution from direct radiation and skyshine used methodology that is not up-to-date.

10 CFR Part 50, Appx A, "General Design Criteria;" 10 CFR 52.63, "Finality of standard design certifications;" and 52.97, "Issuance of Combined Licenses" provide the regulatory basis for the following questions. GDC-19 sets out criteria for maintaining a control room to safely operate the plant in normal and accident conditions. Subsection 52.63(a)(1)(4) applies because additional information is needed to ensure that a plant referencing the DCD complies with GDC-19. Subsection 52.97(a)(1) applies because the Commission must have sufficient information to find that all NRC regulations have been met.

- 1a. Provide a site-specific departure from the DCD that includes control room dose analyses for all DBAs that account for the previously unanalyzed VES filter direct dose contribution to the MCR dose.
- 1b. Are the radiation monitor setpoints incorporated by reference from DCD Rev. 19 set such that GDC-19 is met for all DBAs for the COL? If not, propose a resolution to the issue. Describe how you determined the answer to this question.
- 1c. Do you propose to make site-specific revisions to the direct radiation and skyshine dose calculations to use a more detailed analysis methodology as proposed by Westinghouse? Would such revised calculations be necessary to show compliance with GDC-19 for the COL?

06.04-XX

2. At the July 23, 2014 meeting, Westinghouse also proposed related changes to the plant design information to add shielding for the main control room filters, increase the VES filter efficiency for organic iodine to 90%, and revise the VES and the Nuclear Island Nonradioactive Ventilation System (VBS) actuation radiation monitor setpoints.

In your COL application, do you propose to also make the design changes proposed by Westinghouse, or any other changes related to the Westinghouse self-identified discrepancies in the MCR dose analyses? Are any of these design changes required for the COL in order to show compliance with GDC-19?

Request for Additional Information

Issue Date:

Application Title: Levy County, Units 1 and 2 - Dockets 52-029 and 52-030

Operating Company: Duke Energy Florida

Review Section: 06.02.05 - Combustible Gas Control in Containment

Application Section: 06.02.04

QUESTIONS

06.02.05-XX

AP1000 Hydrogen Vent Path - Chemical and Volume Control System (CVS) and Passive Core Cooling System (PXS) compartments allow for venting of hydrogen into the Core Makeup Tank (CMT) rooms above. Vent layout is designed so hydrogen burns away from the containment shell. This is to ensure containment integrity during postulated beyond-design-basis hydrogen releases from small compartments to keep sustained burning hydrogen plumes away from the containment shell.

Acceptance Criteria in AP1000 DCD, Tier 1 Table 2.3.9-3 Inspection, Tests, Analyses and Acceptance Criteria, requires 98% of the primary openings through the ceilings of the passive core cooling system valve/accumulator rooms and the containment shell is at least 19 feet and all other openings must be 3 feet away. At a public meeting held on July 23, 2014 (ML14192A803) with Westinghouse, the staff received information that challenges the ability of the plant to meet the ITAAC. Please provide an explanation for how you intend to satisfy the existing ITAAC.

Design Criteria in AP1000 DCD, Tier 2 Section 6.2.4.5.1, Preoperational Inspection and Testing for Hydrogen Ignition Subsystem, references the above Acceptance Criteria for location of the openings.