



CONVERSATION RECORD

5-24-16

NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU

See below.

DATE OF CONTACT

05/13/2016

TYPE OF CONVERSATION

E-MAIL

TELEPHONE

INCOMING

OUTGOING

E-MAIL ADDRESS

TELEPHONE NUMBER

(888) 447-9153

ORGANIZATION

Virginia Electric Power Company (Dominion) and AREVA

DOCKET NUMBER(S)

72-16

LICENSE NUMBER(S)

SNM-2507

CONTROL NUMBER(S)

SUBJECT

Additional Information Request Teleconference

SUMMARY

NRC participants: Chris Allen, Eliezer Goldfeiz, Jorge Solis and Ghani Zigh

Dominion participants: Tom Szymanski, Tom Brookmire, David Tomlinson and Brian Vitiello

AREVA participants: Raheel Haroon, Glenn Mathues, Tom Edwards, Venkata Venigalla, Prakash Narayanan and Qi Jianwei

Prior to the call commencing at 10:30 A.M. eastern standard time, the attached information was provided to both Dominion and AREVA. After staff discussed the need for the attached shielding information, Dominion explained the person-hour estimate in Table 4.4-1 (as opposed to Table 4.1-1 stated in the attached shielding information) had changed to reflect installation of funnel guides into the fuel assemblies as they had attempted to explain in their March 22, 2016 RAI response (ML16097A213). Next, the NRC asked AREVA if they had any comments or questions about the issues identified by staff with proprietary calculation 19885-0409 which was submitted on April 21, 2016 (ML16118A206). AREVA stated they intended to make the changes identified in (b) and (c) of the attached thermal information, and asked if applying the finest mesh for the one calculation impacted would be sufficient to address issue (a). Staff responded it would be sufficient. Because these changes impacted another proprietary calculation, 19885-0403 (ML16118A206), AREVA committed to provide updated versions of proprietary calculations 19885-0403 and -0409.

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ACTION REQUIRED (IF ANY)

Continue on Page 3

NAME OF PERSON DOCUMENTING CONVERSATION

Chris Allen

SIGNATURE

William C. Allen

CONVERSATION RECORD (continued)

SUMMARY: (Continued from page 1)

Then, staff questioned Dominion if additional safety analysis report pages needed to be revised since the loaded weight of the TN-32B HBU cask exceeded the weight listed in Section A.1.1.1 of the safety analysis report. Dominion explained that the loaded weight of the TN-32B HBU cask would be addressed in a different appendix from the appendix containing Section A.1.1.1. Staff also questioned why the safety analysis report specified, in multiple sections, a maximum cask lift height of fifteen inches while the technical specifications specified the maximum cask lift height was eighteen inches. Dominion believed the fifteen inches stated in the safety analysis report was an administrative requirement, and committed to verifying this. (Dominion later verified by e-mail that the maximum height to which the cask could be lifted was fifteen inches. See ML16145A453.) Next, staff questioned AREVA if Certificate of Compliance 72-1021 had been amended since its original issuance, and AREVA stated their belief that it had not been amended. (Staff later determined that Certificate of Compliance 72-1021 had been amended at least once. See ML16097A219.) Staff next discussed the relationship between the Updated Final Safety Analysis Report for Certificate of Compliance 72-1021 and the TN-32 Topical Safety Analysis Report referenced in the North Anna Independent Spent Fuel Storage Installation safety analysis report. After staff requested AREVA officially provide two proprietary calculations which staff needed to prepare the safety evaluation report for the amendment, the phone call ended at approximately 11:00 A.M. eastern standard time.

Allen, William

From: Goldfeiz, Eliezer
Sent: Wednesday, May 11, 2016 12:25 PM
To: Allen, William
Subject: North Anna question:

Importance: High

Chris:

In response to first RAI in shielding

“Provide the basis for choosing 6 hours per evolution, and how many staff hours is required (number of staff *time) for the cask loading.” (Table 4.4-1 of the DLBD)

The licensee response:

The six man-hours for loading a cask was determined by current scheduling and past experience for loading a 32 fuel assembly cask, two operators for a three-hour evolution.

But in April 21 transmittal in file
Attachment 2 (DLBD [Proprietary])

8 man-hours for this evolution is reported in the Table 4.1.1.

It seems there is inconsistency between answer to RAI and attachment 2.

Would you please find out the reason for this change? I don't want to drag it for second RAI to ask this question.

Thanks

Eli

High Burnup Cask Project at North Anna Power Station

Thermal Review

Prepared by: Jorge Solis

The staff reviewed the response to RAI 10 (specifically Calculation No. 19885-0409: "Grid Convergence Study of TN-328 HBU Cask ANSYS Model for Normal Conditions of Storage"). The staff identified the following issues (See American Society of Mechanical Engineers, "Standard for Verification and Validation in Computational Fluid Dynamics and Heat Transfer," ASME V&V 20-2009, November 30th, 2009)

- a) The applicant calculated the GCI based on set # 2 (which includes grids 2, 3, and 4). Grid No. 2 is the finest mesh. The design basis mesh is grid No. 3. The applicant should update the results provided in the application using the results obtained from the finest mesh. The finest mesh (grid #2) should be used to perform all calculations presented in the application since the GCI is obtained for this grid.
- b) To calculate the GCI the applicant should use an order of accuracy (p) equal to 1.
- c) Since the grid refinement is not totally systematic and the asymptotic behavior is not demonstrated a Factor of Safety (F_s) = 3 should be used to obtain the GCI.