



CONVERSATION RECORD

08/16/2016

NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU See below.		DATE OF CONTACT 08/11/2016	TYPE OF CONVERSATION <input type="checkbox"/> E-MAIL <input checked="" type="checkbox"/> TELEPHONE <input type="checkbox"/> INCOMING <input checked="" type="checkbox"/> OUTGOING
E-MAIL ADDRESS		TELEPHONE NUMBER (888) 447-9153	

ORGANIZATION Virginia Electric Power Company (Dominion) and AREVA	DOCKET NUMBER(S) 72-16
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LICENSE NUMBER(S) SNM-2507	CONTROL NUMBER(S)
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SUBJECT
Revised Second RAI Teleconference

SUMMARY
NRC participants: Chris Allen, Zhian Li, Eli Goldfeiz and Jeremy Smith
Dominion participants: Tom Szymanski, Rich Ridder, David Tomlinson and Brian Vitiello
AREVA participants: Davy Qi, Tom Edwards, Venkata Venigalla, Phil Lozmack and Gary Clark

Prior to the call commencing at 2:30 P.M., a proprietary version of the attached request for additional information (RAI) was provided to Dominion. Dominion, AREVA and NRC staff discussed the background of the issue as well as the assumptions associated with the thermal evaluation of the neutron shield temperature. The NRC staff also outlined several paths for addressing the issue. Dominion stated that they understood the question and that they would make a decision on how to respond to the RAI. Next, NRC staff requested and received confirmation that all proprietary information had been correctly identified. The call ended at approximately 3:15 P.M.

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ACTION REQUIRED (IF ANY)

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NAME OF PERSON DOCUMENTING CONVERSATION
Chris Allen

SIGNATURE
William C. Allen

Request for Additional Information
Virginia Electric and Power Company
Docket No. 72-16
Proposed Amendment to Special Nuclear Materials License No. SNM-2507

By letter dated August 24, 2015, as supplemented October 8, November 18, November 19, December 1, and December 28, 2015; January 14, March 22, March 23, April 21, May 13, June 15, and June 21, 2016, Virginia Electric and Power Company submitted to the NRC an amendment request to license number SNM-2507 technical specifications for the North Anna Independent Spent Fuel Storage Installation. The proposed changes would allow storage of spent fuel in a modified TN-32B bolted lid cask as part of the High Burn-up Dry Storage Cask Research and Development Project sponsored by the Department of Energy and the Electric Power Research Institute.

Shielding

1. Perform shielding analyses, consistent with the neutron shield material performance, to demonstrate that the North Anna Power Station ISFSI can still meet the regulatory dose limit of 10 CFR 72.104(a) for the duration of the storage of the TN-32B HBU cask.

In their response to RAI-8 (Chapter 6 "Thermal Evaluation"), the applicant referenced Appendix 9A of the TN-32 FSAR, Rev. 6 to indicate that the neutron shield does not exhibit significant performance degradation at a temperature of 311 °F. However, the staff notes that Figure 9A-1 shows there is a 1.5% to 2% material loss after 100 days at 311 °F.

In addition, based on the conference call on August 2, 2016 between the applicant and the NRC staff, the maximum calculated temperatures of the radial neutron shield in the TN-32B HBU cask were defined to be about [] on the inner side and [] on outer side, respectively. As such, the bulk of the radial neutron shield appears to be working at a temperature significantly above the allowable temperature limit (300 °F). Therefore, NRC staff is concerned that the elevated working temperature may result in accelerated degradation of the neutron shield and impair its ability to perform its intended safety function. Since the radial neutron shield experiences a greater temperature than was analyzed in the FSAR, there may be a greater material loss resulting in a higher site boundary dose that may challenge the limit of 10 CFR 72.104(a).

Staff needs this information to determine if the TN-32B HBU cask meets the regulatory requirements of 10 CFR 72.104(a).