From: Saba, Farideh
Sent: Wednesday, October 14, 2015 8:45 AM
To: Williams, Gordon Robert (grwilliams1@tva.gov); Szabo, Clinton William (cwszabo@tva.gov); Schrull, Edward Dustin (edschrull@tva.gov)
Cc: Robinson, Jay; Sallman, Ahsan
Subject: NFPA 805 Draft SE Issues regarding to implementation 49

Importance: High

Here are the proposed revised wording the final SER and Implementation item 49 in **bold red**.

3.9.3.6 RHR Heat Exchanger Performance Monitoring Program

The licensee performed thermal performance testing for only two BFN, Unit 3 RHR heat exchangers. Therefore, in order to detect and correct, in a timely manner, the fouling that could adversely affect the heat exchanger performance, the licensee committed to a performance monitoring for the heat exchangers of all three BFN units. In SCVB-RAI-5 (Reference 31), the NRC staff requested that the licensee describe the performance monitoring program that will assure that fouling factor and tube plugging would not exceed their worst values assumed in calculating k-factor of 284.5 BTU/sec- °F. In its response to SCVB-RAI-5 (Reference 17), the licensee stated that at the current time, the revised performance monitoring program has not been developed. Commitment number 2 in Enclosure 2 to the licensee's letter dated May 16, 2013 (Reference 9), describes the licensee's proposal to revise the RHR heat exchanger performance monitoring program. In this commitment, the licensee intends to include in the program the requirements of periodic heat exchanger inspections and performance testing to ensure that the **tested worst fouling resistance, with measurement uncertainty added, is less than the design value of 0.001517 hr-ft.^{2}- °F/BTU**, and the worst tube plugging is less than 4.57-percent in all RHR heat exchangers as assumed in the NFPA 805 containment NPSH analysis. In a letter dated June 19, 2015 (Reference 27), the licensee submitted a revised LAR Attachment S, Table S-3 that included Implementation Item 49 to revise the program that monitors the RHR heat exchanger performance for consistency with the assumptions of the NFPA 805 NPSH analysis~~, containment parameters, and AREVA fuel peak centerline temperature analysis calculation related to the RHR heat exchanger k-factor~~. The NRC staff concludes that this action is acceptable because it would be required by the proposed license condition.

Implementation Item 49
Revise the program that monitors BFN Residual Heat Removal (RHR) heat exchanger performance for consistency with the assumptions of the NFPA 805 Net Positive Suction Head (NPSH) analysis~~, Containment Parameters, and AREVA Fuel peak centerline temperature (PCT) Analysis calculation related to the RHR heat exchanger k-factor~~. **The monitoring program shall include verification that the tested worst fouling resistance with measurement uncertainty added, of all BFN Units 1, 2, and 3 RHR heat exchangers is less than the design value of 0.001517 hr-ft.^{2}- °F/BTU, and the worst tube plugging is less than 4.57-percent.**

Please call me to discuss the above revised texts in the SE and implementation 49.

Thank you,

Farideh
Farideh E. Saba, P.E.
Senior Project Manager
NRC/ADRO/NRR/DORL
301-415-1447
Mail Stop O-8G9A
Farideh.Saba@NRC.GOV