

March 5, 2003

MEMORANDUM TO: James W. Clifford, Chief, Section 2
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

FROM: Victor Nerses, Sr. Project Manager, Section 2 /RA/
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

SUBJECT: SEABROOK STATION, UNIT NO. 1, FACSIMILE TRANSMISSION,
DRAFT REQUEST FOR ADDITIONAL INFORMATION (RAI) TO BE
DISCUSSED IN AN UPCOMING CONFERENCE CALL (TAC NOS.
MB6611 and MB6612)

The attached draft RAI was transmitted by facsimile on March 5, 2003, to Mr. Mike O'Keefe of FPL Energy Seabrook, LLC (the licensee). This draft RAI was transmitted to facilitate the technical review being conducted by NRR and to support a conference call with the licensee to discuss the RAI. The RAI was related to the licensee's submittals both dated October 11, 2002, concerning containment building penetrations and reduction of decay time for core offload. Review of the RAI would allow the licensee to determine and agree upon a schedule to respond to the RAI. This memorandum and the attachment do not convey or represent an NRC staff position regarding the licensee's request.

Docket No. 50-443

Attachment: Draft RAI

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V. Nerses

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PDI-2 Reading

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DRAFT

REQUEST FOR ADDITIONAL INFORMATION
BY THE OFFICE OF NUCLEAR REACTOR REGULATION
PROBABILISTIC SAFETY ASSESSMENT BRANCH
CHANGES TO TS 3.9.4 CONTAINMENT BUILDING PENETRATIONS (TAC NO. MB6611)
REDUCTION OF DECAY TIME FOR CORE OFFLOAD (TAC NO. MB6612)
FACILITY OPERATING LICENSE NO. NPF-86
FPL ENERGY SEABROOK, LLC
SEABROOK STATION
DOCKET NO. 50-443

1. License Amendment Request (LAR) 02-06, "Reduction of Decay Time for Core Offload," dated October 11, 2002, stated that the fuel handling accident (FHA) analyses for both the FHA in the fuel building and in the containment were revised to reflect a decay time of 80 hours. The analysis for the FHA occurring in the open containment building assumed an instantaneous release directly to the outside environment. Were the preceding the only analysis inputs or assumptions that were revised to arrive at the revised dose results? Please provide the inputs and assumptions used in the revised analyses of fuel handling accidents used to support LAR 02-06 and LAR 02-07. Include assumptions on control room ventilation system operation and unfiltered in-leakage.
2. LAR 02-07, "Changes to TS 3.9.4, Containment Building Penetrations," dated October 11, 2002, also refers to the revised FHA dose analyses as discussed in the submittal letter for LAR 02-06 as well as the current UFSAR Chapter 15.7.4 FHA dose analyses. The current UFSAR FHA dose analyses use atmospheric dispersion factors (X/Qs) for the control room dose calculation that are based on radioactivity release due to containment leakage. Seabrook UFSAR Appendix 15B documents that these X/Qs were determined based on Equation 6 of Murphy and Campe (Ref. 1), which is applicable to a diffuse source with a point receptor. Since the equipment hatch/proposed containment outage door opening is a much smaller release area than the entire containment building, how do these control room X/Qs remain acceptable for use for the case where the containment is open to the outside environment?

Reference

1. K.G. Murphy, K.M. Campe, 13th AEC Air Cleaning Conference, "Nuclear Power Plant Control Room Ventilation System Design for Meeting General Design Criterion 19," August 1974.