

May 7, 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 NO. MB6612)

The attached draft RAI was transmitted by facsimile on May 7, 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 October 11, 2002, submittal concerning a reduction in the decay time associated with the movement of irradiated fuel in the reactor vessel. 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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J. Clifford

V. Nerses

G. Miller

D. Jackson

PDI-2 Reading

Accession Number: ML031320557 *see previous concurrence

OFFICE	PDI-2/PM	PDI-2/PM	SPLB/SC*
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OFFICIAL RECORD COPY

DRAFT

OFFICE OF NUCLEAR REACTOR REGULATION
DIVISION OF SYSTEMS SAFETY AND ANALYSIS
DRAFT REQUEST FOR ADDITIONAL INFORMATION
REDUCTION IN DECAY TIME FOR CORE OFFLOAD
IN TECHNICAL SPECIFICATION 3/4.9.3
SEABROOK STATION
(TAC NO. MB6612)

1. In the submittal, it is stated that the boil-off rate is 100 gpm and “within make-up capacity.” Updated Final Safety Analysis Report (UFSAR) Section 9.1.3.3 states the various make-up sources. What are the rates of spent fuel pool (SFP) cooling make-up from the various make-up sources? Verify that the make-up sources can be aligned and supply water to the SFP in the loss of cooling scenario prior to time to boil (3.28 hours).
2. In UFSAR Section 9.2.1.1, Service Water System, it is stated that system analysis has been performed to permit continued plant operation up to a maximum ocean temperature of 68.5F. Additionally, the submittal addresses a maximum operating ocean temperature of 65F and administrative controls for an ocean temperature of 63F. Explain how the UFSAR analysis or the plant addresses SFP cooling system operation with ocean temperatures between 65 and 68.5F
3. Please provide an updated UFSAR analysis of the maximum temperature for an emergency or abnormal offload, given 36 days operation following a refueling outage and a full spent fuel pool.
4. In the submittal, it is stated “the acceptance criterion is to maintain the maximum long-term temperature in the concrete wall at or below 200F.” American Concrete Institute (ACI) 349-85, “Code Requirements for Nuclear Safety Related Concrete Structures,” states that for normal operation or any other long term period, the temperature shall not exceed 150 F except for local areas. Explain why 200F is acceptable for the Seabrook SFP.
5. A heat load of 47.791 E6 Btu/hr is stated in the submittal for a full core offload. Clarify if this includes a full SFP or the existing spent fuel assembly population. Also, justify why the higher than design basis heat load (46.88 E6 Btu/hr, as stated in section 9.1.3.1 of the UFSAR) is acceptable.
6. In FSAR Section 9.1.3.1, it is stated that North Atlantic will evaluate the performance of the SFP cooling system to ensure the SFP temperature will remain below 141F during the full core offload.
 - a. Clarify if this pre-offload evaluation assumes the heat load of a full SFP or the existing spent fuel assembly population at the time of the offload.
 - b. The submittal used offload rates in the evaluation. Explain if the pre-offload evaluation includes an offload rate. Explain how the offload rate is ensured such that the SFP temperature limit is not exceeded.

- c. The submittal states that administrative limits will be established when the cooling tower is used as the ultimate heat sink, rather than the Atlantic Ocean. Clarify if the pre-offload evaluation uses the actual ultimate heat sink to be used during the offload.
- d. Verify that this pre-load evaluation remains part of your licensing basis and will be performed prior to every full core offload.