FPL Energy
Seabrook Station

FPL Energy Seabrook Station
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JUL 8 2004

Docket No. 50-443
NYN-04054

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555-0001

Reference: FPLE Seabrook Letter NYN-04046, "Seabrook Station Response to Request for Additional Information Regarding License Amendment Request 03-02," dated May 24, 2004

Seabrook Station
Response to Request for Additional Information
Regarding License Amendment Request 03-02

Enclosed is the FPL Energy Seabrook, LLC (FPLE Seabrook) response to requests for additional information associated with License Amendment Request (LAR) 03-02 received on June 10, 2004.

Should you have any questions concerning this response, please contact Mr. James M. Peschel, Regulatory Programs Manager, at (603) 773-7194.

Very truly yours,

FPL Energy Seabrook, LLC

Mark E. Warner
Site Vice President

A001

cc: H. J. Miller, NRC Region I Administrator
S. P. Wall, NRC Project Manager, Project Directorate I-2
G. T. Dentel, NRC Senior Resident Inspector

Mr. Bruce Cheney, Director
New Hampshire Office of Emergency Management
State Office Park South
107 Pleasant Street
Concord, NH 03301

OATH AND AFFIRMATION

I, Mark E. Warner, Site Vice President of FPL Energy Seabrook, LLC, hereby affirm that the information and statements contained within this response to the Request for Additional Information to License Amendment Request 03-02 are based on facts and circumstances which are true and accurate to the best of my knowledge and belief.

Sworn and Subscribed
before me this
8th day of July, 2004

Victoria S. Robertson
Notary Public

Mark E. Warner
Site Vice President

VICTORIA SUSAN ROBERTSON
MY COMMISSION EXPIRES JAN. 15, 2008
NOTARY PUBLIC NEW HAMPSHIRE

Enclosure to NYN-04054

Responses to NRC Request for Additional Information
Seabrook Station Alternate Source Term

RAI 1:

In response to March 23, 2004 RAI No. 3 (Third Set), FPLE identified control room intake radiation monitor dose rates. Please respond to the following additional questions:

a. The radiation level table does not provide a value for a fuel handling accident or a liquid waste system failure. The NRC staff requests the projected monitor readings for these events.

b. The whole body dose rate reading at the monitor location for the MSLB is 1.27 mrem/hr. This value is very close to the 1 mrem/hr value which corresponds to the 2 x background monitor setpoint. If the whole body dose rate for the actual event were to be, for example, 0.95 mrem/hr, would the 30 day dose to the control room operator be less than 5 rem TEDE assuming no monitor alarm? Since FPLE assumes that the isolation would occur within 30 seconds, the NRC staff notes that the internal exposure to inhaled iodine would be expected to increase faster than the external exposure if isolation does not occur.

FPLE Response to RAI 1a:

The projected monitor readings for the Radioactive Liquid Waste System Failure, the Fuel Handling Accident (FHA), and the RCCA Ejection – secondary side release are shown below.

Event	Whole Body Dose Rate at Entrance to Most Limiting Air Intake Due to Noble Gas (average over first 30 seconds) mrem/hr
Radioactive Liquid Waste System Failure	29.84
FHA	723.17
RCCA Ejection – secondary side release	782.81

FPLE Response to RAI 1b:

NOTE - The response is based on a conference call between FPL Energy Seabrook and the NRC on June 10th, 2004, in which the intent of the question was clarified.

The whole body dose rate listed for the Main Steam Line Break is a very conservative (lower bound) Control Room radiation detector reading that is based on the noble gas release only. A review of the Energy Response Report for the G-M-tube-based gamma sensitive Control Room radiation detector indicates that over a gamma photon energy range of 90 keV to 1.25 MeV that the lowest efficiency for any gamma photon energy in the range is 76% (for 230 keV gamma photons). If other isotopes in the release are included and the 76% efficiency is conservatively

applied to all gamma energies in the range, the Control Room radiation detector reading would be significantly higher than the reported value that considered only noble gases (367.8 mrem/hr average for the first 30 seconds of the event). This level would clearly cause the radiation detector setpoint to be reached.

RAI 2:

The response to RAI No. 6i (Third Set) did not address the intent of the NRC staff's question. The NRC staff was not questioning what was designated as the source and receptor for the two sets of X/Q values. The staff's primary focus is in the last sub question: "What impact does this windspeed have on the time to reach 0.25 inch water gage (WG)?" Specifically, can the containment enclosure be drawn down to 0.25 inch WG within 4.5 minutes even in high wind conditions as assumed in the analyses.

FPLE Response to RAI 2:

NOTE - The response is based on a conference call between FPL Energy Seabrook and the NRC on June 10th, 2004, in which the intent of the question was clarified.

Yes. The containment enclosure can be drawn down to –0.25" WG within 4.5 minutes even in high wind conditions. The design basis function of the EAH System is to maintain a minimum differential pressure of – 0.25 inch water gage between the areas that constitute the CEVA and the outside atmosphere. The ability to drawdown the containment enclosure to –0.25" WG is verified at least every 18 months in accordance with Technical Specification Surveillance Requirement 4.6.5.1b.2d.4).

UFSAR Section 6.5.1.3 of the Seabrook UFSAR contains an erroneous statement about the operation of the Containment Enclosure Emergency Air Cleaning (EAH) System. The incorrect statement is, "The calculated wind speed that would initiate building exfiltration is 17 miles per hour. At this or at higher wind speeds, any exfiltration would be adequately dispersed." This statement is directly related to the initial design concept for the EAH system. The initial system design concept utilized a static pressure control system to automatically regulate the inlet dampers to the EAH filter fans. This control scheme sensed the differential pressure between the Containment Enclosure Ventilation Area (CEVA) to outside and CEVA to the Primary Auxiliary Building (PAB). The design function of the system was to establish and maintain a negative (-) 0.25 inch water gage pressure differential between the CEVA areas and the outside. The operating fan inlet damper would modulate to control this differential pressure at the – 0.25 inch water gage. Based on this design, wind speeds over 17 mph could induce a positive pressure outside that could result in modulating the fan inlet dampers closed and increasing the CEVA pressure greater than the PAB. Under this postulated condition, the control scheme was designed to shift the control point to the PAB to CEVA differential pressure controller and then modulate the fan inlet damper to maintain the – 0.25 inch water gage differential pressure to the PAB reference point. This control system has been previously disabled such that both fan inlet dampers would always be in the fail open position. Under this condition, the EAH fans would produce the maximum possible negative pressure within the containment enclosure and associated areas.

A correction to UFSAR Section 6.5.1.3 is being prepared.