



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

July 31, 2012

LICENSEE: NextEra Energy Seabrook, LLC

FACILITY: Seabrook Station

SUBJECT: SUMMARY OF TELEPHONE CONFERENCE CALL HELD ON JULY 3, 2012, BETWEEN THE U.S. NUCLEAR REGULATORY COMMISSION AND NEXTERA ENERGY SEABROOK, LLC, CONCERNING THE DRAFT REQUEST FOR ADDITIONAL INFORMATION PERTAINING TO THE SEABROOK STATION, LICENSE RENEWAL APPLICATION ENVIRONMENTAL REVIEW (TAC NO. ME3959)

The U.S. Nuclear Regulatory Commission (NRC or the staff) and representatives of NextEra Energy Seabrook, LLC (NextEra or the applicant) held a telephone conference call on July 3, 2012, to discuss and clarify the staff's requests for additional information (RAIs) concerning the Seabrook Station, license renewal application.

Enclosure 1 provides a listing of the participants and Enclosure 2 contains a listing of the RAIs discussed with the applicant, including a brief description on the status.

The applicant had an opportunity to comment on this summary.

A handwritten signature in black ink, appearing to read "Wentze", is positioned above the printed name of Michael Wentze.

Michael Wentze, Project Manager
Projects Branch 2
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket No. 50-443

Enclosures:
As stated

cc w/encl: Listserv

**TELEPHONE CONFERENCE CALL
SEABROOK STATION
LICENSE RENEWAL APPLICATION**

**LIST OF PARTICIPANTS
July 3, 2012**

PARTICIPANTS

Kim Green
John Parillo
Garill Coles
Bruce Schmitt
Rick Cliche
Ed Carley
Rich Turcotte

AFFILIATIONS

U.S. Nuclear Regulatory Commission (NRC)
NRC
Pacific Northwest National Laboratory (PNNL)
PNNL
NextEra Energy Seabrook, LLC (NextEra)
NextEra
NextEra

REQUESTS FOR ADDITIONAL INFORMATION
LICENSE RENEWAL APPLICATION
July 3, 2012

The U.S. Nuclear Regulatory Commission (NRC or the staff) and representatives of NextEra Energy Seabrook, LLC (NextEra) held a telephone conference call on July 3, 2012, to discuss and clarify the following requests for additional information (RAIs) concerning the license renewal application environmental review.

Draft RAI 1d:

- 1) Please provide the following information regarding the Level 1 Probabilistic Risk Assessment (PRA) used for the Severe Accident Mitigation Alternatives (SAMA) analysis:
 - d. Previously, the contribution from internal events and internal floods together was $1.1\text{E}-5/\text{yr}$. This has dropped to $7.1\text{E}-6/\text{yr}$ (see p. 16 of 96). The severe weather contribution, which is not insignificant at 10.0 percent, was not previously quantified. Please explain all these differences, at least qualitatively.

Discussion:

The applicant stated that it had quantified the severe weather contribution to the core damage frequency; however, it had not provided that value to the NRC. Therefore, the NRC agreed to change the wording as follows:

- d. Previously, the contribution from internal events and internal floods together was $1.1\text{E}-5/\text{yr}$. This has dropped to $7.1\text{E}-6/\text{yr}$ (see p. 16 of 96). The severe weather contribution, which is not insignificant at 10.0 percent, was not previously provided. Please explain all these differences, at least qualitatively.

Draft RAI 1e:

- 1) Please provide the following information regarding the Level 1 PRA used for the Severe Accident Mitigation Alternatives (SAMA) analysis:
 - e. Among the basic event contributors to core damage frequency (CDF) and large early release frequency (LERF) (see pp. 17 and 19 of 96) are several that differ from those in the January 13, 2011, RAI response. Please explain these differences.

Discussion:

The applicant stated that it can provide an explanation for the changes and noted that some of the basic event contributors did not change much, but others dropped off of the list. The Project Manager asked the reviewers if they could clarify for which events they would like the applicant to explain the differences. The NRC will reword the question as follows:

- e. Among the basic event contributors to CDF and LERF (see pp. 17 and 19 of 96) are several that differ from those in the January 13, 2011, RAI response. Please explain the increase in the risk reduction worth (RRW) values for HH.XOEFW1.FA, HH.XIONES3.FA, and HH.OTSI3.FA and decrease in RRW value for FWP37A.FR for

the LERF importance listing. Also, explain the basic events removed from and added to the LERF and CDF listings.

Draft RAI 2b:

2) Please provide the following information relative to the Level 2 analysis:

- b. The dose risk and Off-site Economic Cost Risk (OECR) results are different for the SB2006 and SB2011 PRA model results. The reason for these differences is not clear in every case. Using Table F.3.2.1-1 and requests for additional information (RAIs) 2g and 4a associated with the SB2006 environmental report (ER), and release category results from the SB2011 submittal, please explain the model changes that caused the following:
- c. The dose risk and OECR results for release category LL5 changed significantly between SB2006 and SB2011 (greater than a factor of 100). The text on page 33 indicates that the increase in SAMA case "MAB" is due to higher release category source terms (apparently referring to LL5). The CDF for LL5 increased from $3.2\text{E-}7/\text{yr}$ to $3.1\text{E-}6/\text{yr}$, the SB2011 noble gas release fraction is similar to the SB2006 model, however the I and Cs release fractions are larger, and the release timing is significantly earlier. Please discuss the model changes that caused these changes. Please include as part of this explanation a discussion of the relative impacts on increased I and Cs release fraction, the earlier release timing, and the event frequency change.

Discussion:

The applicant stated that it could qualitatively answer the questions but that it would be difficult to detail the changes to the release categories and fractions since the changes were comprehensive. The NRC will reword the questions as follows:

- b. The dose risk and Off-site Economic Cost Risk (OECR) results are different for the SB2006 and SB2011 PRA model results. The reason for these differences is not clear in every case. Using Table F.3.2.1-1 and requests for additional information (RAIs) 2g and 4a associated with the SB2006 environmental report (ER), and release category results from the SB2011 submittal, please discuss the modeling basis that caused the following observations:
- c. The dose risk and OECR results for release category LL5 changed significantly between SB2006 and SB2011 (greater than a factor of 100). The text on page 33 indicates that the increase in SAMA case "MAB" is due to higher release category source terms (apparently referring to LL5). The CDF for LL5 increased from $3.2\text{E-}7/\text{yr}$ to $3.1\text{E-}6/\text{yr}$, the SB2011 noble gas release fraction is similar to the SB2006 model, however the I and Cs release fractions are larger, and the release timing is significantly earlier. Please discuss the modeling basis that caused these changes.

Draft RAI 3a:

The applicant stated that there appears to be an error for one of the basic events. The NRC had listed release category "SE-5" as one of the release categories of interest; however, the category should be "SE3." The NRC will correct the error.

Draft RAI 4a:

- 4) Please provide the following with regard to the Phase II cost-benefit evaluations:
- a. In Section 4.2, on p. 34 of 96, it is stated that “[t]he sensitivity of the updated SAMA results to variations in other Level 3 parameters is expected to be consistent with previous sensitivity results.” Please provide examples comparing the updated results to the previous results confirming this expectation.

Discussion:

The applicant stated that the question read as though the NRC wants NextEra to rerun sensitivity cases. The staff stated that was not the intent. The staff will reword the question as follows:

- a. In Section 4.2, on p. 34 of 96, it is stated that “[t]he sensitivity of the updated SAMA results to variations in other Level 3 parameters is expected to be consistent with previous sensitivity results.” Please provide discussion comparing the updated results to the previous results confirming this expectation.

Draft RAI 4c:

- c. Section 4.2 provides the new Maximum Averted Benefit (MAB) (i.e., \$819K) using the SSPSS-2011 PRA model. Also please provide the Averted Public Exposure (APE) costs, Averted Off-site Property Damage Costs (AOC), Averted Occupational Exposure (AOE) costs, and Averted Onsite Costs (AOC).

Discussion:

The applicant noted that the NRC listed the previous MAB; the current MAB is \$3.05M. The NRC will correct the error.

Draft RAI 4d:

- d. In Table 1 of Section 4.3, neither the risk reduction values nor PRA modeling assumptions for SAMA case MAB are provided. The cost benefit with uncertainty and the seismic multiplier for SAMA 77 (evaluated by this SAMA case) is >\$15M, making the cost benefit the same as the expected cost for this SAMA. The evaluation for SAMA 77 incorrectly states that “Cost to engineer and implement installation of large passive air cooling system is far in excess of the attainable benefit”. The original SAMA evaluation submittal estimated the cost of implementing this SAMA to be >\$3M. Please provide the risk reduction values and PRA modeling assumptions for SAMA case MAB. Also, please provide justification of the cost of SAMA 77 and explain why it was necessary to increase this cost estimate.

Discussion:

The applicant noted that the cost for SAMA 77 is estimated to be >>\$15M, not >\$15M. The staff will delete the second sentence since it is inaccurate.

Draft RAI 4:

The applicant noted that there appears to be a request (immediately following 4d) that is not numbered. The staff agreed and will renumber the remaining requests.

July 31, 2012

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FACILITY: Seabrook Station

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/RA/

Michael Wentzel, Project Manager
Projects Branch 2
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket No. 50-443

Enclosures:
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cc w/encl: Listserv

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NAME	YEdmonds	MWentzel	DWrona
DATE	07/30/12	07/31/12	07/31/12

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Letter to NextEra Energy Seabrook, LLC, from M. Wentzel dated July 31, 2012

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