

July 25, 2012

MEMORANDUM TO: Mark Tonacci, Chief
Licensing Branch 4 (LB4)
Division of New Reactor Licensing
Office of New Reactors

FROM: Amy Snyder, Senior Project Manager */RA Donald Habib for:/*
Licensing Branch 4 (LB4)
Division of New Reactor Licensing
Office of New Reactors

SUBJECT: SUMMARY OF A PUBLIC TELECONFERENCE WITH PROGRESS
ENERGY FLORIDA ON JUNE 20, 2012, REGARDING THE LEVY
UNITS 1 AND 2 COMBINED LICENSE APPLICATION AND SEISMIC
REQUESTS FOR INFORMATION IN RESPONSE TO LESSONS
LEARNED FROM THE FUKUSHIMA EARTHQUAKE AND TSUNAMI

The U.S. Nuclear Regulatory Commission (NRC) held a Category 1 public teleconference on June 20, 2012, at 9:00 a.m., to discuss Progress Energy Florida's (PEF) draft response to the seismic reevaluation portion of request for additional information (RAI) Letter No. 108 for the Levy Nuclear Plant (LNP) Units 1 and 2 COL review (Agencywide Documents Access and Management System (ADAMS) Accession No. ML120550146).

The seismic reevaluation is one of the four actions in SECY-12-0025, "Proposed Orders and Requests for Information in Response to Lessons Learned from Japan's March 11, 2011, Great Tohoku Earthquake and Tsunami," dated February 17, 2012 (ADAMS Accession No. ML12109A201). Recommendation 2.1 specifies the use of the Central and Eastern U.S. Seismic Source Characterization (CEUS-SSC) model that was published in January 2012 (NUREG-2115) for seismic reevaluations to determine the seismic hazard. The recommendation further specifies restrictions on the use of the cumulative absolute velocity (CAV) filter when conducting seismic evaluations.

PEF completed its seismic reevaluation for the LNP site and provided to NRC an outline of its draft RAI response (ADAMS Accession No. ML12171A045). NRC staff reviewed PEF's the outline and asked questions regarding PEF's CEUS-SSC source model evaluations.

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Discussion

The purpose of this teleconference was for the Levy Units 1 and 2 combined license (COL) applicant's technical staff to discuss its draft outline of its response to the NRC's RAI regarding the Fukushima Near-Term Task Force (NTTF) Recommendation 2.1 and for the staff to ask questions or note any concerns.

PEF stated that it performed sensitivity evaluations to develop the LNP site hard rock seismic hazard, 10^{-5} Uniform Hazard Response Spectra (UHRS), Ground Motion Response Spectra (GMRS), finished grade Performance Based Surface Response Spectra (PBSRS), and Foundation Input Response Spectra (FIRS) (EL +11 ft.) using the CEUS-SSC (NUREG-2115) model and the modified CAV filter (per NRC SECY-2012-0025 Enclosure 7 – Attachment 1 to Enclosure 1). PEF compared the LNP site hard rock seismic hazard, UHRS, GMRS, finished grade PBSRS, and FIRS (EL +11 ft.) using the CEUS SSC model to the corresponding hazard and response spectra developed using the Electric Power Research Institute Seismic Owner's Group (EPRI SOG) model, with the EPRI-SOG GMRS, PBSRS, and FIRS spectra scaled in accordance with Regulatory Guide 1.60.

PEF concluded that the GMRS, PBSRS, and FIRS calculated using the CEUS-SSC model are bounded by the corresponding scaled spectra calculated based on the EPRI SOG model, with the exception of the GMRS for frequencies between 0.2 and 2 Hz where the maximum exceedance is approximately 4 percent at 1 Hz. Similarly, PEF stated that the seismic margin assessments for the standard plant components, site liquefaction potential, adjacent buildings' seismic interaction with the nuclear island, and the roller compacted concrete bridging mat capacity for the CEUS SSC methodology ground motions are bounded by that for the EPRI SOG model.

PEF explained that it fully evaluated the seismic hazard using the CEUS-SSC model and concluded that the seismic hazards for the LNP site are bounded by the AP1000 design. PEF said that it plans to use the CEUS-SSC model results as a sensitivity analysis and not as its design basis. PEF plans on using the scaled GMRS based on the EPRI SOG model as its design basis and said it will update the FSAR to account for this change.

PEF reviewed with the staff that its proposed technical approach (ADAMS Accession No ML12115A315), described as Option A as presented to the staff on April 27, 2012, has not changed. The staff asked the following questions regarding the draft RAI response (ADAMS Accession No. ML12171A045):

- Did PEF use 32 ft vs. 36 ft in its GMRS calculations? Table 1 of PEF's draft RAI response shows that the GMRS was calculated at +32 ft. PEF's contractor said that it used 36 ft and that 32 ft. was a typographical error that will correct before PEF submits its final RAI response on this topic.
- Explain the exceedance in Figure RAI L-0098-1? PEF explained that Figure RAI L-0098-1 compares the hard rock UHRS results based on the EPRI-SOG model used in the LNP FSAR with hard rock UHRS results using CEUS-SSC model. PEF's contractor explained that the only place where the new calculations exceed the old calculations is

at the mean annual exceedance frequency of 10^{-3} from about 0.5 to 2 Hz. PEF's contractor said that it believes that this higher hazard is likely due to the larger maximum magnitudes for the distributed seismicity sources in the CEUS-SSC model.

- Clarify what CAV filter was used and how it affected the GMRS calculations? PEF's contractor explained that for the original seismic evaluation, the CAV was used at all magnitudes. For the updated seismic reevaluation, the CAV was only applied at moment magnitudes (M) of M5.5 and above.
- Will PEF provide scaled and non-scaled GMRS spectra data with the new calculation? PEF said that it would provide data for both.
- Will PEF provide vertical spectra, as well as horizontal spectra? PEF said that it will provide both in its final RAI response.
- What is the status of PEF's seismic reevaluation? PEF said that all the calculations are complete and have been validated. Furthermore, PEF said that the calculations have been reviewed internally by the PEF's Joint Venture Team (Sargent & Lundy, Worley Parson, and CH2M Hill) and these calculations will be given to PEF for concurrence in the near future.
- Do the site response calculations that were performed address both proposed reactor units? PEF said that both units were included in the calculations.

PEF informed the staff that it plans on submitting the final RAI response to the NRC during the week of July 23, 2012, and stated its intention to keep NRC staff informed of its progress with regard to responding to NTTF Recommendation 2.1.

Docket Nos.: 052-029 and 052-030

Enclosures:

1. Meeting Agenda
2. Meeting Attendees List

cc w/encls: See next page

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Docket Nos.: 052-029 and 052-030

Enclosures:

1. Teleconference Agenda
2. Teleconference Attendees List

cc w/encls: See next page

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ML12179A233 - Package
 ML12158A510 - Meeting Notice and Agenda
 ML120550146 - RAI Letter 108
 ML12108A016 - RAI 30-Day Response
 ML12171A045 - Draft RAI Response
 ML12115A315 - PEF's April 27th Slide Presentation

ADAMS Accession Nos.: ML12179A211- June 20 Teleconference Summary NRC-001

OFFICE	LA: DNRL/LB4	PM: DNRL/LB4	PM:DNRL/LB4
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DATE	07/05/2012	07/09/2012	07/24/2012

OFFICIAL RECORD COPY

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(Revised 05/21/2012)

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AGENDA FOR PUBLIC MEETING

UNITED STATES NUCLEAR REGULATORY COMMISSION (NRC)

Public Teleconference with Progress Energy – Florida (PEF)

Wednesday, June 20, 2012

9:00 a.m. – 11:00 a.m.

PURPOSE: The purpose of this teleconference is for the Levy Units 1 and 2 combined license applicant's technical staff to discuss its draft outline to its response to the NRC's Request for Additional Information regarding the Fukushima Near-Term Task Force Recommendation 2.1, Seismic Reevaluation, and for the staff to ask questions and note any concerns.

Time	Topics	Lead By
9:00 a.m. – 9:05 a.m.	Introduction	NRC/PEF
9:05 a.m. – 10:45 a.m.	Discussion of PEF approach to Response NTTF Recommendation 2.1, Seismic Reevaluation	NRC/PEF
10:45 p.m. – 11:00 a.m.	Summary and Conclusion	NRC/PEF

**U.S. Nuclear Regulatory Commission (NRC)
Progress Energy Florida (PEF)
Public Teleconference
June 20, 2012**

List of Attendees

Purpose: The purpose of this teleconference is for the Levy Units 1 and 2 combined license applicant's technical staff to discuss its draft outline to its response to the NRC's RAI regarding the Fukushima Near-Term Task Force Recommendation 2.1, Seismic Reevaluation and for the staff to ask questions and note any concerns.

Name	Organization
Don Habib	NRO/DNRL/LB4
Amy Snyder	NRO/DNRL/LB4
Rebecca Karas*	NRO/DSEA/RGS1
Mohamed Shams*	NRO/DE/SEB1
Pravin Patel*	NRO/DE/SEB1
Stephanie Devlin	NRO/DSEA/RGS2
Vladimir Graizer	NRO/DSEA/RGS2
Dogan Seber	NRO/DSEA/RGS1
Zuhan Xi*	NRO/DSEA/RGS1
Robert Kitchen	Progress Energy Florida/Licensing
Tillie Wilkins	Progress Energy Florida/Licensing
Vann Stephenson	Progress Energy Florida/Licensing
David Waters	Progress Energy Florida/Licensing
Chris Keenan	Progress Energy Florida/Licensing
Robert Youngs	AMEC Environment & Infrastructure
A.K. Singh	Sargent & Lundy/Progress Energy
John McConaghy*	Duke Energy
Mary Olson*	NIRS Southeast

*--Via Phone