

UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

December 10, 2014

The Power Reactor Licensees and Holders of Construction Permits in Active or Deferred Status on the **Enclosed List**

SUBJECT: SUPPLEMENTAL INFORMATION RELATED TO DEVELOPMENT OF SEISMIC RISK EVALUATIONS REGARDING THEREQUEST FOR INFORMATION ISSUED PURSUANT TO TITLE 10 OF THE CODE OF FEDERAL REGULATIONS 50.54(f) RELATING TO SEISMIC HAZARD REEVALUATIONS FOR RECOMMENDATION 2.1 OF THE NEAR-TERM TASK FORCE REVIEW OF INSIGHTS FROM THE FUKUSHIMA DAI-ICHI

ACCIDENT

The purposes of this letter are to: (1) inform licensees whether the NRC preliminary review has found their updated seismic hazard information, which was submitted in March 2014, suitable for use in the development of seismic risk evaluations; (2) encourage licensees to utilize endorsed guidance and to promptly inform the staff when changes to the site models are being considered prior to submittal of the seismic risk evaluation; and, (3) provide an update on the staff's review plans and discuss early licensee submittal of seismic risk evaluations.

BACKGROUND

On March 12, 2012, the NRC issued a request for information pursuant to Title 10 of the Code of Federal Regulations. Part 50 (10 CFR), Section 50.54(f) (hereafter referred to as the 50.54(f) letter. The purpose of the 50.54(f) letter was to gather information concerning, in part, the seismic hazard at operating reactor sites to enable the NRC staff to determine whether licenses should be modified, suspended, or revoked. The "Required Response" section of Enclosure 1 indicated that licensees should provide a seismic hazard evaluation and screening report within 1.5 years from the date of the letter for central and eastern United States (CEUS) nuclear power plants, and within 3 years for western United States (WUS) plants. For CEUS plants, the date to submit the report was extended by the NRC to March 31, 2014.²

By letters dated March 2014¹, CEUS licensees provided their Seismic Hazard Evaluation and Screening Report. Following an NRC screening and prioritization review, 32 CEUS sites "screened-in" for performing a seismic risk evaluation since the reevaluated hazard exceeds the current seismic design-basis. The seismic risk evaluation will evaluate the total plant response to the reevaluated hazard. All licensees committed to follow the Electric Power Research

² The May 7, 2013, endorsement letter including due date extension is available in the ADAMS under Accession

No. ML13106A331.

¹ Enclosure 1 – provides references to licensee seismic hazard submittals, seismic prioritization letters, requests for additional information or summary of licensee planned updates, and identifies seismic hazards suitable for seismic risk evaluation development.

Institute (EPRI) Report, "Seismic Evaluation Guidance: Screening, Prioritization and Implementation Details (SPID) for the Resolution of Fukushima Near-Term Task Force Recommendation 2.1: Seismic."³

DEVELOPMENT OF SEISMIC RISK EVALUATION MODELS

The NRC plans to complete its review of the Near-Term Task Force (NTTF) Recommendation 2.1 seismic reevaluated hazard for the CEUS plants by the third quarter of 2015, as further discussed below. As set forth in the NRC-endorsed SPID process, the seismic hazards submitted by licensees in March 2014 and reviewed by the NRC are intended to be used in the seismic risk evaluation. As such, the NRC does not plan to re-review the seismic hazard as part of reviewing seismic risk evaluations unless a licensee has modified its seismic hazard inputs after it has been approved by the NRC. To facilitate the completion of the NTTF Recommendation 2.1 activities, licensees are encouraged to follow the approved guidance and adhere to the timelines.

The table in Enclosure 1 provides the current status for each CEUS licensee. In general, unless an RAI is issued on a site or licensee update is planned, the seismic hazards submittals appear to be of sufficient quality for use in the development of the seismic risk evaluation for completing NTTF 2.1 seismic activities, including the high frequency spectrum above 10 Hertz (Hz). The NRC has completed issuance of a limited number of requests for information (RAI) to seismic priority Group 1, Group 2, and Group 3 sites that require technical resolution of larger hazard differences. Those affected licensees should work expeditiously with the staff to resolve these technical differences to support finalizing the seismic hazard inputs to the seismic risk evaluation.

Some licensees indicated that they are proceeding with seismic risk evaluation model development using seismic hazard curves that predate the NTTF 2.1 review. The NRC staff understanding is that the hazard curves are bounding of those submitted in the March 2014. A bounding curve would be a suitable technical approach for seismic risk evaluation development provided that risk insights are not masked.

CONSIDERATION OF NEW SEISMIC HAZARD INFORMATION

Utilization of Endorsed Guidance

A number of licensees have expressed interest in whether the NRC may expect licensees to update the March 2014 seismic hazard prior to submittal of the seismic risk evaluation given the amount of time that will elapse between the endorsement of the CEUS model in 2012 and response schedules which extend to December 2020. The NTTF Recommendation 2.1 was intended to determine if the operating reactors need to update their current licensing and design-basis based on the current state of knowledge and practice. As such, NTTF Recommendation 2.1 serves as a snapshot in time to support regulatory decisions. To efficiently utilize NRC and licensee resources, the staff endorsed the SPID guidance developed for the response to the 50.54(f) request. The guidance previously addressed this

³ The SPID guidance document is found in ADAMS under Accession No. ML12333A170. The staff endorsement letter for the SPID guidance is found in ADAMS under Accession No. ML12319A074.

topic,⁴ stating that seismic risk evaluations do not need to reflect updated seismic information prior to submittal of their risk evaluations for the purposes of the NTTF Recommendation 2.1 review.

As the SPID guidance was developed with stakeholder involvement and endorsed by NRC as an acceptable means of responding to the 50.54(f) letters, the NRC expects that licensees will use that guidance to the maximum extent practicable to ensure timely and efficient reviews by the NRC staff. If a licensee elects to voluntarily update the seismic hazard utilized in the NTTF 2.1 risk evaluation the staff will review any new information. This may result in staff questions regarding the adequacy of the seismic risk evaluation, require additional staff resources, additional review time, and may require additional information for the staff to gain sufficient understanding of the hazard. Note that the NRC staff does not plan to provide relief from established due dates for submitting the seismic risk evaluations. Licensees are encouraged to provide their NRC plant project manager the status of their risk assessment and any planned deviations from the endorsed SPID guidance.

Refinements to Site Response and Probabilistic Seismic Hazard Analysis (PSHA) Models

During stakeholder interactions, industry indicated that some licensees may be proceeding with additional site investigations or improvements to the March 2014 seismic hazard reports for their sites. As part of the NTTF 2.1, NRC will review significant GMRS changes as discussed below.

Licensees are encouraged to inform the staff of changes to hazard models while NTTF 2.1 activities are ongoing. Examples of changes include corrections to the shear-wave velocity profile, source catalog, collection of new site soil data, and changes to site uncertainties or damping factors that result in significant changes to the site GMRS. Refinements made to PSHA models are expected to follow NRC processes and guidance consistent with the type of change that is being made. If refinements are made, they should reflect consideration of their potential impact on the results of the risk evaluation. NRC will not consider these revisions to change risk evaluation prioritizations or schedules that have already been established.

Collection of additional onsite data may be appropriate to correct an identified deficiency or omission in the site characterization that significantly impacts the hazard, as this will improve the state of knowledge and safety focus in seismic risk evaluations. NRC requests licensees to apprise their NRC project manager of their plans and the results of site investigations. The staff may defer the reviews of those sites planning to make changes, if informed, to effectively utilize staff resources. Site response model refinements will not relieve licensees from their seismic risk evaluation submittal due date.

⁴ Table 6-4 of the SPID states that risk evaluations conducted using SPID guidance do not need to meet standard supporting requirement SHA-H1 in the American Society of Mechanical Engineers / American Nuclear Society (ASME/ANS) Probabilistic Risk Assessment (PRA) standard. The NRC staff interprets this to mean that licensees may use the CEUS 2012 seismic hazard information for their risk assessment, as was done for developing the GMRS.

PLANNED NRC REVIEW SCHEDULE FOR NTTF 2.1 SEISMIC ACTIVITIES

Voluntary Submittal of Risk Evaluation Results Ahead of Schedule

During stakeholder interactions, industry has indicated that some sites plan to submit seismic risk evaluations earlier than the required schedule. Although not required, it is acceptable for licensees to provide their seismic risk evaluations reports ahead of the required schedule. Early seismic risk evaluation conclusions may support operating experience insights and early completion could support, if warranted, licensee plant seismic enhancements prior to regulatory decision making. Licensees are encouraged to inform their NRC plant project manager of changes in their submittal plans prior to the submittal date to support NRC review and resource planning.

NRC Staff Review Plan for Reevaluated Seismic Hazards

The NRC staff plans to complete the seismic hazard reevaluation review by established seismic risk evaluation prioritization groups. Staff assessment issuance is planned for May 30, 2015, for Group 1 sites, June 30, 2015, for Group 2 sites, July 31, 2015, for Group 3 sites, and September 30, 2015, for screened out sites. This letter serves as preliminary feedback of the NRC's review of the March 2014 hazard reports and their suitability for use in the seismic risk evaluations.

If you have any questions on this matter, please contact Nicholas DiFrancesco at 301-415-1115.

Sincerely

Jack R. Davis, Director Japan Lessons Learned Division Office of Nuclear Reactor Regulation

Enclosures:

- 1. Table of Correspondence and Preliminary Seismic Hazard Review Summary
- 2. List of Addressees

cc w/encls: Distribution via Listserv

Correspondence and Preliminary Review Summary Associated with Reevaluated Seismic Hazard for Central and Eastern United States Reactor Sites

Licensee Facility (seismic risk evaluation priority group)	March 2014 – Licensee reevaluated seismic hazard and screening report and supplements	NRC seismic risk evaluation prioritization letter	Request for additional information, reference documenting differences, or summary of NRC preliminary seismic hazard review
	Date of letter (ADAMS Accession Nos.)	Date of letter (ADAMS Accession Nos.)	Date of letter (ADAMS Accession Nos.)
Beaver Valley Power Station, Units 1 and 2 (Group 2)	March 31, 2014 (ML14090A143)	May 9, 2014 (ML14111A147)	Licensee response to request for additional information December 1, 2014 (ML14335A482) Staff Assessment in progress. Hazard is suitable for risk evaluation development with the modification discussed in the December 1, 2014 letter.
Bellefonte Nuclear Plant, Units 1 and 2 [Note 3] (Group 3)	March 31, 2014 (ML14098A478)	May 9, 2014 (ML14111A147)	Additional information needed to support review. NRC request for additional information November 5, 2014 (ML14301A199)
Browns Ferry Nuclear Plant, Units 1, 2, and 3 (Group 2)	March 31, 2014 (ML14098A478)	May 9, 2014 (ML14111A147)	Staff Assessment in progress. Hazard is suitable for risk evaluation development.

Licensee Facility (seismic risk evaluation priority group)	March 2014 – Licensee reevaluated seismic hazard and screening report and supplements	NRC seismic risk evaluation prioritization letter	Request for additional information, reference documenting differences, or summary of NRC preliminary seismic hazard review
	Date of letter (ADAMS Accession Nos.)	Date of letter (ADAMS Accession Nos.)	Date of letter (ADAMS Accession Nos.)
Callaway Plant, Unit 1 (Group 1)	March 28, 2014 (ML14090A446)	May 9, 2014 (ML14111A147)	Staff Assessment in progress. Hazard is suitable for risk evaluation development.
Calvert Cliffs Nuclear Power Plant, Units 1 and 2 (Group 3)	March 31, 2014 (ML14099A196)	May 9, 2014 (ML14111A147)	Staff Assessment in progress. Hazard is suitable for risk evaluation development.
Catawba Nuclear Station, Units 1 and 2 (Group 2)	March 31, 2014 (ML14099A184)	May 9, 2014 (ML14111A147)	Additional information needed to support review. NRC request for additional information November 25, 2014 (ML14303A192)

Licensee Facility (seismic risk evaluation priority group)	March 2014 – Licensee reevaluated seismic hazard and screening report and supplements	NRC seismic risk evaluation prioritization letter	Request for additional information, reference documenting differences, or summary of NRC preliminary seismic hazard review
	Date of letter (ADAMS Accession Nos.)	Date of letter (ADAMS Accession Nos.)	Date of letter (ADAMS Accession Nos.)
Cooper Nuclear Station (Group 3)	March 31, 2014 (ML14094A048)	October 28, 2014 (ML14273A259)	Additional information needed to support review.
			NRC letter on screening and hazard differences October 28, 2014 (ML14273A259)
Davis-Besse Nuclear Power Station, Unit 1 (Group 3)	March 31, 2014 (ML14090A143)	May 9, 2014 (ML14111A147)	Staff Assessment in progress. Hazard is suitable for risk evaluation development.
Donald C. Cook Nuclear Plant, Units 1 and 2 (Group 1)	March 27, 2014 (ML14092A327)	May 9, 2014 (ML14111A147)	Licensee letter on model updates November 21, 2014 (ML14329A713) Staff Assessment in progress. Hazard is suitable for risk evaluation development with the modification discussed in the November 21, 2014 letter.

Licensee Facility (seismic risk evaluation priority group)	March 2014 – Licensee reevaluated seismic hazard and screening report and supplements	NRC seismic risk evaluation prioritization letter	Request for additional information, reference documenting differences, or summary of NRC preliminary seismic hazard review
	Date of letter (ADAMS Accession Nos.)	Date of letter (ADAMS Accession Nos.)	Date of letter (ADAMS Accession Nos.)
Dresden Nuclear Power Station, Units 2 and 3 (Group 2)	March 31, 2014 (ML14091A012)	May 9, 2014 (ML14111A147)	Staff Assessment in progress. Hazard is suitable for risk evaluation development.
Fermi, Unit 2 (Group 2)	March 31, 2014 (ML14090A326)	May 9, 2014 (ML14111A147)	Additional information needed to support review. NRC request for additional information November 17, 2014 (ML14301A247)
Edwin I. Hatch Nuclear Plant, Units 1 and 2 (Group 2)	March 31, 2014 (ML14092A017)	May 9, 2014 (ML14111A147)	Additional information needed to support review. NRC request for draft additional information November 17, 2014. (ML14335A788)

Licensee Facility (seismic risk evaluation priority group)	March 2014 – Licensee reevaluated seismic hazard and screening report and supplements	NRC seismic risk evaluation prioritization letter	Request for additional information, reference documenting differences, or summary of NRC preliminary seismic hazard review
	Date of letter (ADAMS Accession Nos.)	Date of letter (ADAMS Accession Nos.)	Date of letter (ADAMS Accession Nos.)
Indian Point Nuclear Generating Unit Nos. 2 and 3 (Group 1)	March 31, 2014 (ML14099A110 and ML14099A111)	May 9, 2014 (ML14111A147)	Staff Assessment in progress. Hazard is suitable for risk evaluation development.
LaSalle County Station, Units 1 and 2 (Group 2)	March 31, 2014 (ML14091A013)	May 9, 2014 (ML14111A147)	Staff Assessment in progress. Hazard is suitable for risk evaluation development.
William B. McGuire Nuclear Station, Units 1 and 2 (Group 3)	March 20, 2014 (ML14098A421)	May 9, 2014 (ML14111A147)	Staff Assessment in progress. Hazard is suitable for risk evaluation development.
Monticello Nuclear Generating Plant (Group 3)	May 14, 2014 (ML14136A288)	August 20, 2014 ML14210A030	Staff Assessment in progress. Hazard is suitable for risk evaluation development.

Licensee Facility (seismic risk evaluation priority group)	March 2014 – Licensee reevaluated seismic hazard and screening report and supplements	NRC seismic risk evaluation prioritization letter	Request for additional information, reference documenting differences, or summary of NRC preliminary seismic hazard review
	Date of letter (ADAMS Accession Nos.)	Date of letter (ADAMS Accession Nos.)	Date of letter (ADAMS Accession Nos.)
North Anna Power Station, Units 1 and 2 (Group 1)	March 31, 2014 (ML14092A416)	May 9, 2014 (ML14111A147)	Staff Assessment in progress. Hazard is suitable for risk evaluation development.
Oconee Nuclear Station, Units 1, 2, and 3 (Group 1)	March 31, 2014 (ML14092A024)	May 9, 2014 (ML14111A147)	Additional information needed to support review. Licensee response letter to NRC request for additional information dated November 14, 2014 (ML14268A516) NRC staff will review regional seismic catalog changes following submittal of supplement information.

Licensee Facility (seismic risk evaluation priority group)	March 2014 – Licensee reevaluated seismic hazard and screening report and supplements	NRC seismic risk evaluation prioritization letter	Request for additional information, reference documenting differences, or summary of NRC preliminary seismic hazard review
	Date of letter (ADAMS Accession Nos.)	Date of letter (ADAMS Accession Nos.)	Date of letter (ADAMS Accession Nos.)
Oyster Creek Nuclear Generating Station (Group 3)	March 31, 2014 (ML14090A241), August 21, 2014 (ML14234A124)	November 28, 2014 (ML14307A638)	Minor technical differences remain. However, no additional staff questions are need regarding technical differences on the seismic hazard. Staff Assessment in progress. NRC letter on screening and hazard differences November 28, 2014 (ML14307A638)
Palisades Nuclear Plant (Group 2)	March 31, 2014 (ML14090A069)	May 9, 2014 (ML14111A147)	Staff Assessment in progress. Hazard is suitable for risk evaluation development.
Peach Bottom Atomic Power Station Units 2 and 3 (Group 1)	March 31, 2014 (ML14090A247)	May 9, 2014 (ML14111A147)	Staff Assessment in progress. Hazard is suitable for risk evaluation development.
Perry Nuclear Power Plant, Unit 1 (Group 3)	March 31, 2014 (ML14090A143)	May 9, 2014 (ML14111A147)	Staff Assessment in progress. Hazard is suitable for risk evaluation development.

Licensee Facility (seismic risk evaluation priority group)	March 2014 – Licensee reevaluated seismic hazard and screening report and supplements	NRC seismic risk evaluation prioritization letter	Request for additional information, reference documenting differences, or summary of NRC preliminary seismic hazard review
_	Date of letter (ADAMS Accession Nos.)	Date of letter (ADAMS Accession Nos.)	Date of letter (ADAMS Accession Nos.)
Pilgrim Nuclear Power Station, Unit No. 1 (Group 1)	March 31, 2014 (ML14092A023)	May 9, 2014 (ML14111A147)	Staff Assessment in progress. Hazard is suitable for risk evaluation development.
Point Beach Nuclear Plant, Units 1 and 2 (Group 3)	March 31, 2014 (ML14090A275)	May 9, 2014 (ML14111A147)	Staff Assessment in progress. Hazard is suitable for risk evaluation development.
H. B Robinson Steam Electric Plant, Unit No. 2 (Group 1)	March 31, 2014 (ML14099A204)	May 9, 2014 (ML14111A147)	Additional information needed to support review. Licensee response letter to request for additional information dated November 12, 2014 (ML14325A645). Per public meeting conducted on June 30, 2014 (ML14210A050), the licensee discussed planned refinements to site amplification models. Staff assessment development is on hold pending licensee supplement letter.

Licensee Facility (seismic risk evaluation priority group)	March 2014 – Licensee reevaluated seismic hazard and screening report and supplements	NRC seismic risk evaluation prioritization letter	Request for additional information, reference documenting differences, or summary of NRC preliminary seismic hazard review
	Date of letter (ADAMS Accession Nos.)	Date of letter (ADAMS Accession Nos.)	Date of letter (ADAMS Accession Nos.)
Seabrook, Unit 1 (Group 3)	March 27, 2014 (ML14092A413)	May 9, 2014 (ML14111A147)	Staff Assessment in progress. Hazard is suitable for risk evaluation development.
Sequoyah Nuclear Plant, Units 1 and 2 (Group 2)	March 31, 2014 (ML14098A478)	May 9, 2014 (ML14111A147)	Staff Assessment in progress. Hazard is suitable for risk evaluation development.
Three Mile Island Nuclear Station, Unit 1 (Group 3)	March 31, 2014 (ML14090A271)	May 9, 2014 (ML14111A147)	Staff Assessment in progress. Hazard is suitable for risk evaluation development.

Licensee Facility (seismic risk evaluation priority group)	March 2014 – Licensee reevaluated seismic hazard and screening report and supplements	NRC seismic risk evaluation prioritization letter	Request for additional information, reference documenting differences, or summary of NRC preliminary seismic hazard review	
	Date of letter (ADAMS Accession Nos.)	Date of letter (ADAMS Accession Nos.)	Date of letter (ADAMS Accession Nos.)	
Virgil C. Summer Nuclear Station, Unit 1 (Group 2)	March 26, 2014 (ML14092A250)	May 9, 2014 (ML14111A147)	Additional information needed to support review. Licensee response letter to request for additional information dated November 12, 2014 (ML14318A314) NRC staff will review regional seismic catalog changes following submittal of supplement information.	
Vogtle Electric Generating Plant, Units 1 and 2 (Group 1)	March 31, 2014 (ML14092A019)	May 9, 2014 (ML14111A147)	Staff Assessment in progress. Hazard is suitable for risk evaluation development.	
Watts Bar Nuclear Plant, Units 1 and 2 (Group 1)	March 31, 2014 (ML14098A478)	May 9, 2014 (ML14111A147)	Staff Assessment in progress. Hazard is suitable for risk evaluation development.	

Licensee Facility (seismic risk evaluation priority group)	March 2014 – Licensee reevaluated seismic hazard and screening report and supplements	NRC seismic risk evaluation prioritization letter	Request for additional information, reference documenting differences, or summary of NRC preliminary seismic hazard review
	Date of letter (ADAMS Accession Nos.)	Date of letter (ADAMS Accession Nos.)	Date of letter (ADAMS Accession Nos.)
Wolf Creek Generating Station, Unit 1 (Group 3)	March 31, 2014 (ML14097A020)	May 9, 2014 (ML14111A147)	Staff Assessment in progress. Hazard is suitable for risk evaluation development.

Notes:

- 1. Vermont Yankee Deferred the Submittal of the Reevaluated Seismic Hazard until June 30, 2015 by letter dated March 12, 2014 (ADAMS Accession No. ML14079A025). NRC acknowledged the commitment change by letter dated July 28, 2014 (ADAMS Accession No. ML14134A163).
- 2. Bellefonte Nuclear Plant Units 1 and 2 by letter dated October 21, 2014 (ADAMS Accession No. ML14295A290) informed NRC of their intent to defer development of a seismic risk evaluation consistent with the Commission Policy Statement on Deferred Plants.
- 3. Seismic risk evaluation screening reports for Columbia Generating Station, Diablo Canyon Power Plant, and Palo Verde Nuclear Generating Station are due by March 12, 2015.

LIST OF ADDRESEES

Beaver Valley Power Station

First Energy Nuclear Operating Co. Docket Nos. 50-334 and 50-412 License Nos. DPR-66 and NPF-73

Mr. Eric A. Larson Site Vice President Beaver Valley Power Station P.O. Box 4, Route 168 Shippingport, PA 15077

Bellefonte Nuclear Plant

Tennessee Valley Authority Docket Nos. 50-438 and 50-439 Construction Permit Nos. CPPR No. 122 and CPPR No. 123

Mr. Michael D. Skaggs Senior Vice President, Nuclear Construction Tennessee Valley Authority Lookout Place 6A 1101 Market Street Chattanooga, TN 37402-2801

Braidwood Station

Exelon Generation Co., LLC Docket Nos. 50-456 and 50-457 License Nos. NPF-72 and NPF-77

Mr. Michael J. Pacilio President and Chief Nuclear Officer Exelon Generation Company, LLC 4300 Winfield Road Warrenville, IL 60555

Browns Ferry Nuclear Plant

Tennessee Valley Authority
Docket Nos. 50-259, 50-260 and 50-296
License Nos. DPR-33, DPR-52 and DPR-68

Mr. Joseph W. Shea Vice President, Nuclear Licensing Tennessee Valley Authority 1101 Market Street, LP 3D-C Chattanooga, TN 37402-2801

Byron Station

Exelon Generation Co., LLC Docket Nos. STN 50-454 and STN 50-455 License Nos. NPF-37 and NPF-66

Mr. Michael J. Pacilio President and Chief Nuclear Officer Exelon Generation Company, LLC 4300 Winfield Road Warrenville, IL 60555

Callaway Plant

Union Electric Company Docket No. 50-483 License No. NPF-30

Mr. Fadi Diya
Senior Vice President and
Chief Nuclear Officer
Ameren Missouri
Callaway Plant
P.O. Box 620
Fulton, MO 65251

Calvert Cliffs Nuclear Power Plant Calvert Cliffs Nuclear Power Plant, LLC Docket Nos. 50-317 and 50-318 License Nos. DPR-53 and DPR-69

Mr. George H. Gellrich, Vice President Calvert Cliffs Nuclear Power Plant, LLC. Calvert Cliffs Nuclear Power Plant 1650 Calvert Cliffs Parkway Lusby, MD 20657-4702 Catawba Nuclear Station

Duke Energy Carolinas, LLC

Docket Nos. 50-413 and 50-414

License Nos. NPF-35 and NPF-52

Mr. Kelvin Henderson Site Vice President Duke Energy Carolinas, LLC Catawba Nuclear Station 4800 Concord Road York, SC 29745

Columbia Generating Station

Energy Northwest Docket No. 50-397 License No. NPF-21

Mr. Mark E. Reddemann Chief Executive Officer Energy Northwest MD 1023 North Power Plant Loop P.O. Box 968 Richland, WA 99352

Cooper Nuclear Station
Nebraska Public Power District
Docket No. 50-298
License No. DPR-46

Mr. Oscar A. Limpias
Vice President Nuclear and
Chief Nuclear Officer
Nebraska Public Power District
72676 648A Avenue
P.O. Box 98
Brownville, NE 68321

Davis-Besse Nuclear Power Station First Energy Nuclear Operating Co. Docket No. 50-346 License No. NPF-3 Mr. Raymond A. Lieb Site Vice President FirstEnergy Nuclear Operating Company c/o Davis-Besse NPS 5501 N. State Route 2 Oak Harbor, OH 43449-9760

Diablo Canyon Power Plant
Pacific Gas and Electric Co.
Docket Nos. 50-275 and 50-323
License Nos. DPR-80 and DPR-82

Mr. Edward D. Halpin
Senior Vice President and
Chief Nuclear Officer
Pacific Gas and Electric Company
P.O. Box 56,
Mail Code 104/6
Avila Beach, CA 93424

Donald C. Cook Nuclear Plant
Indiana Michigan Power Company
Docket Nos. 50-315 and 50-316
License Nos. DPR-58 and DPR-74

Mr. Lawrence J. Weber Senior Vice President and Chief Nuclear Officer Indiana Michigan Power Company Nuclear Generation Group One Cook Place Bridgman, MI 49106

Dresden Nuclear Power Station
Exelon Generation Company, LLC
Docket Nos. 50-237 and 50-249
License Nos. DPR-19 and DPR-25

Mr. Michael J. Pacilio President and Chief Nuclear Officer Exelon Nuclear 4300 Winfield Road Warrenville, IL 60555 Edwin I. Hatch Nuclear Plant
Southern Nuclear Operating Co.
Docket Nos. 50-321 and 50-366
License Nos. DPR-57 and NPF-5

Mr. C.R. Pierce Regulatory Affairs Director Southern Nuclear Operating Company, Inc. P.O. Box 1295/BIN B038 Birmingham, AL 35201-1295

Fermi

DTE Electric Company Docket No. 50-341 License No. NPF-43

Mr. Joseph H. Plona
Senior Vice President and Chief Nuclear
Officer
DTE Electric Company
Fermi 2 – 210 NOC
6400 North Dixie Highway
Newport, MI 48166

H. B. Robinson Steam Electric Plant
Duke Energy Progress, Inc.
Docket No. 50-261
License No. DPR-23

Mr. William R. Gideon, Vice President H.B. Robinson Steam Electric Plant 3581 West Entrance Road Hartsville, SC 29550

Indian Point Nuclear Generating
Entergy Nuclear Operations, Inc.
Docket Nos. 50-247 and 50-286
License Nos. DPR-26 and DPR-64

Vice President, Operations
Entergy Nuclear Operations, Inc.
Indian Point Energy Center
450 Broadway, GSB
P.O. Box 249
Buchanan, NY 10511-0249

<u>LaSalle County Station</u>
Exelon Generation Company, LLC

Docket Nos. 50-373 and 50-374 License Nos. NPF-11 and NPF-18

Mr. Michael J. Pacilio President and Chief Nuclear Officer Exelon Nuclear 4300 Winfield Road Warrenville, IL 60555

Monticello Nuclear Generating Plant
Northern States Power Company - Minnesota
Docket No. 50-263
License No. DPR-22

Karen D. Feli Site Vice President Northern States Power Company - Minnesota Monticello Nuclear Generating Plant 2807 West County Road 75 Monticello, MN 55362-9637

North Anna Power Station
Virginia Electric and Power Co.
Docket Nos. 50-338 and 50-339
License Nos. NPF-4 and NPF-7

Mr. David A. Heacock
President and Chief Nuclear Officer
Virginia Electric and Power Co.
Innsbrook Technical Center
5000 Dominion Boulevard
Glen Allen, VA 23060-6711

Oconee Nuclear Station

Duke Energy Carolinas, LLC Docket Nos. 50-269, 50-270 and 50-287 License Nos. DPR-38, DPR-47 and DPR-55

Mr. Scott Batson Vice President, Oconee Nuclear Station Duke Energy Carolinas, LLC 7800 Rochester Highway Seneca, SC 29672

Oyster Creek Nuclear Generating Station

Exelon Generation Co., LLC Docket No. 50-219 License No. DPR-16

Mr. Michael J. Pacilio President and Chief Nuclear Officer Exelon Nuclear 4300 Winfield Road Warrenville, IL 60555

Palisades Nuclear Plant

Entergy Nuclear Operations, Inc. Docket No. 50-255 License No. DPR-20

Vice President, Operations Entergy Nuclear Operations, Inc. Palisades Nuclear Plant 27780 Blue Star Memorial Highway Covert, MI 49043

Palo Verde Nuclear Generating Station

Arizona Public Service Company Docket Nos. STN 50-528, STN 50-529 and STN 50-530 License Nos. NPF-41, NPF-51 and NPF-74

Mr. Randall K. Edington Executive Vice President Nuclear and Chief Nuclear Officer Arizona Public Service Co. P.O. Box 52034, MS 7602 Phoenix, AZ 85072-2034

Peach Bottom Atomic Power Station Exelon Generation Co, LLC Docket Nos. 50-277 and 50-278

License Nos. DPR-44 and DPR-56

Mr. Michael J. Pacilio President and Chief Nuclear Officer Exelon Nuclear 4300 Winfield Road Warrenville, IL 60555

Perry Nuclear Power Plant

FirstEnergy Nuclear Operating Co. Docket No. 50-440 License No. NPF-58

Mr. Ernest J. Harkness Site Vice President - Nuclear - Perry FirstEnergy Nuclear Operating Company Perry Nuclear Power Plant PO Box 97, A290 Perry, OH 44081

Pilgrim Nuclear Power Station Unit No. 1

Entergy Nuclear Generation Co. Docket No. 50-293 License No. DPR-35

Mr. John Dent, Jr.
Vice President and Site Vice President
Pilgrim Nuclear Power Station
600 Rocky Hill Road
Plymouth, MA 02360-5508

Point Beach Nuclear Plant

NextEra Energy Point Beach, LLC Docket Nos. 50-266 and 50-301 License Nos. DPR-24 and DPR-27

Mr. Eric McCartney Site Vice President NextEra Energy Point Beach, LLC 6610 Nuclear Road Two Rivers, WI 54241-9516 Seabrook Nuclear Plant
NextEra Energy Seabrook, LLC
Docket No 50-443
License No. NFP-86

Mr. Dean Curtland Vice President, Seabrook Nuclear Plant c/o Mr. Michael Ossing NextEra Energy Seabrook, LLC P.O. Box 300 Seabrook, NH 03874

Sequoyah Nuclear Plant
Tennessee Valley Authority
Docket Nos. 50-327 and 50-328
License Nos. DPR-77 and DPR-79

Mr. Joseph W. Shea Vice President, Nuclear Licensing Tennessee Valley Authority 1101 Market Street LP 3D-C Chattanooga, TN 37402

Three Mile Island Nuclear Station
Exelon Generation Company, LLC.
Docket No. 50-289
License No. DPR-50

Mr. Michael J. Pacilio President and Chief Nuclear Officer Exelon Nuclear 4300 Winfield Road Warrenville, IL 60555

Vermont Yankee Nuclear Power Station
Entergy Nuclear Operations
Docket No. 50-271
License No. DPR-28

Vice President, Operations Entergy Nuclear Operations, Inc. Vermont Yankee Nuclear Power Station P.O. Box 250 Governor Hunt Road Vernon, VT 05354 Virgil C. Summer Nuclear Station
South Carolina Electric and Gas Company
Docket No. 50-395
License No. NPF-12

Mr. Thomas D. Gatlin, Vice President Nuclear Operations South Carolina Electric & Gas Company Virgil C. Summer Nuclear Station Post Office Box 88, Mail Code 800 Jenkinsville, SC 29065

Vogtle Electric Generating Plant
Southern Nuclear Operating Company, Inc.
Docket Nos. 50-424 and 50-425
License Nos. NPF-68 and NPF-81

Mr. C. R. Pierce Regulatory Affairs Director Southern Nuclear Operating Co., Inc. P. O. Box 1295 / Bin 038 Birmingham, AL 35201-1295

Watts Bar Nuclear Plant
Tennessee Valley Authority
Docket Nos. 50-390 and 50-391
License Nos. NPF-90

Mr. Joseph W. Shea Vice President, Nuclear Licensing Tennessee Valley Authority 1101 Market Street, LP 3D-C Chattanooga, TN 37402-2801

William B. McGuire Nuclear Station
Duke Energy Carolinas, LLC
Docket Nos. 50-369 and 50-370
License Nos. NPF-9 and NPF-17

Steven D. Capps Duke Energy Carolinas, LLC McGuire Nuclear Station 12700 Hagers Ferry Road Huntersville, NC 28078-8985 Wolf Creek Generating Station
Wolf Creek Nuclear Operating Corporation
Docket No. 50-482
License No. NPF-42

Mr. Adam C. Heflin President and Chief Executive Officer Wolf Creek Nuclear Operating Corporation P.O. Box 411 Burlington, KS 66839

PLANNED NRC REVIEW SCHEDULE FOR NTTF 2.1 SEISMIC ACTIVITIES

Voluntary Submittal of Risk Evaluation Results Ahead of Schedule

During stakeholder interactions, industry has indicated that some sites plan to submit seismic risk evaluations earlier than the required schedule. Although not required, it is acceptable for licensees to provide their seismic risk evaluations reports ahead of the required schedule. Early seismic risk evaluation conclusions may support operating experience insights and early completion could support, if warranted, licensee plant seismic enhancements prior to regulatory decision making. Licensees are encouraged to inform their NRC plant project manager of changes in their submittal plans prior to the submittal date to support NRC review and resource planning.

NRC Staff Review Plan for Reevaluated Seismic Hazards

The NRC staff plans to complete the seismic hazard reevaluation review by established seismic risk evaluation prioritization groups. Staff assessment issuance is planned for May 30, 2015, for Group 1 sites, June 30, 2015, for Group 2 sites, July 31, 2015, for Group 3 sites, and September 30, 2015, for screened out sites. This letter serves as preliminary feedback of the NRC's review of the March 2014 hazard reports and their suitability for use in the seismic risk evaluations.

If you have any questions on this matter, please contact Nicholas DiFrancesco at 301-415-1115.

Sincerely,

/RA by Michael Franovich for/

Jack R. Davis, Director Japan Lessons Learned Division Office of Nuclear Reactor Regulation

Enclosures:

- 1. Table of Correspondence and Preliminary Seismic Hazard Review Summary
- 2. List of Addressees

cc w/encls: Distribution via Listserv

DISTRIBUTION: See next page

ADAMS Accession No.: ML14307B707 *via e-mail

OFFICE	NRR/JLD/JHMB/PM	NRR/JLD/LA *	NRR/JLD/JHMB/BC *
NAME	NDiFrancesco	SLent	SWhaley
DATE	10/31/14	11/07/14	11/25/14
OFFICE	NRR/DRA/APLA/BC	OGC	NRO/DSEA/D
NAME	HHamzehee	BHarris (NLO)	SFlanders
DATE	12/01/14	12/01/14	12/03/14
OFFICE	NRR/JLD/D		
NAME	JDavis (MFranovich for)		
DATE	12/10/14		

OFFICIAL RECORD COPY

Letter to Power Reactor Licensees and Holders of Construction Permits in Active or Deferred Status on the enclosed list from Jack Davis dated December 10, 2014

SUBJECT: SUPPLEMENTAL INFORMATION RELATED TO DEVELOPMENT OF SEISMIC

RISK EVALUATIONS REGARDING THE REQUEST FOR INFORMATION

ISSUED PURSUANT TO TITLE 10 OF THE CODE OF FEDERAL

REGULATIONS 50.54(f) RELATING TO SEISMIC HAZARD REEVALUATIONS FOR RECOMMENDATION 2.1 OF THE NEAR-TERM TASK FORCE REVIEW

OF INSIGHTS FROM THE FUKUSHIMA DAI-ICHI ACCIDENT

DISTRIBUTION: RidsNrrPMThreeMileIsland RidsNrrLABClayton **PUBLIC** RidsNrrLASFigueroa RidsNrrPMVermontYankee LPL1-1 R/F RidsNrrPMVogtle RidsNrrLAKGoldstein LPL1-2 R/F RidsNrrPMWattsBar1 RidsNrrLASRohrer LPL2-1 R/F RidsNrrPMWattsBar2 RidsNrrLaSLent LPL2-2 R/F RidsNrrPMWolfCreek RidsNrrLAMHenderson LPL3-1 R/F RidsOgcRp Resource RidsNrrPMBeaverValley LPL3-2 R/F RidsRgn1MailCenter Resource RidsNrrPMBellefonte LPL4-1 R/F RidsRgn2MailCenter Resource LPL4-2 R/F RidsNrrPMBrownsFerry RidsRgn3MailCenter Resource RidsNrrPMBrunswick RidsNroOd RidsRgn4MailCenter Resource RidsNrrPMCallaway RidsNrrDorl RidsNrrPMCalvertCliffs RidsNrrDorlLpl1-1 RidsNrrPMCatawba RidsNrrDorlLpl1-2 RidsNrrPMColumbia RidsNrrDorlLpl2-1 RidsNrrPMCooper RidsNrrDorlLpl2-2 RidsNrrPMDCCook RidsNrrPMDavisBesse

RidsNrrDorlLpl3-1 RidsNrrDorlLpl3-2 RidsNrrDorlLpl4-1 RidsNrrPMDiabloCanyon RidsNrrPMDresden RidsNrrDorlLpl4-2 RidsNrrPMFermi2 RidsNrrOd RidsNrrPMHatch RidsNsirOd RidsNrrPMIndianPoint RidsOeMailCenter RidsNrrPMLaSalle RidsOgcMailCenter LRegner, NRR RidsNrrPMMcGuire RidsNrrPMMonticello MKhanna, NRR RidsNrrPMNorthAnna RPascarelli, NRR RidsNrrPMOconee BBeasley, NRR JQuichocho, NRR RidsNrrPMOysterCreek RidsNrrPMPalisades TTate, NRR RidsNrrPMPaloVerde DPelton, NRR RidsNrrPMPeachBottom EOesterle, NRR

RidsNrrPMPerry MMarkley, NRR DBroaddus, NRR RidsNrrPMPilgrim RidsNrrPMPointBeach NDiFrancesco, NRR RidsNrrPMRiverBend MJardaneh, NRO DJackson, NRO RidsNrrPMRobinson AKock, NRO RidsNrrPMSeabrook RidsNrrLAABaxter RidsNrrPMSequoyah RidsNrrLAJBurkhardt RidsNrrPMSummer