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NL-17-062

May 10, 2017

U.S. Nuclear Regulatory Commission
Document Control Desk
11545 Rockville Pike, TWFN-2 F1
Rockville, MD 20852-2738

SUBJECT: Request for Deferral of Actions Related to Beyond-Design-Basis External Event Seismic Actions - Commitment Date Changes
Docket Nos. 50-247 and 50-286
License Nos. DPR-26 and DPR-64

REFERENCES:

- 1) NRC letter, "Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3 of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident", dated March 12, 2012 (ML12056A046).
- 2) NEI letter, Proposed Path Forward for NTTF Recommendation 2. 1: Seismic Reevaluations, dated April 9, 2013 (ML13101A379).
- 3) NRC letter, Endorsement of EPRI Final Draft Report 1025287, "Seismic Evaluation Guidance," dated February 15, 2013 (ML12319A074).
- 4) Entergy's Letter NL-14-152, "Entergy's Expedited Seismic Evaluation Process Report (CEUS Sites), Response to NRC Request for Information Pursuant to 10 CFR 50.54(f) Regarding Recommendation 2.1 of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident" , dated December 22, 2014 (ML15008A086).
- 5) Report 1025287, Seismic Evaluation Guidance: Screening, Prioritization and Implementation Details (SPID) for the Resolution of Fukushima Near-Term Task Force Recommendation 2.1: Seismic, dated February 2013 (ML12333A170).
- 6) Entergy Letter NL-16-033, "Commitment Changes Concerning Expedited Seismic Evaluation process Report Plant Modifications in Regard to Seismic Hazard Re-Evaluations for Recommendation 2.1 of

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the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident", dated March 31, 2016.

- 7) Final Determination of Licensee Seismic Probabilistic Risk Assessments under the Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(F) Regarding Recommendation 2.1 "Seismic" of The Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident, dated October 27, 2015 (ML15194A015).
- 8) Entergy Letter NL-17-021, "Notification of Permanent Cessation of Power Operations, Indian Point Nuclear Generating Unit Nos. 2 and 3", dated February 8, 2017 (ML17044A004).
- 9) NSIR /DPR-ISG-02, Interim Staff Guidance Emergency Planning Exemption Requests for Decommissioning Nuclear Power Plants.

Dear Sir or Madam:

In Reference 1, the Nuclear Regulatory Commission (NRC) issued a 50.54(f) letter to all power reactor licensees and holders of construction permits in active or deferred status. Enclosure 1 of Reference 1 requested each addressee located in the Central and Eastern United States (CEUS) to submit a Seismic Hazard Evaluation and Screening Report within 1.5 years from the date of Reference 1.

In Reference 2, the Nuclear Energy Institute (NEI) requested NRC agreement to delay submittal of the final GEUS Seismic Hazard Evaluation and Screening Reports so that an update to the Electric Power Research Institute (EPRI) ground motion attenuation model could be completed and used to develop that information. NEI proposed that descriptions of subsurface materials and properties and base case velocity profiles be submitted to the NRC by September 12, 2013, with the remaining seismic hazard and screening information submitted by March 31, 2014. NRC agreed with that proposed path forward in Reference 3.

Reference 1 requested that licensees provide interim evaluations and actions taken or planned to address the higher seismic hazard relative to the design basis, as appropriate, prior to completion of the risk evaluation. In accordance with the NRC endorsed guidance in Reference 3, Entergy submitted the Expedited Seismic Evaluation Process (ESEP) Report for Indian Point Units 2 and 3 in Reference 4, which provided the information described in Section 7 of Reference 5 in accordance with the schedule identified in Reference 2.

As identified in References 6 and 7, the completion dates for the SRPAs and associated commitments are currently June 30, 2017 for IP2 and June 30, 2018 for IP3. As stated in Reference 8, IP 2 and IP3 will cease operation in 2020 and 2021 respectively. In light of this decision, this letter provides notification of the deferral of the completion dates for the IP2 and IP3 SPRAs and associated commitments to August 1, 2020 for IP2 and August 1, 2021 for IP3.

The attachments provide the revised commitments to reflect the revised dates and provide the bases for the acceptability.

If you have any questions, or require additional information, please contact Mr. Robert Walpole at 914-254-6710.

There are no new regulatory commitments contained in this letter.

Sincerely,



AJV/mm

- Attachment:
1. Bases for Acceptability of Revised Completion Dates for IP2 and IP3 Seismic Probabilistic Risk Assessment (SPRA) and Associated Commitments
 2. Revised Dates of the Regulatory Commitments Made In Entergy Letter NL-16-033

cc: Mr. Daniel H. Dorman, Regional Administrator, NRC Region I
Mr. John Boska, Branch Chief (Acting), NRR/JLD/JOMB
Mr. Richard Guzman, NRR Senior Project Manager
Ms. Bridget Frymire, New York State Department of Public Service
Mr. John B. Rhodes, President and CEO NYSERDA
NRC Resident Inspector's Office

ATTACHMENT 1 TO NL-17-062

**BASES FOR ACCEPTABILITY OF REVISED COMPLETION DATES
FOR IP2 AND IP3 SEISMIC PROBABILISTIC RISK ASSESSMENTS (SPRA) AND
ASSOCIATED COMMITMENTS**

**ENTERGY NUCLEAR OPERATIONS, INC.
INDIAN POINT NUCLEAR GENERATING UNIT NOS. 2 & 3
DOCKET NOS. 50-247 AND 50-286**

**BASES FOR ACCEPTABILITY OF REVISED COMPLETION DATES
FOR IP2 AND IP3 SEISMIC PROBABILISTIC RISK ASSESSMENTS (SPRA) AND
ASSOCIATED COMMITMENTS**

Bases for Extension

In ML16235A292 and ML15149A140 Indian Point Energy Center (IPEC) informed the NRC that it has completed the actions required by NRC Orders EA-12-049 and EA-12-051. The completion of these NRC orders provides IPEC with tangible safety benefits that address the licensing basis seismic risks. Compliance with these orders provides not only the ability to address ELAP and LUHS events, but also provides the ability to provide make up water to the SFP under these conditions.

Additionally, in order to meet the requirements of 10CFR50.54(hh)(2) IPEC has additional actions in place to restore core cooling, containment, and spent fuel pool cooling under loss of large areas of the plant.

Seismic Probabilistic Risk Assessment (SPRA)

IPEC has performed an interim seismic evaluation, and provided the results to the NRC in December 2014 (ML15008A086). Additionally, IPEC has completed the Seismic Probabilistic Risk Assessment (SPRA) for IP2 and has determined the estimates for the seismic core damage frequency and the seismic large early release frequency to be 3.13 E-05 and 3.52 E-06 respectively. This evaluation will be available at IPEC for inspection/evaluation by the NRC if desired. These values are below the 10 E-04 value used in the Commission Safety Goal Policy Statement to determine if adequate protection of the public is provided. The SPRA for IP3, although not completed, was progressing in a manner similar to the IP2 SPRA and considering the close proximity of the 2 units the results would be expected to be similar.

The results of these evaluations confirm the NRC's previous conclusions that adequate protection of the public is provided for seismic events at IPEC. This evaluation is contained in the NRC May 9, 2014 letter, "Screening and prioritization Results Regarding Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Seismic Hazard Re-Evaluations for Recommendation 2.1 of the Near-Term Task Force Review of Insights From the Fukushima Dai-ichi Accident." This evaluation concluded that "... the staff has confirmed that the conclusions reached in GI-199 safety/risk assessment remain valid and that the plants can continue to operate while additional evaluations are conducted."

Additionally, the basis for performance of SPRAs is contained in the May 9, 2014 NRC letter. In the letter the NRC states:

Seismic Risk Evaluation - Longer-term seismic risk evaluation provides the most comprehensive information to make regulatory decisions, such as whether to amend a plant's design or licensing basis or make additional safety enhancements. These evaluations provide information to make risk-informed decisions. The staff will use this information in conjunction with the existing regulatory tools, such as backfit analysis, to decide on further regulatory actions. The longer-term seismic risk evaluations could be

decide on further regulatory actions. The longer-term seismic risk evaluations could be either a Seismic Margins Analysis or a Seismic Probabilistic Risk Assessment, depending on the magnitude of the exceedance.

As can be seen from the NRC letter, the use of the SPRAs is to provide information to input to decisions on future actions. The SPRA completion is currently scheduled for June 30, 2017 for IP2 and June 30, 2018 for IP3. As discussed in Entergy Letter NL-17-021, "Notification of Permanent Cessation of Power Operations, Indian Point Nuclear Generating Unit Nos. 2 and 3", dated February 8, 2017 (ML17044A004), IP 2 and IP3 will cease operation in 2020 and 2021 respectively. Considering the SPRA due dates, time required for NRC review of the SPRA, time for NRC decision process, the issuing of actions, time for the plant to evaluate, design, schedule, and implement these actions, there is simply insufficient time for the SPRA effort to result in any actual appreciable safety benefit.

Therefore, this letter provides notification of the deferral of the completion dates for the IP2 and IP3 SPRAs and associated commitments to August 1, 2020 for IP2 and August 1, 2021 for IP3.

Spent Fuel Pool Seismic Evaluation

For similar reasons, the performance of the Spent Fuel Pool Seismic Evaluations associated with the SPRAs is not warranted for the remaining period of operation. IPEC understands that unlike the Reactor Pressure Vessel, the Spent Fuel Pool will not be immediately defueled. However, as indicated in Reference 9 of this Letter, a Spent Fuel Pool checklist or seismic evaluation is required to be performed to support the effective and efficient decommissioning of the facility. This criterion will provide reasonable safety assurance needed for the shutdown and defueled plant.

Conclusion

IPEC is providing notification of the deferral of the remaining actions, required to complete the response to Recommendation 2.1 Seismic, including the SPRAs, to August 1, 2020 for IP-2 and August 1, 2021 for IP-3.

ATTACHMENT 2 TO NL-17-062

REVISED DATES OF THE REGULATORY COMMITMENTS MADE IN ENTERGY

LETTER NL-16-033

**ENTERGY NUCLEAR OPERATIONS, INC.
INDIAN POINT NUCLEAR GENERATING UNIT NOS. 2 & 3
DOCKET NOS. 50-247 AND 50-286**

REVISED DATES OF THE REGULATORY COMMITMENTS MADE IN ENTERGY

LETTER NL-16-033

The following table identifies revised dates for those actions committed to by Entergy in NL-16-033. Any other statements in this submittal are provided for information purposes and are not considered to be regulatory commitments.

| COMMITMENT | TYPE (Check one) | | SCHEDULED COMPLETION DATE (If Required) |
|---|---------------------|-------------------------|---|
| | ONE-TIME ACTION | CONTINUING COMPUANCE | |
| Entergy will use the insights gained through the performance of the SPRA for Indian Point Unit 2 to determine what modifications, procedure or strategy changes would provide the best safety improvement | X | | August 1, 2020 |
| Entergy will use the insights gained through the performance of the SPRA for Indian Point Unit 3 to determine what modifications, procedure or strategy changes would provide the best safety improvement | X | | August 1, 2021 |