



RS-16-104  
TMI-16-044

Order No. EA-12-049

June 29, 2016

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555

Three Mile Island Nuclear Station, Unit 1  
Renewed Facility Operating License No. DPR-50  
NRC Docket No. 50-289

**Subject:** Mitigating Strategies Flood Hazard Assessment (MSFHA) Submittal

**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
2. Exelon Generation Company, LLC Letter to USNRC, Response to March 12, 2012 Request for Information Enclosure 2, Recommendation 2.1, Flooding, Required Response 2, Flooding Hazard Reevaluation Report, dated August 13, 2015 (RS-15-200)
3. Exelon Generation Company, LLC Letter to USNRC, Supplemental Response to NRC Audit Review Request for Additional Information Regarding Fukushima Lessons Learned – Flood Hazard Reevaluation Report, dated April 4, 2016 (RS-16-066)
4. NRC Letter, Supplemental Information Related to Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Flooding Hazard Reevaluations for Recommendation 2.1 of the Near Term Task Force Review of Insights from the Fukushima Dai-ichi Accident, dated March 1, 2013
5. NRC Staff Requirements Memoranda to COMSECY-14-0037, "Integration of Mitigating Strategies for Beyond-Design-Basis External Events and the Reevaluation of Flooding Hazards", dated March 30, 2015
6. NRC Letter, Coordination of Requests for Information Regarding Flooding Hazard Reevaluations and Mitigating Strategies for Beyond-Design-Basis External Events, dated September 1, 2015
7. Nuclear Energy Institute (NEI), Report NEI 12-06 [Rev 2], Diverse and Flexible Coping Strategies (FLEX) Implementation Guide, dated December 2015

8. U.S. Nuclear Regulatory Commission, JLD-ISG-2012-01, Revision 1, Compliance with Order EA-12-049, Order Modifying Licenses with Regard to Requirements for Mitigating Strategies for Beyond-Design-Basis External Events, dated January 22, 2016
9. NRC Letter, Three Mile Island Nuclear Station, Unit 1 – Interim Staff Response to Reevaluated Flood Hazards Submitted in Response to 10 CFR 50.54(f) Information Request – Flood-Causing Mechanism Reevaluation (TAC No. MF6111), dated March 31, 2016

On March 12, 2012, the NRC issued Reference 1 to request information associated with Near-Term Task Force (NTTF) Recommendation 2.1 for Flooding. One of the Required Responses in Reference 1 directed licensees to submit a Flood Hazard Reevaluation Report (FHRR). For Three Mile Island Nuclear Station, Unit 1 the FHRR was submitted on August 13, 2015 (Reference 2). Additional information was provided with Reference 3. Per Reference 4, the NRC considers the reevaluated flood hazard to be “beyond the current design/licensing basis of operating plants”.

Concurrent to the flood hazard reevaluation, Three Mile Island Nuclear Station, Unit 1 developed and implemented mitigating strategies in accordance with NRC Order EA-12-049, “Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events”. In Reference 5, the NRC affirmed that licensees need to address the reevaluated flooding hazards within their mitigating strategies for beyond-design-basis (BDB) external events, including the reevaluated flood hazards. This requirement was confirmed by the NRC in Reference 6. Guidance for performing mitigating strategies flood hazard assessments (MSFHAs) is contained in Appendix G of Reference 7, endorsed by the NRC in Reference 8. For the purpose of the MSFHAs and in Reference 6, the NRC termed the reevaluated flood hazard, summarized in Reference 9, as the “Mitigating Strategies Flood Hazard Information” (MSFHI). Reference 7, Appendix G, describes the MSFHA for flooding as containing the following elements:

- Section G.2 – Characterization of the MSFHI
- Section G.3 – Comparison of the MSFHI and FLEX DB Flood
- Section G.4.1 – Assessment of Current FLEX Strategies (if necessary)
- Section G.4.2 – Assessment for Modifying FLEX Strategies (if necessary)
- Section G.4.3 – Assessment of Alternative Mitigating Strategies (if necessary)
- Section G.4.4 – Assessment of Targeted Hazard Mitigating Strategies (if necessary)

In Reference 9, the NRC concluded that the “reevaluated flood hazards information, as summarized in the Enclosure [Summary Table of the Reevaluated Flood Hazard Levels], is suitable for the assessment of mitigating strategies developed in response to Order EA-12-049” for Three Mile Island Nuclear Station, Unit 1.

The enclosure to this letter provides the Mitigating Strategies Assessments for Flooding Report for the Three Mile Island Nuclear Station, Unit 1. This assessment determined that the current FLEX strategies, as described in Three Mile Island Nuclear Station, Unit 1 Final Integrated Plan for Mitigating Strategies NRC Order EA-12-049, can be implemented and will function as designed considering the reevaluated flood hazards for the site.

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This letter contains no new regulatory commitments. If you have any questions regarding this report, please contact David P. Helker at (610) 765-5525.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 29<sup>th</sup> day of June 2016.

Respectfully submitted,



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James Barstow  
Director - Licensing & Regulatory Affairs  
Exelon Generation Company, LLC

Enclosure: Three Mile Island Nuclear Station, Unit 1, Mitigating Strategies Assessments for Flooding Report, dated June 29, 2016

cc: Director, Office of Nuclear Reactor Regulation  
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