Entergy Nuclear Operations, Inc.
1340 Echelon Parkway
Jackson, MS 39213
Tel 601-368-5138

Ron Gaston
Director, Nuclear Licensing

10 CFR 2.202
EA-12-049

NL-19-092

November 20, 2019

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

SUBJECT: Request for Rescission of Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049)

Indian Point Nuclear Generating Units 2 and 3
NRC Docket Nos. 50-247 and 50-286
Renewed Facility Operating License Nos. DPR-26 and DPR-64

On March 12, 2012, the U.S. Nuclear Regulatory Commission (NRC) issued Order EA-12-049 (Reference 1) to all power reactor licensees. The Order was effective immediately, and directed Entergy Nuclear Operations, Inc. (Entergy) to develop, implement, and maintain guidance and strategies to maintain or restore core cooling, containment, and spent fuel pool (SFP) cooling capabilities following a Beyond-Design-Basis External Event (BDBEE) at Indian Point Nuclear Generating Units 2 (IP2) and 3 (IP3). The specific requirements for compliance with the Order are contained in Attachment 2 of Reference 1.

In accordance with the implementation schedule specified in Section IV of the Order, IP3 achieved full compliance with the Order on March 24, 2015 and IP2 achieved full compliance on June 14, 2016. In References 2 and 3, Entergy provided the respective IP3 and IP2 required reports of full compliance with Order EA-12-049. Enclosure 2 of Reference 3 provided the associated Indian Point Energy Center (IPEC) Final Integrated Plan describing the IP2 and IP3 strategies for mitigating a simultaneous loss of all alternating current (AC) power and loss of normal access to the ultimate heat sink resulting from a BDBEE by providing adequate capability to maintain or restore core cooling, containment, and SFP cooling capabilities.

In Reference 4, the NRC provided the results of their review of the strategies and equipment provided for IP2 and IP3 to maintain or restore core cooling, containment, and SFP cooling capabilities following a BDBEE. In the Reference 4 safety evaluation, the NRC concluded that the licensee (Entergy) has developed guidance to maintain or restore core cooling, SFP cooling, and containment following a BDBEE which, if implemented appropriately, should adequately address the requirements of Order EA-12-049. As documented in the Reference 5 inspection report, the NRC examined Entergy's established guidelines and implementing procedures for

the BDBEE mitigation strategies for IP2 and IP3, and verified that Entergy was in compliance with Order EA-12-049 upon completion of the inspection.

In Reference 6, Entergy notified the NRC that it has decided to permanently cease power operations of IP2 by April 30, 2020 and IP3 by April 30, 2021.

In Reference 7, Entergy requested relaxation of the requirements of Order EA-12-049 that were imposed on IP2 and IP3 to maintain or restore core cooling and containment capabilities following a BDBEE. The relaxation of these requirements would become effective upon each unit's docketing of the Title 10 of the Code of Federal Regulations (10 CFR) 50.82(a)(1) certifications for permanent cessation of operations and permanent removal of fuel from the reactor vessel. The request for relaxation of Order EA-12-049 was submitted to the NRC on October 22, 2019 and is currently in review.

The purpose of this letter is to request rescission of Order EA-12-049 in its entirety for IP2 and IP3, effective at 244 days after each unit's permanent cessation of operations. The Enclosure to this letter provides the good cause justification for this request.

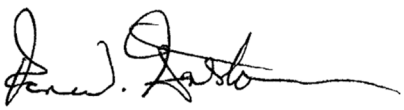
Note that the rescission of Order EA-12-049 requested in this letter assumes that the previous request for relaxation of the core cooling and containment capability requirements of the Order, as submitted in Reference 7, has been approved by the NRC.

Entergy requests review and approval of this request by December 31, 2020. There are no new regulatory commitments made in this letter.

If you have any questions or require additional information, please contact Ms. Mahvash Mirzai, Manager, Regulatory Assurance, at (914) 254-7714.

I declare under penalty of perjury that the foregoing is true and correct. Executed on November 20, 2019.

Respectfully,



Ron Gaston

RWG/cdm

Enclosure: Request for Rescission of Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049)

References:

1. U.S. Nuclear Regulatory Commission (NRC) Order EA-12-049, "Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," (ADAMS Accession No. ML12054A735), dated March 12, 2012

2. Entergy Nuclear Operations, Inc. (Entergy) letter to NRC, "Notification of Full Compliance with Order EA-12-049, 'Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events,' and Order EA-12-051 'Modifying Licenses with Regard to Requirements for Reliable Spent Fuel Pool Instrumentation' (TAC Nos. MF0745 and MF0738), Indian Point Unit Number 3, Docket No. 50-286, License No. DPR-64," (Letter No. NL-15-059) (ADAMS Accession No. ML15149A140), dated May 20, 2015

3. Entergy letter to NRC, "Notification of Full Compliance with Order EA-12-049, 'Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events,' and Order EA-12-051 'Modifying Licenses with Regard to Requirements for Reliable Spent Fuel Pool Instrumentation' (TAC Nos. MF0744 and MF0737), Indian Point Unit Number 2, Docket No. 50-247, License No. DPR-26," (Letter No. NL-16-089) (ADAMS Accession No. ML16235A292), dated August 12, 2016

4. NRC letter to Entergy, "Indian Point Nuclear Generating Unit Nos. 2 and 3 – Safety Evaluation Regarding Implementation of Mitigating Strategies and Reliable Spent Fuel Pool Instrumentation Related to Order EA-12-049 and EA-12-051 (CAC Nos. MF0737, MF0738, MF0744, and MF0745)," (ADAMS Accession No. ML17065A171), dated March 27, 2017

5. NRC letter to Entergy, "Indian Point Nuclear Generating – Temporary Instruction 2515/191 Inspection Report 05000247/2017010 and 05000286/2017010," (ADAMS Accession No. ML18031A358), dated January 31, 2018

6. Entergy letter to NRC, "Notification of Permanent Cessation of Power Operations," (Letter No. NL-17-021) (ADAMS Accession No. ML17044A004), dated February 8, 2017

7. Entergy letter to NRC, "Request for Relaxation of Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order EA-12-049), Indian Point Nuclear Generating Unit Nos. 2 and 3, NRC Docket Nos. 50-247 and 50-286, Renewed Facility Operating License Nos. DPR-26 and DPR-64," (ADAMS Accession No. ML19295G015), dated October 22, 2019

cc: Director, Office of Nuclear Reactor Regulation
NRC Senior Project Manager, NRC NRR DORL
Regional Administrator, NRC Region I
NRC Senior Resident Inspector, Indian Point Energy Center
President and CEO, NYSERDA
New York State (NYS) Public Service Commission

Enclosure

NL-19-092

Request for Rescission of Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049)

I. Request for Rescission of Order

On March 12, 2012, the U.S. Nuclear Regulatory Commission (NRC) issued Order EA-12-049, "Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," (Reference 1) to all power reactor licensees. The Order was effective immediately and directed Entergy Nuclear Operations, Inc. (Entergy) to develop, implement, and maintain guidance and strategies to maintain or restore core cooling, containment, and spent fuel pool (SFP) cooling capabilities following a beyond-design-basis external event (BDBEE) at Indian Point Nuclear Generating Units 2 (IP2) and 3 (IP3). Section IV of the Order required that Entergy submit to the NRC for review an overall integrated plan by February 28, 2013 describing how compliance with the requirements of the Order will be achieved. Reference 2 provided the required overall integrated plan for IP2 and IP3.

Full compliance with Order EA-12-049 was achieved for IP3 on March 24, 2015 and IP2 achieved full compliance on June 14, 2016. In References 3 and 4, Entergy provided the respective IP3 and IP2 required reports of full compliance with the Order, documenting the bases for compliance. Enclosure 2 of Reference 4 provided the associated Indian Point Energy Center (IPEC) Final Integrated Plan describing the IP2 and IP3 strategies for mitigating a simultaneous loss of all alternating current (AC) power and loss of normal access to the ultimate heat sink resulting from a BDBEE by providing adequate capability to maintain or restore core cooling, containment, and SFP cooling capabilities.

In Reference 5, the NRC provided the results of their review of the IP2 and IP3 strategies, equipment, and resources for mitigating BDBEEs in order to maintain or restore core cooling, containment, and SFP cooling capabilities. Based on the evaluations described in the Reference 5 review, the NRC concluded that the developed guidance to maintain or restore core cooling, SFP cooling, and containment following a BDBEE which, if implemented appropriately, should adequately address the requirements of Order EA-12-049. As documented in the Reference 6 inspection report, the NRC examined Entergy's established guidelines and implementing procedures for the BDBEE mitigation strategies for IP2 and IP3, and verified that the appropriate elements of the mitigation strategies for BDBEEs had been satisfactorily implemented and determined that Entergy was in compliance with Order EA-12-049 upon completion of the inspection.

In Reference 7, Entergy notified the NRC that it has decided to permanently cease power operations of IP2 by April 30, 2020 and IP3 by April 30, 2021.

In Reference 8, Entergy requested relaxation of the requirements of Order EA-12-049 that were imposed on IP2 and IP3 to maintain or restore core cooling and containment capabilities following a BDBEE. The relaxation of these requirements would become effective upon each unit's docketing of the Title 10 of the Code of Federal Regulations (10 CFR) 50.82(a)(1) certifications for permanent cessation of operations and permanent removal of fuel from the reactor vessel. The request for relaxation of Order EA-12-049 was submitted to the NRC on October 22, 2019 and is currently in review.

In accordance with Section IV of Order EA-12-049, Entergy hereby requests that the NRC rescind the Order in its entirety for IP2 and IP3, effective at 244 days after each unit's permanent cessation of operations.

Note that the rescission of Order EA-12-049 requested in this letter assumes that the previous request for relaxation of the core cooling and containment capability requirements of the Order as submitted in Reference 8 has been approved by the NRC.

II. Basis for Rescission Request

Section IV of Order EA-12-049 (Reference 1) provides the NRC Director of the Office of Nuclear Reactor Regulation the authority to relax or rescind any or all of the conditions of the Order upon demonstration by the licensee of good cause.

By letter dated February 8, 2017 (Reference 7), Entergy notified the NRC of the decision to permanently cease power operations of IP2 by April 30, 2020 and IP3 by April 30, 2021.

Section III of Order EA-12-049 states that the Commission determined that all power reactor licensees and construction permit holders must develop, implement, and maintain guidance and strategies to restore or maintain core cooling, containment, and SFP cooling capabilities in the event of a BDBEE. This statement forms the basis of the Order and reflects the need to effectively deploy limited resources to mitigate very low frequency events with the potential to challenge both the reactor and SFP.

Permanent cessation of operations at IP2 and IP3 will occur at the end of each unit's current operating cycle, and no later than April 30, 2020 and April 30, 2021, respectively. It is estimated that all fuel in the reactor will be relocated to each unit's SFP within approximately 11 days of the permanent shutdown date. The lack of fuel in the reactor vessel and resulting absence of challenges to the containment (i.e., no credible source of large mass and energy releases) render the development of guidance and strategies to maintain or restore core cooling and containment capabilities unnecessary. In Reference 8, Entergy requested that the NRC relax the requirements of the Order that were imposed on IP2 and IP3 to maintain or restore core cooling and containment capabilities following a BDBEE. Relaxation of these requirements would become effective upon each unit’s docketing of the 10 CFR 50.82(a)(1) certifications for permanent cessation of operations and permanent removal of fuel from the reactor vessel. The basis for the proposed relaxation of the core cooling and containment capability requirements is consistent with the Statements of Consideration published in the Federal Register for the “Mitigation of Beyond-Design-Basis Events, Final Rule [10 CFR 50.155]” (Reference 9).

In the unlikely event of a loss of SFP cooling with no makeup, the total time for boiling in the SFP to reduce the water inventory to a point 10 feet above the top of the highest point of any spent fuel rack would be 75 hours at 244 days after the permanent cessation of operations. The decay heat load required to heat up and boil off the SFP water inventory is conservatively demonstrated via formal calculation and retained by Entergy (Reference 10). The 75-hour boil-off period is based on the expected decay heat load from the spent fuel stored in the SFP, effective at 244 days after the permanent cessation of operations. This result is applicable to both the IP2 and IP3 SFPs, which conservatively credits the slightly smaller volume of the IP2 SFP and an IP2 SFP inventory of 1214 fuel assemblies, including the final full core offload. To bound the results for both IPEC units, the heat generated by the stored fuel is increased by 11 percent based on the ratio of the licensed capacity of the IP3 SFP to the IP2 inventory (i.e., 1345/1214 = 1.11). In addition, since Entergy is licensed to transfer fuel assemblies from the IP3 SFP to the IP2 SFP, a maximum transfer consisting of an additional 301 fuel assemblies with 19 years to over 20 years cooling time is assumed. The heat load from this increased IP2

inventory was evaluated and shown to remain bounded over the evaluation period by the IP3 inventory, which includes an 11 percent increase over IP2. Note that the heat load from 1515 fuel assemblies (i.e., 1214 + 301 = 1515) is an additional conservatism considering that the licensed capacity of the IP2 SFP is 1374 fuel assemblies.

As described above, the decay heat load calculation applies to both the IP2 and IP3 SFPs. The calculation conservatively demonstrates that reliance on the SFP inventory for passive cooling provides an equivalent level of protection as the initial phase of Order EA-12-049 which requires the use of installed equipment and resources to maintain or restore SFP cooling capabilities. The transition phase of the Order requires providing sufficient portable onsite equipment and consumables to maintain or restore SFP cooling capabilities. However, the low decay heat and long time to boil off the SFP inventory to a point where makeup would be necessary for radiation shielding purposes eliminate the need for the transition phase of the Order. Furthermore, Entergy has determined that once the decay heat of the spent fuel in the SFP can be removed solely by the passive cooling provided by the heating and boiling of the water within the SFP, 75 hours is sufficient time to obtain offsite resources on an ad hoc basis to sustain the SFP cooling function indefinitely. This eliminates the need for the final phase of the Order. Letters of agreement with Buchanan Engine Company No. 1, Inc. and the Verplanck Fire Department are in place to provide emergency support and trained manpower with the capabilities to provide makeup cooling water for SFP cooling in addition to fire suppression and medical response.

Entergy has informed the NRC of its decision to permanently cease power operations of IP2 and IP3 at the end of each unit's current operating cycle. Upon docketing of the 10 CFR 50.82(a)(1) certifications for permanent cessation of operations and permanent removal of fuel from the reactor vessel, the 10 CFR Part 50 license will no longer authorize operation of the reactor or emplacement or retention of fuel in the reactor vessel. In the event of a challenge to the safety of the fuel stored in the SFP, decision-makers would not have to prioritize actions. The safety of the irradiated fuel in the SFP would be the primary focus for site personnel for mitigation of a BDBEE. Thus, the basis for the Order EA-12-049 requirements for guidance and strategies to maintain or restore SFP cooling capabilities will no longer apply to the configurations of IP2 and IP3 upon their respective docketing of the 10 CFR 50.82(a)(1) certifications.

III. Spent Fuel Pool Cooling

During IP2 and IP3 decommissioning, the spent fuel pit cooling loop will be maintained at each unit to provide SFP cooling until all spent fuel has been transferred from the unit's SFP to dry storage containers at the onsite Independent Spent Fuel Storage Installation (ISFSI).

At IP2 and IP3, each unit's spent fuel pit cooling loop serves to provide SFP cooling, as described in Section 9.3 of the IP2 and IP3 Updated Final Safety Analysis Report. The spent fuel pit cooling loop is part of the Auxiliary Coolant System and is designed to remove the residual heat generated by the spent fuel elements placed in the SFP for long term storage. The IP2 SFP contains spent fuel discharged from the IP2 reactor and some spent fuel discharged from the IP3 reactor and transferred to the IP2 SFP.

The IP2 and IP3 spent fuel pit cooling loops each consist of two pumps, heat exchanger, filter, demineralizer, piping, and associated valves and instrumentation. Redundancy of this equipment is not required because of the large heat capacity of the pit and slow heat up rate.

Each spent fuel pit cooling loop can safely accommodate the heat load from all of the fuel elements for which there is storage space available, including the heat load associated with a full core offload. In the unlikely event of a loss of spent fuel pit loop cooling, existing design features and capabilities are available for mitigation until the spent fuel pit cooling loop can be restored, alternate means of SFP cooling established, or offsite resources obtained.

The IP2 and IP3 SFPs have large capacities for heat absorption. The normal SFP water level is maintained greater than or equal to 23 feet above the top of the irradiated fuel assemblies seated in the storage racks in accordance with the Technical Specifications. Normal SFP temperature is procedurally maintained below 125 degrees Fahrenheit (F) for the IP2 SFP and below 135 degrees F for the IP3 SFP. Using the normal SFP water level, a conservative initial SFP temperature of 140 degrees F, and the bounding SFP decay heat load for the permanent shutdown condition as described in Section II above, Entergy has determined that 244 days after the permanent cessation of operations the decay heat load will be reduced to the point where the SFP water inventory, with gates installed, will heat up and boil off to 10 feet above the top of the highest point of any spent fuel rack over a period of 75 hours without makeup. In the unlikely event of a loss of SFP cooling, existing equipment and procedures will be available in accordance with the 10 CFR 50.155(b)(2) extensive damage mitigation guidelines to provide makeup cooling water to the SFP. Even without crediting deployment of the 10 CFR 50.155(b)(2) equipment, there is sufficient time to obtain offsite resources on an ad hoc basis to sustain the SFP cooling function indefinitely.

IV. Precedent

This request for rescission of the requirements of Order EA-12-049 that were imposed on IP2 and IP3 to maintain or restore SFP cooling capabilities following a BDBEE is similar to the request that was approved by the NRC on December 14, 2018 for Oyster Creek Nuclear Generating Station (Reference 11), and which became effective on September 28, 2019. The effective date for withdrawal of the Order requirements was based on the acceptable calculated decay heat level after permanent cessation of operations and the availability of offsite resources, which demonstrated good cause for rescission of the conditions of the Order.

In addition, this requested rescission of Order EA-12-049 is consistent with the Statements of Consideration published in the Federal Register for the "Mitigation of Beyond-Design-Basis Events, Final Rule [10 CFR 50.155]" (Reference 9). Specifically, 10 CFR 50.155(a)(2)(ii) provides an exemption from the applicability of the SFP cooling capability requirements of the regulation once the 10 CFR 50.82(a)(1) certifications have been submitted and it is demonstrated by an analysis, retained by the licensee, that the decay heat of the fuel in the SFP can be removed solely by heating and boiling of water within the SFP and the boil-off period provides sufficient time for the licensee to obtain offsite resources to sustain the SFP cooling function indefinitely. The 10 CFR 50.155 rulemaking also includes a provision that will withdraw Order EA-12-049 for IP2 and IP3 on September 9, 2022. This request for rescission of the Order remains necessary because the date for automatic withdrawal of the Order occurs after the expected Order rescission dates for IP2 and IP3 based on the Entergy SFP boil off time analysis (Reference 10).

V. Conclusion

Upon docketing of the 10 CFR 50.82(a)(1) certifications for permanent cessation of operations and permanent removal of fuel from the reactor vessel, the 10 CFR Part 50 licenses for IP2 and IP3 will no longer authorize operation of the reactors or emplacement or retention of fuel in the reactor vessels. Since IP2 and IP3 will be permanently shutdown and defueled, all fuel in the reactor will be relocated to the SFPs. Therefore, all nuclear fuel will be permanently removed from the reactor vessel and containment upon shutdown of the unit. The lack of fuel in the reactor vessel and the resulting absence of challenges to the containment render the development of guidance and strategies to maintain or restore core cooling and containment capabilities unnecessary. In Reference 8, Entergy requested relaxation of the requirements of Order EA-12-049 that were imposed on IP2 and IP3 to maintain or restore core cooling and containment capabilities following a BDBEE. The relaxation of these requirements would become effective upon each unit's docketing of the 10 CFR 50.82(a)(1) certifications for permanent cessation of operations and permanent removal of fuel from the reactor vessel. The guidance and strategies for the SFP cooling capabilities to mitigate a BDBEE will be maintained until it can be demonstrated that the requirements no longer apply as described below.

The spent nuclear fuel at IPEC will be stored either in the IP2 and IP3 SFPs or in dry storage at the onsite ISFSI. Since IP2 and IP3 will be permanently shutting down and defueling at the end of each unit's current operating cycle, no additional fission products will be generated from the plants after shutdown and defueling, and the decay heat load on the spent fuel will continue to decline. A loss of SFP level due to a loss of SFP cooling with no makeup would occur slowly because of the low decay heat load from spent fuel stored in the SFP and the SFP's large capacity for heat absorption. Entergy has determined that if SFP cooling is lost at 244 days after the permanent cessation of operations, then the total time for boiling in the SFP to reduce the water inventory to a point 10 feet above the top of the highest point of any spent fuel rack would be 75 hours assuming no makeup is available. This result applies to both the IP2 and IP3 SFPs. After the 244-day period following each unit's permanent cessation of operations, all of the requirements of Order EA-12-049, including the requirements for guidance and strategies to maintain or restore SFP cooling capabilities, become unnecessary. In addition, in the event of a challenge to the safety of the spent fuel stored in the SFP, decision-makers would not have to prioritize event mitigation and recovery actions, as the focus of the staff would be the SFP condition, and there is sufficient time to obtain offsite resources on an ad hoc basis to sustain the SFP cooling function indefinitely. Thus, the basis for Order EA-12-049 will no longer apply to the configurations of IP2 and IP3 following the unit's permanent shutdown and defueling.

The evaluation performed for the relaxation of Order EA-12-049 provided to the NRC in Reference 8 in conjunction with the foregoing evaluation in this request demonstrate good cause for rescission of the Order in its entirety.

Accordingly, based on the above, Entergy requests that the Director, Office of Nuclear Reactor Regulation rescind Order EA-12-049 in its entirety for IP2 and IP3, effective at 244 days after each unit's permanent cessation of operations.

VI. References

1. U.S. Nuclear Regulatory Commission (NRC) Order EA-12-049, "Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," (ADAMS Accession No. ML12054A735), dated March 12, 2012

2. Entergy Nuclear Operations, Inc. (Entergy) letter to NRC, "Overall Integrated Plan in Response to March 12, 2012, Commission Order to Modify Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049), Indian Point Unit Numbers 2 and 3, Docket Nos. 50-247 and 50-286, License Nos. DPR-26 and DPR-64," (Letter No. NL-13-042) (ADAMS Accession No. ML13079A348), dated February 28, 2013

3. Entergy letter to NRC, "Notification of Full Compliance with Order EA-12-049, 'Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events,' and Order EA-12-051 'Modifying Licenses with Regard to Requirements for Reliable Spent Fuel Pool Instrumentation' (TAC Nos. MF0745 and MF0738), Indian Point Unit Number 3, Docket No. 50-286, License No. DPR-64," (Letter No. NL-15-059) (ADAMS Accession No. ML15149A140), dated May 20, 2015

4. Entergy letter to NRC, "Notification of Full Compliance with Order EA-12-049, 'Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events,' and Order EA-12-051 'Modifying Licenses with Regard to Requirements for Reliable Spent Fuel Pool Instrumentation' (TAC Nos. MF0744 and MF0737), Indian Point Unit Number 2, Docket No. 50-247, License No. DPR-26," (Letter No. NL-16-089) (ADAMS Accession No. ML16235A292), dated August 12, 2016

5. NRC letter to Entergy, "Indian Point Nuclear Generating Unit Nos. 2 and 3 – Safety Evaluation Regarding Implementation of Mitigating Strategies and Reliable Spent Fuel Pool Instrumentation Related to Order EA-12-049 and EA-12-051 (CAC Nos. MF0737, MF0738, MF0744, and MF0745)," (ADAMS Accession No. ML17065A171), dated March 27, 2017

6. NRC letter to Entergy, "Indian Point Nuclear Generating – Temporary Instruction 2515/191 Inspection Report 05000247/2017010 and 05000286/2017010," (ADAMS Accession No. ML18031A358), dated January 31, 2018

7. Entergy letter to NRC, "Notification of Permanent Cessation of Power Operations," (Letter No. NL-17-021) (ADAMS Accession No. ML17044A004), dated February 8, 2017

8. Entergy letter to NRC, "Request for Relaxation of Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order EA-12-049), Indian Point Nuclear Generating Unit Nos. 2 and 3, NRC Docket Nos. 50-247 and 50-286, Renewed Facility Operating License Nos. DPR-26 and DPR-64," (ADAMS Accession No. ML19295G015), dated October 22, 2019

9. Federal Register, "Mitigation of Beyond-Design-Basis Events, Final Rule [10 CFR 50.155]," 84 FR 39684 – 39722, published August 9, 2019

10. Indian Point Energy Center Calculation No. IP-CALC-19-00032, Revision 0, "Evaluation of Spent Fuel Pool Boil Off Time," issued September 25, 2019

11. NRC letter to Exelon Generation Company, LLC, "Oyster Creek Nuclear Generating Station – Withdrawal of Order EA-12-049, 'Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events' (EPID No. L-2018-JLD-0007)," (ADAMS Accession No. ML18176A071), dated December 14, 2018