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10 CFR 2.202
EA-12-051

NL-19-053

June 6, 2019

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

SUBJECT: Request for Rescission of Commission Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation (Order EA-12-051)

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

On March 12, 2012, the U.S. Nuclear Regulatory Commission (NRC) issued Order EA-12-051 (Reference 1) to all power reactor licensees. The Order was effective immediately and directed Entergy Nuclear Operations, Inc. (Entergy) to install reliable spent fuel pool (SFP) level instrumentation at Indian Point Nuclear Generating Unit Nos. 2 (IP2) and 3 (IP3). Specific requirements of the Order are contained in Reference 1.

In accordance with the Order implementation schedule specified in Reference 1, 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-12-051 documenting the bases for compliance with the Order.

In Reference 4, the NRC provided the results of their review of the SFP level instrumentation installed at IP2 and IP3, which concluded that the developed guidance and proposed designs, if implemented appropriately, should adequately address the requirements of Order EA-12-051. In Reference 5, the NRC verified that the SFP instrumentation was in compliance with Order EA-12-051.

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.

The purpose of this letter is to request rescission of Order EA-12-051 for IP2 and IP3 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 Enclosure to this letter provides the good cause justification for this request.

Entergy requests review and approval of this request for rescission of Order EA-12-051 by May 15, 2020.

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

There are no new regulatory commitments made in this letter.

I declare under penalty of perjury that the foregoing is true and correct. Executed on June 6, 2019.

Respectfully,

Ron Gaston

RWG/cdm

Enclosure: Request for Rescission of Commission Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation (Order EA-12-051)

References:

1. NRC Order EA-12-051, "Order Modifying Licenses with Regard to Reliable Spent Fuel Instrumentation," dated March 12, 2012 (ADAMS Accession No. ML12056A044)

2. Entergy Nuclear Operations, Inc. (Entergy) letter to U.S. Nuclear Regulatory Commission (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," dated May 20, 2015 (Letter No. NL-15-059) (ADAMS Accession No. ML15149A140)

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," dated August 12, 2016 (Letter No. NL-16-089) (ADAMS Accession No. ML16235A292)

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)," dated March 27, 2017 (ADAMS Accession No. ML17065A171)

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

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

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-19-053

Request for Rescission of Commission Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation (Order EA-12-051)

I. Proposed Order Rescission

On March 12, 2012, the U.S. Nuclear Regulatory Commission (NRC) issued Order EA-12-051, "Order to Modify Licenses with Regard to Requirements for Reliable Spent Fuel Pool Instrumentation," (Reference 1) to all power reactor licensees. The Order was effective immediately and directed Entergy Nuclear Operations, Inc. (Entergy) to install reliable spent fuel pool (SFP) level instrumentation at Indian Point Nuclear Generating Unit Nos. 2 (IP2) and 3 (IP3). In accordance with the Order implementation schedule specified in Reference 1, 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-12-051, documenting the bases for compliance with the Order. In Reference 4, the NRC provided the results of their review of the SFP level instrumentation installed at IP2 and IP3, which concluded that the developed guidance and proposed designs, if implemented appropriately, should adequately address the requirements of Order EA-12-051. In Reference 5, the NRC verified that the SFP instrumentation was in compliance with Order EA-12-051.

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 accordance with Section IV of the Order, Entergy hereby submits a request that Order EA-12-051 be rescinded for IP2 and IP3 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.

II. Basis for Rescission Request

Section IV of Order EA-12-051 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 6), 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-12-051 states that the Commission determined that all power reactor licensees and construction permit holders must have a reliable means of remotely monitoring wide-range SFP levels to support effective prioritization of event mitigation and recovery actions in the event of a beyond-design-basis external event. 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. With reliable indication of the SFP coolant level, decision-makers can determine when to deploy resources to the SFP and avoid unnecessary deployment of staff to monitor pool level.

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. The safety of the irradiated fuel in the SFP will be the primary safety function for site personnel. In the event of a challenge to the safety of fuel stored in the SFP, decision-makers would not have to prioritize actions and the focus of the facility staff would be the SFP condition.

Thus, the basis for Order EA-12-051 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 Level Indication

Two physically separate and independent channels of SFP direct level indication are installed at IP2 and IP3. The SFP level can be monitored on displays located in each unit's Fan House building, and are accessible without unreasonable delay from the unit's Central Control Room (CCR). In addition to each unit's two channels of remote level indication, local alarms are provided in each unit's CCR that annunciate on high and low SFP level.

Both the primary and backup SFP level instrument channels for each unit are permanently installed, mounted in opposite corners of the SFP. Each level sensor probe utilizes Guided Wave Radar (GWR) technology through the principal of Time Domain Reflectometry (TDR) to provide a single continuous span that extends from a point above the normal water level down to within one foot of the top of the spent fuel racks (probe length approximately 24 feet-2 inches). The high sensor range limit for each unit corresponds to the SFP high level alarm setpoint. The low sensor range limit for each unit provides assurance that reliable SFP water level indication is available to support identification of the condition where the spent fuel remains covered and actions to implement make-up should no longer be deferred. The SFP low level alarm setpoints are above the IP2 Technical Specification (TS) 3.7.11 and IP3 TS 3.7.14 minimum level requirements, and will provide advanced warning of a decreasing level that could potentially result in a loss of SFP cooling due to the loss of pump suction and substantial loss of radiation shielding.

In addition to the instrumentation available for monitoring the IP2 and IP3 SFP levels, the level can also be observed locally from each unit's Fuel Storage Building refueling floor.

Based on the above description, there is adequate indication available to determine the level in the IP2 and IP3 SFPs.

IV. Precedent

This request for rescission of Order EA-12-051 for IP2 and IP3 upon each unit's docketing of the 10 CFR 50.82(a)(1) certifications is similar to the Vermont Yankee Nuclear Power Station request that was approved by the NRC on March 2, 2015 (Reference 7) and the Oyster Creek Nuclear Generating Station request that was approved by the NRC on December 14, 2018 (Reference 8).

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, no additional fission products will be generated from the reactors and the decay heat load on the spent fuel will continue to decline.

After IP2 and IP3 are permanently shutdown and their reactors permanently defueled, the requirements of Order EA-12-051 applicable to each unit are no longer necessary. In the event of a challenge to the safety of fuel stored in the SFP, decision-makers would not have to prioritize event mitigation and recovery actions because the focus of the facility staff would be the SFP condition. Thus, the basis for the Order will no longer apply to the configurations of IP2 and IP3 upon their respective docketing of the 10 CFR 50.82(a)(1) certifications. The foregoing evaluation demonstrates that the Order is unnecessary for IP2 and IP3 and provides good cause to support this request that the Order be rescinded in its entirety 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.

Based on the above, the Director, Office of Nuclear Reactor Regulation is requested to rescind Order EA-12-051 for IP2 and IP3 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.

VI. References

1. NRC Order EA-12-051, "Order Modifying Licenses with Regard to Reliable Spent Fuel Instrumentation," dated March 12, 2012 (ADAMS Accession No. ML12056A044)

2. Entergy Nuclear Operations, Inc. (Entergy) letter to U.S. Nuclear Regulatory Commission (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," dated May 20, 2015 (Letter No. NL-15-059) (ADAMS Accession No. ML15149A140)

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," dated August 12, 2016 (Letter No. NL-16-089) (ADAMS Accession No. ML16235A292)

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)," dated March 27, 2017 (ADAMS Accession No. ML17065A171)

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

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

7. NRC letter to Entergy, "Vermont Yankee Nuclear Power Station – Rescission of Order EA-12-051, 'Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation' (TAC No. MF4764)," dated March 2, 2015 (ADAMS Accession No. ML14321A696)

8. NRC letter to Exelon Generation Company, LLC, "Oyster Creek Nuclear Generating Station – Withdrawal of Order EA-12-051, 'Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation' (EPID L-2018-JLD-0005)," dated December 14, 2018 (ADAMS Accession No. ML18176A070)