HOLTEC DECOMMISSIONING INTERNATIONAL

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HDI-IPEC-22-039

10 CFR 50.90

May 20, 2022

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

Subject: License Amendment Request – Revise License Condition to Eliminate Cyber Security Plan Requirements

Indian Point Energy Center
Provisional License No. DPR-5
Renewed Facility License No. DPR-26 and DPR-64
Docket Nos. 50-003, 50-247, and 50-286

References:

1. Entergy letter to NRC, “Notification of Unit 1 Transfer of 160 Spent Fuel Assemblies from the Spent Fuel Pool to the Indian Point Independent Spent Fuel Storage Installation,” (Letter No. NL-08-173) (ADAMS Accession No. ML083510667), dated December 11, 2008

2. Entergy letter to NRC, “Certifications of Permanent Cessation of Power Operations and Permanent Removal of Fuel from the Reactor Vessel, Indian Point Nuclear Generating Unit No. 2,” (Letter No. NL-20-042) (ADAMS Accession No. ML20133J902), dated May 12, 2020

3. Entergy letter to NRC, “Certifications of Permanent Cessation of Power Operations and Permanent Removal of Fuel from the Reactor Vessel, Indian Point Nuclear Generating Unit No. 3,” (Letter No. NL-21-033) (ADAMS Accession No. ML21131A157), dated May 11, 2021

4. NRC Memorandum, Executive Director for Operations to NRC Commissioners, “Cyber Security Requirements for Decommissioning Nuclear Power Plants,” (ADAMS Accession No. ML16172A284), dated December 5, 2016

5. NRC Letter to Exelon Nuclear, “Three Mile Island Nuclear Station, Unit 1 − Issuance of Amendment No. 301 Re: Removal of Cyber Security Plan License Condition (EPID L-2019-LLA-0251),” (ADAMS Accession No. ML20297A627), dated December 4, 2020

6. Holtec Decommissioning International, LLC (HDI) letter to NRC, "Revision to HDI Request for Exemptions from Certain Emergency Planning Requirements of 10 CFR 50.47 and 10 CFR 50, Appendix E, Indian Point Nuclear Generating Unit Nos. 1, 2, and 3 Including Site-Specific Calculations," (ADAMS Accession No’s ML22032A017 and ML22032A027), dated February 2, 2022

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In accordance with the provisions of Title 10 of the Code of Federal Regulations (CFR) 50.90, Holtec Decommissioning International, LLC (HDI), on behalf of Holtec Indian Point 2, LLC (IP1 & IP2) and Holtec Indian Point 3, LLC (IP3), collectively referred to as Indian Point Energy Center (IPEC), requests an amendment to Provisional Operating License No. DPR-5 for IP1, Renewed Facility License No. DPR-26 for IP2, and Renewed Facility Operating License No. DPR-64 for IP3. Specifically, this license amendment request (LAR) proposes to remove the Cyber Security Plan (CSP) requirements contained in License Condition 3.d of the IP1 Provisional License, License Condition 2.H of the IP2 Renewed Facility License, and License Condition 2.G of the IP3 Renewed Facility License.

In a letter dated December 11, 2008 (Reference 1), Entergy Nuclear Operations, Inc. (Entergy) notified the U.S. Nuclear Regulatory Commission (NRC) that all nuclear fuel in the shutdown IP1 Spent Fuel Pool (SFP) had been removed to the Independent Spent Fuel Storage Installation (ISFSI). In accordance with 10 CFR 50.82(a)(1) and 10 CFR 50.4(b), Entergy provided certification to the NRC that all fuel had been permanently removed from the IP2 and IP3 reactor vessels and placed in the IP2 SFP and IP3 SFP (References 2 and 3) and the NRC docketed these certifications in accordance with 10 CFR 50.82(a)(2). As stated in 10 CFR 50.82(a)(2), docketing of the certifications for permanent cessation of power operations and permanent removal of fuel from the reactor vessel means the 10 CFR Part 50 licenses for IP2 and IP3 no longer authorize operation of the reactor or emplacement or retention of fuel into the reactor vessel. With the fuel permanently removed from the reactor vessels, spent fuel will be stored onsite in the IP2 SFP, IP3 SFP, or ISFSI.

The Enclosure to this letter provides an analysis, including the regulatory and technical evaluations, of the proposed license amendments. Attachment 1 to the Enclosure contains the mark-up pages of the IP1 Provisional License, IP2 Renewed Facility License, and IP3 Renewed Facility License. Attachment 2 to the Enclosure contains the re-typed pages of the IP1 Provisional License, IP2 Renewed Facility License, and IP3 Renewed Facility License.

The regulatory and technical evaluations included in this LAR are consistent with recent NRC guidance on cyber security requirements for decommissioning facilities (Reference 4). In addition, the NRC staff has approved similar LARs to delete the CSP license condition requirements from several 10 CFR 50 Licenses. For example, the NRC issued License Amendment for Three Mile Island Unit 1 dated December 4, 2020 (Reference 5).

The bounding analyses for the IP2 and IP3 SFPs for beyond design basis events demonstrate that 15 months after shutdown of IP3 a minimum of 10 hours is available before the fuel cladding temperature of the hottest fuel assembly in either SFP reaches 900°C with a complete loss of SFP water inventory (Reference 6). Following the shutdown of the last unit (IP3), which occurred April 30, 2021, 15 months after IP3 shutdown would be July 30, 2022.

HDI requests approval of the proposed license amendment by January 31, 2023. The requested LAR approval date is prior to the anticipated completion of the transfer of all spent fuel from IP2 and IP3 to dry storage within the ISFSI, and after the appropriate cooling period for spent fuel in the SFP for both IP2 and IP3. Once approved, the license amendment will be implemented within 30 days of the date of the license amendment.

HDI has reviewed the proposed amendment in accordance with 10 CFR 50.92 and concludes it does not involve a significant hazards consideration, and there are no significant environmental impacts associated with the change.

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In accordance with 10 CFR 50.91, copies of this application, with the Enclosure, are being provided to the New York State Department of Public Service and the State Liaison Officer Designee.

This letter contains no new regulatory commitments.

If you have any questions regarding this information, please contact me or Mr. Walter Wittich, IPEC Licensing, 914-254-7212.

I declare, under penalty of perjury, the foregoing is true and correct. Executed on May 20, 2022.

Sincerely,

Jean A. Fleming

Digitally signed by Jean A. Fleming
Date: 2022.05.20 09:28:30 -04'00'

Jean A. Fleming
Vice President, Licensing, Regulatory Affairs and PSA
Holtec Decommissioning International, LLC

Enclosure: Evaluation of Proposed Change

Attachments to Enclosure:

1. Mark-up Pages of the IP1 Provisional License, IP2 Renewed Facility License, and IP3 Renewed Facility License

2. Re-Typed Pages of the IP1 Provisional License, IP2 Renewed Facility License, and IP3 Renewed Facility License

cc: USNRC Senior Project Manager, NMSS
USNRC Region I Regional Administrator
USNRC Lead Regional Inspector, Indian Point Energy Center
New York State Liaison Officer Designee, NYSERDA
New York State (NYS) Department of Public Service

Enclosure

HDI-IPEC-22-039

EVALUATION OF PROPOSED CHANGE

(10 pages including this cover page)

1.0 SUMMARY DESCRIPTION

In accordance with the provisions of Title 10 of the Code of Federal Regulations (CFR) 50.90, Holtec Decommissioning International, LLC (HDI) is submitting a request for an amendment to the Provisional License for Indian Point Nuclear Generating Unit 1 (IP1) and the Renewed Facility Licenses for Indian Point Nuclear Generating Units 2 and 3 (IP2 and IP3). Specifically, this license amendment request (LAR) proposes to remove the Cyber Security Plan (CSP) requirements contained in License Condition 3.d of the IP1 Provisional License, License Condition 2.H of the IP2 Renewed Facility license, and License Condition 2.G of the IP3 Facility license. This change is requested to support the decommissioning of Indian Point Energy Center (IPEC).

2.0 DETAILED DESCRIPTION

In a letter dated December 11, 2008 (Reference 1), Entergy Nuclear Operations, Inc. (ENO or Entergy) notified the U.S. Nuclear Regulatory Commission (NRC) that all nuclear fuel in the shutdown IP1 Spent Fuel Pool (SFP) had been removed to the Independent Spent Fuel Storage Installation (ISFSI) and the IP1 SFP had been drained.

By letters dated May 12, 2020 and May 11, 2021 (References 2 and 3), Entergy provided certification to the NRC, in accordance with 10 CFR 50.82(a)(1)(ii) and 10 CFR 50.4(b)(9), that all fuel has been permanently removed from the IP2 and IP3 reactor vessels and placed in the IP2 and IP3 SFPs and these certifications were docketed. As stated in 10 CFR 50.82(a)(2), docketing of the certifications for permanent cessation of power operations and permanent removal of fuel from the reactor vessel means the 10 CFR Part 50 licenses for IP2 and IP3 no longer authorize operation of the reactor or emplacement or retention of fuel into the reactor vessel. With the fuel permanently removed from the reactor vessels, spent fuel will be stored onsite in the IP2 SFP, IP3 SFP, or ISFSI.

The IPEC CSP and implementation schedule, as required by 10 CFR 73.54, “Protection of digital computer and communication systems and networks,” consist of eight Milestones. These were completed as required by the December 31, 2017 schedule (Reference 4).

The IP1 Provisional License, IP2 Renewed Facility License, and IP3 Renewed Facility License contain the following cyber security requirements:

License Condition 3.d of the IP1 Provisional License

“ENO shall fully implement and maintain in effect all provisions of the Commission-approved cyber security plan (CSP), including changes made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The ENO CSP was approved by License Amendment No. 55, as supplemented by changes approved by License Amendment Nos. 57, 59, and 60."

License Condition 2.H of the IP2 Renewed Facility License

“ENO shall fully implement and maintain in effect all provisions of the Commission-approved cyber security plan (CSP), including changes made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The ENO CSP was approved by License Amendment No. 266, as supplemented by changes approved by License Amendment Nos. 279, 284, and 286.”

License Condition 2.G of the IP3 Renewed Facility License

"ENO shall fully implement and maintain in effect all provisions of the Commission-approved cyber security plan (CSP), including changes made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The ENO CSP was approved by License Amendment No. 243, as supplemented by changes approved by License Amendment Nos. 254, 260, and 263."

In Reference 5, the NRC staff determined that 10 CFR 73.54 does not apply to reactor licensees that have submitted certifications of permanent cessation of power operations and permanent removal of fuel under 10 CFR 50.82(a)(1), and whose certifications have been docketed by the NRC as required by 10 CFR 50.82(a)(2). Notwithstanding this determination, any such licensee is still subject to its CSP license condition until it is removed from the license pursuant to a 10 CFR 50.90 license amendment. The NRC determined that the CSP license condition requirements could be eliminated after a sufficient cooling period to mitigate the risk of heat-up to clad ignition temperature within 10 hours.

To support the decommissioning of IPEC, this LAR is submitted to remove the cyber security requirements from the IP1, IP2, and IP3 license conditions prior to the completion of the transfer of spent fuel from the IP2 SFP and IP3 SFP to dry storage within the ISFSI. This request considers the cooling period for spent fuel stored in the SFPs after the IP2 and IP3 reactors have been permanently shut down. The evaluations included in this LAR are consistent with recent NRC guidance on cyber security requirements for decommissioning facilities (Reference 5).

Accordingly, per the provisions of 10 CFR 50.4 and 10 CFR 50.90, HDI is submitting this request to amend the IP1 Provisional License, IP2 Renewed Facility License, and IP3 Renewed Facility License to remove the cyber security requirements. The proposed change has been evaluated in accordance with 10 CFR 50.91(a)(1) using the criteria in 10 CFR 50.92(c), and HDI determined that the proposed change involves no significant hazards consideration, as discussed in Section 4.3 below.

Attachment 1 contains the mark-up pages of the IP1 Provisional License, IP2 Renewed Facility License, and IP3 Renewed Facility License. Attachment 2 contains the re-typed pages of the IP1 Provisional License, IP2 Renewed Facility License, and IP3 Renewed Facility License.

3.0 TECHNICAL EVALUATION

This LAR is based on the significantly reduced risks for a nuclear power facility that has permanently ceased operations and removed all fuel from the reactor vessel, and where the spent fuel has had sufficient time to cool down such that the spent fuel stored in the SFP cannot reasonably heat-up to clad ignition temperature within 10 hours (Reference 6). The spectrum of possible accidents is significantly reduced, and the risk of an offsite radiological release is significantly lower for a decommissioning facility with a permanently defueled reactor than an operating nuclear power reactor. Correspondingly, cyber security risk is reduced due, in part, to the fact that there are significantly fewer critical digital assets (CDAs) needed to protect against and assess radiological events at a decommissioning facility than in comparison to the number at an operating reactor.

IP1 was permanently shutdown on October 31, 1974, and all spent fuel was removed from the IP1 reactor vessel in 1975. On December 11, 2008, Entergy notified the NRC that all remaining spent fuel assemblies had been removed from the IP1 SFP and placed in the ISFSI (Reference 1). The IP1 Provisional License prohibits taking the reactor to criticality or operation of the facility at any

power level, and the IP1 Technical Specifications do not allow fuel to be loaded into the reactor core or moved into the reactor containment building without prior review and authorization by the NRC. The IP1 Technical Specifications also preclude fuel from being stored in the IP1 fuel storage area. Based on its current configuration and licensing basis, with no spent fuel stored in the IP1 SFP, there are no postulated Design Basis Accidents (DBAs) that remain applicable to IP1. The IP1 SFP is no longer in use because all spent fuel and other material has been removed, and the IP1 SFP has been drained.

By letters dated May 12, 2020 and May 11, 2021 (References 2 and 3), Entergy certified to the NRC, in accordance with 10 CFR 50.82(a)(1)(i), that power operations ceased at IP2 on April 30, 2020, and at IP3 on April 30, 2021. In addition, Entergy certified, in accordance with 10 CFR 50.82(a)(1)(ii), that the fuel was permanently removed from the IP2 reactor vessel and placed in the IP2 SFP on May 12, 2020, and that the fuel was permanently removed from the lP3 reactor vessel and placed in the IP3 SFP on May 11, 2021. With IP2 and IP3 in a permanently defueled condition, the operational focus is with the spent fuel and the SFP cooling systems. In this condition, the spectrum of credible accidents is much smaller than for an operational plant. Further, the IP2 and IP3 certifications of permanent shutdown and placement in the defueled condition were docketed in accordance with 10 CFR 50.82(a)(2); thus, the Renewed Facility Licenses for IP2 and IP3 no longer authorize operation of the respective unit's reactor or emplacement or retention of fuel in the unit's reactor vessel. As such, the majority of the DBA scenarios postulated in the Final Safety Analysis Reports for IP2 and IP3 during power operations were no longer possible and were removed under the provisions of 10 CFR 50.59.

Accident Analysis Overview

With the termination of reactor operations and permanent removal of fuel from the IP1, IP2 and IP3 reactor vessels, the postulated accidents involving failure or malfunction of the reactor and supporting structures, systems, and components (SSCs) are no longer applicable to IP1, IP2, or IP3.

The HDI submittal, “Revision to HDI Request for Exemptions from Certain Emergency Planning Requirements of 10 CFR 50.47 and 10 CFR 50, Appendix E, Indian Point Nuclear Generating Unit Nos. 1, 2, and 3,” (Reference 6) provides information on the disposition of accidents and other incidents of concern. Furthermore, as discussed in Reference 6, based on IP1’s current configuration and licensing basis, with no spent fuel stored in the IP1 SFP, there are no postulated DBAs that remain applicable to IP1. The IP1 SFP is no longer in use because all spent fuel has been transferred to the ISFSI and other material removed, and the IP1 SFP has been drained. Accordingly, the analyses discussed within this section only address the risks associated with the storage of spent fuel in the IP2 SFP and IP3 SFP.

A. Consequences of Design Basis Events

The NRC approved the IP2 Permanently Defueled Technical Specifications (PDTS) on April 28, 2020, with the issuance of IP2 License Amendment No. 294 (Reference 7). The IP2 license amendment included the statement that the applicable DBAs for IP2 in the permanently defueled condition are: (1) a Fuel Handling Accident (FHA) in the Fuel Storage Building (FSB), (2) an accidental release of waste gas; and (3) an accidental release-recycle of waste liquid.

The NRC approved the IP3 PDTS on April 22, 2021, with the issuance of IP3 License Amendment No. 270 (Reference 8) reflecting the permanently shutdown and defueled condition. The IP3 license amendment includes the statement that the applicable DBAs for IP3 in the permanently

defueled condition are: (1) an FHA in the FSB, (2) an accidental release of waste gas; and (3) an accidental release-recycle of waste liquid.

Subsequently, the IP2 and IP3 gaseous waste system(s) were retired, and the accidental release of waste gas is no longer credible. The consequences of an accidental release-recycle of waste liquid are bounded by the FHA DBA. Thus, the limiting DBA for IP2 and IP3 in the permanently defueled condition is an FHA in the FSB. An FHA may occur in the FSB during movement of a fuel assembly. The fuel assembly is moved under water and the accident is assumed to occur when the fuel assembly is damaged. The IP2 and IP3 post-permanent shutdown FHA (Reference 9) was evaluated utilizing the Alternate Source Term (AST) methodology described in Regulatory Guide 1.183 (Reference 10). The FHA does not credit the function of FSB filtration, high-rad alarm, dispersion from the FSB ventilation system, Control Room isolation, or emergency filtration. The analysis credits the 23 feet of water over the fuel assemblies in the SFP with an overall effective decontamination factor of 200. This is consistent with Regulatory Guide 1.183 (Reference 10). The analysis indicates that after a decay time of 15 months following permanent cessation of power operations of each unit, the FHA results in an Exclusion Area Boundary (EAB) Total Effective Dose Equivalent (TEDE) dose of 1.23 mrem (Reference 9), which is significantly below the Environmental Protection Agency's early phase Protective Action Guidelines (PAG) criteria of 100 mrem TEDE for recommended evacuation.

B. Consequences of Beyond Design Basis Events

Spent Fuel Assembly Heat-up During a Theoretical Drain Down Event

The analyzed beyond-design-basis event (BDBE) scenario that progresses to a condition where a significant offsite release might occur involves the very unlikely (beyond-design-basis) event where the SFP drains in such a way that all modes of cooling or heat transfer are assumed to be unavailable, which is postulated to result in an adiabatic heat-up of the spent fuel. The IP2 and IP3 SFP's were analyzed using the Holtec SFP Heat-up Calculation Methodology (Reference 11) to compare the heat load limits for the hottest fuel assembly and for a 2X2 group of assemblies stored in each SFP (IP2 and IP3) to a criterion proposed in NRC Commission Paper SECY-99-168, "Improving Decommissioning Regulations for Nuclear Power Plants," (Reference 12) that is applicable to offsite emergency response for nuclear power reactors in the decommissioning process. This criterion considers the time for the hottest assembly to heat-up from 30°C to 900°C adiabatically. A heat-up time of 10 hours, from the time the spent fuel is uncovered, was determined to be sufficient to take mitigating actions to preclude a zirconium fire.

The bounding analysis for the IP2 and IP3 SFPs (Reference 11) demonstrates that 15 months after shutdown of IP3 a minimum of 10 hours is available before the fuel cladding temperature of the hottest fuel assembly in either SFP reaches 900°C with a complete loss of SFP water inventory. As stated in NUREG-1738, "Technical Study of Spent Fuel Pool Accident Risk at Decommissioning Nuclear Power Plants," (February 2001) (Reference 13) 900°C is an acceptable temperature to use for assessing the onset of fission product release under transient conditions if fuel and cladding oxidation occurs in air.

The 10-hour time period provides sufficient time for mitigative actions to be taken to prevent spent fuel heat-up damage by restoring cooling or makeup or providing spray to the IP2 or IP3 SFPs. As a result, the likelihood that such a scenario would progress to a zirconium fire is deemed not to be credible.

Conclusion

The underlying purpose of the CSP is to ensure that SSCs required to safely operate a plant and protect public health and safety are not affected by cyber-attacks. There are no DBAs that can result in an offsite radiological release exceeding the EPA PAG limits and consequently there is a significant reduction in radiological risk from a potential cyber-attack, and there is sufficient time (at least 10 hours) to take prompt mitigative actions in response to a postulated BDBE zirconium fire. Thus, the elimination of the cyber security requirements from the IP1, IP2 and IP3 licenses is appropriate.

4.0 REGULATORY EVALUATION

4.1 Applicable Regulatory Requirements/Criteria

10 CFR 73.54, "Protection of digital computer and communication systems and networks," establishes the requirements for licensees to maintain and implement a CSP. This regulation at paragraph 73.54(a) specifically states "... each licensee currently licensed to operate a nuclear power plant under part 50 of this chapter shall submit, as specified in § 50.4and § 50.90 of this chapter, a cyber security plan that satisfies the requirements of this section for Commission review and approval." In accordance with 10 CFR 50.54, "Conditions of licenses," upon approval, the CSP becomes a condition in the 10 CFR 50 license. IPEC has an approved CSP as described in License Condition 3.d of the IP1 Provisional License, License Condition 2.H of the IP2 Renewed Facility License, and License Condition 2.G of the IP3 Renewed Facility License.

These license conditions require IP1, IP2, and IP3 to fully implement and maintain in effect all provisions of the Commission-approved CSP, including changes made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The CSP provisions contained in these license conditions continue to apply until they are removed pursuant to a 10 CFR 50.90 license amendment.

Entergy permanently ceased power operations at IPEC on May 30, 2021 when IP3 was shutdown and the letter of certification of permanent removal of fuel from the IP3 reactor vessel was docketed on May 11, 2021 pursuant to 10 CFR 50.82(a)(1)(ii) and 10 CFR 50.82(a)(2) (Reference 3). IP1 was permanently defueled and all fuel was transferred to the ISFISI (Reference 1). IP2 was permanently shut down on May 30, 2020 and the letter of certification of permanent removal of fuel from the IP2 reactor vessel was docketed on May 12, 2020 pursuant to 10 CFR 50.82(a)(1)(ii) and 10 CFR 50.82(a)(2) (Reference 2). As stated in 10 CFR 50.82(a)(2), upon docketing the certifications for permanent cessation of power operations and permanent removal of fuel from the reactor vessel, the IP2 and IP3 10 CFR Part 50 licenses will no longer authorize operation of the reactors or emplacement or retention of fuel in the reactor vessels.

When the final rule for 10 CFR 73.54 was issued in March 2009, neither ISFSI only facilities nor other facilities that were in the process of decommissioning were required to comply with the cyber security requirements. This exclusion did not apply to the permanently shutdown IP1, since IP1 shared systems supporting operating reactors (IP2 and IP3). The NRC specifically limited cyber security requirements to a "licensee currently licensed to operate a nuclear power plant under part 50." In Reference 5, the NRC staff determined that 10 CFR 73.54 does not apply to reactor licensees that have submitted certifications of permanent cessation of power operations and permanent removal of fuel under 10 CFR 50.82(a)(1), and whose certifications have been docketed by the NRC as required by 10 CFR 50.82(a)(2). Notwithstanding this determination, any such licensee is still subject to its CSP license condition until it is removed from the license pursuant to

a 10 CFR 50.90 license amendment. The NRC determined in Reference 5 that the CSP license condition requirements could be eliminated after a sufficient cooling period to mitigate the risk of heat-up to clad ignition temperature within 10 hours.

4.2 Precedent

The NRC staff has approved similar LARs to delete the CSP license condition requirements from several 10 CFR 50 Licenses. For example, the NRC issued License Amendment for the Three Mile Island Unit 1 dated December 4, 2020 (Reference 15).

4.3 No Significant Hazards Consideration

HDI is requesting a license amendment to the Indian Point Nuclear Generating Unit 1 (IP1) Provisional License to modify License Condition 3.d and a license amendment to the Indian Point Nuclear Generating Units 2 and 3 (IP2 and IP3) Renewed Facility Licenses to modify License Conditions 2.H and 2.G, respectively, as they relate to the Cyber Security Plan (CSP). These license conditions require IPEC to implement and maintain in effect all provisions of the Commission-approved CSP, including changes made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). Specifically, the proposed change is to amend license conditions to remove the cyber security requirements.

HDI evaluated whether or not a significant hazards consideration is involved with the proposed license amendments by focusing on the three standards set forth in 10 CFR 50.92, “Issuance of amendment,” as discussed below:

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

   Response: No

   All power operations at Indian Point Energy Center (IPEC) have ceased and all spent fuel has been removed from the IP1, IP2, and IP3 reactor vessels. All fuel has been removed from the IP1 SFP and the IP1 SFP is no longer used to store fuel. Spent fuel at IPEC will be stored either in the IP2 SFP, the IP3 SFP, or ISFSI. Therefore, the spectrum of possible transients and accidents at IP1, IP2, and IP3 is significantly reduced compared to an operating nuclear power reactor.

   The only DBA that could potentially result in an offsite radiological release at IPEC is an FHA involving spent fuel stored in the IP2 SFP or IP3 SFP. An analysis indicates that after a decay time of 15 months following permanent cessation of power operations of each unit, there is no longer any possibility of an offsite radiological release from a DBA that could exceed the U.S. EPA's PAGs. With this significant reduction in radiological risk based on IP1, IP2, and IP3 reactors being shut down for more than 15 months the consequences of a cyber-attack are also significantly reduced.

   Additionally, per an NRC Memorandum, “Cyber Security Requirements for Decommissioning Nuclear Power Plants,” the NRC staff determined that 10 CFR 73.54 does not apply to reactor licensees that have submitted certifications of permanent cessation of power operations and permanent removal of fuel under 10 CFR 50.82(a)(1), and whose certifications have been docketed by the NRC as required by 10 CFR 50.82(a)(2). The IP1 reactor has transferred all spent fuel to the ISFSI and drained the SFP. The IP2 and IP3 certifications were submitted and docketed in accordance with 10 CFR 50.82(a)(1) and 10

CFR 50.82(a)(2), respectively, after all fuel was moved to the IP2 SFP and IP3 SFP, respectively.

The bounding analyses for the IP2 and IP3 SFPs (Reference 11) for beyond design basis events demonstrate that 15 months after shutdown of IP3 a minimum of 10 hours is available before the fuel cladding temperature of the hottest fuel assembly in either SFP reaches 900°C with a complete loss of SFP water inventory. The site-specific analysis in Reference 11determined that sufficient time will have passed prior to the requested implementation date for these license amendments such that the spent fuel stored in the IP2 SFP or IP3 SFP cannot reasonably heat-up to clad ignition temperature within 10 hours.

This proposed change does not alter previously evaluated accident analysis assumptions, introduce or alter any initiators, or affect the function of facility structures, systems, and components (SSCs) relied upon to prevent or mitigate any previously evaluated accident or the manner in which these SSCs are operated, maintained, modified, tested, or inspected. The proposed change does not involve any facility modifications which affect the performance capability of any SSCs relied upon to prevent or mitigate the consequences of any previously evaluated accidents.

Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

   Response: No

   This proposed change does not alter accident analysis assumptions, introduce or alter any initiators, or affect the function of facility SSCs relied upon to prevent or mitigate any previously evaluated accident, or the manner in which these SSCs are operated, maintained, modified, tested,or inspected. The proposed change does not involve any facility modifications which affect the performance capability of any SSCs relied upon to mitigate the consequences of previously evaluated accidents and does not create the possibility of a new or different kind of accident from any accident previously evaluated.

   Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

3. Does the proposed change involve a significant reduction in a margin of safety?

   Response: No

   Plant safety margins are established through limiting conditions for operation and design features specified in the IP1, IP2, and IP3 Permanently Defueled Technical Specifications that were approved for IP1 on April 14, 2021 (Reference 16), IP2 on April 28, 2020 (Reference 7), and IP3 on April 22, 2021 (Reference 8) and amended on May 28, 2021 (Reference 17). The changes did not involve any changes to the initial conditions that establish safety margins and does not involve modifications to any SSCs which are relied upon to provide a margin of safety. Because there is no change to established safety margins as a result of this proposed change, no significant reduction in a margin of safety is

involved.

Therefore, the proposed change does not involve a significant reduction in a margin of safety.

Based on the above, HDI concludes that the proposed license amendments do not involve a significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of no significant hazards consideration is justified.

4.4 Conclusion

In conclusion, based on the considerations discussed above: 1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner; 2) such activities will be conducted in compliance with the Commission's regulations; and 3) the issuance of the license amendments will not be inimical to the common defense and security or to the health and safety of the public.

5.0 ENVIRONMENTAL CONSIDERATION

The proposed change removes the existing CSP license condition requirements from the IP1 Provisional License and the IP2 and IP3 Renewed Facility Licenses. The proposed change is confined to safeguards matters and does not involve any significant construction impacts. Accordingly, the proposed change meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(12). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

6.0 REFERENCES

1. Entergy letter to NRC, "Notification of Unit 1 Transfer of 160 Spent Fuel Assemblies from the Spent Fuel Pool to the Indian Point Independent Spent Fuel Storage Installation," (ADAMS Accession No. ML083510667), dated December 11, 2008

2. Entergy letter to NRC, "Certifications of Permanent Cessation of Power Operations and Permanent Removal of Fuel from the Reactor Vessel, Indian Point Nuclear Generating Unit No. 2," (ADAMS Accession No. ML20133J902), dated May 12, 2020

3. Entergy letter to NRC, "Certifications of Permanent Cessation of Power Operations and Permanent Removal of Fuel from the Reactor Vessel, Indian Point Nuclear Generating Unit No. 3," (ADAMS Accession No. ML21131A157), dated May 11, 2021

4. Entergy letter to NRC, “Revised Supplemental Information for License Amendment Request - Cyber Security Plan Implementation Schedule (CAC Nos. MF9656, MF9657, MF9658),” (Letter No. NL-17-124), dated September 28, 2017

5. NRC Memorandum, Executive Director for Operations to NRC Commissioners, “Cyber Security Requirements for Decommissioning Nuclear Power Plants,” (ADAMS AccessionNo. ML16172A284), dated December 5, 2016

6. HDI letter to NRC, “Revision to Holtec Decommissioning International, LLC (HDI) Request for Exemptions from Certain Emergency Planning Requirements of 10 CFR

50.47 and 10 CFR Part 59, Appendix E," (ADAMS Accession No. ML22033A348) dated February 2, 2022.

7. NRC Letter to Energy, "Indian Point Nuclear Generating Unit No. 2 − Issuance of Amendment No. 294 re: Permanently Defueled Technical Specifications (EPID L-2019-LLA-0079)," (ADAMS Accession No. ML20081J402), dated April 28, 2020

8. NRC Letter to Entergy, "Indian Point Nuclear Generating Unit No. 3 − Issuance of Amendment No. 270 re: Permanently Defueled Technical Specifications (EPID L-2020-LLA-0090," (ADAMS Accession No. ML052720273), dated April 22, 2021

9. Calculation IP-CALC-19-00003, "Post-Permanent Shutdown Analyses of Fuel Handling, Waste Handling, and High Integrity Container Drop Accidents for Indian Point Units 2 and 3," Revision 1, April 22, 2022

10. NRC Regulatory Guide 1.183, "Alternative Radiological Source Terms for Evaluating Design Basis Accidents at Nuclear Power Reactors," (ADAMS Accession No. ML003716792), dated July 2000

11. HDI letter to NRC, "Revision to HDI Request for Exemptions from Certain Emergency Planning Requirements of 10 CFR 50.47 and 10 CFR 50, Appendix E, Indian Point Nuclear Generating Unit Nos. 1, 2, and 3 Including Site-Specific Calculations," (ADAMS Accession No. ML22032A017), dated February 2, 2022

12. NRC Commission Paper, SECY-99-168, "Improving Decommissioning Regulations for Nuclear Power Plants," (ADAMS Accession No. ML992800087), dated June 30, 1999

13. NRC NUREG-1738, "Technical Study of Spent Fuel Pool Accident Risk at Decommissioning Nuclear Power Plants," (ADAMS Accession No. ML010430066), dated February 2001

14. NRC NUREG-0586, "Final Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities," dated October 2002

15. NRC Letter to Exelon Nuclear, "Three Mile Island Nuclear Station, Unit 1 − Issuance of Amendment No. 301 Re: Removal of Cyber Security Plan License Condition (EPID L-2019-LLA-0251)," (ADAMS Accession No. ML20297A627), dated December 4, 2020

16. NRC Letter to Entergy, "IP1 DFTS Issuance of Amendment No. 63 re: Permanently Defueled Technical Specifications (EPID l-2020-lla-0146)," (ADAMS Accession No. ML21083A000), dated April 14, 2021

17. NRC Letter to HDI, "Issuance of Amendment Nos. 64, 295, And 271 Re: Order Approving Transfer of Licenses And Conforming License Amendments," (ADAMS Accession No. ML21126A005), dated May 28, 2021

Attachment 1 to Enclosure

HDI-IPEC-22-039

Mark-up Pages of the IP1 Provisional License, IP2 Renewed Facility License, and IP3 Renewed Facility License

(4 pages including this cover page)

REVIEWER'S NOTE:
This is the mark-up of the
IP1 Provisional License

b) ENO, pursuant to the Act and 10 CFR Part 70, to possess up to 1918 kilograms of contained uranium-235 previously received for reactor operation;

c) Deleted;

d) Deleted;

e) ENO, pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not to separate, such byproduct and special materials as were produced by the prior operation of the facility;

f) Deleted.

3. This license shall be deemed to contain and is subject to the conditions specified in Sections 50.54 and 50.59 of Part 50, Section 70.32 of Part 70, Section 40.41 of Part 40, and Section 30.32 of Part 30 of the Commission's regulations; is subject to all applicable provisions of the Act and rules, regulations and orders of the Commission now and hereafter in effect; and is subject to the additional conditions specified below:

a) Maximum Power Level

ENO is prohibited from taking the reactor to criticality, and the facility shall not be operated at any power level.

b) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 63, are hereby incorporated in the license. ENO shall maintain the facility in accordance with the Technical Specifications.

c) Deleted

d) ENO shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822), and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The combined set of plans[1] for the Indian Point Energy Center, which contain Safeguards Information protected under 10 CFR 73.21, is entitled: "Physical Security, Training and Qualification, and Safeguards Contingency Plan, Revision 0," and was submitted by letter dated October 14, 2004, as supplemented by letter dated May 18, 2006.

~~ENO shall fully implement and maintain in effect all provisions of the Commission-approved cyber security plan (CSP), including changes made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The ENO CSP was approved by License Amendment No. 55, as supplemented by changes approved by License Amendment Nos. 57, 59, and 60.~~

[1] The Training and Qualification Plan and Safeguards Contingency Plan are Appendices to the Security Plan.

REVIEWER'S NOTE:
This is the mark-up of the
IP2 Renewed Facility License

~~ENO shall fully implement and maintain in effect all provisions of the Commission-approved cyber security plan (CSP), including changes made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The ENO CSP was approved by License Amendment No. 266, as supplemented by changes approved by License Amendment Nos. 279, 284, and 286.~~

ENO has been granted Commission authorization to use "stand alone preemption authority" under Section 161A of the Atomic Energy Act, 42 U.S.C. 2201a with respect to the weapons described in Section II supplemented with Section III of Attachment 1 to its application submitted by letter dated August 20, 2013, as supplemented by letters dated November 21, 2013, and July 24, 2014, and citing letters dated April 27, 2011, and January 4, 2012. ENO shall fully implement and maintain in effect the provisions of the Commission-approved authorization.

I. Deleted per Amdt. 133, 7-6-88.

J. Deleted per Amdt. 133, 7-6-88.

K. Deleted per Amendment No. 294.

L. Deleted per Amendment 238.

M. Deleted per Amendment 238.

N. Mitigation Strategy License Condition

The licensee shall develop and maintain strategies for addressing large fires and explosions and that include the following key areas:

(a) Fire fighting response strategy with the following elements:
   1. Pre-defined coordinated fire response strategy and guidance
   2. Assessment of mutual aid fire fighting assets
   3. Designated staging areas for equipment and materials
   4. Command and control
   5. Training of response personnel

(b) Operations to mitigate fuel damage considering the following:
   1. Protection and use of personnel assets
   2. Communications
   3. Minimizing fire spread
   4. Procedures for implementing integrated fire response strategy
   5. Identification of readily-available pre-staged equipment
   6. Training on integrated fire response strategy

REVIEWER'S NOTE:
This is the mark-up of the
IP3 Renewed Facility License

~~ENO shall fully implement and maintain in effect all provisions of the Commission-approved cyber security plan (CSP), including changes made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The ENO CSP was approved by License Amendment No. 243, as supplemented by changes approved by License Amendment Nos. 254, 260, and 263.~~

ENO has been granted Commission authorization to use "stand alone preemption authority" under Section 161A of the Atomic Energy Act, 42 U.S.C. 2201a with respect to the weapons described in Section II supplemented with Section III of Attachment 1 to its application submitted by letter dated August 20, 2013, as supplemented by letters dated November 21, 2013, and July 24, 2014, and citing letters dated April 27, 2011, and January 4, 2012. ENO shall fully implement and maintain in effect the provisions of the Commission-approved authorization.

H. Deleted per Amendment No. 270

I. DELETED

J. DELETED

K. DELETED

L. DELETED

M. DELETED

N. DELETED

O. Deleted per Amendment No. 270

P. ENIP3 and ENO shall take no action to cause Entergy Global Investments, Inc. or Entergy International Ltd. LLC, or their parent companies to void, cancel, or modify the $70 million contingency commitment to provide funding for the facility as represented in the application for approval of the transfer of the license from PASNY to ENIP3 and ENO, without the prior written consent of the Director, Office of Nuclear Reactor Regulation.

Q. DELETED

R. DELETED

S. DELETED

T. DELETED

U. DELETED

V. DELETED

Attachment 2 to Enclosure

HDI-IPEC-22-039

Re-Typed Pages of the IP1 Provisional License, IP2 Renewed Facility License, and IP3 Renewed Facility License

(18 pages including this cover page)

HOLTEC DECOMMISSIONING INTERNATIONAL, LLC AND

HOLTEC INDIAN POINT 2, LLC

DOCKET NO. 50-003

INDIAN POINT NUCLEAR GENERATING STATION, UNIT NO. 1

AMENDMENT TO PROVISIONAL LICENSE

Amendment No.

License No. DPR-5

The U.S. Nuclear Regulatory Commission (the Commission) has found that:

A. The application for amendment by Entergy Nuclear Operations, Inc., dated May 30, 2002, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter 1;

B. The facility will be maintained in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations, and all applicable requirements have been satisfied.

Accordingly, License No. DPR-5 is hereby amended as indicated in the attachment to this license amendment, and Provisional License No. DPR-5 is hereby amended to read as follows:

1. This license applies to the utilization facility consisting of a pressurized water reactor (the facility) and associated components and equipment, which is owned by Holtec Indian Point 2, LLC (Holtec IP2). The facility is located in Westchester County, New York, and described in the Defueled Safety Analysis Report, as supplemented and amended, and which is designated by Holtec IP2 as the Indian Point Station Unit No. 1.

2. Subject to the conditions and requirements incorporated herein, the U.S. Nuclear Regulatory Commission (hereinafter referred to as "the Commission") hereby licenses:

   a) Holtec IP2 and HDI, pursuant to Section 104b. of the Act and Title 10 CFR Part 50, "Licensing of Production and Utilization Facilities," to possess but not operate the facility at the designated location in Westchester County, New York, in accordance with the procedures and limitations described in the application and this license;

   b) HDI, pursuant to the Act and 10 CFR Part 70, to possess up to 1918 kilograms of contained uranium-235 previously received for reactor operation;

   c) Deleted;

   d) Deleted;

   e) HDI, pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not to separate, such byproduct and special materials as were produced by the prior operation of the facility;

   f) Deleted.

3. This license shall be deemed to contain and is subject to the conditions specified in Sections 50.54 and 50.59 of Part 50, Section 70.32 of Part 70, Section 40.41 of Part 40, and Section 30.32 of Part 30 of the Commission's regulations; is subject to all applicable provisions of the Act and rules, regulations and orders of the Commission now and hereafter in effect; and is subject to the additional conditions specified below:

   a) Maximum Power Level

      HDI is prohibited from taking the reactor to criticality, and the facility shall not be operated at any power level.

   b) Technical Specifications

      The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 64, are hereby incorporated in the license. HDI shall maintain the facility in accordance with the Technical Specifications.

   c) Deleted

   d) HDI shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822), and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The combined set of plans[1] for the Indian Point Energy Center, which contain Safeguards Information protected under 10 CFR 73.21, is entitled: “Physical Security, Training and Qualification, and Safeguards Contingency Plan, Revision 0,” and was submitted by letter dated October 14, 2004, as supplemented by letter dated May 18, 2006.

[1] The Training and Qualification Plan and Safeguards Contingency Plan are Appendices to the Security Plan.

HDI has been granted Commission authorization to use "stand alone preemption authority" under Section 161A of the Atomic Energy Act, 42 U.S.C. 2201a with respect to the weapons described in Section II supplemented with Section III of Attachment 1 to its application submitted by letter dated August 20, 2013, as supplemented by letters dated November 21, 2013, and July 24, 2014, and citing letters dated April 27, 2011, and January 4, 2012. HDI shall fully implement and maintain in effect the provisions of the Commission-approved authorization.

4. Deleted

5. Deleted

6. Deleted

a) Deleted

b) Provisional Trust

(i) The provisional trust agreement must be in a form acceptable to the NRC.

(ii) Investments in the securities or other obligations of Holtec International or its affiliates, subsidiaries, successors, or assigns are and shall be prohibited. Except for investments tied to market indexes or other non-nuclear-sector mutual funds, investments in any entity owning one or more nuclear power plants are and shall be prohibited.

(iii) The provisional trust agreement must provide that no disbursements or payments from the trust, other than for ordinary administrative expenses, shall be made by the trustee unless the trustee has first given the Director of the Office of Nuclear Reactor Regulation 30 days prior written notice of payment. The provisional trust agreement shall further contain a provision that no disbursements or payments from the trust shall be made if the trustee receives prior written notice of objection from the NRC.

(iv) The provisional trust agreement must provide that the agreement cannot be amended in any material respect, or terminated, without 30 days prior written notification to the Director of the Office of Nuclear Reactor Regulation.

(v) The appropriate section of the provisional trust agreement shall state that the trustee, investment advisor, or anyone else directing the investments made in the trust shall adhere to a "prudent investor" standard, as specified in 18 CFR 35.32(a)(3) of the Federal Energy Regulatory Commission's regulations.

(vi) Use of assets in the provisional trust, in the first instance, shall be limited to the expenses related to decommissioning IP1 or IP2 as defined by the NRC in its regulations and issuances, and as provided in this license and any amendments thereto.

(c) Deleted

7. Deleted

8. Deleted

9. The approved Decommissioning Plan supplements the Defueled Safety Analysis Report (DSAR) and the licensee may (i) make changes in the facility or procedures as described in the DSAR or the Decommissioning Plan and (ii) conduct tests, or experiments not described in the DSAR or Decommissioning Plan, without prior Commission approval, provided the requirements of 10 CFR 50.59 and 10 CFR 50.82(a)(6) and (7) are satisfied.

10. The amended license is effective as of the date of issuance and until the Commission notifies the licensee in writing that the license is terminated.

FOR THE ATOMIC ENERGY COMMISSION

Original signed by
E. G. Case

R. L. Doan, Director
Division of Reactor Licensing

Date of Issuance: October 29, 1965

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

HOLTEC DECOMMISSIONING INTERNATIONAL, LLC AND

HOLTEC INDIAN POINT 2, LLC

DOCKET NO. 50-247

INDIAN POINT NUCLEAR GENERATING UNIT NO. 2

RENEWED FACILITY LICENSE

Renewed License No. DPR-26

1. The Nuclear Regulatory Commission (the Commission) having found that:

A. The application for a renewed license filed by Entergy Nuclear Indian Point 2, LLC (ENIP2) and Entergy Nuclear Operations, Inc. (ENO), for Indian Point Nuclear Generating Unit No. 2 at the Indian Point Energy Center (IPEC) complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations as set forth in 10 CFR Chapter I;

B. Deleted per Amendment No. 294;

C. The facility will be maintained in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission;

D. There is reasonable assurance: (i) that the activities authorized by this renewed license can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the rules and regulations of the Commission;

E. HDI is technically and financially qualified and Holtec Indian Point 2, LLC (Holtec IP2) is financially qualified to engage in the activities authorized by this renewed license in accordance with the rules and regulations of the Commission;

F. Holtec IP2 and HDI have satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements," of the Commission's regulations;

G. The issuance of this renewed license will not be inimical to the common defense and security or to the health and safety of the public;

H. After weighing the environmental, economic, technical, and other benefits of the facility against environmental costs and considering available alternatives, the issuance of this renewed Facility License No. DPR-26, subject to the conditions for the protection of the environment set forth herein, is in accordance with 10 CFR Part 51, Appendix B, of the Commission's regulations and all applicable requirements of said Appendix B have been satisfied;

I. The receipt, possession, and use of source, byproduct and special nuclear material as authorized by this renewed license will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40 and 70, including 10 CFR Sections 30.33, 40.32, 70.23, and 70.31; and

J. Actions have been identified and have been or will be taken with respect to (1) managing the effects of aging during the period of extended operation on the functionality of structures and components that have been identified to require review under 10 CFR 54.21(a)(1); and (2) time-limited aging analyses that have been identified to require review under 10 CFR 54.21(c), such that there is reasonable assurance that the activities authorized by this renewed license will continue to be conducted in accordance with the current licensing basis, as defined in 10 CFR 54.3, for the facility, and that any changes made to the facility's current licensing basis in order to comply with 10 CFR 54.29(a) are in accordance with the Act and the Commission's regulations.

2. Renewed Facility License No. DPR-26 is hereby issued to Holtec IP2 and HDI to read as follows:

A. This renewed license applies to the Indian Point Nuclear Generating Unit No. 2, a pressurized water nuclear reactor and associated equipment (the facility), which is owned by Holtec IP2 and maintained by HDI. The facility is located in Westchester County, New York, on the east bank of the Hudson River in the Village of Buchanan, and is described in the Defueled Safety Analysis Report, as supplemented and amended, and the Environmental Report, as amended.

B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses:

(1) Pursuant to Section 104b of the Act and 10 CFR Part 50, "Licensing of Production and Utilization Facilities," (a) Holtec IP2 to possess and use, and (b) HDI to possess and use, the facility at the designated location in Westchester County, New York, in accordance with the procedures and limitations set forth in this renewed license;

(2) HDI pursuant to the Act and 10 CFR Part 70, to possess at any time special nuclear material that was used as reactor fuel, in accordance with the limitations for storage, as described in the Defueled Safety Analysis Report, as supplemented and amended.

(3) HDI pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess and use, at any time any byproduct, source and special nuclear material as sealed neutron sources that were used for reactor startup, sealed sources that were used for reactor instrumentation and are used in the calibration of radiation monitoring equipment, and that were used as fission detectors in amounts as required;

(4) HDI pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components;

(5) HDI pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not separate, such byproduct and special nuclear materials that were produced by the operation of the facility.

C. This renewed license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Sections 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Deleted per Amendment No. 294.

(2) Technical Specifications

The Technical Specifications contained in Appendices A, B, and C, as revised through Amendment No. 295, are hereby incorporated in the renewed license. HDI shall maintain the facility in accordance with the Technical Specifications.

(3) Deleted per Amendment No. 294.

D. (1) Deleted per Amdt. 82, 12-11-82.

(2) Deleted per Amendment 238.

E. Deleted per Amdt. 71, dated 8-5-81, effective 5-14-81.

F. This renewed license is also subject to appropriate conditions by the New York State Department of Environmental Conservation in its letter granting a Section 401 certification under the Federal Water Pollution Control Act amendments of 1972.

G. Deleted per Amendment No. 294.

H. HDI shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822), and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The combined set of plans[1] for the Indian Point Energy Center, which contain Safeguards Information protected under 10 CFR 73.21, is entitled: "Physical Security, Training and Qualification, and Safeguards Contingency Plan, Revision 0," and was submitted by letter dated October 14, 2004, as supplemented by letter dated May 18, 2006.

---

[1] The Training and Qualification Plan and Safeguards Contingency Plan are Appendices to the Security Plan.

HDI has been granted Commission authorization to use "stand alone preemption authority" under Section 161A of the Atomic Energy Act, 42 U.S.C. 2201a with respect to the weapons described in Section II supplemented with Section III of Attachment 1 to its application submitted by letter dated August 20, 2013, as supplemented by letters dated November 21, 2013, and July 24, 2014, and citing letters dated April 27, 2011, and January 4, 2012. HDI shall fully implement and maintain in effect the provisions of the Commission-approved authorization.

I. Deleted per Amdt. 133, 7-6-88.

J. Deleted per Amdt. 133, 7-6-88.

K. Deleted per Amendment No. 294.

L. Deleted per Amendment 238.

M. Deleted per Amendment 238.

N. Mitigation Strategy License Condition

The licensee shall develop and maintain strategies for addressing large fires and explosions and that include the following key areas:

(a) Fire fighting response strategy with the following elements:
   1. Pre-defined coordinated fire response strategy and guidance
   2. Assessment of mutual aid fire fighting assets
   3. Designated staging areas for equipment and materials
   4. Command and control
   5. Training of response personnel

(b) Operations to mitigate fuel damage considering the following:
   1. Protection and use of personnel assets
   2. Communications
   3. Minimizing fire spread
   4. Procedures for implementing integrated fire response strategy
   5. Identification of readily-available pre-staged equipment
   6. Training on integrated fire response strategy

(c) Actions to minimize release to include consideration of:

1. Water spray scrubbing
2. Dose to onsite responders

O. Deleted per Amendment No. 294.

P. HDI may transfer IP3 spent fuel to the IP2 spent fuel pit subject to the conditions listed in Appendix C. HDI is further authorized to transfer IP3 spent fuel into NRC approved storage casks for onsite storage by HDI and Holtec Indian Point 3, LLC.

Q. License Renewal License Conditions

(1) The information in the UFSAR supplement, submitted pursuant to 10 CFR 54.21(d) and as revised during the license renewal application review process, and licensee commitments as listed in Appendix A of the "Safety Evaluation Report Related to the License Renewal of Indian Point Nuclear Generating Units 2 and 3," (SER) and supplements to the SER, are collectively the "License Renewal UFSAR Supplement." The UFSAR Supplement is henceforth part of the UFSAR, which will be updated in accordance with 10 CFR 50.71(e). As such, the licensee may make changes to the programs, activities, and commitments described in the UFSAR Supplement, provided the licensee evaluates such changes pursuant to the criteria set forth in 10 CFR 50.59, "Changes, Tests, and Experiments," and otherwise complies with the requirements in that section.

(2) The License Renewal UFSAR Supplement, as defined in license condition Q(1) above, describes certain programs to be implemented and activities to be completed prior to the period of extended operation (PEO).

a. The licensee shall implement those new programs and enhancements to existing programs no later than the date specified in the License Renewal UFSAR Supplement.

b. The licensee shall complete those activities no later than the date specified in the License Renewal UFSAR Supplement.

c. The licensee shall notify the NRC in writing within 30 days after having accomplished item (2)a above and include the status of those activities that have been or remain to be completed in item (2)b above.

3. Deleted

(a) Deleted

(b) Provisional Trust:

(i) The provisional trust agreement must be in a form acceptable to the NRC.

(ii) Investments in the securities or other obligations of Holtec International or its affiliates, subsidiaries, successors, or assigns are and shall be prohibited. Except for investments tied to market indexes or other non-nuclear-sector mutual funds, investments in any entity owning one or more nuclear power plants are and shall be prohibited.

(iii) The provisional trust agreement must provide that no disbursements or payments from the trust, other than for ordinary administrative expenses, shall be made by the trustee unless the trustee has first given the Director of the Office of Nuclear Reactor Regulation 30 days prior written notice of payment. The provisional trust agreement shall further contain a provision that no disbursements or payments from the trust shall be made if the trustee receives prior written notice of objection from the NRC.

(iv) The provisional trust agreement must provide that the agreement cannot be amended in any material respect, or terminated, without 30 days prior written notification to the Director of the Office of Nuclear Reactor Regulation.

(v) The appropriate section of the provisional trust agreement shall state that the trustee, investment advisor, or anyone else directing the investments made in the trust shall adhere to a "prudent investor" standard, as specified in 18 CFR 35.32(a)(3) of the Federal Energy Regulatory Commission's regulations.

(vi) Use of assets in the provisional trust, in the first instance, shall be limited to the expenses related to decommissioning IP2 or IP1 as defined by the NRC in its regulations and issuances, and as provided in this license and any amendments thereto.

(c) Deleted

4. Deleted

5. Deleted

6. This renewed license is effective as of the date of issuance, and until the Commission notifies the licensee in writing that the license is terminated.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Ho K. Nieh, Director
Office of Nuclear Reactor Regulation

Attachments:
Appendix A – Permanently Defueled Technical Specifications
Appendix B – Environmental Technical Specification Requirements
Appendix C – Inter-Unit Fuel Transfer Technical Specifications

Date of Issuance: September 17, 2018

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

HOLTEC DECOMMISSIONING INTERNATIONAL, LLC AND

HOLTEC INDIAN POINT 3, LLC

DOCKET NO. 50-286

INDIAN POINT NUCLEAR GENERATING UNIT NO. 3

AMENDMENT TO RENEWED FACILITY LICENSE

Renewed License No. DPR-64

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for a renewed license filed by Entergy Nuclear Indian Point 3, LLC (ENIP3) and Entergy Nuclear Operations, Inc. (ENO) for Indian Point Nuclear Generating Unit No. 3 (IP3 at the Indian Point Energy Center (IPEC) complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations as set forth in 10 CFR Chapter I;

   B. The facility will be maintained in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this renewed license can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. Holtec Indian Point 3, LLC (Holtec IP3) and HDI are financially and technically qualified to engage in the activities authorized by this amendment;

   E. Holtec IP3 and HDI have satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements" of the Commission's regulations;

   F. The issuance of this renewed license will not be inimical to the common defense and security or to the health and safety of the public;

   G. The receipt, possession and use of source, byproduct and special nuclear material as authorized by this renewed license will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40 and 70 including 10 CFR Sections 30.33, 40.32, 70.23, and 70.31;

H. The issuance of this renewed license is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied; and

I. Actions have been identified and have been or will be taken with respect to (1) managing the effects of aging during the period of extended operation on the functionality of structures and components that have been identified to require review under 10 CFR 54.21(a)(1); and (2) time-limited aging analyses that have been identified to require review under 10 CFR 54.21(c), such that there is reasonable assurance that the activities authorized by this renewed license will continue to be conducted in accordance with the current licensing basis, as defined in 10 CFR 54.3, for the facility, and that any changes made to the facility's current licensing basis in order to comply with 10 CFR 54.29(a) are in accordance with the Act and the Commission's regulations.

2. Accordingly, Renewed Facility License No. DPR-64 is hereby issued to Holtec IP3 and HDI to read as follows:

A. This renewed license applies to the Indian Point Nuclear Generating Unit No. 3, a pressurized water nuclear reactor and associated equipment (the facility), owned by Holtec IP3 and maintained by HDI. The facility is located in Westchester County, New York, on the east bank of the Hudson River in the Village of Buchanan, and is described in the "Defueled Safety Analysis Report" as supplemented and amended, and the Environmental Report, as amended.

B. Subject to the conditions and requirements incorporated herein, the Commission licenses:

(1) Pursuant to Section 104b of the Act and 10 CFR Part 50, "Licensing of Production and Utilization Facilities," (a) Holtec IP3 to possess and use, and (b) HDI to possess and use the facility at the designated location in Westchester County, New York, in accordance with the procedures and limitations set forth in this renewed license;

(2) HDI pursuant to the Act and 10 CFR Part 70, to possess, at any time, special nuclear material that was used as reactor fuel, in accordance with the limitations for storage, as described in the Defueled Safety Analysis Report, as supplemented and amended;

(3) HDI pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use, at any time, any byproduct source and special nuclear material as sealed neutron sources that were used for reactor startup, sealed sources that were used for calibration of reactor instrumentation and are used in the calibration of radiation monitoring equipment, and that were used as fission detectors in amounts as required;

(4) HDI pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration; or associated with radioactive apparatus or components;

(5) HDI pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not separate, such byproduct and special nuclear materials that were produced by the operation of the facility.

C. This renewed license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Sections 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified below:

(1) Deleted per Amendment No. 270

(2) Technical Specifications

The Technical Specifications contained in Appendices A, B, and C, as revised through Amendment No. 271, are hereby incorporated in the renewed license. HDI shall maintain the facility in accordance with the Technical Specifications.

D. (DELETED)

E. (DELETED)

F. This renewed license is also subject to appropriate conditions by the New York State Department of Environmental Conservation in its letter granting a Section 401 certification under the Federal Water Pollution Control Act Amendments of 1972.

G. HDI shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822), and to the authority of 10 CFR 50.90 and CFR 50.54(p). The combined set of plans[1] for the Indian Point Energy Center, which contain Safeguards Information protected under 10 CFR 73.21, is entitled: "Physical Security, Training and Qualification, and Safeguards Contingency Plan, Revision 0," and was submitted by letter dated October 14, 2004, as supplemented by letter dated May 18, 2006.

[1] The Training and Qualification Plan and Safeguards Contingency Plan are Appendices to the Security Plan.

HDI has been granted Commission authorization to use "stand alone preemption authority" under Section 161A of the Atomic Energy Act, 42 U.S.C. 2201a with respect to the weapons described in Section II supplemented with Section III of Attachment 1 to its application submitted by letter dated August 20, 2013, as supplemented by letters dated November 21, 2013, and July 24, 2014, and citing letters dated April 27, 2011, and January 4, 2012. HDI shall fully implement and maintain in effect the provisions of the Commission- approved authorization.

H. Deleted per Amendment No. 270

I. DELETED

J. DELETED

K. DELETED

L. DELETED

M. DELETED

N. DELETED

O. Deleted per Amendment No. 270

P. Deleted

Q. DELETED

R. DELETED

S. DELETED

T. DELETED

U. DELETED

V. DELETED

W. Deleted

X. Deleted

AA. Deleted per Amendment No. 270

AB. Deleted per Amendment No. 270

AC. Mitigation Strategy License Condition

The licensee shall develop and maintain strategies for addressing large fires and explosions and that include the following key areas:

(a) Fire fighting response strategy with the following elements:
1. Pre-defined coordinated fire response strategy and guidance
2. Assessment of mutual aid fire fighting assets
3. Designated staging areas for equipment and materials
4. Command and control
5. Training of response personnel

(b) Operations to mitigate fuel damage considering the following:
1. Protection and use of personnel assets
2. Communications
3. Minimizing fire spread
4. Procedures for implementing integrated fire response strategy
5. Identification of readily-available pre-staged equipment
6. Training on integrated fire response strategy
7. Spent fuel pool mitigation measures

(c) Actions to minimize release to include consideration of:
1. Water spray scrubbing
2. Dose to onsite responders

AD. Deleted per Amendment No. 270

AE. HDI may transfer IP3 spent fuel to the IP2 spent fuel pit subject to the conditions listed in Appendix C. HDI is further authorized to transfer IP3 spent fuel into NRC approved storage casks for onsite storage by HDI and Holtec IP3.

AF. License Renewal License Conditions

(1) The information in the UFSAR supplement, submitted pursuant to 10 CFR 54.21(d) and as revised during the license renewal application review process, and licensee commitments as listed in Appendix A of the "Safety Evaluation Report Related to the License Renewal of Indian Point Nuclear Generating Units 2 and 3," (SER) and supplements to the SER, are collectively the "License Renewal UFSAR Supplement." The UFSAR Supplement is henceforth part of the UFSAR, which will be updated in accordance with 10 CFR 50.71(e). As such, the licensee may make changes to the programs, activities, and commitments described in the UFSAR Supplement, provided the licensee evaluates such changes pursuant to the criteria set forth in 10 CFR 50.59, "Changes, Tests, and Experiments," and otherwise complies with the requirements in that section.

(2) The License Renewal UFSAR Supplement, as defined in license condition AF(1) above, describes certain programs to be implemented and activities to be completed prior to the period of extended operation (PEO).

a. The licensee shall implement those new programs and enhancements to existing programs no later than the date specified in the License Renewal UFSAR Supplement.

b. The licensee shall complete those activities no later than the date specified in the License Renewal UFSAR Supplement.

3. This renewed license is effective as of the date of issuance, and until the Commission notifies the licensee in writing that the license is terminated.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Ho K. Nieh, Director
Office of Nuclear Reactor Regulation

Attachments:
Appendix A - Permanently Defueled Technical Specifications Appendix B - Environmental Technical Specification Requirements Appendix C - Inter-Unit Fuel Transfer Technical Specifications

Date of Issuance: September 17, 2018