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February 12, 2020

10 CFR 50.12
10 CFR 50.82(a)(8)(i)(A)
10 CFR 50.75(h)(1)(iv)

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

Indian Point Nuclear Generating Units 1, 2 and 3
Docket Nos. 50-3, 50-247, and 50-286
Provisional Operating License No. DPR-5
Renewed Facility Operating License Nos. DPR-26 and DPR-64

Subject: Request for Exemptions from 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(1)(iv)

References:

[1] Letter from Andrea L. Sterdis, (Holtec Decommissioning International) to U.S. Nuclear Regulatory Commission – "Post-Shutdown Decommissioning Activities Report including Site-Specific Decommissioning Cost Estimate for Indian Point Nuclear Generating Units 1, 2 and 3," dated December 19, 2019, (ADAMS Accession No. ML19354A698).

[2] Letter US NRC to Con Edison, "Order to Authorize Decommissioning and Amendment No. 45 to License No. DPR-5 for Indian Point Unit No. 1," dated January 31, 1996 (ADAMS Accession No. ML070310227).

[3] Letter from ENOI to US NRC, "Notification of Permanent Cessation of Power Operations Indian Point Nuclear Generating Unit Nos. 2 and 3, Docket Nos. 50-247 and 50-286, License Nos. DPR-26 and DPR-64," dated February 8, 2017, (ADAMS Accession No. ML17044A004).

[4] Letter from ENOI to US NRC, "Application for Order Consenting to Transfers of Control of Licenses and Approving Conforming License Amendments, Indian Point Nuclear Generating Units 1, 2 and 3, Docket Nos. 50-3, 50-247, 50-286 and 72-051, Provisional Operating License No. DPR-5, and Renewed Facility Operating License Nos. DPR-26 and DPR-64" dated November 21, 2019 (ADAMS Accession No. ML19326B953).

[5] Email US NRC to Entergy, "Acceptance Review Determination Re: Indian Point Units 1, 2, and 3 License Transfer Application, dated January 3, 2020, (ADAMS Accession No. ML20003E152).

Pursuant to 10 CFR 50.12, "Specific exemptions," Holtec Decommissioning International, LLC (HDI) requests exemptions from 10 CFR 50.82(a)(8)(i)(A) for Indian Point Nuclear Generating Unit Nos. 1, 2 and 3 (IP1, 2 & 3) to allow use of a portion of the IP1, 2 & 3 Nuclear Decommissioning Trust funds (NDT funds) for the management of IP1, 2 & 3 spent fuel and site restoration activities respectively, based on the HDI Indian Point Energy Center DECON Post-Shutdown Decommissioning Activities Report (PSDAR) (hereafter referred to as DECON PSDAR) (Reference 1).

HDI also requests, pursuant to 10 CFR 50.12, exemptions from 10 CFR 50.75(h)(1)(iv) to allow disbursements from the IP1, 2 & 3 NDT funds for spent fuel management and site restoration costs to be made without prior notice, similar to withdrawals in accordance with 10 CFR 50.82(a)(8).

HDI is not requesting these exemptions for the IP1 & 2 Provisional Trust fund and the license conditions included in NRC Provisional Operating License No. DPR-5 and Renewed Operating License N. DPR-26 will continue to apply.

On January 31, 1996, the US NRC issued an order to authorize decommissioning of IP1 and Amendment No. 45 to License No. DPR-5, which revised the license to possession-only status (Reference 2). In accordance with 10 CFR 50.82(a)(1)(iii), certification of permanent cessation of operations of IP1 is deemed to have been submitted.

By letter dated February 8, 2017, Entergy Nuclear Operations, Inc. (ENOI), Entergy Nuclear Indian Point 2, LLC (ENIP2), and Entergy Nuclear Indian Point 3, LLC (ENIP3) notified the Nuclear Regulatory Commission (NRC) that it would permanently cease power operations at IP2 and IP3 by April 30, 2020 and April 30, 2021, respectively, consistent with the terms of a certain settlement agreement with the State of New York and related parties (Reference 3).

By letter dated November 21, 2019, ENOI, on behalf of itself, ENIP2, ENIP3, Holtec International (Holtec), and HDI, requested that the NRC consent to: (1) the transfer of control of Provisional Operating License No. DPR-5 and Renewed Facility Operating License Nos. DPR-26 and DPR-64 for IP1, 2 & 3, as well as the general license for the IP1, 2 & 3 Independent Spent Fuel Storage Installation (ISFSI) to Holtec subsidiaries to be known as Holtec Indian Point 2, LLC (Holtec IP2) and Holtec Indian Point 3, LLC (Holtec IP3); and (2) the transfer of ENOI's operating authority (i.e., its authority to conduct licensed activities at IP1, 2 & 3) to HDI (Reference 4).

On December 19, 2019, HDI submitted a DECON PSDAR (Reference 1) documenting the plan to initiate prompt decommissioning of IP1, 2 & 3 following permanent shutdown of IP2 and IP3, sale closure and license transfer. The DECON PSDAR includes a site-specific Decommissioning Cost Estimate (DECON DCE) that provides the estimated costs to complete radiological decommissioning of the site using the DECON method, safeguard the spent fuel until it can be transferred to the Department of Energy (DOE) and restore the impacted area of the site. The cost estimates for maintaining the spent fuel until DOE removal are included in the HDI DECON DCE (Reference 1).

HDI is submitting the enclosed exemption request to demonstrate that the exemptions are warranted to allow withdrawals for payment of IP1, 2, & 3 spent fuel management and site restoration costs as described in the DECON PSDAR. The enclosed exemption request is based on HDI's analysis of the expected IP1, 2 & 3 radiological decommissioning costs, spent fuel management costs, and site restoration costs. The HDI exemptions would apply only if the NRC approves the license transfers requested in Reference 4 to HDI for accelerated decommissioning.

Tables 1, 2 and 3 in the enclosed exemption request are reproduced from the DECON DCE included in Reference 1 and include the annual cash flows required for decommissioning IP1, 2 & 3 using the DECON method. Tables 1, 2 & 3 demonstrate that the IP1, 2 & 3 NDT funds contain the amounts needed to cover the estimated costs of IP1, 2 & 3 radiological decommissioning, spent fuel management, and site restoration activities respectively. However, 10 CFR 50.82(a)(8)(i)(A) states that NDTs "may be used by licensees if ... [t]he withdrawals are for expenses for legitimate decommissioning activities consistent with the definition of decommissioning in § 50.2."

10 CFR 50.75(h)(1)(iv) similarly requires that trust agreements restrict disbursements (other than for

ordinary administrative and other incidental expenses of the fund) and requires a 30-day advance notification to the NRC prior to making disbursements for expenses not covered under Section 50.82(a)(8). The NRC does not construe the 10 CFR 50.2 definition of "decommission" as including activities associated with spent fuel management or site restoration. Therefore, exemptions from 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(1)(iv) are needed to allow HDI to use the IP1, 2 & 3 NDT funds for spent fuel management and site restoration activities.

The requested exemptions from 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(1)(iv) are permissible under 10 CFR 50.12 because they are authorized by law, will not present an undue risk to the public health and safety, and are consistent with the common defense and security. In addition, application of the regulations in this particular circumstance is not necessary to achieve the underlying purpose of the rule. Tables 1, 2 and 3 of the enclosed exemption request identify the estimated annual expenditures for the IP1, 2 & 3 radiological decommissioning, spent fuel management, and site restoration activities. Tables 1, 2 and 3 demonstrate that the IP1, 2 & 3 NDT funds contain more than adequate funds to cover not only the estimated costs of radiological decommissioning, but also the estimated costs for spent fuel management and site restoration activities for each unit respectively.

Therefore, application of the restrictions in 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(1)(iv) is not necessary to ensure adequate funding for radiological decommissioning of IP1, 2 & 3. Additionally, the annual reporting requirements in 10 CFR 50.82(a)(8)(v) and (vii) will allow for continual NRC oversight of the status of the IP1, 2 & 3 NDT funds.

HDI requests approval of this exemption request on a schedule that supports the NRC's planned completion of its review of the LTA (Reference 5). HDI also requests that this exemption be effective upon the issuance of the conforming amendments associated with the license transfers.

Entergy has reviewed the contents of this letter and is aligned.

This letter contains no new regulatory commitments.

If you have any questions concerning this submittal, please contact me at (724) 493-1833 or a.sterdis@holtec.com.

Respectfully,

Andrea L. Sterdis

Digitally signed by Andrea L. Sterdis
DN: cn=Andrea L. Sterdis, c=US, o=HDI, ou=Holtec Decommissioning International, email=andrea.sterdis@holtec.com
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Andrea L. Sterdis
Vice President, Regulatory & Environmental Affairs
Holtec Decommissioning International, LLC

Enclosure: Request for Exemptions from 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(1)(iv)

cc: w/Enclosure

Regional Administrator - NRC Region I
NRC Senior Resident Inspector – Indian Point Entergy Center
NRC Project Manager, NRR – Indian Point Nuclear Generating Units 2 & 3
New York State (NYS) Public Service Commission
President and CEO, NYSERDA

Enclosure

Indian Point Nuclear Generating Units 1, 2 & 3

HDI Request for Exemptions from

10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(1)(iv)

1. SPECIFIC EXEMPTION REQUESTS

Pursuant to 10 CFR 50.12, "Specific exemptions," HDI requests exemptions from 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(1)(iv) for Indian Point Nuclear Generating Unit Nos. 1, 2 and 3 (IP1, 2 & 3) to allow use of a portion of their Nuclear Decommissioning Trusts (NDT) for the spent fuel management and site restoration costs for each unit. The estimated costs for IP1, 2 & 3 are provided in the HDI revised Indian Point Energy Center Post-Shutdown Decommissioning Activities Report (PSDAR) (hereafter referred to as DECON PSDAR) (Reference 1).

10 CFR 50.82 (a)(8)(i)(A), "Termination of license," states the following:

> Decommissioning trust funds may be used by licensees if-- (A) The withdrawals are for expenses for legitimate decommissioning activities consistent with the definition of decommissioning in 10 CFR 50.2.

10 CFR 50.75(h)(1)(iv), "Reporting and recordkeeping for decommissioning planning," states, in part:

> Except for withdrawals being made under § 50.82(a)(8) or for payments of ordinary administrative costs (including taxes) and other incidental expenses of the fund (including legal, accounting, actuarial, and trustee expenses) in connection with the operation of the fund, no disbursement or payment may be made from the trust, escrow account, Government fund, or other account used to segregate and manage the funds until written notice of the intention to make a disbursement or payment has been given to the Director, Office of Nuclear Reactor Regulation, or Director, Office of Nuclear Material Safety and Safeguards, as applicable, at least 30 working days before the date of the intended disbursement or payment.

10 CFR 50.75(h)(1)(iv), "Reporting and recordkeeping for decommissioning planning," also states, in part:

> Disbursements or payments from the trust, escrow account, Government fund, or other account used to segregate and manage the funds, other than for payment of ordinary administrative costs (including taxes) and other incidental expenses of the fund (including legal, accounting, actuarial, and trustee expenses) in connection with the operation of the fund, are restricted to decommissioning expenses or transfer to another financial assurance method acceptable under paragraph (e) of this section until final decommissioning has been completed. After decommissioning has begun and withdrawals from the decommissioning fund are made under § 50.82(a)(8), no further notification need be made to the NRC.

10 CFR 50.2, "Definitions," contains the following definition of "decommission:"

> … to remove a facility or site safely from service and reduce residual radioactivity to a level that permits - (1) Release of the property for unrestricted use and termination of the license; or (2) Release of the property under restricted conditions and termination of the license.

The annual cash flow analyses from the HDI Decommissioning Cost Estimate (DCE) included in the DECON PSDAR (Reference 1) are reproduced in Tables 1, 2 and 3. The annual cash flow analyses demonstrate that the IP1, 2 & 3 NDT funds contain more than adequate funds to cover the estimated radiological decommissioning costs, as well as spent fuel management and site restoration costs for each unit respectively. However, 10 CFR 50.82(a)(8)(i)(A) states that NDTs may be used by licensees if the withdrawals are for expenses for legitimate decommissioning activities consistent with the definition of decommissioning in 10 CFR 50.2. Similarly, 10 CFR 50.75(h)(1)(iv) requires that trust agreements provide that disbursements (other than for ordinary administrative and other incidental expenses of the fund) are restricted to decommissioning expenses until final decommissioning is completed. The U.S. Nuclear Regulatory Commission (NRC) construes the definition of "decommission" in 10 CFR 50.2 as including those costs associated with radiological decommissioning activities to achieve license termination and does not include costs for those activities associated with spent fuel management or site restoration.

Based on the above, HDI has concluded that 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(1)(iv) would prohibit the use of the IP1, 2 & 3 NDT funds for activities related to spent fuel management and site restoration prior to the completion of radiological decommissioning. Exemptions from 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(1)(iv) are requested to allow HDI to withdraw and use funds from the IP1, 2 & 3 NDT funds for each unit's costs associated with spent fuel management and site restoration activities that, as described in the DECON PSDAR, must be accomplished prior to the completion of radiological decommissioning. The exemptions would cover all costs associated with spent fuel management and site restoration activities at IP1, 2 & 3. These exemptions would not present an undue risk to the public health and safety or prevent decommissioning from being completed as planned since the IP1, 2 & 3 NDT funds contain adequate funds to complete radiological decommissioning as well as spent fuel management activities and site restoration activities.

2. BACKGROUND

Indian Point Energy Center (IPEC) is located on approximately 239 acres of land on the east bank of the Hudson River at the Village of Buchanan in upper Westchester County, New York. There are three units on site, two operating units (IP2 & 3) and one in safe-storage (IP1). IP1 is located between IP2 to the north and IP3 to the south.

By letter dated February 8, 2017, Entergy Nuclear Operations, Inc. (ENOI), Entergy Nuclear Indian Point 2, LLC (ENIP2), and Entergy Nuclear Indian Point 3, LLC (ENIP3) notified the Nuclear Regulatory Commission (NRC) that it would permanently cease power operations at IP2 and IP3 by April 30, 2020 and April 30, 2021, respectively, consistent with the terms of a certain settlement agreement with the State of New York and related parties (Reference 2).

By letter dated November 21, 2019, ENOI, on behalf of itself, ENIP2, ENIP3, Holtec International (Holtec), and HDI, requested that the NRC consent to: (1) the transfer of control of Provisional Operating License No. DPR-5 and Renewed Facility Operating License Nos. DPR-26 and DPR-64 for IP1, 2 & 3, as well as the general license for the IP1, 2 & 3 Independent Spent Fuel Storage Installation (ISFSI) to Holtec subsidiaries to be known as Holtec Indian Point 2, LLC (Holtec IP2) and Holtec Indian Point 3, LLC (Holtec IP3); and (2) the transfer of ENOI's operating authority (i.e., its authority to conduct licensed activities at IP1, 2 & 3) to HDI (Reference 3). The license transfer application (LTA) requested that the license transfers be approved within 12 months from the date of the LTA, or by November 21, 2020.

On December 19, 2019, HDI submitted a DECON PSDAR (Reference 1) documenting the plan to initiate prompt decommissioning of IP1, 2 &3 following permanent shutdown of IP2 and IP3, sale closure and license transfer. The DECON PSDAR includes a site-specific Decommissioning Cost Estimate (DECON DCE) that provides the estimated costs associated with License Termination in addition to the estimated costs associated with Spent Fuel

Management and Site Restoration. License Termination costs are those costs associated with the collective work required to plan, mobilize and execute the removal of the radioactive contamination from the site consistent with the definition of decommissioning in 10 CFR 50.2. Spent Fuel Management costs are those costs to safeguard and manage spent fuel from sale closure and license transfer until it can be transferred to the Department of Energy (DOE). Site Restoration costs are those costs associated with the remediation of non-radiological contamination and restoring the impacted area of the site. The cost estimates for spent fuel management and site restoration are included in the HDI DECON DCE (Reference 1).

HDI is submitting this exemption request to demonstrate that exemptions are warranted to allow withdrawals from the IP1, 2 & 3 NDT funds for payment of spent fuel management and site restoration costs as described in the DECON PSDAR. The exemptions being requested are based on HDI's analysis of the expected IP1, 2 & 3 radiological decommissioning costs, spent fuel management costs, and site restoration costs. The HDI exemptions would apply only if the NRC approves the transfer of the IP1, 2 & 3 licenses to HDI for accelerated decommissioning, and the sale closure and license transfers are completed.

3. BASIS FOR EXEMPTION REQUESTS

Following the sale closure and transfer of the IP1, 2 & 3 licenses to HDI, decommissioning activities will proceed using the DECON method. The HDI DECON PSDAR and DCE (Reference 1) provides the cost estimates for the HDI DECON radiological decommissioning, spent fuel management, and site restoration efforts.

Tables 1, 2 & 3 of this enclosure reflect the projected annual cash flows for site radiological decommissioning (license termination costs), spent fuel management, independent spent fuel storage installation (ISFSI) radiological decommissioning, and site restoration (non-radiological decommissioning). The costs in Tables 1, 2 & 3 reflect the following assumptions:

1. Following the sale closure and transfer of the IP1, 2 & 3 licenses, HDI will initiate decommissioning activities using the DECON method.

2. Spent fuel management costs begin in 2020. Spent fuel management costs will only be reimbursed from the IP1, 2 & 3 NDT funds under this exemption if the sale closure and license transfers are completed and this exemption request is approved.

The annual cash flow analyses contained in Tables 1, 2 & 3 of this enclosure conservatively assume all expenses in a year are incurred at the beginning of year (i.e., beginning-of-year convention) during the decommissioning period. A 2% annual real rate of return on the NDT funds as allowed by 10 CFR 50.75(e)(1)(i) is used in the analyses. Additionally, contributions to the IP1, 2 & 3 NDT funds and cost escalation are both assumed to be zero in these cash flow analyses.

The 2020 beginning-of-year (BOY) Trust Fund Values (analyses starting trust fund balance) in Tables 1, 2 and 3 of this enclosure are the IP1, 2 & 3 fund balances expected at sale closure consistent with the Membership Interest Purchase and Sale Agreement (MIPA) for NDT fund values post-closure of the sale.

Spent fuel management costs are included in Tables 1, 2 and 3 of this enclosure. Spent fuel storage will include the existing IP1, 2 & 3 ISFSI dry storage facility as well as the fuel stored in the IP2 spent fuel pools at sale closure and license transfers. The spent fuel pool storage costs will continue until all IP2 and 3 spent fuel is transferred to dry storage at the onsite ISFSI where it will remain stored until such time that it can be transferred to a DOE facility. In addition, HDI's plan for spent fuel management includes the construction of additional dry fuel storage capacity. Consequently, the estimate includes costs for ISFSI capacity expansion planning, construction, operation and decommissioning, in addition to procurement of dry storage canisters, loading and movement of canisters and transfer of spent fuel to the DOE.

Tables 1, 2 and 3 of this enclosure demonstrate that the IP1, 2 & 3 NDT funds, exceed the amounts required to complete radiological decommissioning of the site using the DECON method, in addition to management of spent nuclear fuel and restoration of the site. At the end of the decommissioning project and at the time the IP1, 2, and 3 licenses are terminated, an estimated $19.6 million, $71.3 million, and $167.2 million will remain in the IP1, 2, & 3 NDT funds, respectively.

4. ADJUSTING COST ESTIMATES AND FUNDING LEVELS

Pursuant to the annual reporting requirements in 10 CFR 50.82(a)(8)(v), 10 CFR 50.82(a)(8)(vi) and 10 CFR 50.82(a)(8)(vii), HDI will prepare and submit an annual report of the estimated costs to complete decommissioning and manage irradiated fuel, in addition to reporting the status of the IP1, 2 & 3 NDT funds and the funding status for managing the irradiated fuel.

The DECON DCE adjusted for inflation, in accordance with applicable regulatory requirements, will be used to demonstrate funding assurance. If the remaining funds plus earnings do not cover the estimated costs to complete the IP1, 2 & 3 decommissioning, the financial assurance status report will include additional financial assurance to cover the estimated costs of completion. If the accumulated funds for irradiated fuel management do not cover the projected costs, a plan to obtain additional funds to cover the costs will be included in the funding status report.

5. JUSTIFICATION FOR EXEMPTIONS AND SPECIAL CIRCUMSTANCES

Pursuant to 10 CFR 50.12, the Commission may, upon application by any interested person or upon its own initiative, grant exemptions from the requirements of the regulations of Part 50 which are authorized by law, will not present an undue risk to the public health and safety, and are consistent with the common defense and security. 10 CFR 50.12 also states that the Commission will not consider granting an exemption unless special circumstances are present. As discussed below, this exemption request satisfies the provisions of Section 50.12.

A. The exemptions are authorized by law

> The proposed exemptions from 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(1)(iv) would allow use of a portion of the IP1, 2 & 3 NDT for spent fuel management and site restoration activities, consistent with the DECON PSDAR and DCE. As stated above, 10 CFR 50.12 allows the NRC to grant exemptions from the requirements of 10 CFR Part 50. The proposed exemptions would not result in a violation of the Atomic Energy Act of 1954, as amended, or the Commission's regulations. The NRC has granted exemptions to other licensees to use NDTs for spent fuel management and site restoration (see Section 6.0 of this enclosure). Therefore, the exemptions are authorized by law.

B. The exemptions will not present an undue risk to public health and safety

The underlying purpose of 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(1)(iv) is to provide reasonable assurance that adequate funds will be available for decommissioning of power reactors within 60 years of cessation of operations. Based on the cash flow analyses provided in Tables 1, 2 and 3, use of a portion of the funds in the IP1, 2 & 3 NDT funds for spent fuel management and site restoration activities will not adversely impact the ability to terminate the IP1, 2 & 3 licenses (i.e., complete radiological decommissioning) within 60 years. Furthermore, an exemption from 10 CFR 50.75(h)(1)(iv) to allow withdrawals from the IP1, 2 & 3 NDT funds to cover expenses for spent fuel management and site restoration efforts without prior written notification to the NRC will not affect the sufficiency of funds in the IP1, 2 & 3 NDTs to accomplish radiological decommissioning of the site. Additionally, the annual reporting requirements in 10 CFR 50.82(a)(8)(v) and (vii) will allow for continual NRC oversight of the status of the IP1, 2 & 3 NDT funds.

Based on the above, no new accident precursors are created by using the trust funds in the proposed manner. Thus, the probability of postulated accidents is not increased. Also, based on the above, the consequences of postulated accidents are not increased. No changes are being made in the types or amounts of effluents that may be released offsite. There is no significant increase in occupational or public radiation exposure. Therefore, the exemptions will not present an undue risk to the public health and safety.

C. The exemptions are consistent with the common defense and security

The proposed exemptions would allow use of a portion of the IP1, 2 & 3 NDT funds for spent fuel management and site restoration efforts, consistent with the DECON DCE. Spent fuel management and site restoration activities are an integral part of the planned IP1, 2 & 3 decommissioning process and will not adversely affect the ability to physically secure the site or protect special nuclear material. This change to enable the use of a portion of the funds in the IP1, 2 & 3 NDT funds for spent fuel management and site restoration activities will not alter the scope or availability of sufficient funding for the IPEC site security program. Therefore, the proposed exemptions are consistent with the common defense and security.

D. Special Circumstances

Pursuant to 10 CFR 50.12(a)(2), the NRC will not consider granting an exemption to its regulations unless special circumstances are present. HDI has determined that special circumstances are present as discussed below.

1. Application of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule (10 CFR 50.12(a)(2)(ii)). The underlying purpose of 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(1)(iv) is to provide reasonable assurance that adequate funds will be available to complete decommissioning within 60 years of a power reactor’s cessation of operations. Strict application of the rule would prohibit withdrawal of funds from the NDT funds for activities associated with spent fuel management and site restoration until the IP1, 2 & 3 operating licenses have been terminated. However, the cash flow analyses in Tables 1, 2 &

3 demonstrate that more than adequate funds are available in the IP1, 2 & 3 NDT funds to complete license termination, spent fuel management, and site restoration activities for each unit respectively; the analyses project that if the exemptions are granted, the IP1, 2 & 3 NDT funds will still contain approximately \$19.6 million, \$71.3 million, and \$167.2 million after the licenses are terminated in 2062 (using a 0.0% escalation rate and a 2.0% annual real rate of return as allowed by the NRC regulations).

The 30-day notification provision in 10 CFR 50.75(h)(1)(iv) was not intended to duplicate other reporting requirements that would exist after a plant commences decommissioning. The underlying purpose of notifying the NRC prior to withdrawal of funds from the trust fund is to provide opportunity for NRC intervention, when deemed necessary, if the withdrawals are for expenses other than those authorized by 10 CFR 50.75(h)(1)(iv) and 10 CFR 50.82(a)(8) that could result in insufficient funds in the trust fund to accomplish radiological decontamination of the site.

A comment received during the rulemaking for the Decommissioning Trust Fund Provisions in 10 CFR 50.75(h)(1)(iv), noted that licensees that have complied with the requirements of 10 CFR 50.82(a)(4) regarding submittal of a PSDAR and control disbursements in accordance with the provisions of 10 CFR 50.82(a)(6), (a)(7) and (a)(8) should be exempt from further restrictions on disbursements (67 Fed. Reg. 78332 (Dec. 24,2002)) (Reference 4). The NRC agreed with the comment, because requiring notification in such circumstances would not provide any additional assurance that funding is available and would duplicate notification requirements in 10 CFR 50.82. If the NRC grants the requested exemptions allowing the use of a portion of the IP1, 2, & 3 NDT funds for spent fuel management and site restoration activities, the same consideration would justify dispensing with the 30-day notification requirement as well. Tables 1, 2 & 3 identify the estimated annual expenditure, and the annual reporting requirements in 10 CFR 50.82(a)(8)(v) and (vii) will allow continual NRC oversight of the status of the IP1, 2 & 3 NDT funds. Applying the 30-day advance notification requirement in 10 CFR 50.75(h)(1)(iv) to disbursements for spent fuel management and site restoration activities would duplicate these other reporting requirements and is not necessary to achieve the underlying purposes of the rule.

Therefore, since the underlying purposes of the rules would be achieved by allowing HDI to use the IP1, 2 & 3 NDT funds to fund the activities as discussed in the DECON PSDAR, the special circumstances of 10 CFR 50.12(a)(2)(ii) are present.

2. Compliance would result in undue hardship or other costs that are significantly in excess of those contemplated when the regulation was adopted, or that are significantly in excess of those incurred by others similarly situated (10 CFR 50.12(a)(2)(iii)). The NRC did not intend to prevent the use of NDT funds solely because they are commingled, and to do so would create an unnecessary financial burden on licensees without any corresponding safety benefit. The NRC does not preclude the use of funds from the NDT in excess of those needed for radiological decommissioning for other purposes, such as spent fuel management or site

restoration. Rather, the NRC has stated that funding for non-decommissioning activities may be commingled with funding for decommissioning activities in the NDT, provided that the licensee is able to identify and account for the radiological decommissioning funds separately from the funds set aside for spent fuel management (see NRC Regulatory Issue Summary 2001-07, Rev. 1, "10 CFR 50.75 Reporting and Recordkeeping for Decommissioning Planning," dated January 8, 2009 (Reference 5), and Regulatory Guide 1.184, Rev. 1, "Decommissioning of Nuclear Power Reactors," (Reference 6)). The adequacy of the IP1, 2 & 3 NDT funds to cover the cost of activities associated with decommissioning, spent fuel management, and site restoration activities is supported by the cash flow analyses in Tables 1, 2, & 3.

If HDI cannot use the IP1, 2 & 3 NDT funds for spent fuel management and site restoration activities, it would be forced to provide additional funding that would not be recoverable from the trust fund until the IP1, 2 & 3 operating licenses are terminated. To prevent access to the excess funds in the IP1, 2 & 3 trusts would impose an unnecessary and undue burden in excess of that contemplated when the regulation was adopted without any corresponding safety benefit.

Therefore, compliance with the rule would result in an undue hardship or other costs that are significantly in excess of those contemplated when the regulation was adopted, or that are significantly in excess of those incurred by others similarly situated and the special circumstances of 10 CFR 50.12(a)(2)(iii) are present.

6. PRECEDENT

The request for exemptions to 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(1)(iv) for IP1, 2 & 3 is consistent with exemptions that recently have been issued by the NRC for other nuclear power reactor facilities beginning decommissioning. Specifically, the NRC granted similar exemptions to Entergy Nuclear Operations, Inc. (ENOI), for Vermont Yankee (Reference 7); to Duke Energy Florida, Inc. for Crystal River Unit 3 (Reference 8); and to Dominion Energy Kewaunee, Inc. for KPS (Reference 9), to Exelon Generation for Oyster Creek Nuclear Generating Station (Reference 10), and to ENOI for Pilgrim Nuclear Power Station (Reference 11).

7. ENVIRONMENTAL ASSESSMENT

A. Environmental Considerations

Pursuant to 10 CFR 51.21, the following environmental considerations are provided.

1. Description of the Action

   HDI requests exemptions from the requirements set forth in 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(1)(iv) restricting the use of the IP1, 2 & 3 NDT funds. Specifically, the exemptions would allow HDI to use funds from the IP1, 2 & 3 NDT funds for spent fuel management and site restoration activities that are not associated with radiological decommissioning.

2. Need for the Action

   The requested exemptions are needed to allow HDI to access IP1, 2 & 3 NDT funds, in excess of those funds needed for radiological decommissioning, to fund spent fuel management and site restoration activities, in order to avoid an unnecessary financial burden.

As required by 10 CFR 50.82(a)(8)(i)(A), NDT funds may be used by a licensee if the withdrawals are for expenses for legitimate decommissioning activities consistent with the definition of decommissioning in 10 CFR 50.2. This definition addresses radiological decommissioning and does not include activities associated with spent fuel management or site restoration. Therefore, HDI needs the requested exemptions from 10 CFR 50.82(a)(8)(i)(A) to allow the use of IP1, 2 & 3 NDT funds for spent fuel management and site restoration activities.

3. Environmental Impacts of the Action

The proposed action involves exemptions from requirements that are of a financial or administrative nature and that do not have an impact on the environment. There is no decrease in safety associated with the use of the IP1, 2 & 3 NDT funds to cover costs of the activities associated with spent fuel management and site restoration. Following transfer of the IP1, 2 & 3 licenses and sale closure completion, HDI is required to maintain a comprehensive, regulation-based decommissioning funding oversight program to provide reasonable assurance that sufficient funding will be available for the radiological decommissioning of IP1, 2 & 3.

After the DECON DCE as required by 10 CFR 50.82(a)(8)(iii) is submitted, and until completing its final radiation survey and demonstrating that residual radioactivity has been reduced to a level that permits termination of the IP1, 2 & 3 licenses as required by 10 CFR 50.82(a)(11), financial assurance status reports must be submitted to the NRC annually as required by 10 CFR 50.82(a)(8)(v). The report must include, among other things, amounts spent on decommissioning, the remaining trust fund balance, and estimated costs to complete radiological decommissioning. If the remaining IP1, 2 & 3 NDT fund balances, plus earnings on such funds calculated at not greater than a 2 percent real rate of return, plus any other financial assurance methods being relied upon, does not cover the estimated costs to complete radiological decommissioning, 10 CFR 50.82(a)(8)(vi) requires that additional financial assurance to cover the estimated costs to complete radiological decommissioning must be provided. These annual reports provide a means for the NRC to monitor the adequacy of the funding available for the radiological decommissioning of IP1, 2 & 3 notwithstanding the exemptions allowing HDI to use funds for IP1, 2 & 3 spent fuel management and site restoration activities from the trust funds.

The proposed action will not significantly increase the probability or consequences of radiological accidents; nor will it have any direct radiological impacts. There will be no change to the types or amounts of radiological effluents that may be released, and therefore, no change in occupational or public radiation exposure from the proposed action. The exemptions also will not introduce any materials or chemicals into the plant that could affect the characteristics or types of effluents released offsite. In addition, the method of operation of waste processing systems will not be affected by the exemptions. The proposed exemptions will not result in changes to the design basis requirements of structures, systems, and components (SSCs) that function to limit or monitor the release of effluents. All the SSCs associated with limiting the release of effluents will continue to be able to perform their functions. Moreover, no changes would be made to plant buildings or the site property from the proposed changes. Accordingly, there are not significant radiological environmental impacts associated with the proposed action.

With regard to potential non-radiological impacts, the proposed action would have no direct impacts on land use or water resources, including terrestrial and aquatic biota, as it involves no new construction or modification of plant operational systems. There would be no changes to the quality or quantity of non-radiological effluents and no changes to the site's State Pollutant Discharge Elimination System (SPDES) Discharge Permit would be needed. In addition, there would be no noticeable effect on socioeconomic conditions in the region, no environment justice impacts, no air quality impacts, and no impacts to historic and cultural resources from the proposed change. Therefore, there are no significant non-radiological environment impacts associated with the proposed action.

Accordingly, HDI concludes that there are no significant environmental impacts associated with the proposed action to grant the requested exemptions.

4. <u>Environmental Impacts of the Alternatives to the Action</u>
   As an alternative to the action, the NRC staff could deny HDI's exemption request. Denial of the exemption request would result in Holtec IP1, 2 & 3 using funds from the IP1, 2 & 3 NDT funds only for radiological decommissioning and not also for spent fuel management or site restoration activities as described in the exemption request. The environmental impacts of this alternative would be substantively the same as the environmental impacts for granting the exemption request, because there are no potential incremental environmental impacts as a result of granting the exemption request. Therefore, the environmental impacts of the alternative to the action would be the same as those already considered by the previous environmental analyses.

5. <u>Alternative Use of Resources</u>
   The requested action only involves a change in the source of funds allowed for managing spent fuel and restoring the site, and therefore, does not involve the use of any different resources than those previously considered.

B. Analysis

The request for exemptions from 10 CFR 50.82(a)(8)(i)(A) to allow use of IP1, 2 & 3 NDT funds for spent fuel management and site restoration activities and 10 CFR 50.75(h)(1)(iv) to remove duplicative notification requirements has no adverse impact to the environment. Approval of the exemption request would allow Holtec IP1, 2 & 3 and HDI access to excess funds in the IP1, 2 & 3 NDT funds, based on projected trust fund growth and estimated expenditures, while continuing to demonstrate reasonable assurance of available trust funds to complete radiological decommissioning. The proposed action would not result in an adverse impact to the environment, unexpected expenditures, or other uncertainties or risks. Because the proposed exemptions relate solely to the source of funding for spent fuel management and site restoration activities, it does not result in there no longer being reasonable assurance of sufficient trust funds to complete radiological decommissioning of the IPEC site and does not significantly affect any of the decommissioning activities or processes previously reviewed. On this basis, the proposed exemptions will not have a significant effect on the quality of the human environment.

As a result of the environmental considerations discussed above, HDI concludes that the proposed exemptions are in the public interest in that it allows HDI and Holtec IP1, 2 & 3 to avoid unnecessary and undue costs to cover these expenses from other sources, with no potential incremental environmental impacts.

The proposed exemptions do not require any additional Federal permits, licenses, approvals or other entitlements.

8. NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

HDI has evaluated the proposed exemptions to determine whether or not a significant hazards consideration is involved by focusing on the three standards set forth in 10 CFR 50.92(c) as discussed below. For the reasons discussed below, HDI concludes that the proposed exemptions present no significant hazards consideration, and, accordingly, a finding of "no significant hazards consideration" is justified.

A. Do the proposed exemptions involve a significant increase in the probability or consequences of an accident previously evaluated?

The proposed exemptions would allow the withdrawal of funds from the IP1, 2, & 3 NDT funds to conduct activities associated with spent fuel management and site restoration activities in accordance with the HDI DECON PSDAR and DCE. The proposed exemptions have no effect on plant structures, systems, and components (SSCs) and no effect on the capability of any plant SSC to perform its design function. The proposed exemptions would not increase the likelihood of the malfunction of any plant SSC. The proposed exemptions would have no effect on any of the previously evaluated accidents in the IP1, 2 & 3 Updated Final Safety Analysis Reports. Use of funds in the IP1, 2 & 3 NDT funds as allowed under the requested exemptions will not affect the probability of occurrence of any previously analyzed accident.

The proposed exemptions do not change the requirements pertaining to spent fuel management.

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

B. Do the proposed exemptions create the possibility of a new or different kind of accident from any accident previously evaluated?

The proposed exemptions do not involve a physical alteration of the plant. No new or different type of equipment will be installed and there are no physical modifications to existing equipment associated with the proposed exemptions. Similarly, the proposed exemptions will not physically change any SSCs involved in the mitigation of any accidents. Thus, no new initiators or precursors of a new or different kind of accident are created.

Furthermore, the proposed exemptions do not create the possibility of a new accident as a result of new failure modes associated with any equipment or personnel failures. No changes are being made to parameters within which the plant is normally operated, or in the setpoints which initiate protective or mitigative actions, and no new failure modes are being introduced.

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

C. Do the proposed exemptions involve a significant reduction in a margin of safety?

The proposed exemptions do not alter the design basis or any safety limits for the plants. The proposed exemptions do not impact station operation or any plant SSC that is relied upon for accident mitigation.

Therefore, the proposed exemptions do not involve a significant reduction in a margin of safety.

Based on the above, the proposed exemptions present no significant hazards consideration, and, accordingly, a finding of "no significant hazards consideration" is justified.

9. CONCLUSION

The proposed exemptions would allow HDI, upon transfer of the IP1, 2 & 3 licenses and execution of the sale closure, to use the IP1, 2 & 3 NDT funds for the full scope of activities described in the decommissioning cost estimates for IP1, 2 & 3, including the management of spent fuel and site restoration and to make such disbursements in the same manner as withdrawals for radiological decommissioning.

Pursuant to the provisions of 10 CFR 50.12, HDI is requesting permanent exemptions from 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(1)(iv) for IP1, 2 & 3. The proposed exemptions would allow the use of the IP1, 2 & 3 NDT funds for the full scope of activities described in the DECON PSDAR and DCE, including the management of spent fuel and site restoration, and to make such disbursements in the same manner as withdrawals for radiological decommissioning.

Granting these exemptions will be consistent with the purposes underlying NRC decommissioning regulations as the exemptions: (1) would not foreclose release of the site for possible unrestricted use; (2) would not result in significant environmental impacts not previously reviewed by the NRC; and (3) would not undermine the existing and continuing reasonable assurance that adequate funds will be available for decommissioning.

Based on the considerations discussed above, the requested exemptions are authorized by law, will not present an undue risk to the public health and safety, and are consistent with the common defense and security. In addition, special circumstances are present as set forth in 10 CFR 50.12(a)(2)(ii) and (iii).

Table 1
Annual DECON Decommissioning Cash Flow for Indian Point Unit No. 1 (Holtec IP1)

IPEC Unit 1 - DECON Method

Annual Cash Flow in Thousands of 2019 Dollars
No DOE Reimbursement of Spent Fuel Management Costs

Year	50.75 License Termination Cost [2]	50.54 (bb) Spent Fuel Management Cost [2]	Site Restoration Cost [2]	Total Cost [2]	Beginning of Year Trust Fund Balance[1]	Withdraw	Trust Fund Earnings [3]	Year Ending Trust Fund Balance
2021	29,941	2,676		32,617	533,532	-32,617	5,844	506,759
2022	27,637	4,546		32,183	506,759	-32,183	9,492	484,068
2023	52,768	2,516	2,113	57,397	484,068	-57,397	8,533	435,204
2024	65,344	1,654	4,550	71,547	435,204	-71,547	7,273	370,930
2025	22,059	1,708	5,224	28,992	370,930	-28,992	6,839	348,777
2026	25,850	1,660	5,076	32,586	348,777	-32,586	6,324	322,515
2027	34,183	1,582	4,850	40,615	322,515	-40,615	5,638	287,538
2028	30,731	1,613	4,943	37,287	287,538	-37,287	5,005	255,256
2029	22,503	1,702	5,204	29,410	255,256	-29,410	4,517	230,363
2030	50,400	1,523	1,804	53,727	230,363	-53,727	3,533	180,169
2031	75,149	1,465	1,498	78,112	180,169	-78,112	2,041	104,097
2032	37,915	1,569	5,460	44,944	104,097	-44,944	1,183	60,336
2033	2,422	4,209		6,631	60,336	-6,631	1,074	54,779
2034		2,870		2,870	54,779	-2,870	1,038	52,948
2035		2,870		2,870	52,948	-2,870	1,002	51,079
2036		2,875		2,875	51,079	-2,875	964	49,169
2037		2,870		2,870	49,169	-2,870	926	47,225
2038		2,870		2,870	47,225	-2,870	887	45,242
2039		2,870		2,870	45,242	-2,870	847	43,220
2040		2,875		2,875	43,220	-2,875	807	41,152
2041		2,870		2,870	41,152	-2,870	766	39,048
2042		2,870		2,870	39,048	-2,870	724	36,902
2043		2,870		2,870	36,902	-2,870	681	34,713
2044		2,875		2,875	34,713	-2,875	637	32,474
2045		2,870		2,870	32,474	-2,870	592	30,197
2046		5,162		5,162	30,197	-5,162	501	25,536
2047	145	4,343		4,488	25,536	-4,488	421	21,468
2048	386			386	21,468	-386	422	21,503
2049	386			386	21,503	-386	422	21,539
2050	386			386	21,539	-386	423	21,576

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[1] The 2021 Beginning of Year NDT balance reflects the fund value post-closure of the sale transition. The value used is based on the October 31, 2019 Unit 1 NDT fund balance and includes deductions for estimated ENOI and HDI pre-closure costs of approximately $59.3M.
[2] The 2021 costs include HDI estimated 2021 post-closure costs.
[3] NDT earnings reflect an assumed 2% Real Rate of Return (RRR).
[4] Columns may not add due to rounding.

IPEC Unit 1 - DECON Method

Annual Cash Flow in Thousands of 2019 Dollars
No DOE Reimbursement of Spent Fuel Management Costs

Year	50.75 License Termination Cost [2]	50.54 (bb) Spent Fuel Management Cost [2]	Site Restoration Cost [2]	Total Cost [2]	Beginning of Year Trust Fund Balance[1]	Withdraw	Trust Fund Earnings [3]	Year Ending Trust Fund Balance
2051	386			386	21,576	-386	424	21,613
2052	386			386	21,613	-386	425	21,651
2053	386			386	21,651	-386	425	21,690
2054	386			386	21,690	-386	426	21,730
2055	714			714	21,730	-714	420	21,436
2056	715			715	21,436	-715	414	21,136
2057	715			715	21,136	-715	408	20,829
2058	715			715	20,829	-715	402	20,516
2059	715			715	20,516	-715	396	20,197
2060	715			715	20,197	-715	390	19,871
2061	715			715	19,871	-715	383	19,539
2062	257		66	323	19,539	-323	384	19,601
2063					19,601		392	19,993
Total [4]	**485,015**	**72,381**	**40,788**	**598,184**		**-598,184**	**84,645**	

[1] The 2021 Beginning of Year NDT balance reflects the fund value post-closure of the sale transition. The value used is based on the October 31, 2019 Unit 1 NDT fund balance and includes deductions for estimated ENOI and HDI pre-closure costs of approximately $59.3M.

[2] The 2021 costs include HDI estimated 2021 post-closure costs.
[3] NDT earnings reflect an assumed 2% Real Rate of Return (RRR).
[4] Columns may not add due to rounding.

Table 2
Annual DECON Decommissioning Cash Flow for Indian Point Unit No. 2 (Holtec IP2)

IPEC Unit 2 - DECON Method
Annual Cash Flow in Thousands of 2019 Dollars
No DOE Reimbursement of Spent Fuel Management Costs

Year	50.75 License Termination Cost [2]	50.54 (bb) Spent Fuel Management Cost [2]	Site Restoration Cost [2]	Total Cost [2]	Beginning of Year Trust Fund Balance[1]	Withdraw	Trust Fund Earnings [3]	Year Ending Trust Fund Balance
2021	42,737	27,287		70,024	654,078	-70,024	6,814	590,868
2022	69,990	34,019	1,825	105,834	590,868	-105,834	9,701	494,735
2023	67,919	11,439	6,137	85,496	494,735	-85,496	8,185	417,424
2024	33,157	4,337	6,618	44,113	417,424	-44,113	7,466	380,777
2025	36,136	1,608	6,250	43,993	380,777	-43,993	6,736	343,520
2026	32,379	1,636	6,358	40,373	343,520	-40,373	6,063	309,210
2027	32,796	1,635	5,266	39,697	309,210	-39,697	5,390	274,903
2028	51,731	1,548	1,884	55,164	274,903	-55,164	4,395	224,134
2029	50,554	1,553	1,853	53,960	224,134	-53,960	3,403	173,577
2030	8,592	6,857		15,449	173,577	-15,449	3,163	161,291
2031	8,592	6,857		15,449	161,291	-15,449	2,917	148,758
2032	5,994	5,905	6,747	18,646	148,758	-18,646	2,602	132,714
2033	1,922	7,701		9,623	132,714	-9,623	2,462	125,553
2034		5,990		5,990	125,553	-5,990	2,391	121,954
2035		6,000		6,000	121,954	-6,000	2,319	118,274
2036		6,014		6,014	118,274	-6,014	2,245	114,505
2037		6,000		6,000	114,505	-6,000	2,170	110,675
2038		5,990		5,990	110,675	-5,990	2,094	106,779
2039		6,000		6,000	106,779	-6,000	2,016	102,795
2040		6,005		6,005	102,795	-6,005	1,936	98,725
2041		6,000		6,000	98,725	-6,000	1,855	94,580
2042		6,000		6,000	94,580	-6,000	1,772	90,352
2043		6,000		6,000	90,352	-6,000	1,687	86,040
2044		6,005		6,005	86,040	-6,005	1,601	81,636
2045		5,990		5,990	81,636	-5,990	1,513	77,158
2046		3,152		3,152	77,158	-3,152	1,480	75,486
2047	145	749		894	75,486	-894	1,492	76,084
2048	386			386	76,084	-386	1,514	77,212
2049	386			386	77,212	-386	1,537	78,362

[1] The 2021 Beginning of Year NDT balance reflects the fund value post-closure of the sale transition. The value used is based on the October 31, 2019 Unit 2 NDT fund balance and includes deductions for estimated ENOI and HDI pre-closure costs of approximately $15.15M.
[2] The 2021 costs include HDI estimated 2021 post-closure costs.
[3] NDT earnings reflect an assumed 2% Real Rate of Return (RRR).
[4] Columns may not add due to rounding

IPEC Unit 2 - DECON Method

Annual Cash Flow in Thousands of 2019 Dollars
No DOE Reimbursement of Spent Fuel Management Costs

Year	50.75 License Termination Cost [2]	50.54 (bb) Spent Fuel Management Cost [2]	Site Restoration Cost [2]	Total Cost [2]	Beginning of Year Trust Fund Balance[1]	Withdraw	Trust Fund Earnings [3]	Year Ending Trust Fund Balance
2050	386			386	78,362	-386	1,560	79,535
2051	386			386	79,535	-386	1,583	80,731
2052	386			386	80,731	-386	1,607	81,952
2053	386			386	81,952	-386	1,631	83,196
2054	386			386	83,196	-386	1,656	84,466
2055	3,274			3,274	84,466	-3,274	1,624	82,816
2056	3,285			3,285	82,816	-3,285	1,591	81,121
2057	3,285			3,285	81,121	-3,285	1,557	79,393
2058	3,285			3,285	79,393	-3,285	1,522	77,629
2059	3,285			3,285	77,629	-3,285	1,487	75,831
2060	3,285			3,285	75,831	-3,285	1,451	73,996
2061	3,285			3,285	73,996	-3,285	1,414	72,125
2062	1,121		1,149	2,270	72,125	-2,270	1,397	71,252
2063					71,252		1,425	72,677
Total [4]	**469,456**	**188,278**	**44,088**	**701,822**		**-701,822**	**120,420**	

[1] The 2021 Beginning of Year NDT balance reflects the fund value post-closure of the sale transition. The value used is based on the October 31, 2019 Unit 2 NDT fund balance and includes deductions for estimated ENOI and HDI pre-closure costs of approximately $15.15M.
[2] The 2021 costs include HDI estimated 2021 post-closure costs.
[3] NDT earnings reflect an assumed 2% Real Rate of Return (RRR).
[4] Columns may not add due to rounding.

Table 3
Annual DECON Decommissioning Cash Flow for Indian Point Unit No. 3 (Holtec IP3)

IPEC Unit 3 - DECON Method

Annual Cash Flow in Thousands of 2019 Dollars
No DOE Reimbursement of Spent Fuel Management Costs

Year	50.75 License Termination Cost [2]	50.54 (bb) Spent Fuel Management Cost [2]	Site Restoration Cost [2]	Total Cost [2]	Beginning of Year Trust Fund Balance[1]	Withdraw	Trust Fund Earnings[3]	Year Ending Trust Fund Balance
2021	63,590	46,741	442	110,773	916,100	-110,773	9,395	814,722
2022	103,657	16,745	3,833	124,235	814,722	-124,235	13,810	704,297
2023	68,921	35,203	3,616	107,740	704,297	-107,740	11,931	608,488
2024	51,552	30,858	3,514	85,924	608,488	-85,924	10,451	533,016
2025	49,120	1,421	3,630	54,171	533,016	-54,171	9,577	488,421
2026	52,082	1,407	3,594	57,084	488,421	-57,084	8,627	439,964
2027	42,955	1,451	3,714	48,119	439,964	-48,119	7,837	399,682
2028	26,334	1,638	4,192	32,164	399,682	-32,164	7,350	374,868
2029	26,318	1,638	4,185	32,142	374,868	-32,142	6,855	349,581
2030	26,314	1,638	4,186	32,138	349,581	-32,138	6,349	323,792
2031	26,314	1,638	4,186	32,138	323,792	-32,138	5,833	297,487
2032	22,366	1,561	7,751	31,679	297,487	-31,679	5,316	271,124
2033	2,581	4,763		7,343	271,124	-7,343	5,276	269,057
2034		3,607		3,607	269,057	-3,607	5,309	270,759
2035		3,607		3,607	270,759	-3,607	5,343	272,494
2036		3,612		3,612	272,494	-3,612	5,378	274,260
2037		3,607		3,607	274,260	-3,607	5,413	276,066
2038		3,607		3,607	276,066	-3,607	5,449	277,907
2039		3,607		3,607	277,907	-3,607	5,486	279,786
2040		3,612		3,612	279,786	-3,612	5,523	281,697
2041		3,607		3,607	281,697	-3,607	5,562	283,652
2042		3,607		3,607	283,652	-3,607	5,601	285,646
2043		3,607		3,607	285,646	-3,607	5,641	287,679
2044		3,612		3,612	287,679	-3,612	5,681	289,748
2045		3,607		3,607	289,748	-3,607	5,723	291,864
2046		4,433		4,433	291,864	-4,433	5,749	293,179
2047		7,453		7,453	293,179	-7,453	5,715	291,441
2048		11,953		11,953	291,441	-11,953	5,590	285,078
2049		11,917		11,917	285,078	-11,917	5,463	278,624

[1] The 2021 Beginning of Year NDT balance reflects the fund value post-closure of the sale transition. The value used is based on the October 31, 2019 Unit 3 NDT fund balance and includes deductions for estimated ENOI and HDI pre-closure costs of approximately $15.15M.
[2] The 2021 costs include HDI estimated 2021 post-closure costs.
[3] NDT earnings reflect an assumed 2% Real Rate of Return (RRR).
[4] Columns may not add due to rounding.

IPEC Unit 3 - DECON Method

Annual Cash Flow in Thousands of 2019 Dollars
No DOE Reimbursement of Spent Fuel Management Costs

Year	50.75 License Termination Cost [2]	50.54 (bb) Spent Fuel Management Cost [2]	Site Restoration Cost [2]	Total Cost [2]	Beginning of Year Trust Fund Balance[1]	Withdraw	Trust Fund Earnings[3]	Year Ending Trust Fund Balance
2050		11,927		11,927	278,624	-11,927	5,334	272,030
2051		11,917		11,917	272,030	-11,917	5,202	265,315
2052		11,953		11,953	265,315	-11,953	5,067	258,429
2053		11,927		11,927	258,429	-11,927	4,930	251,432
2054		11,927		11,927	251,432	-11,927	4,790	244,294
2055	2,888	11,917		14,805	244,294	-14,805	4,590	234,079
2056	2,899	11,943		14,842	234,079	-14,842	4,385	223,622
2057	2,899	11,927		14,826	223,622	-14,826	4,176	212,972
2058	2,899	11,927		14,826	212,972	-14,826	3,963	202,108
2059	2,899	11,927		14,826	202,108	-14,826	3,746	191,028
2060	2,899	11,943		14,842	191,028	-14,842	3,524	179,709
2061	2,899	11,912		14,811	179,709	-14,811	3,298	168,196
2062	782	2,459	996	4,238	168,196	-4,238	3,279	167,237
2063					167,237		3,345	170,582
Total [4]	**583,168**	**371,370**	**47,840**	**1,002,378**		**-1,002,378**	**256,860**	

[1] The 2021 Beginning of Year NDT balance reflects the fund value post-closure of the sale transition. The value used is based on the October 31, 2019 Unit 3 NDT fund balance and includes deductions for estimated ENOI and HDI pre-closure costs of approximately $15.15M.
[2] The 2021 costs include HDI estimated 2021 post-closure costs.
[3] NDT earnings reflect an assumed 2% Real Rate of Return (RRR).
[4] Columns may not add due to rounding

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