



December 23, 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

Palisades Nuclear Plan
Docket Nos. 50-255 and 72-007
Renewed Facility Operating License No. DPR-20

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 Palisades Nuclear Plant,” dated December 23, 2020.
 - [2] Letter from ENOI to US NRC, “Certification of Permanent Cessation of Power Operations, Palisades Nuclear Plant, Docket No. 50-255,” dated September 28, 2017, (ADAMS Accession No. ML17271A233).
 - [3] Letter from ENOI to US NRC, “Supplement to Certification of Permanent Cessation of Power Operations, Palisades Nuclear Plant, Docket No. 50-255,” dated October 19, 2017, (ADAMS Accession No. ML17292A032).
 - [4] Letter from ENOI to US NRC, “Application for Order Consenting to Transfers of Control of Licenses and Approving Conforming License Amendments, Palisades Nuclear Plant Docket Nos. 50-255 and 72-007, and Renewed Facility Operating License No. DPR-20 and Big Rock Point Docket Nos. 50-155 and 72-043, License No. DPR-6,” dated December 23, 2020.

Pursuant to 10 CFR 50.12, “Specific exemptions,” Holtec Decommissioning International, LLC (HDI) requests an exemption from 10 CFR 50.82(a)(8)(i)(A) for Palisades Nuclear Plant (Palisades) to allow use of a portion of Palisades Nuclear Decommissioning Trust fund (NDT fund) for the management of Palisades spent fuel management and site restoration activities, based on the HDI Palisades Post-Shutdown Decommissioning Activities Report (PSDAR) (hereafter referred to as PSDAR) (Reference 1).

HDI also requests, pursuant to 10 CFR 50.12, an exemption from 10 CFR 50.75(h)(1)(iv) to allow disbursements from the Palisades NDT fund 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).

By letters dated September 28, 2017, and October 19, 2017, Entergy Nuclear Operations, Inc.

(ENOI) certified the NRC that it has decided to permanently cease operations at Palisades no later than May 31, 2022 (References 2 and 3).

By letter dated December 23, 2020, ENOI, on behalf of itself, Entergy Nuclear Palisades, LLC (ENP), Holtec International (Holtec), and HDI, requested that the NRC consent to: (1) the indirect transfer of control of Renewed Facility Operating License No. DPR-20 for Palisades and the general license for the Palisades Independent Spent Fuel Storage Installation (ISFSI) and Facility Operating License No. DPR-6 for Big Rock Point and the general license for the Big Rock Point ISFSI to Holtec; and (2) the transfer of ENOI's operating authority (i.e., its authority to conduct licensed activities at Palisades) to HDI. (Reference 4).

On December 23, 2020, HDI submitted a PSDAR (Reference 1) documenting the HDI plan for decommissioning Palisades following permanent shutdown and defueling, sale closure and license transfer. The HDI PSDAR includes a site-specific Decommissioning Cost Estimate (DCE) that provides the estimated costs to complete radiological decommissioning of the site, 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 DCE (Reference 1).

HDI is submitting the enclosed exemption request to demonstrate that the exemptions are warranted to allow withdrawals for payment of Palisades spent fuel management and site restoration costs as described in the HDI PSDAR. The enclosed exemption request is based on HDI's analysis of the expected Palisades 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.

Table 1 in the enclosed exemption request is reproduced from the HDI DCE included in Reference 1 and includes the annual cash flows required for decommissioning Palisades. Table 1 demonstrates that the Palisades NDT fund contains the amount needed to cover the estimated costs of Palisades radiological decommissioning, spent fuel management, and site restoration activities. 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 Palisades NDT fund 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. Table 1 of the enclosed exemption request identifies the estimated annual expenditures for the Palisades radiological decommissioning, spent fuel management, and site restoration activities. Table 1 demonstrates that the Palisades NDT fund contains 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 Palisades.

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 Palisades. 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 Palisades NDT fund.

HDI requests approval of this exemption request on a schedule that supports the NRC's planned completion of its review of the LTA (Reference 4). 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 (856) 797-0900, Ext, 3813 or a.sterdis@holtec.com.

Respectfully,

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 III
NRC Senior Resident Inspector– Palisades Nuclear Plant
NRC Project Manager – Big Rock Point
Senior Project Manager, NRC/NRR/DORL
State of Michigan

Enclosure
Palisades Nuclear Plant
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 Palisades Nuclear Plant (Palisades) to allow use of a portion of the Palisades Nuclear Decommissioning Trust (NDT) for the spent fuel management and site restoration costs for Palisades. The estimated Palisades costs are provided in the HDI Palisades Post-Shutdown Decommissioning Activities Report (PSDAR) (hereafter referred to as the HDI 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 analysis from the HDI Decommissioning Cost Estimate (DCE) included in the HDI PSDAR (Reference 1) is reproduced in Table 1. The annual cash flow analysis demonstrates that the Palisades NDT fund contains more than adequate funds to cover the estimated radiological decommissioning costs, as well as spent fuel management and site restoration costs for Palisades. 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 Palisades NDT fund 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 Palisades NDT fund for Palisades costs associated with spent fuel management and site restoration activities that, as described in the HDI 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 Palisades. These exemptions would not present an undue risk to the public health and safety or prevent decommissioning from being completed as planned since the Palisades NDT fund contains adequate funds to complete radiological decommissioning as well as spent fuel management activities and site restoration activities.

2. BACKGROUND

Palisades is a single unit pressurized water reactor with a licensed thermal power of 2565.4 MWt. Palisades is located along the eastern shore of Lake Michigan in Covert Township, approximately four and one-half miles south of South Haven, Michigan, and consists of the pressurized water reactor, other associated plant equipment, and related site facilities. Palisades is also the site of the generally licensed Palisades ISFSI.

By letters dated September 28, 2017, and October 19, 2017, ENOI certified the NRC that it has decided to permanently cease operations at Palisades no later than May 31, 2022 (References 2 and 3).

By letter dated December 23, 2020, Entergy Nuclear Operations, Inc. (ENOI), on behalf of itself, Entergy Nuclear Palisades, LLC (ENP), Holtec International (Holtec), and HDI, requested that the NRC consent to: (1) the indirect transfer of control of Renewed Facility Operating License No. DPR-20 Palisades and the general license for the Palisades Independent Spent Fuel Storage Installation (ISFSI) and Facility Operating License No. DPR-6 for Big Rock Point and the general license for the Big Rock Point ISFSI to Holtec; and (2) the transfer of ENOI's operating authority (i.e., its authority to conduct licensed activities at Palisades) to HDI. (Reference 4). The license transfer application (LTA) requested that the license transfers be approved within 12 months from the date of the LTA, or by December 23, 2021.

On December 23, 2020, HDI submitted a PSDAR (Reference 1) documenting the plan to decommission Palisades following permanent shutdown and defueling, sale closure and license transfer. The HDI PSDAR includes a site-specific Decommissioning Cost Estimate (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 DCE (Reference 1).

HDI is submitting this exemption request to demonstrate that exemptions are warranted to allow withdrawals from the Palisades NDT fund for payment of spent fuel management and site restoration costs as described in the HDI PSDAR. The exemptions being requested are based on HDI's analysis of the expected Palisades 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 Palisades licenses to HDI, and the sale closure and license transfers are completed.

3. BASIS FOR EXEMPTION REQUESTS

The HDI PSDAR and DCE (Reference 1) provide the cost estimates for the HDI radiological decommissioning, spent fuel management, and site restoration efforts.

Table 1 of this enclosure reflects 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 Table 1 reflect the following assumptions:

1. Following the sale closure and transfer of the Palisades licenses, HDI will initiate its decommissioning plan as described in the HDI PSDAR (Reference 1).
2. Spent fuel management costs begin in 2022. Spent fuel management costs will only be reimbursed from the Palisades NDT fund under this exemption if the sale closure and license transfers are completed and this exemption request is approved.

The annual cash flow analysis contained in Table 1 of this enclosure conservatively assumes 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 fund as allowed by 10 CFR 50.75(e)(1)(i) is used in the analysis. Additionally, contributions to the Palisades NDT fund and cost escalation are both assumed to be zero in the cash flow analysis.

The 2022 beginning-of-year (BOY) Trust Fund Value (analysis starting trust fund balance) in Table 1 of this enclosure reflects the expected fund value post-closure of the sale transaction. The value is based on the December 2, 2020 Trust Fund balance and conservatively bounds deductions for estimated ENOI and HDI pre-closure costs of approximately \$13.3 million.

Spent fuel management costs are included in Table 1 of this enclosure. Spent fuel storage will include the existing Palisades ISFSI dry storage as well as the fuel stored in the Palisades spent fuel pool at sale closure and license transfers. The spent fuel pool storage costs will continue until all Palisades 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. The HDI spent fuel management cost estimate includes costs for procurement of dry storage canisters, loading and movement of canisters and transfer of spent fuel to the DOE.

Table 1 of this enclosure demonstrates that the Palisades NDT fund exceeds the amounts required to complete radiological decommissioning of the site using the HDI plan, 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 Palisades licenses are terminated, an estimated \$19.8 million will remain in the Palisades NDT fund.

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 Palisades NDT fund and the funding status for managing the irradiated fuel.

The HDI 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 Palisades 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 Palisades NDT for spent fuel management and site restoration activities, consistent with the HDI 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 analysis provided in Table 1, use of a portion of the funds in Palisades NDT for spent fuel management and site restoration activities will not adversely impact the ability to

terminate the Palisades 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 Palisades NDT fund 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 Palisades NDT 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 Palisades NDT fund.

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 Palisades NDT fund for spent fuel management and site restoration efforts, consistent with the HDI DCE. Spent fuel management and site restoration activities are an integral part of the HDI planned 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 Palisades NDT for spent fuel management and site restoration activities will not alter the scope or availability of sufficient funding for the Palisades 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 for activities associated with spent fuel management and site restoration until the Palisades operating licenses have been terminated. However, the cash flow analysis in Tables 1 demonstrates that more than adequate funds are available in the Palisades NDT to complete license termination, spent fuel management, and site restoration activities; the analysis projects that if the exemptions are granted, the Palisades NDT fund will still contain approximately \$19.8 million after the licenses are terminated in 2041 (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 5). 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 Palisades NDT fund for spent fuel management and site restoration activities, the same consideration would justify dispensing with the 30-day notification requirement as well. Table 1 identifies 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 Palisades NDT. 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 Palisades NDT fund to fund the activities as discussed in the HDI 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 6), and Regulatory Guide 1.184, Rev. 1, “Decommissioning of

Nuclear Power Reactors,” (Reference 7)). The adequacy of the Palisades NDT fund to cover the cost of activities associated with decommissioning, spent fuel management, and site restoration activities is supported by the cash flow analysis in Table 1.

If HDI cannot use the NDT fund 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 Palisades operating license is terminated. To prevent access to the excess funds in the Palisades NDT 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 Palisades 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 8); to Duke Energy Florida, Inc. for Crystal River Unit 3 (Reference 9); and to Dominion Energy Kewaunee, Inc. for KPS (Reference 10), to Exelon Generation for Oyster Creek Nuclear Generating Station (Reference 11), to ENOI for Pilgrim Nuclear Power Station (Reference 12), and to HDI for Indian Point Nuclear Generating Station, Unit Nos. 1, 2 and 3 (Reference 13).

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 Palisades NDT fund. Specifically, the exemptions would allow HDI to use funds from the Palisades NDT fund 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 the Palisades NDT fund, 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 the Palisades NDT fund 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 Palisades NDT fund to cover costs of the activities associated with spent fuel management and site restoration. Following transfer of the Palisades 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 Palisades.

After the HDI 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 Palisades 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 Palisades NDT fund balance, 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 Palisades notwithstanding the exemptions allowing HDI to use funds for Palisades spent fuel management and site restoration activities from the NDT.

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 National Pollutant Discharge Elimination System (NPDES) 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. Environmental Impacts of the Alternatives to the Action

As an alternative to the action, the NRC staff could deny HDI's exemption request. Denial of the exemption request would result in Holtec Palisades using funds from the Palisades NDT fund 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. Alternative Use of Resources

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 Palisades NDT fund 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 Palisades and HDI access to excess funds in the Palisades NDT, 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 Palisades 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 Palisades 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 Palisades NDT to conduct activities associated with spent fuel management and site restoration activities in accordance with the HDI 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 Palisades Updated Final Safety Analysis Reports. Use of funds in the Palisades NDT 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 Palisades licenses and execution of the sale closure, to use the Palisades NDT for the full scope of activities described in the decommissioning cost estimates for Palisades, 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 Palisades. The proposed exemptions would allow the use of the Palisades NDT funds for the full scope of activities described in the HDI 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 Decommissioning Cash Flow for Palisades Nuclear Plant

Palisades Nuclear Power Station								
Annual Cash Flow in Thousands of 2020 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	Withdrawals	Trust Fund Earnings ³	Year Ending Trust Fund Balance
2022	36,786	767	0	37,553	552,049	(37,553)	5,145	519,641
2023	44,539	26,831	0	71,370	519,641	(71,370)	8,965	457,237
2024	29,102	33,374	0	62,476	457,237	(62,476)	7,895	402,656
2025	26,559	32,597	0	59,156	402,656	(59,156)	6,870	350,371
2026	4,427	2,176	0	6,603	350,371	(6,603)	6,875	350,643
2027	4,584	1,712	0	6,296	350,643	(6,296)	6,887	351,234
2028	4,584	1,712	0	6,296	351,234	(6,296)	6,899	351,837
2029	4,584	1,712	0	6,296	351,837	(6,296)	6,911	352,451
2030	4,922	7,466 ⁵	0	12,388	352,451	(12,388)	6,801	346,864
2031	4,391	6,513	0	10,904	346,864	(10,904)	6,719	342,680
2032	4,391	6,513	0	10,904	342,680	(10,904)	6,636	338,411
2033	4,391	6,513	0	10,904	338,411	(10,904)	6,550	334,058
2034	4,391	6,513	0	10,904	334,058	(10,904)	6,463	329,617
2035	7,041	6,193	202	13,437	329,617	(13,437)	6,324	322,504
2036	31,460	5,617	1,943	39,019	322,504	(39,019)	5,670	289,155
2037	39,920	5,301	5,412	50,633	289,155	(50,633)	4,770	243,293
2038	89,538	4,837	7,725	102,100	243,293	(102,100)	2,824	144,016
2039	56,475	4,820	7,438	68,733	144,016	(68,733)	1,506	76,789
2040	32,912	4,954	6,146	44,012	76,789	(44,012)	656	33,432
2041	8,221	0	5,812	14,032	33,432	(14,032)	388	19,788
Total⁴	443,215	166,122	34,679	644,015		(644,015)	111,754	

¹The 2022 Beginning of Year NDT balance reflects the expected fund value post-closure of the sale transition. The value used is based on the December 2, 2020 Trust Fund Balance and conservatively bounds deductions for estimated ENOI and HDI pre-closure costs of approximately \$13.3M.

²The 2022 costs include HDI estimated 2022 post-closure costs.

³NDT earnings reflect an assumed 2% Real Rate of Return (RRR).

⁴Columns may not add due to rounding

⁵Spent Fuel Management costs assume DOE removal begins in 2030 and completes in 2040.

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 Palisades Nuclear Plant,” dated December 23, 2020.
2. Letter from ENOI to US NRC, “Certification of Permanent Cessation of Power Operations, Palisades Nuclear Plant, Docket No. 50-255,” dated September 28, 2017, (ADAMS Accession No. ML17271A233).
3. Letter from ENOI to US NRC, “Supplement to Certification of Permanent Cessation of Power Operations, Palisades Nuclear Plant, Docket No. 50-255,” dated October 19, 2017, (ADAMS Accession No. ML17292A032).
4. Letter from ENOI to US NRC, “Application for Order Consenting to Transfers of Control of Licenses and Approving Conforming License Amendments, Palisades Nuclear Plant Docket Nos. 50-255 and 72-007, and Renewed Facility Operating License No. DPR-20 and Big Rock Point Docket Nos. 50-155 and 72-043, License No. DPR-6,” dated December 23, 2020.
5. Federal Register Notice, 67 FR 78332, Decommissioning Trust Provisions, dated December 24, 2002.
6. NRC Regulatory Issue Summary 2001-07, Revision 1, "10 CFR 50.75 Reporting and Recordkeeping for Decommissioning Planning," dated January 8, 2009, (ADAMS Accession No. ML083440158).
7. Regulatory Guide 1.184, Revision 1, "Decommissioning of Nuclear Power Reactors," dated October 2013, (ADAMS Accession No. ML13144A840).
8. Letter from U.S. Nuclear Regulatory Commission to Entergy Nuclear Operations, Inc; “Vermont Yankee Nuclear Power Station, Exemptions from the Requirements of 10 CFR Part 50, Sections 50.82(a)(8)(i)(A) and 50.75(h)(1)(iv),” (TAC NO. MF5575), dated June 17, 2015, (ADAMS Accession No. ML15128A219).
9. Letter from U.S. Nuclear Regulatory Commission to Duke Entergy Florida, Inc; “Crystal River Unit 3 Nuclear Generating Plant; Exemptions from the Requirements of 10 CFR Part 50, Sections 50.82(a)(8)(i)(A) and 50.75(h)(2),” (TAC NO. MF3875), dated January 26, 2015, (ADAMS Accession No. ML14247A545).
10. Letter from U.S. Nuclear Regulatory Commission to Dominion Entergy Kewaunee, Inc; “Kewaunee Power Station, Exemptions from the Requirements of 10 CFR Part 50, Sections 50.82(a)(8)(i)(A) and 50.75(h)(1)(iv),” (TAC NO. MF1438), dated May 21, 2014, (ADAMS Accession No. ML13337A287).
11. Letter U.S. Nuclear Regulatory Commission to Exelon Generation Company, LLC, “Oyster Creek Nuclear Generating Station – Exemptions from the Requirements of 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(1)(iv),” dated September 19, 2018, (ADAMS Accession No. ML18227A025).
12. Letter from U.S. Nuclear Regulatory Commission to Entergy; “Pilgrim Nuclear Power Station Plant; Request for Exemption from 10 CFR 50.82(a)(8)(i)(A),” dated July 22, 2019, (ADAMS Accession No. ML19162A334).

13. Letter from U.S. Nuclear Regulatory Commission to Holtec Decommissioning International, LLC, “Indian Point Nuclear Generating Station, Unit Nos. 1, 2 and 3— Request for Exemption from 10 CFR 50.82(a)(8)(i)(A) AND 10 CFR 50.75(h)(1)(iv),” dated November 23, 2020 (ADAMS Accession No. ML20309A577).