

# PUBLIC SUBMISSION

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**Docket:** NRC-2021-0036

Palisades Nuclear Plant and Big Rock Point Plant Consideration of Approval of Transfer of Control of Licenses and Conforming Amendments

**Comment On:** NRC-2021-0036-0001

Palisades Nuclear Plant and Big Rock Point Plant Consideration of Approval of Transfer of Control of Licenses and Conforming Amendments

**Document:** NRC-2021-0036-0002

Comment (1) of Mark Muhich on FR Doc # 2021-02357

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## General Comment

Please register my comments regarding the License Transfer Application of Palisades Nuclear Power Plant from ENTERGY Inc to HOLTEC LLC. This LTA is a significant change in the operating license of Palisades and requires a public hearing and a Supplemental Environmental Impact Statement SEIS. Further, HOLTEC has not demonstrated that it has an independent source of revenue beyond Palisades NP's Decommissioning Trust Fund. Without an enhanced financial assurances beyond the DTF real risk is posed to the public health and safety of Michigan residents.

Mark Muhich

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## Attachments

Palisades NP NRC 2021 0036 LTA HOLTEC ENTERGY Comments Mark Muhich

U.S. Nuclear Regulatory Commission

Mark Muhich

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Re: Docket ID NRC 2021-0036

NUCLEAR REGULATORY COMMISSION [Docket Nos. 50–155, 50–255, 72–007, and 72–043; NRC–2021–0036] Palisades Nuclear Plant and Big Rock Point Plant  
Consideration of Approval of Transfer of Control of Licenses and Conforming Amendments

Petition of Mark Muhich for Leave to Intervene and for a Hearing Regarding Transfer of NRC Operating License and Decommissioning of Palisades Nuclear Plant, Covert MI.

Mark Muhich resides in Michigan, was raised in Michigan, and as a boy drank great mouthfuls of cold sweet water from Lake Michigan. Mark Muhich has sailed on Lake Michigan and camped on its shores. Mark Muhich has standing in the Nuclear Regulatory Commission's decision regarding the transfer of Palisades Nuclear Plant's operating license from ENTERGY to HOLTEC LLC. Substantial risk to Lake Michigan and environs and to public safety are posed by the questionable financial and technical capability of HOLTEC LLC to safely complete the decommissioning of Palisades NP. Therefore Mark Muhich, as a Michigander has standing.

Removal of spent nuclear fuel from Palisades' cooling pool is imperative. The likelihood of a serious accident at Palisades' spent fuel pool is low, however, the release of radionuclides from a spent fuel assembly due to a loss of coolant event, or a mechanical failure as has occurred at HOLTEC's decommissioning of San

Onofre Nuclear Plant. CA, could poison much of Lake Michigan and tens of thousands of square miles of Michigan shoreline and farmland.

The decommissioning of Palisades Nuclear Plant in Covert Township, Michigan is long overdue, but poses significant risks to the health and safety of Michigan residents. These risks to Lake Michigan, Covert residents, workers on the demolition of Palisades NP, and to future generations must be identified and reduced to the lowest possible level.

1. The transfer of ENTERGY's operating license to HOLTEC International constitutes a major material and significant change in the federal regulation of Palisades NP and therefore requires **public hearings**. NEPA 42 USC 4332(2)(c), Section 189(c) Atomic Energy Act
2. NRC must require a Supplemental Environmental Impact Statement to be completed prior to the decision to transfer Palisades NP operating license to HOLTEC 10 CFR 51.53(d). This SEIS must address the complexity of decommissioning Palisades NP. Including
  - a. Site Characterization at Palisades NP
  - b. Depth of radiological contamination
  - c. Ground water contamination, on site and off site
  - d. Non-radiological contamination, i.e. asbestos, PCB's, PFAS, lead
  - e. Tritium contamination
  - f. Erosion threat from Lake Michigan
  - g. Increasing risk from effects of climate change
  - h. Buried or corroded pipes
  - i. SEIS musts include Historic Site Analysis
  - j. Low level radiological waste
  - k. Monitoring of ground water using most advanced equipment
  - l. Fire risk
  - m. Radiological training for local emergency responders
  - n. Radiological health standard should use BEIR VII risk coefficients
  - o. Supplemental Environmental Impact Statement is not "bounded" by previous Generic Environmental Impact Statement
  - p. No "categorical exclusion" of SEIS should be allowed

- q. NRC cannot issue Finding of No Significant Impact without requiring a SEIS
- r. SEIS musts consider likelihood that Spent Nuclear Fuel will be stored on site at Palisades NP for decades if not indefinitely.
- s. HOLTEC must submit plans for funding and maintaining the Independent Spent Fuel Storage Installation ISFSI.
- t. HOLTEC must provide assurance that its management of Palisades will meet any and all Michigan Public Service Commission requirements to obtain Certification of Public Good
- u. HOLTEC must agree and provide resources for meeting all current and future environmental rules promulgated by Michigan Department of the Environment, Great Lakes and Energy, EGLE
- v. HOLTEC must provide resources for training and tracking its decommissioning workers for radiological exposure 10CFR19.20

3. The success of the decommissioning of Palisade NP depends on the financial security of HOLTEC International, and its subsidiary HOLTEC Decommissioning International, HOLTEC DI. Both limited liability companies depend on Palisades NP's decommission Trust Fund to finance the dismantling and decommissioning of Palisades NP, which is a merchant nuclear plant.

HOLTEC and HOLTEC DI must provide assurance of their financial ability to complete the decommissioning of Palisades NP, store the Spent Nuclear Fuel in a safe manner, and restore the site according to NRC rules and statutes. 10CFR50.82(a)(8)(i)(A) expressly reserves the Decommissioning Trust Fund, DTF, for "reducing radioactivity" at the nuclear plant.

Expenditure of Decommissioning Trust Fund DTF for site restoration or management of spent nuclear fuel, SNF is prohibited. Given the likelihood that the management of SNF at Palisades will incur major costs for many decades, perhaps indefinitely, HOLTEC and HOLTEC DI should anticipate expenses dealing with SNF amounting to hundreds of millions of dollars. Indeed, HOLTEC applied for an NRC exemption of \$500 million to deal with

its SNF at Pilgrim Nuclear Plant in Massachusetts in 2017. It should be noted that this amount would equal the entire DTF for Palisades NP. Without an NRC exemption to access Palisades NP's DTF, HOLTEC and HOLTEC DI cannot demonstrate the financial resources to decommission and demolish Palisades NP, reclaim the site and store the spent nuclear fuel on site. The inadequacy of HOLTEC and HOLTEC DI financial responsibility for the decommissioning of Palisades NP poses a clear risk and danger to public health and safety. Therefore, HOLTEC should not be granted the transfer of license without providing financial assurance distinct and separate from Palisades NP's DTF.

HOLTEC and HDI should establish and the NRC and Michigan Public Service Commission should require that HOLTEC provide a surety bond of at least \$500 million to cover the cost of site restoration and spent nuclear fuel storage. With annual revenues of over \$300 million HOLTEC can afford to indemnify the decommissioning, site restoration and secure storage of Palisades NP's SNF. HOLTEC could also establish a Parent Company Guarantee PCG in the event HDI fails to perform. If HOLTEC cannot or will not guarantee sufficient funding to complete Palisades NP's decommissioning, site restoration and spent nuclear fuel storage then NRC must deny the transfer of Palisades NP's license to HOLTEC.

ML1119/ML111950031. Under no circumstances should NRC grant the Palisades NP LTA to HOLTEC without HOLTEC providing transparent and secured financing, independent of Palisades NP's DTF.

4. Any judgements awarded to HOLTEC by the Department of Energy resulting from current or future agreements with the Department of Energy relating to safe storage of spent nuclear fuel, the breaching of the DOE Standard Contract and the transport of spent nuclear fuels from Palisades to a DOE permanent repository or the taking possession of spent nuclear fuels by DOE must be re-invested in the Palisades NP Decommissioning Fund.
5. HOLTEC should establish and finance a \$50 million contingency fund to deal with any unforeseen developments at Palisades NP.

6. HOLTEC's business model for decommissioning Palisades NP is to move all the spent nuclear fuel assemblies from the spent fuel pool to dry cast storage on site as expeditiously as possible. Granted, a fire in the spent fuel assemblies due to a loss of coolant event is the worst-case scenario, which could poison thousands of inhabitants and thousands of square miles of Lake Michigan and environs. Removing the spent nuclear from the storage pools is of principal importance. However, HOLTEC anticipates transporting all the spent nuclear fuel from Palisades NP in its HI STORM 100 canisters to its proposed Consolidated Interim Storage facility in New Mexico.
7. The permitting of the HOLTEC CIS operation in New Mexico is tentative at best. Currently numerous entities are suing in federal appeals court to block the permitting of HOLTEC's CIS which violates the Nuclear Waste Policy Act. Until all spent nuclear fuel can be stored in a permanent geological repository it should be stored on site. Therefore, HOLTEC must also include in its Palisades NP License Transfer Application to NRC its plan to store and maintain its Independent Spent Fuel Storage Installation for as long as 100 years. The ISFSI should be required to have its own LTA and Post Shut Down Activity Report PSDAR.
8. The elevation of Palisades NP is 582' above mean sea level. The mean level of Lake Michigan is 577' above mean sea level. Palisades NP is 5' above the mean level of Lake Michigan. The mean level of Lake Michigan has risen 5' since 2013 and is expected to continue to rise (MDEGL, 4/2020). NRC must require HOLTEC to include in its SEIS calculations of the rise of Lake Michigan's elevation and HOLTEC's subsequent plan to prevent erosion of the site and Independent Spent Fuel Storage Installation, ISFSI. Rising Water levels in Lake Michigan pose a significant hazard to the public health and safety, regarding radiological and non-radiological contamination and must be addressed in HOLTEC's application for transfer of license in a SEIS.
9. HOLTEC and its associates have experienced involvement in questionable or even criminal business practices, including

- a. Association with criminal bribery charges at the Tennessee Valley Authority in 2001-2
- b. Veracity of claims in gaining Economic Development credits in Ohio in 2009
- c. Veracity of claims in gaining \$260 million in Economic Development credits in New Jersey 2019
- d. Association with SNC-Lavalin (Canada) which was banned for 10 years by the World Bank for bribery in Cambodia.
- e. SNC -Lavelin found guilty in dozens of convictions for bribery in many countries including Libya, Mexico, Canada, Switzerland, Bangladesh, and more.
- f. SNC-Lavelin stock has been downgraded to BBB- junk status by Standard and Poors.

10. NRC should require of HOLTEC and HDI a Contingency Factor calculations 10CFR 72.30(b)(2)(ii)

- a. A Site Characterization Estimate must be performed before any accurate assessment of the potential cost of the decommissioning of Palisades could be determined.
- b. The “average” cost of decommissioning a nuclear plant is \$500 million. Even a slight delay or unforeseen circumstance can greatly increase the final cost of decommissioning a nuclear plant.
- c. Callan’s Nuclear Decommission Study documented the increased cost of decommissioning nuclear plants at 60% between 2008-2014
- d. Previously undiscovered radiological materials at Connecticut Yankee NP, Maine Yankee NP, Yankee Row NP, MA, and San Onofre NP and Diablo Canyon NP doubled the original estimates for decommissioning these plants.
- e. Without ENTERGY and or HOLTEC’s assurance that they will assume financial responsibility for any cost overruns during the decommissioning of Palisades NP NRC must not allow Palisades NP’s LTA.

f. HOLTEC must reinvest any settlement in DOE breach of Standard Contract suits in Palisades NP's DTF

11. HOLTEC has significant portfolio risks associated with other nuclear plant decommissioning projects which could impede HOLTEC's financial ability to complete the decommissioning of Palisades NP. HOLTEC's financial exposure at Oyster Creek NP, Pilgrim NP, and Indian Point NP exceed three billion dollars. Without guaranteeing the full cost of decommissioning Palisades NP HOLTEC will be creating a hazard to public safety and welfare.

12. What third party liability for the management of thousands of tons of highly radiated spent nuclear fuel will extend to ENTERGY, Palisades NP's current operator, or to Consumers Energy, its former owner and operator? The State of Michigan must not be held responsible for the long term management of Palisades NP's spent nuclear fuel in the event of a bankruptcy by HOLTEC or HOLTEC DI

13. NRC should require in HOLTEC's Post Shut Down Decommissioning Activities Report PSDAR analysis of material degradation of reactor parts and components including

- a. Reactor vessel for neutron embrittlement
- b. Reactor vessel test capsules
- c. Electrical cables
- d. Concrete foundations

e. [http://static1.1.sqspcdn.com/static/f/356082/28026831/1542303608657/autopsy\\_PNNL-27120\\_harvesting\\_Dec2017.pdf?token=ulHlpxWhT6hvYHNlay%2BVTi1bTrY%3D](http://static1.1.sqspcdn.com/static/f/356082/28026831/1542303608657/autopsy_PNNL-27120_harvesting_Dec2017.pdf?token=ulHlpxWhT6hvYHNlay%2BVTi1bTrY%3D)

14. Big Rock Independent Spent Fuel Storage Installation must include

- a. Revised A1 and A2 values for its transportation casks
- b. Revised criticality Safety Index for its SNF casks
- c. Expand its Quality Assurance requirements 10CFR71.101(a,b,c)
- d. Provide contingency plans for replacing the storage canisters after 100 years of service, ~2100.



## Conclusion

The Palisades Nuclear Plant License Transfer Application is a major change in the federal regulation of radiological materials. Therefore, under the Atomic Energy Act and the National Environmental Policy Act the Nuclear Regulatory Commission is required to

- e. Schedule and hold public hearings on the potential hazards to public health and the environment posed by the LTA
- f. Assure that HOLTEC and HOLTEC Decommissioning International assume full financial responsibility for the safe and complete decommissioning, site restoration and long-term management of Palisades NP's spent nuclear fuel.
- g. Preserve Palisades NP's Decommissioning Trust Fund for the sole purpose for which it was created; the reduction of radiological materials at the site. No waiver nor exemption should allow HOLTEC to expend the DTF for site restoration or for spent nuclear fuel storage or management.
- h. Transferring ENTERGY's transfer of license to operate and decommission Palisades Nuclear Plant represents major and significant environmental risks to workers, citizens and the environs of Covert Township MI. Therefore, a new and Supplemental Environmental Impact Statement must be conducted prior to any decision regarding Palisades NP's LTA.

Mark Muhich  
Jackson MI  
February 6, 2021