

**BEFORE THE UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

In the Matter of	)	
	)	
Holtec Palisades LLC and Holtec Decommissioning International	)	Docket No. 50-255-L -3
	)	
(Palisades Nuclear Plant Request for License Amendment	)	November 18, 2024
	)	

**PETITIONING ORGANIZATIONS' NOTICE OF FILING OF  
SECOND SUPPLEMENTAL DECLARATION OF ARNOLD GUNDERSEN**

The Petitioning Organizations, Beyond Nuclear, Don't Waste Michigan, Michigan Safe Energy Future, Three Mile Island Alert, and Nuclear Energy Information Service, by counsel, hereby give notice of their filing of the "Second Supplemental Declaration of Arnold Gundersen in Support of Petition to Intervene and Request for Adjudication Hearing."

/s/ Terry J. Lodge  
Terry J. Lodge, Esq.  
316 N. Michigan St, Suite 520  
Toledo, Ohio 43604  
Phone 419-205-7084  
tjlodge50@yahoo.com  
Co-Counsel for Petitioners

**BEFORE THE UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

In the Matter of	)	
	)	
Holtec Palisades LLC and Holtec Decommissioning International	)	Docket No. 50-255-L -3
	)	
(Palisades Nuclear Plant Request for License Amendment	)	November 18, 2024
	)	

**CERTIFICATE OF SERVICE**

Pursuant to 10 C.F.R. § 3.305, I certify that, on November 18, 2024, a copy of the foregoing PETITIONING ORGANIZATIONS' NOTICE OF FILING OF SECOND SUPPLEMENTAL DECLARATION OF ARNOLD GUNDERSEN was deposited in the Electronic Information Exchange (the NRC's E-Filing System) in the above captioned proceeding and that pursuant to the protocols of that system, copies were served upon all registered parties and counsel of record..

/s/ Terry J. Lodge  
Terry J. Lodge, Esq.  
Co-Counsel for Petitioners

**BEFORE THE UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

<b>IN THE MATTER OF</b>	)	
	)	<b>Docket No. 50-255</b>
<b>HOLTEC PALISADES LLC</b>	)	
	)	
<b>(Request for Exemption)</b>	)	

**SECOND SUPPLEMENTAL DECLARATION OF ARNOLD GUNDERSEN  
IN SUPPORT OF PETITION TO INTERVENE  
AND REQUEST FOR ADJUDICATORY HEARING BY  
MICHIGAN SAFE ENERGY FUTURE, DON'T WASTE MICHIGAN,  
NUCLEAR ENERGY INFORMATION SERVICE,  
THREE MILE ISLAND ALERT, AND BEYOND NUCLEAR**

Under penalty of perjury, I, Arnold Gundersen, declare as follows:

1. I have previously provided two declarations in this matter.
  
2. This Second Supplemental Declaration is to make the Atomic Safety and Licensing Board (ASLB) aware that, in my first Declaration, I relied on inaccurate and incomplete information provided by Holtec Decommissioning International (HDI) and Holtec Palisades, together herein called Holtec, in a publicly available document. By addressing this inconsistency, I am not suggesting a new or different contention should be established from the inaccurate press release information statement issued by Holtec. My overall conclusions remain unchanged.
  
3. In the *NRC Staff Answer to Intervention Petition*, the NRC [Nuclear Regulatory Commission] Staff states that the Component Cooling Water (CCW) heat exchangers are a part of the auxiliary support systems providing cooling to reactor components and are not a part of the primary steam cycle described in my first Declaration (*Declaration of Arnold Gundersen in Support of Petition to Intervene and Request for Adjudicatory Hearing*). NRC Staff Answer p. 82.

4. In its Answer, the NRC Staff acknowledged that my first Declaration was based on the press release written and submitted by Holtec. NRC Staff Answer p. 68. Accordingly, the Holtec Press Release stated:

***Palisades Cooling System Upgraded to Counter the Continuing Threat of Global Warming***

The **power output from power plants** that rely on cooling water from proximate bodies of water, such as a lake, sea, or river, **has been steadily eroding as their bulk temperature inches upwards because of global warming**. The temperature of Lake Michigan, which supplies cooling water to Holtec Palisades nuclear plant currently undergoing refurbishment and upgrades, has been ticking up like the rest of the world's water reservoirs and is expected to continue rising in the coming decades during its projected service life. We are pleased to report that, as a part of the ongoing melioration of the Palisades nuclear plant, Holtec has successfully developed an innovative embodiment of the **plant's cooling water heat exchanger system**... To meet the projected rising lake water temperature, **the new unit** needed to be more than twice as large in heat transfer surface area as the existing unit, but had to fit in the same space. ... The upgraded heat exchanger set will be installed within the next 12 months<sup>1</sup> [**Emphasis Added**]

5. The Holtec document infers that a single new *cooling water heat exchanger system* was being installed to mitigate the *steadily eroding...power output* due to *the continuing threat of global warming* and its impact upon the Palisades Reactor. These statements by Holtec implied the replacement of the main condenser. [*Quotes in Italics*]
6. Upon reading the *NRC's Request for Additional Information (RAI)* submitted by Holtec coupled with the *NRC Answers to the Petitioners' filing*, I concluded the press release written by Holtec was actually inaccurate and apparently referenced the replacement of the two-component cooling water (CCW) heat exchangers that rely on Lake Michigan as the Palisades Ultimate Heat Sink (UHS). The term Holtec used in the press release is *cooling water heat exchangers* instead of component cooling water. It appears that Holtec is not replacing three heat exchangers, as I indicated in my second Declaration as a possibility. On the contrary, in its RAI, Holtec acknowledges the replacement of two heat exchangers that

---

<sup>1</sup> <https://holtecinternational.com/2024/08/15/palisades-cooling-system-upgraded-to-counter-the-continuing-threat-of-global-warming/>

might offset the continuing threat of global warming from the Ultimate Heat Sink at the Palisades Reactor.

7. Most importantly, I adhere to the conclusion offered in my first *Declaration* and my *Supplemental Declaration*. As I stated in each Declaration, Holtec admitted global climate change is adversely impacting the temperature of Lake Michigan, which is the Ultimate Heat Sink for the Palisades Reactor. Consequently, since the temperature of the UHS is a safety parameter for every reactor, it is therefore an integral part of the safety protection design bases created explicitly for the safe operation of the Palisades Reactor.
8. I apologize to the Atomic Safety and Licensing Board, the parties, and their counsel for any inconvenience caused by my assertion that Holtec might be replacing three heat exchangers. When in fact, in the clarification made in the RAI submitted by Holtec, it is finally clear that Holtec currently plans to replace only two heat exchangers to adjust to the *continuing threat of global warming* and its impact on the Palisades Design Bases. [*Quotes in Italics*]

~ End ~

Attachments – None

### **Declaration Electronic Signature Page**

I am the Chief Engineer for the paralegal services and expert witness firm Fairewinds Associates, Inc.

I declare under penalty of perjury that the testimony submitted in this proceeding is true and correct to the best of my knowledge. The facts presented in this expert report are true and accurate to the best of my knowledge, and the opinions expressed are based on my best professional judgment.

Executed in accordance with 10 CFR 2.304 (d) and 2.326 (b),

*(Electronically signed)*

*/S/*

---

Arnold Gundersen, MENE, RO  
Fairewinds Associates, Inc  
Charleston, SC, and Burlington, VT  
Telephone: 802-865-9955  
Email: [fairewinds@mac.com](mailto:fairewinds@mac.com)

Dated: Sunday, November 17, 2024