

From: Edward Mcardle <edmcardle34@gmail.com>
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Re; Palisades nuclear re-start comments on Environmental Assessment draft

The draft EA is insufficient, and a full EIS should be mandated. Considering that Holtec has never owned or operated a nuclear plant, it shows their inexperience when they neglected to do a wet lay-up on the steam generator for nearly 2 years. The previous owner, Entergy, failed to do needed repairs and maintenance, planning to close for decommissioning.

Palisades has had a troubled operating history that indicates flawed and age-related systems that need closer examination. The NRC refers to an SEIS from 1996 as a baseline to say various categories pose “no significant impact”. But there have been many changes since then that would justify a full EIS.

Palisades already has 869 tons of high-level nuclear waste stored in 48 cement and metal casks plus some in the cooling pool. Re-starting the plant would create the need for 16 additional casks. Any problem with them could be very “significant”.

During normal operation, Palisades routinely vented radioactive gases to the air and discharged radioactive effluents to Lake Michigan. The NRC review of the site indicates groundwater movement which likely flows to Lake Michigan. Dozens of monitoring wells have shown tritium contamination of the groundwater.

The State of Michigan water discharge draft permit (NPDES) allows huge amounts of lake water withdrawn up to 390,000 gal./minute, most is returned to the lake as heated water with the balance emitted through the cooling towers as water vapor (itself a greenhouse gas). The Great Lakes water temperatures have been increasing and Palisades effluent would add to that.

The draft water permit also allows many toxic chemicals to be discharged to the lake. The most disturbing is the use of Hydrazine, an anti-corrosive, a known carcinogenic, highly flammable chemical that is mostly used as a rocket fuel. The EU is considering banning this chemical. Very toxic biocides such as Spectrum- 1300 along with other chemicals are used to control algae and zebra mussels. The draft permit also allows steam generator blow down water, rad waste water, stormwater, and oil and greases. This surely has a significant impact to the fish and biota of Lake Michigan. How many of these emissions are bio-accumulative to fish and other organisms?

Nuclear plants rely on outside power from the grid to run the huge pumps and valves, control room, and various other needs. So far, the energy mix for Michigan is mostly fossil fuels (renewables counting for approximately 11-15% but increasing). What environmental impact would that entail from using coal and natural gas that power the grid to support operations?

The need to protect the people and environment calls for a fully applied Environmental Impact Study.

Thank you for your consideration.

Ed McArdle, Conservation Committee member, Michigan Sierra Club

edmcardle34@gmail.com 313-415-1511