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**FENOC admits Davis-Besse Shield Building cracks “propagating”**

**Opponents to 20-year license extension challenge aging management, call for permanent shutdown**

Oak Harbor, OH—An environmental coalition has intensified its challenge against the bid by FirstEnergy Nuclear Operating Company (FENOC) for permission to run the problem-plagued Davis-Besse atomic reactor an additional 20 years, from 2017 to 2037. The intervenors, represented by Toledo attorney Terry Lodge, have just filed challenges to FENOC’s Shield Building Aging Management Plans (AMPs) as dangerously inadequate: too few core bore tests; too infrequent testing; and not enough diversity of surveillance methods, leaving large blind spots.

The coalition’s filing, and related documents, are posted at Beyond Nuclear’s website, at: [http://www.beyondnuclear.org/relicensing/](http://www.beyondnuclear.org/relicensing/).

FENOC published modifications to its AMPs on July 3rd, in response to newly identified cracks, and “propagation” (worsening) of previously identified cracks, for its already severely cracked Shield Building, discovered in August-September 2013. The coalition had a 60-day deadline to file its latest contention in the U.S. Nuclear Regulatory Commission (NRC) Atomic Safety and Licensing Board (ASLB) proceeding, which began December 27, 2010.

In its most recent modifications to the Shield Building AMPs, FENOC has admitted “[t]he cracking propagation was determined to be a result of ice-wedging (freezing water at a pre-existing crack leading edge),” and “[t]he rate of cracking propagation is estimated at 0.4 to 0.7 inches per freezing cycle based on laboratory simulation.”

“How long has this alarmingly fast cracking growth rate already been going on? Since the Blizzard of 1978? Earlier?” asked Kevin Kamps of Beyond Nuclear, an intervening group. “Does the freeze-thaw cycle still penetrate the Shield Building sidewall, due to the 2012 whitewash’s inability to insulate, as well as the poor quality concrete? How long before circumferential cracking goes all the way around the diameter of the Shield Building? How long before through-wall cracking goes all the way through the Shield Building’s sides? How soon before the severely cracked Shield Building, also known to be badly out of vertical plumb, simply collapses under its own weight, and topples the unanchored Inner Steel Containment Vessel into the reactor?” Kamps asked.

NRC engineering safety staff were concerned about Shield Building failure, due to additional “small loads,” such as a tornado, earthquake, or internal pressure build up, as from a melt down. This was revealed in internal emails from 2011, unearthed by Beyond
Since the day it opened almost 40 years ago, Davis-Besse has flirted with disaster. Even when it was new, Toledo Edison had problems convincing the public that the plant could ensure protection of public health, safety, and the environment. As the plant moves wholly into the breakdown cycle we're seeing an alarming and accelerating decline in the physical plant. It's time to call off the failed experiment,” said Terry Lodge, Toledo-based attorney representing the environmental coalition. "The saga of the Davis-Besse Shield Building spans the 'Snow Job of '78' to 'ice-wedgies,' but the worst joke is FENOC's insistence it can be trusted to protect the public.”

As stated in FENOC’s license renewal application: “The Shield Building is a concrete structure surrounding the Containment Vessel. It is designed to provide biological shielding during normal operation and from hypothetical accident conditions. The building provides a means for collection and filtration of fission product leakage from the Containment Vessel following a hypothetical accident through the Emergency Ventilation System, an engineered safety feature designed for that purpose. In addition, the building provides environmental protection for the Containment Vessel from adverse atmospheric conditions and external [tornado] missiles.”

“As we warned against in 2012, FENOC now admits its whitewash has locked water in its Shield Building walls, worsening ‘ice-wedging’ cracking at each freeze/thaw cycle,” said Michael Keegan of Don’t Waste Michigan in Monroe, another intervening group. “Water could also be percolating down from flaws in the roof dome, and wicking up from standing groundwater at the base, into a Shield Building way out of plumb according to its technical specifications,” Keegan said.

Developments have proven the environmental intervenors right time and time again. In late 2012, the ASLB panel of three administrative law judges rejected an earlier series of Shield Building contention, stating “Intervenors provide no support for their argument that the 2014 steam generator replacement will increase the risk of cracking, and as such, their argument is mere speculation,” as well as “Intervenors have provided no support for their argument that the cracking…is aging-related.”

But FENOC has now admitted crack propagation over time. And a little over a year after the ASLB’s ruling, FENOC in fact discovered an air gap or void extending most of the way through the Shield Building, as well as extensive steel rebar damage, due to repeated breaches of the wall for replacing large nuclear components, such as the reactor lid and steam generators.