News from Beyond Nuclear

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Environmental coalition decries NRC's rubber-stamp of Davis-Besse atomic reactor's 2017-2037 operating license extension, vows to fight on

Groups warn that severe and worsening containment cracking, and multi-billion dollar bailout, amount to "Faustian Fission"

Oak Harbor, OH and Rockville, MD--The coalition of environmental groups that have been battling against FirstEnergy Nuclear Operating Company's (FENOC) bid to extend operations at its problem-plagued Davis-Besse atomic reactor for the past five years, have decried the U.S. Nuclear Regulatory Commission's (NRC) approval of FENOC's application as a rubber-stamp. The coalition warns that the 2017 to 2037 extension, to be largely funded by multiple billions of dollars in ratepayer subsidies, if approved by the Public Utilities Commission of Ohio, amounts to another two decades of "radioactive Russian roulette" on the Lake Erie shoreline.

"Davis-Besse is a contrivance of regulatory neglect and corporate welfare. Without the existence of both, it would be a fading road bump in the transition to a full-employment, safe energy future," said Terry Lodge, a Toledo attorney, and the intervening environmental coalition's legal counsel.

The coalition is comprised of Beyond Nuclear, Citizen Environmental Alliance of Southwestern Ontario, Don't Waste MI, and the Ohio Green Party.

"FirstEnergy can duck the user friendly regulation because it is a rigged game, but they will not be able to duck the laws of physics," said Michael Keegan of Don't Waste Michigan in Monroe, MI. "The Davis-Besse Shield Building is crumbling under its own hubris, with gravity to catch up soon. The Shield Building does not meet design criteria as it currently exists. The NRC has awarded this twenty year license renewal without having the Shield Building analysis in hand," Keegan, a Davis-Besse Intervenor, added.

The environmental coalition has vowed to continue fighting Davis-Besse's bailout and continued operations at every turn. An example already underway is an appeal to the second highest court in the land, just under the U.S. Supreme Court. Some months ago, Beyond Nuclear filed a lawsuit at the U.S. Circuit Court of Appeals for the District of Columbia Circuit, challenging NRC's Continued Storage of Spent Nuclear Fuel policy, formerly called "Nuclear Waste Confidence." Beyond Nuclear is joined by a coalition of environmental groups engaged in numerous licensing proceedings, by an alliance of states, including New York and Vermont, and the Prairie Island Indian tribe. A ruling in favor of Beyond Nuclear et al. in the case, referred to as New York v. NRC II, could represent a major blow to NRC's approval of Davis-Besse's license extension, for the generation of irradiated nuclear fuel could be invalidated as a violation of the National Environmental Policy Act regarding environmental impacts, the Atomic Energy Act regarding safety risks, and/or the Administrative Procedures Act regarding the highly questionable process NRC has used. Diane Curran of Washington, D.C. and Mindy Goldstein of the Turner Environmental Law Center at Emory University in Atlanta serve as Beyond Nuclear's legal counsel.

The following statement by Beyond Nuclear's Kevin Kamps comes in response to the U.S. Nuclear Regulatory Commission's approval of Davis-Besse's 20-year license extension:

"The NRC's rubber-stamp of the license extension comes on top of PUCO staff's "sweetheart deal" for FirstEnergy. While the bailout is a rotten rip-off of ratepayers, undermining climate protection, as well as energy efficiency and renewables, it is most dangerous. It would prop up the age-degraded, uncompetitive Davis-Besse atomic reactor, by surcharging households and

businesses on their electricity bills. Twenty more years of operations at the problem-plagued Davis-Besse atomic reactor is unacceptably risky to public health and safety.

This proposed deal with the devil, and now the 2017 to 2037 license extension, are dangerous for Ohio. There could be hell to pay for running this problem-plagued reactor for two more decades.

We continue to challenge, as a snow job, the claim that the Blizzard of 1978 is the exclusive root cause of the Shield Building's infamous cracking. But even the company admits that Davis-Besse's concrete containment has been severely cracked for 38 years. For nearly two years after the widespread, but hidden, spider web of sub-surface cracks were discovered by accident, FirstEnergy denied they would grow. The Nuclear Regulatory Commission (NRC) agreed.

But by Sept. 2013, FirstEnergy detected crack growth. It turns out, for the past three years, the cracks have grown, by a half-inch or more, every time it freezes. FirstEnergy has recently admitted the cracks, already extending 20-70% around the circumference at certain elevations, can grow up to nine inches per year, nearly double the rate it predicted in 2014.

FirstEnergy blames "ice-wedging crack propagation," due to water locked in the walls. Not unlike the 2002 Hole-in-the-Head scandal, this is a self-inflicted wound. Ironically, the "White Wash" of Aug.-Oct. 2012, the rushed weather sealant applied to the Shield Building exterior forty years too late, is to blame for damming up the damaging moisture.

The NRC Advisory Committee on Reactor Safeguards recently held meetings, on Davis-Besse's license extension, a final stage ending in today's announcement of NRC's approval. At those technical meetings, FirstEnergy tried hard not to acknowledge a growing risk, but admitted that for four years it has known that an earthquake, tornado, or other force could cause large chunks of crack-loosened concrete to fall off the exterior of the Shield Building. Safety-significant structures and components are located below. These include: borated water storage tanks, essential for nuclear criticality control in the operating reactor core, as well as the high-level radioactive waste storage pool; the Auxiliary Building, housing numerous systems; and elements of the electrical transmission system, essential for powering safety and cooling functions.

When the owner of the Crystal River, Florida reactor realized replacing its fatally fractured containment would cost billions, it permanently shut down

instead. Even if the entire, nearly \$4 billion ratepayer bailout agreed to by the PUCO staff was devoted to replacing Davis-Besse's Shield Building, it probably wouldn't be enough to finish the job. But FirstEnergy has no plan to replace it. There is no repair for the cracks, nor any way to stop them from growing. FirstEnergy's only "corrective action" is monitoring, but the number and location of core bores and Impulse Response tests they plan are woefully inadequate.

Proponents of the bailout and 20-year license extension highlight such benefits as jobs, tax revenues, and charitable donations. Reliability shouldn't be included, after the two-year lid corrosion shutdown, FirstEnergy's role in the 2003 Northeast power outage, and numerous other unplanned shutdowns at Davis-Besse over many years.

But what are the risks? *In such Faustian fission, Mephistopheles could come in the form of a meltdown.* The cracked and corroded containment can't be counted on to prevent a catastrophic radioactivity release. How bad would the consequences be?

NRC's "Calculation of Reactor Accident Consequences" study (officially entitled "Technical Guidance for Siting Criteria Development"), carried out by Sandia National Lab in 1982, revealed that a catastrophic radioactivity release at Davis-Besse could cause: 1,400 acute radiation poisoning deaths; 73,000 "peak early injuries"; 10,000 latent cancer fatalities; and \$84 billion in property damage. But the population has soared around Davis-Besse in the past three decades, so casualty figures would be significantly higher now. And, when adjusted for inflation, property damage would now top \$203 billion.

Ratepayers should not be forced to fund 20 more years of radioactive Russian roulette at Davis-Besse. This outrageous, unacceptably risky ratepayer robbery must be stopped. The reactor must retire, as planned, on Earth Day, 2017 at the latest."

ADDITIONAL BACKGROUND

Beyond Nuclear, based in Takoma Park, MD, has worked for the past five years with local grassroots environmental coalition partners (including Citizen Environmental Alliance of Southwestern Ontario, Don't Waste Michigan, and the Ohio Green Party), to officially intervene before NRC's Atomic Safety and Licensing Board, against the 20-year license extension (2017-2037) at Davis-

Besse. Toledo attorney Terry Lodge has served as the environmental coalition's legal counsel.

In 2013, Sierra Club -- also an official party to the PUCO proceeding, and opposed to PUCO Staff's recently announced settlement agreement with FirstEnergy -- joined the environmental coalition to challenge risky, experimental steam generator replacements at Davis-Besse. Arnie Gundersen, Chief Engineer at Fairewinds Associates, Inc., of Burlington, Vermont, served as the coalition's expert witness. Gundersen served as Friends of the Earth's expert witness in its successful bid to permanently close two reactors at San Onofre, CA in 2013, due to defective replacement steam generator risks.

On behalf of its members and supporters in Ohio, Beyond Nuclear has also joined with a broad coalition of environmental, public interest, and ratepayer groups, and spoken out -- including in written filings submitted to the PUCO, oral testimony at PUCO public hearings in Akron and Toledo, and at protest rallies at PUCO HQ in Columbus -- against FirstEnergy's attempted nuclear power and coal-burning plant bailouts at ratepayer expense.

The Office of the Ohio Consumers' Council (OCC) and the Northeast Ohio Public Energy Council (NOPEC) have stated that: "OCC and NOPEC's expert preliminarily projects that the new PPA [Power Purchase Agreement] proposal will cost consumers approximately \$3.9 billion. And the settlement's impact on Ohioans' electric bills does not end with the PPA charges: the settlement contains a virtual holiday wish list of favorable ratemaking for FirstEnergy."

Beyond Nuclear published analysis and commentary on the U.S. Nuclear Regulatory Commission Advisory Committee on Reactor Safeguards meeting that took place on November 4, 2015 about Davis-Besse's 20-year license extension. The NRC ACRS meeting largely focused on the severe, and worsening, cracking of Davis-Besse's concrete containment Shield Building. The Beyond Nuclear analysis is entitled *FAUSTIAN FISSION*, and argues that forcing ratepayers to fork over billions of dollars in bailouts to FirstEnergy to subsidize 20 more years of radioactive Russian roulette on the Great Lakes shoreline is an outrage, that must be stopped.

See the <u>PDF version</u> (or see the <u>Word version</u>, for live hyper-links to relevant documents). [Full web post online

at: http://www.beyondnuclear.org/safety/2015/11/6/davis-besse-a-multi-billion-dollar-ratepayer-bailout-for-20.html]

Additional information can be found at these Beyond Nuclear web posts about the Nov. 4 NRC ACRS meeting:

Beyond Nuclear watchdogs Davis-Besse Shield Building cracking at NRC ACRS meeting

Links to <u>FirstEnergy's power point presentation</u>. <u>NRC staff also presented a power point</u>, and had <u>back up slides</u>. Beyond Nuclear's Kevin Kamps has prepared <u>notes/commentary/analysis</u>. [Full web post online at: http://www.beyondnuclear.org/safety/2015/11/5/beyond-nuclear-watchdogs-davis-besse-shield-building-crackin.html]

NRC ACRS to discuss Davis-Besse Shield Building cracking, Nov. 4-7

Extensive background information on this significant safety risk. [Full web post online at: http://www.beyondnuclear.org/safety/2015/11/3/nrc-acrs-to-discuss-davis-besse-shield-building-cracking-nov.html]

A 2010 backgrounder, entitled "Davis-Besse Atomic Reactor: Twenty MORE Years of Radioactive Russian Roulette on the Great Lakes Shoreline?!" was published at the very start of the coalition's intervention against the license extension. It is posted online at: https://static1.1.sqspcdn.com/static/f/356082/9994732/1293650246863/Davis+Besse+20+More+Years+of+Radioactive+Russian+Roulette+Nov+2010+corrected+Dec+28+2010.pdf?token=zx5v%2FQ9Zp4qDMZ3MN3p1YOzPMwo%3DD

A 2012 backgrounder, entitled "What Humpty Dumpty doesn't want you to know: Davis-Besse's cracked containment Snow Job," is posted online at http://static1.1.sqspcdn.com/static/f/356082/19776283/1344489357567/Snow+Job+Recent+Revelations+8+8+2012.pdf?token=z6v2ZI52LaFUjBMLc2lIc7yJVO8%3D. It summarizes what the coalition knew about the cracking at that point.

Updates, including all coalition intervention filings from 2010 to 2015, are available upon request.