News from Beyond Nuclear
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Nuclear Utility Concealed Cracking of Davis-Besse Shield Building for 36 Years

*NRC accepts FirstEnergy “Snow Job” despite unanswered questions*

Oak Harbor, OH—The U.S. Nuclear Regulatory Commission (NRC) has signed off on FirstEnergy Nuclear Operating Company’s claim that the Blizzard of 1978 caused the cracking in the Davis-Besse atomic reactor’s shield building, despite an admission by the nuclear utility of cracking in the shield building dome as early as 1976. NRC has signed off despite FirstEnergy’s inadequate answers to numerous NRC questions about other potential causes of the cracking, such as standing water on the shield building roof, as well as failure to waterproof the shield building interior walls or floor, resulting in several years of exposure to the elements during construction before reactor operations began. NRC has blessed Davis-Besse’s operation, despite the need for much more extensive cracking tests across the shield building and other structures on site in the months and years ahead.

An environmental coalition opposing a 20 year license extension at the problem-plagued, 35-year-old Davis-Besse atomic reactor stands by its conclusion from February, that FirstEnergy’s claim that the Blizzard of ’78 caused the concrete shield building’s cracking is nothing more than a “Snow Job.”

FirstEnergy’s revised root cause analysis report reveals that the nuclear utility has known about cracking in its shield building much further back in time than October 10, 2011.

In the NRC required revision to its initial Feb. 28th root cause analysis report, FirstEnergy on May 16th admitted for the first time in 36 years:

"On August 15, 1976 the Toledo Edison Company construction superintendent documented an examination of the shield building dome parapet that found a cracked and broken architectural flute..."
shoulder corner at approximately 292 degree azimuth. There were also other hairline shrinkage cracks in the dome parapet at both corners of each architectural flute shoulder, at mid-width of each flute, and vertical around the periphery of the parapet...

[emphasis added; taken from page 29, FENOC’s May 16, 2012 revised root cause analysis report, ML12142A052 on the NRC homepage search field]

“FirstEnergy can't blame the cracks discovered in 1976 on the Blizzard of 1978 -- it hadn't happened yet!” said Kevin Kamps of Beyond Nuclear. “For 36 years, FirstEnergy concealed the fact that its concrete shield building has been cracked since before operations began in 1977!”

The questioning also revealed for the first time photographs of standing water on the shield building’s roof, which led NRC staff to ask FirstEnergy how that might explain the cracking, as opposed to the Blizzard of ’78.

In May, David Lochbaum of the Union of Concerned Scientists wrote to the NRC’s Midwest Regional Administrator Chuck Casto, pointing out that FirstEnergy’s Feb. 28th root cause analysis report was incomplete in significant respects, a regulatory violation – which NRC has still done nothing about.

FirstEnergy also has refused to adequately answer direct questions put to it by NRC, including why the shield building’s exterior wall was never weather sealed, while the shield building's dome, and various other concrete -- less safety significant -- structures on site, were weather sealed.

FirstEnergy merely stated [page 33, revised root cause analysis report]:

"No exterior protective sealant other than the waterproofing membrane below-grade was specified as a barrier against moisture migrating into the shield building structure from the environment. A Bechtel project meeting held on September 5, 1969 to review and estimate protective coatings for DBNPS [Davis-Besse Nuclear Power Station] determined that there would be no painting required on the inside or outside concrete walls of the shield building...the design codes at the time of construction did not require the application of a protective coating on the exterior of the shield building."

“What trust should the public have in a nuclear utility which couldn't correctly waterproof the shield building to last 40 years, much less the 60
that FirstEnergy now presumes to be entitled to?” asked Terry Lodge, Toledo attorney representing the environmental coalition.

FirstEnergy’s revised root cause report also reveals that, prior to operations, in the early to mid 1970s, the shield building’s interior walls and floor were exposed to the elements for several long years, due to the delayed installation of the cover dome, as well as the large, original construction opening in the side wall, and two temporary openings for reactor vessel head swap outs a decade ago and last year.

“This begs the question, has the structural integrity of the interior wall been compromised as well, due to its prolonged exposure to the elements?” Kamps asked.

In addition, documents related to an NRC Request for Additional Information to FirstEnergy, dated May 2011, but not made public for a year, show that the shield building’s moisture barrier, installed below ground, has itself been degraded by leaking borated water inside the Davis-Besse shield building.

Boric acid leakage in 2002 led to the Hole-in-the-Head Fiasco, the most infamous near-miss to a nuclear disaster since the 1979 Three Mile Island meltdown. More boric acid leakage in 2010 led FirstEnergy to install the third reactor lid in Davis-Besse’s history. That swap out revealed the shield building side wall cracking last October.

“This revelation of water damage to the shield building’s moisture barrier below ground, due to an internal leak, indicates that Davis-Besse is not only corroding from the outside in, but also from the inside out,” Kamps said.

The environmental coalition intervening against Davis-Besse’s proposed 20-year license extension includes Beyond Nuclear, Citizens Environment Alliance of Southwestern Ontario, Don’t Waste Michigan, and the Green Party of Ohio. It has filed contentions against the license extension based on the cracking of the concrete containment. The coalition is represented by Toledo attorney Terry Lodge.

Documents referred to in this media release are available upon request. Contact Kevin Kamps at Beyond Nuclear, (240) 462-3216.

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