***In addition to the attached, completed, EPU Witness Slip attachment, please see two additional attachments, backgrounders about Davis-Besse, namely*** [***"20 MORE Years of Radioactive Russian Roulette?!"***](https://urldefense.proofpoint.com/v2/url?u=http-3A__static1.1.sqspcdn.com_static_f_356082_9994797_1293650562697_Davis-5FBesse-5FBackgrounder.pdf-3Ftoken-3DRh9NV93KYTlvLNln22jlHxWmX9o-253D&d=DwMFaQ&c=kRQx1TXm_68pneFHvOZEGQ&r=Rj7kg0sHXA_bBQqEWf7snqsut1NpVmiitYqsL--HuG0&m=ykqEo340S3R8ANrffhHqBecC8QITke3nRTJgWabkyyo&s=YHTAJImNl9IGp5evNE6SjBq19r3XRv9on_hH7MDN5oM&e=)***, and*** [***"What Humpty Dumpty Doesn't Want You to Know: The Cracked Containment Snow Job"***](https://urldefense.proofpoint.com/v2/url?u=http-3A__static1.1.sqspcdn.com_static_f_356082_19776283_1344489357567_Snow-2BJob-2BRecent-2BRevelations-2B8-2B8-2B2012.pdf-3Ftoken-3DkjKcur0u-252F7yYQJkTKfnWcI7YtgY-253D&d=DwMFaQ&c=kRQx1TXm_68pneFHvOZEGQ&r=Rj7kg0sHXA_bBQqEWf7snqsut1NpVmiitYqsL--HuG0&m=ykqEo340S3R8ANrffhHqBecC8QITke3nRTJgWabkyyo&s=K291z4qdjQhh0_7PIBgkE10d5_W970E0rJx50xtB5Oc&e=) [<<<also linked here]

Testimony submitted by:

Kevin Kamps  
Radioactive Waste Specialist  
Beyond Nuclear  
7304 Carroll Avenue, #182  
Takoma Park, Maryland 20912

June 17, 2019

Testimony of Beyond Nuclear  
Before the Ohio Senate – Energy and Public Utilities Committee  
Committee Meeting on Sub. H.B. No. 6 (Callender, Wilken)  
“Creates Ohio Clean Air Program”

Dear Chair Wilson, and Members of the Energy and Public Utilities Committee,

Thank you for this opportunity to submit written testimony, on behalf of Beyond Nuclear’s many hundreds of members and supporters in Ohio, in opposition to Sub. H.B. 6. I am unable to testify in person, unfortunately, on such short notice. Please accept my written testimony for your consideration, and for the record.

I serve as radioactive waste specialist at Beyond Nuclear. Beyond Nuclear aims to educate and activate the public about the connections between nuclear power and nuclear weapons and the need to abolish both to safeguard our future. Beyond Nuclear advocates for an energy future that is sustainable, benign and democratic.

First and foremost, Ohio ratepayers should not be gouged on their electric bills, month after month, to subsidize bankrupt FirstEnergy’s ongoing operations at dangerously age-degraded atomic reactors like Davis-Besse and Perry. As my attached 2010 backgrounder puts it, the radioactive Russian roulette FirstEnergy is perilously playing at Davis-Besse, with the complicity of the U.S. Nuclear Regulatory Commission (NRC), should not include the public having to pay through the nose for its own subjection and exposure to such high risks. The proposed bailout is an outrage, not just to public pocketbooks, but to public health, safety, and the environment! As the 2010 backgrounder documents, many radioactive bullets have been narrowly dodged at Davis-Besse since 1977. How much longer our luck holds out is anyone’s guess. The bail out should be denied, and Davis-Besse permanently shut down, ASAP, for the sake of public health, safety, and the environment, as well as ratepayer and taxpayer pocketbooks.

Decommissioning at Davis-Besse (and Perry, and Beaver Valley in Pennsylvania, just several miles from the Ohio state line) should begin in an orderly manner, with retention of as much of the workforce as possible, to carry out long overdue radiological cleanup, high-level radioactive waste (HLRW) hardened on-site storage, etc. For those workers who are not retained during the years and decades of decommissioning and HLRW management, a just transition is essential. This is true too for local host community municipalities and institutions that will otherwise face a decline in associated tax revenues and charitable contributions.

What follows below is focused on safety, health, and environmental risks at Davis-Besse (which of course, also carry an economic price tag). This should not be misunderstood as a claim that no such risks exist at Perry. Quite to the contrary, there are also major risks at Perry – just as there are at FirstEnergy’s Beaver Valley Units 1 and 2 in Shippingport, PA, just four short miles from the Ohio state line. Beaver Valley 1 and 2 are desperately seeking bailouts in PA, by the way, just like Davis-Besse and Perry are in Ohio.

The reason for my focus on Davis-Besse is my long involvement there. I first became actively and directly involved in the Davis-Besse shutdown campaign in 2002, after the Hole-in-the-Head fiasco. I have remained deeply involved in the ongoing resistance to Davis-Besse’s ever more risky operations, ever since.

This has included co-leading the official intervention against Davis-Besse’s 2017-2037 license extension, beginning with our coalition petition to intervene on December 27, 2010. The coalition included Beyond Nuclear, Citizens Environment Alliance of Southwestern Ontario, and the Ohio Green Party. Toledo attorney Terry Lodge, a four-decade Davis-Besse watch-dog, served as legal counsel for the bi-national, multi-state and province coalition.

Given that Earth Day (April 22nd) had just passed, when the Ohio House of Representatives' deadline for testimony on H.B. 6 took place (April 23, 2019) I note that our call was for Davis-Besse to retire, as planned, on Earth Day 2017. April 22, 2017 marked the expiration of Davis-Besse’s initial 40-year license.

But to the great and deepening peril of northern Ohio, the rest of the state, the Great Lakes, and beyond, the U.S. Nuclear Regulatory Commission (NRC) – an agency that is supposed to protect public health, safety, and the environment, but instead is infamously captured by the industry it is supposed to regulate and oversee – rubber-stamped Davis-Besse’s 20-year license extension, despite our five solid years of hard work to stop it.

Thus Davis-Besse sails ever deeper into the uncharted territory of age-related degradation risk, of a catastrophic release of hazardous radioactivity into the environment, as due to reactor core meltdown and containment failure, high-level radioactive waste storage pool fire, etc.

As the 40th annual commemoration of the Three Mile Island Unit 2 reactor meltdown in Pennsylvania had just passed on March 28th, as the 8th annual commemoration of the Fukushima nuclear catastrophe in Japan had just passed on March 11th, and as the 33rd annual commemoration of the Chernobyl nuclear catastrophe in Ukraine approached on April 26th, such dire warnings should not be taken lightly, as I communicated to the Ohio House committee considering H.B. 6 on April 23rd. And now I communicate this dire warning to you.

And yet NRC has had to ignore, deny, and downplay a large number of dire safety risks at Davis-Besse, in order to bless another two decades of already very bad, but ever worsening, age-related degradation.

(While in Kiev, Ukraine on April 26, 2006, while attending the 20th annual Chernobyl nuclear catastrophe commemorations, I went to a Chernobyl whistle-blower’s presentation. I was listening to him via real time headphone translation from Ukrainian or Russian, into English. He concluded his talk by saying it’s not just Russian-designed reactors like Chernobyl we need to worry about. I nearly fell out of my chair, when I heard him say “Davis-Besse” even before the translation came through. He proceeded to speak about the Hole-in-the-Head fiasco, that came to light just several years before. That’s how infamous Davis-Besse’s safety risks are, that it would be brought up by a Chernobyl whistle-blower in Kiev, Ukraine as part of the Chernobyl +20 commemorations!)

Chief among these is the risk associated with Davis-Besse’s severely cracked, and ever worsening, radiological concrete containment Shield Building cracking. Please see below my signature, for 2011 to 2016 posts at [Beyond Nuclear’s RELICENSING website section](https://urldefense.proofpoint.com/v2/url?u=http-3A__www.beyondnuclear.org_relicensing_&d=DwMFaQ&c=kRQx1TXm_68pneFHvOZEGQ&r=Rj7kg0sHXA_bBQqEWf7snqsut1NpVmiitYqsL--HuG0&m=ykqEo340S3R8ANrffhHqBecC8QITke3nRTJgWabkyyo&s=Ug1nJWF1WeLjQlK23qM-eYMnz9uqZzFLidbh8Edk5Mo&e=), having to do with Davis-Besse. Most of these many posts have to do with Shield Building cracking, but you will see that other issues (from high-risk, experimental steam generator replacement, to years worth of failed previous bailout attempts) crop up too. The vast majority of links still work. But if some do not (such as due to NRC killing the link), and you want access to that document, let me know, and we’ll track it down for you.

This Shield Building cracking issue became a key contention in our intervention against the license extension. Although rejected by NRC’s Atomic Safety and Licensing Board (ASLB), significant allegations we made were later proven true – but NRC rubber-stamped the license extension anyway. We were denied our day in court by ASLB based on NRC’s Byzantine rule that contentions must be aging-related, something we proved exhaustively, yet the ASLB still denied us a hearing on the merits.

But then, in August-September 2013, lo' and behold, FirstEnergy admitted that in fact the cracks were growing, that is, the cracking was aging-related! In July 2014, FirstEnergy even admitted the cracks were growing by a half-inch or more in circumferential orientation around the cylindrical Shield Building, each and every freeze-thaw cycle – something that can happen a large number of times per year, not just in winter, but potentially in every season save summer (that is, also in autumn and spring) on the Lake Erie shore. Such admissions came after FirstEnergy and NRC itself had largely to entirely blocked our legal intervention via mere legal technicalities, while never addressing the safety risks at the heart of our contentions. Such behavior harkens back to the dire warning issued by the Japanese Diet (Parliament) in 2012, that collusion between regulators, government officials, and the nuclear power industry was the root cause of the Fukushima Daiichi nuclear catastrophe. But such collusion has long corrupted decision making at Davis-Besse, right up to the present.

In late 2015, before the NRC’s Advisory Committee on Reactor Safeguards (ACRS), FirstEnergy admitted it had known since cracks were discovered in 2011 that spalling of large chunks of exterior face Shield Building concrete was possible – something the company had vociferously denied from 2011 to 2015 when we raised the specter in our cracking contentions. In fact, FirstEnergy admitted, such spalling could damage safety-significant systems, structures, and components down below.

In this sense, Davis-Besse’s Shield Building, designed to prevent catastrophic releases of hazardous radioactivity, could instead cause it. Shield Building collapse, due to cracking, could disable safety systems, leading to a reactor meltdown. And then, of course, having collapsed, the Shield Building would be unable to contain the radioactivity escaping from the meltdown.

Such containment failure risk is exacerbated by boric acid leakage-induced corrosion of the Inner Steel Vessel component of containment.

Despite all this, the ACRS – just like the ASLB, the NRC staff, and the NRC commissioners – blessed the extended license at Davis-Besse.

Another way we were proven correct, although this has never been acknowledged, was in the need for repairs to the Shield Building. FirstEnergy argued vociferously that such repairs to the cracking were not needed, and never would be. NRC swallowed the argument hook, line, and sinker. And yet, multiple major Shield Building repairs have since been undertaken in the past few years, to deal with the ever-worsening cracking. The question is, are the repairs adequate? We have our deep doubts, given FirstEnergy’s overconfidence, and countless outright lies, coverups, obfuscations, and short cuts on safety, in the past.

Meltdown risks at Davis-Besse are huge. The NRC-commissioned, Sandia National Lab-performed CRAC-2 study of 1982 (the report is most commonly referred to as the CRAC-II report because it is the computer program used in the calculations, but the report is also known as the 1982 Sandia Siting Study, or as NUREG/CR-2239; CRAC is short for Calculation of Reactor Accident Consequences), predicted the following re: a meltdown and catastrophic radioactivity release at Davis-Besse: 1,400 peak early fatalities (acute radiation poisoning deaths); 73,000 peak early (radiation) injuries; 10,000 peak cancer deaths (latent cancer fatalities); $84 billion in property damage.

However, as AP investigative reporter Jeff Donn pointed out in his June 2011 four-part series, “Aging Nukes,” populations have soared since 1982 around reactors like Davis-Besse. Thus, the casualty numbers would only be significantly worse now. And when adjusted for inflation alone, the property damage figure would now be $220 billion, in Year 2018 dollar figures.

(Tellingly, NRC tried to suppress CRAC-2’s findings in 1982. However, U.S. Representative Ed Markey (Democrat from Massachusetts) – now a U.S. Senator – outed the results in congressional oversight hearings.

And, showing how darkly cynical the Davis-Besse license extension proceeding was, when I referred to the CRAC-2 report at ASLB oral argument pre-hearings held in Port Clinton on March 1, 2011, not only FirstEnergy, but even the NRC staff and ASLB, feigned ignorance, claiming not to know what I was referring to. I had used the most commonly used name, CRAC-2, rather than the official title, the 1982 Sandia Siting Study, or NUREG/CR-2239. In fact, one of the ASLB hearing examiners was an author of the CRAC-2 computer code, but the others at FirstEnergy and NRC, as well as on the ASLB, feigning ignorance, were also fully aware of what I was referring to. Ironically enough, this dark cynicism took place on March 1, 2011 – just ten days later, the Fukushima nuclear catastrophe would begin in Japan.)

But Davis-Besse’s severely cracked and ever worsening Shield Building is far from the only problem. Donn’s top example of NRC regulatory retreat was reactor pressure vessel (RPV) embrittlement/pressurized thermal shock (PTS) risk. Sure enough, Davis-Besse has this problem too. So much so, that FirstEnergy presented an Aging Management Plan (AMP) to NRC re: this aging-related risk, during the license extension proceeding. As with the Shield Building cracking, we allege the RPV embrittlement AMP is far from adequate. PTS is a pathway to core meltdown. If the ECCS (Emergency Core Cooling System) is ever activated, the RPV could fracture, through-wall, like a hot glass under cold water – only add more than a ton of pressure per square inch. (To make matters worse, Davis-Besse is likely the hottest operated pressurized water reactor in the U.S. This could help account for why it blew through three reactor lids in less than a decade (2002-2011), uniquely bad in all of industry.) And if the reactor melts down, it is highly doubtful that Davis-Besse’s corroded Inner Steel Containment Vessel, and its cracked Shield Building, will prevent catastrophic releases of hazardous radioactivity.

But boric acid leaks likely also have contributed to the lid replacement crises – certainly it did to the 2002 Hole-in-the-Head fiasco. Boric acid leakage has also caused corrosion of Davis-Besse’s Inner Steel Containment Vessel. Thus, Davis-Besse’s primary containment is corroded; its secondary containment is cracked; and its RPV is embrittled. This, of course, is a recipe for disaster – reactor core meltdown, containment failure, and catastrophic release of hazardous radioactivity. And all these risks worsen with age.

Another boric acid and radioactivity release at Davis-Besse is from the high-level radioactive waste storage pool. Davis-Besse is on a short list of leaking pools in the U.S. FirstEnergy, deferring the costs of dry cask storage into the future, is currently maximizing the risks of a pool fire, by keeping the pool packed to the gills, even with fuel that has long since cooled and decayed to the point where it could be off-loaded into dry casks. A pool fire at Davis-Besse could dwarf the consequences of a core meltdown, releasing orders of magnitude more hazardous radioactivity onto the winds and waves. The pool is not even within robust radiological containment! It is housed in a mere industrial warehouse type building!

But it doesn’t take an accident or an attack. The routine release of hazardous ionizing radioactivity from Davis-Besse’s regular operations is bad enough, including the uranium fuel chain processes needed to deliver nuclear fuel to Davis-Besse in the first place. Please see this Beyond Nuclear pamphlet for more information:

[http://static1.1.sqspcdn.com/static/f/356082/26605366/1444852853757/BN\_RoutineRadioactiveReleases\_Oct2015.pdf?token=zwsUExAyfOttAa88dOgh7qJ3NkE%3D](https://urldefense.proofpoint.com/v2/url?u=http-3A__static1.1.sqspcdn.com_static_f_356082_26605366_1444852853757_BN-5FRoutineRadioactiveReleases-5FOct2015.pdf-3Ftoken-3DzwsUExAyfOttAa88dOgh7qJ3NkE-253D&d=DwMFaQ&c=kRQx1TXm_68pneFHvOZEGQ&r=Rj7kg0sHXA_bBQqEWf7snqsut1NpVmiitYqsL--HuG0&m=ykqEo340S3R8ANrffhHqBecC8QITke3nRTJgWabkyyo&s=aBHEsFbufqU0WcX4ZxZjQLAXGqvEKEEHiQmYCCQAZv0&e=)

H.B. 6 claims Davis-Besse has “zero emissions.” This refers to carbon dioxide and other greenhouse gases alone. Routine radioactive releases from every single stage of the uranium fuel chain, as mentioned above, are of course emissions, hazardous ones. (And speaking of carbon emissions, artificial radioactive Carbon-14 is generated at Davis-Besse. It is highly volatile, and can and does escape into the environment. It is one of the most biologically hazardous radioactive isotopes generated at Davis-Besse. It has a 5,500-year half-life. This means it will remain hazardous for 55,000 years, or longer, into the future. And once released into the environment, it can go anywhere that carbon goes in nature, including into the food chain, and throughout the human body, where it can do its damage to human health.)

So too is radioactive waste an emission from Davis-Besse, and all other atomic reactors. In its Feb. 2002 Yucca Mountain Final Environmental Impact Statement, the U.S. Department of Energy (DOE) reported (in Table A-7, on Page A-15) that by spring 2011, Davis-Besse would have generated 505 MTHM (Metric Tons of Heavy Metal) of highly radioactive irradiated nuclear fuel. But actually, as admitted by DOE’s director of the Office of Civilian Radioactive Waste Management, that figure was reached a year earlier, by spring 2010. On average, a reactor like Davis-Besse generates another 20 MTHM of irradiated nuclear fuel, each and every year of operations. Thus, there could now easily be another 180 MTHM generated just since 2010, for a total of 685 MTHM of irradiated nuclear fuel at Davis-Besse. (Of course, the 2002-2004 Hole-in-the-Head emergency shutdown, and other long-term, unplanned safety-related shutdowns at Davis-Besse, serve to lower such averages.)

The vast majority of the irradiated nuclear fuel (around 70%), is still stored in Davis-Besse’s leaking pool, at catastrophic risk of fire. But even the dry cask storage at Davis-Besse is problematic. Take for example the inner canisters ground too thin, in violation of their technical specifications, as challenged by Toledo attorney Terry Lodge on behalf of Toledo residents in the mid-1990s.

The only real answer for the radioactive waste problem is to not make it in the first place. Certainly, Ohio ratepayers should not be gouged on their electric bills, month after month, to subsidize bankrupt FirstEnergy’s ongoing generation of high-level radioactive waste, for which we have no good solution, and which in and of itself exacerbates hazardous radioactive risks in Ohio!

Please see 2011 to 2016 Beyond Nuclear website posts, and related links for more information, re: Davis-Besse, below. In addition, please see attached, my EPU Witness Slip, as well as two backgrounders – the 2010 “Davis-Besse Atomic Reactor: 20 MORE Years of Radioactive Russian Roulette on the Great Lakes Shore?!”, and the 2012 “What Humpty Dumpty Doesn’t Want You to Know: Davis-Besse’s Cracked Containment Snow Job.”

Sincerely,

Kevin Kamps, Radioactive Waste Specialist, Beyond Nuclear

**2011 to 2016 Beyond Nuclear website posts, and related links for more information, re: Davis-Besse**

Dated October 16, 2014

[**Environmental coalition filings on Davis-Besse Shield Building cracking issue**](https://urldefense.proofpoint.com/v2/url?u=http-3A__www.beyondnuclear.org_relicensing_2014_10_16_environmental-2Dcoalition-2Dfilings-2Don-2Ddavis-2Dbesse-2Dshield-2Dbuildi.html&d=DwMFaQ&c=kRQx1TXm_68pneFHvOZEGQ&r=Rj7kg0sHXA_bBQqEWf7snqsut1NpVmiitYqsL--HuG0&m=ykqEo340S3R8ANrffhHqBecC8QITke3nRTJgWabkyyo&s=iQfyE9kjjDUFO3DoXY-vCLQZqMMvoaz7TqKyrnHzvII&e=)

The environmental coalition challenging FirstEnergy Nuclear Operating Company's (FENOC) proposed 20-year license extension at the problem-plagued Davis-Besse atomic reactor [link to ["Davis-Besse Atomic Reactor: 20 MORE Years of Radioactive Russian Roulette on the Great Lakes Shore?!"](https://urldefense.proofpoint.com/v2/url?u=http-3A__static1.1.sqspcdn.com_static_f_356082_9994797_1293650562697_Davis-5FBesse-5FBackgrounder.pdf-3Ftoken-3D6WRbqF7lrkIjpBV2SK6Y1DTvGjw-253D&d=DwMFaQ&c=kRQx1TXm_68pneFHvOZEGQ&r=Rj7kg0sHXA_bBQqEWf7snqsut1NpVmiitYqsL--HuG0&m=ykqEo340S3R8ANrffhHqBecC8QITke3nRTJgWabkyyo&s=QrMP_S1CdGuoqY0p9zwscNp6A1nzGQtgSclTyUkZALA&e=)], near Toledo on the Lake Erie shore, has been challenging Shield Building cracking since January 10, 2012. Below are the coalition's filings thus far, in chronological order, as well as associated coalition press release, FirstEnergy Nuclear Operating Company (FENOC) filings, U.S. Nuclear Regulatory Commission (NRC) staff filings, NRC Atomic Safety and Licensing Board Panel's (ASLBP) orders, etc.:

**2011**

**June 15, 2011**: ASLBP's Initial Scheduling Order (“ISO”).

**October 10, 2011**: "Laminar crack discovered in the shield building access opening during 17M (documented under CR 2011-03346)" (as put by Performance Improvement International in its 9/11/13 Full Apparent Cause Evaluation on ice-wedging crack propagation, not released by FENOC until ten months later, on 7/8/14. See PII FACE, p.26 of 98 on PDF counter. 17M refers to the 17th mid-cycle outage.)

**October 31, 2011**: Letter from R. Seeholzer, FirstEnergy, to the Investment Community (provided as **Attachment 1 to FENOC’s Original Contention 5 Answer**).

**December 2, 2011**: NRC Confirmatory Action Letter (CAL), permitting FENOC to rush the restart of the Davis-Besse reactor, despite the recently discovered cracking of unknown origin, extent, and safety significance (NRC ADAMS ML# ML11336A355).

**2012**

**January 5, 2012:** FENOC Presentation Slides, NRC Public Meeting (provided as Attachment 2 to FENOC’s Original Contention 5 Answer).

**January 10, 2012**:  Environmental Intervenors' original cracking contention. (Motion for Admission of Contention No. 5 on Shield Building Cracking, 61 pages.)

**January 31, 2012**: NRC Integrated Inspection Report. 93 pages.

**February 6, 2012**: FENOC's Answer Opposing Intervenors' Motion for Admission of Contention No. 5 on Shield Building Cracking. 137 pages.

**February 13, 2012:** Intervenors' Combined Reply in Support of Motion for Admission of Contention No. 5. 110 pages. (Associated February 14, 2012 coalition press release)

**February 27, 2012**: Filing (Intervenors' first Motion to Amend 'Motion for Admission of Contention No. 5') based on U.S. Rep. Kucinich's (D-OH) revelation that the shield building's outer rebar layer was no longer structurally functional, due to the cracking. First contention supplement/amendment. (Associated coalition media release.)

**February 27, 2012**: Letter from B. Allen, Vice President-Nuclear, FENOC, to C. Pederson, Acting Administrator, NRC, Submittal of Shield Building Root Cause Evaluation (submitted as an enclosure to Letter from T. Matthews, FENOC Counsel, to Board, Notification of Filing Related to Proposed Shield Building Cracking  
Contention (Feb. 29, 2012).

**April 5, 2012**: Letter from D. Imlay, FENOC, to NRC, Reply to Request for Additional Information for the Review of the Davis-Besse Nuclear Power Station, Unit No. 1, License Renewal Application (TAC No. ME4640) and License Renewal Application Amendment No. 25, Attachment L-12-028 (provided as an enclosure to the Board Notification for April 2012 RAI Response); Letter from T. Matthews, FENOC Counsel, to the Board, Notification of Filing Related to Proposed Shield Building Cracking Contention

**May 7, 2012**: Davis-Besse Nuclear Power Station Reactor Vessel Head Replacement and Shield Building Cracking Inspection Report 05000346/2012007 (DRS) (provided as an enclosure to Letter from B. Harris, Staff Counsel, to Board (May 10, 2012)).

**May 17, 2012**: Revised Root Cause Evaluation (dated May 8, but not submitted till May 17, as an enclosure to Letter from T. Matthews, FENOC Counsel, to Board, Notification of Filing Related to Proposed Shield Building Cracking Contention), 131 pages. (In its September 11, 2013 Full Apparent Cause Evaluation (see below) -- not released by FENOC until July 8, 2014 -- PII refers to this document as RCA-1, Performance Improvement International Laminar Cracking Root Cause (Davis-Besse Condition Report 2011-03346)).

**May 24, 2012**: FENOC Davis-Besse nuclear power station, Unit 1, Submittal of Contractor Root Cause Assessment Report, Revised Root Cause Assessment Report, or RRCAR, from B.S. Allen, FirstEnergy Nuclear Operating Company, to Cynthia D. Pedersen, NRC, NRC/RGN-III/ORA, L-12-196, NRC ADAMS Accession No. ML12138A037, 257 pages. (Per immediately above, in its September 11, 2013 Full Apparent Cause Evaluation (see below) -- not released by FENOC until July 8, 2014 -- PII refers to this document as RCA-1, Performance Improvement International Laminar Cracking Root Cause (Davis-Besse Condition Report 2011-03346)).

**June 4, 2012**: Filing, (Intervenors' second Motion to Amend and Supplement Proposed Contention No. 5 (Shield Building Cracking)) in response to FENOC's woefully inadequate Aging Management Plan (AMP) for the shield building's cracks. Second contention supplement/amendment.

**June 21, 2012**: NRC Inspection to Evaluate the Root Cause Evaluation and Corrective Actions for Cracking in the Reinforced Concrete Shield Building of the Containment System 05000346/2012009(DRS). See page 3 of Attachment 2 (Page 35 of 46 on PDF counter) for a photo showing how severe the subsurface laminar cracking discovered on Oct. 10, 2011 actually was.

**June 29, 2012**: FENOC’s Answer Opposing Intervenors’ Motion to Amend and Supplement Proposed Contention No. 5 (Shield Building Cracking).

**July 16, 2012**: Filing (Intervenors' Third Motion to Amend and/or Supplement Proposed Contention No. 5 (Shield Building Cracking)), in response to FENOC's revised root cause analysis report, which revealed that shield building cracking was first observed not in October 2011, but rather August 1976. Third contention supplement/amendment.

**July 23, 2012**: Filing (Intervenors' Fourth Motion to Amend and/or Supplement Proposed Contention No. 5 (Shield Building Cracking)), based on revelations in FENOC contractor Performance Improvement International's revised root cause assessment report, which revealed 27 areas of skeptical NRC questioning about FENOC's "Blizzard of 1978" theory of shield building cracking (the environmental Intervenors also posted documents supportive of this fourth contention supplement/amendment). NRC ADAMS Accession No. ML12205A507, 56 pages.

**August 16, 2012**: Contention supplement (Intervenors' Fifth Motion to Amend and/or Supplement Proposed Contention No. 5 (Shield Building Cracking)), on the severe shield building cracking, which cites U.S. Nuclear Regulatory Commission (NRC) documents revealed through a Freedom of Information Act (FOIA) request submitted by Beyond Nuclear. The coalition issued a media release about this contention supplementation.

**August 2012**: Beyond Nuclear prepared a report, entitled "What Humpty Dumpty Doesn't Want You to Know: Davis-Besse's Cracked Containment Snow Job," which summarized the coalition's work in 2012 on Davis-Besse's dangerously degraded condition, focused on the Shield Building cracking.

**August 22, 2012**: Licensing Board Notice (Advising Parties of Amendments to 10 C.F.R. Part 2; unpublished).

2012: ASLBP Order to hold oral argument pre-hearings in Toledo on Monday, November 5 and Tuesday, November 6 [Election Day].

**September 14, 2012**: Intervenors' Reply in Opposition to 'First Energy's Motion for Summary Disposition of Contention 4 (SAMA Analysis - Source Terms)'

**November 5 and 6 [Election Day], 2012**: Oral argument pre-hearings in Toledo before ASLBP (transcripts).

**November 20, 2012**: Letter from T. Matthews, FENOC Counsel, to the Board, Notification of Filing Related to Shield Building Laminar Cracking: Letter from D. Imlay, FENOC, to NRC, Reply to Request for Additional Information for the Review of the Davis-Besse Nuclear Power Station, Unit No. 1, License Renewal Application (TAC No. ME4640) and License Renewal Application Amendment No. 36, Attachment L-12-418 (provided as an enclosure to the Board Notification for November 2012 RAI Response).

**November 20, 2012**: FENOC's Davis-Besse Shield Building Request for Additional Information Response - Advanced Copy.

**December 28, 2012**: FirstEnergy Nuclear Operating Co. (Davis-Besse Nuclear Power Station, Unit 1), LBP-12-27, 76 NRC 583 (2012). 40 pages.

**2013**

The environmental coalition (Beyond Nuclear, Citizens Environment Alliance of Southwestern Ontario, Don't Waste Michigan, and Sierra Club Ohio Chapter) intervention against Davis-Besse's steam generator replacement project included concerns about damage to the Shield Building. Arnie Gundersen, Chief Engineer of Fairewinds Associates, Inc., served as the coalition's expert witness. (Multiple filings)

See also:

**September 3, 2013**: NRC Safety Evaluation Report [SER] Related to the License Renewal of Davis-Besse Nuclear Power Station, available at ADAMS Accession No. ML13248A267. 895 pages. See particularly Section 3.0.3.3.9. NRC states in its April 15, 2014 RAI (see below): "Following review of the Shield Building Monitoring Program, responses to several rounds of follow-up Requests for Additional Information (RAIs), and an updated Shield Building Monitoring Program, the NRC staff found the Updated Shield Building Monitoring Program to be acceptable, as documented in Section 3.0.3.3.9. [of this SER]."

**September 11, 2013**: RCA-2, Performance Improvement International Laminar Crack Propagation Root Cause (Davis-Besse Condition Report 2013-14097). See Enclosure 2, beginning at page 17 of 98, of FENOC's July 8, 2014 (see below) letter to the ASLBP. Note that FENOC withheld this PII report for 10 months, despite its significance.

**September 20, 2013**: Preliminary Notification -- [NRC] Region III, Preliminary Notification of Event or Unusual Occurrence, PNO-III-13-007, Davis-Besse Shield Building Laminar Cracks, NRC ADAMS ML# ML13263A410, 2 pages.

**November 1, 2013**: Davis-Besse Nuclear Power Station NRC Integrated Inspection Report 05000346/20130004, available at ADAMS Accession No. ML13308A283. (Excerpts from the November 2013 NRC Inspection Report were provided as Attachment 2 to FENOC’s Answer to Contention 6.)

**2014**

**April 15, 2014**: NRC Request for Additional Information (RAI) for the Review of the Davis-Besse Nuclear Power Station, Unit No. 1, License Renewal Application (TAC No. ME4640). (NRC ADAMS ML# ML14097A454, 5 pages.)

**April 22, 2014 (Earth Day, 3 years to the day before Davis-Besse's original 40-year license expires)**: The coalition issued a press release.

**ASLB filing:**

MOTION FOR ADMISSION OF CONTENTION NO. 6 ON SHIELD BUILDING CONCRETE VOID, CRACKING AND BROKEN REBAR PROBLEMS

**Exhibits:** #1, NRC Preliminary Notice of Event or Occurrence (Feb. 19, 2014); #2, Toledo Blade article, “Davis-Besse Had Air Gap in Shield Building,” (Feb. 15, 2014); #3, Declaration of Victoria Clemons (April 14, 2014); #4, Minutes of Internal Meeting of Davis-Besse Oversight Panel (Oct. 18, 2001); #5, Minutes of Internal Meeting of Davis-Besse Oversight Panel (Oct. 29, 2002); #6, NRC Preliminary Notice of Event or Occurrence (Sept. 20, 2013); #7, NRC Request for Additional Information (April 15, 2014); #8, Expert Witness Report of Arnold Gundersen, 50-246-LA (2013).

**DEIS comments:**

1. Amory Lovins' "Nuclear power’s competitive landscape and climate opportunity cost," March 28, 2014 (TMI+35), Dartmouth College, NH

Amory Lovins on uncompetitiveness of old atomic reactors. At page 5 Lovin’s writes: "Reactors are promoted as costly to build but cheap to run. Yet as Daniel Allegretti ably described, many existing, long-paid-for U.S. reactors are now starting to be shut down because just their operating cost can no longer compete with wholesale power prices, typically depressed by gas-fired plants or windpower."

2. PJM Interconnect: 30% grid integration of renewables not a problem.

In fact, it was well known to PJM (Pennsylvania/Jersey/Maryland) Interconnect, covering 13 states and this nation's largest single electric grid, as published in this 2010 2010 ISO/RTO Metrics Report, posted at the website of the U.S. Federal Energy Regulatory Commission, that wind power and solar PV are available in abundance and that there is no disruption or destabilizing of "baseload grid" associated with their integration. Replacement power was available in 2010, and is available now, and certainly in 2017.

On Dec. 27, 2010, the environmental coalition -- with University of Toledo professor emeritus Al Compaan as its expert witness -- contended that wind and solar PV, combined with compressed air energy storage, could easily replace Davis-Besse's 908 megawatts of electricity during the 2017-2037 period. In 2011, the ASLB agreed to hear the contention. But on March 27, 2012, the five-member NRC Commission, responding to an appeal by FENOC, unanimously overruled the ASLB, rejecting the renewables-as-alternative-to-license-extension hearing. Interveners reassert their contention and call for the NRC Commissioners' order to be reversed, because they are simply wrong. The coalition reserves the right to appeal the rejection of its renewables contention to federal court, once the ASLB proceeding has concluded.

3. Beyond Nuclear's Radioactive Waste Watchdog, Kevin Kamps, also submitted five comments to NRC: #1, Jan. 10, 2012 SB cracking contention's relevance to DEIS; #2, four 2012 cracking contention supplements' (Feb. 27; June 4; July 16; July 23) relevance to DEIS; #3, fifth cracking contention supplement's (Aug. 16, 2012) relevance to DEIS; #4, Dec., 2010 backgrounder, "Davis-Besse Atomic Reactor: 20 MORE Years of Radioactive Russian Roulette on the Great Lakes Shore?!"; #5, Aug. 2012 SB summary report, "What Humpty Dumpty Doesn't Want You to Know: Davis-Besse's Cracked Concrete Containment Snow Job".

4. Joe DeMare's comments. Joe is a local resident near Davis-Besse. He is also an official intervener, as part of the environmental coalition, against the license extension. Joe is affiliated with the Ohio Green Party.

**May 16, 2014**: FENOC’s Answer Opposing Intervenors’ Motion for Admission of Contention No. 6.

**May 16, 2014**: NRC Staff’s Answer to Motion for Admission of Contention No. 6 on Shield Building Concrete Void, Cracking and Broken Rebar Problems.

**May 23, 2014**: Intervenors’ Reply in Support of Motion for Admission of Contention No. 6 on Shield Building Concrete Void, Cracking and Broken Rebar Problems.

**July 3, 2014**: FENOC filing "L-14-224," including: cover letter; Attachment L-14-224, "Reply to Requests for Additional Information for the Review of [LRA] Section B.2.42"; and Enclosure, Amendment No. 51 to the D-B LRA. NRC ADAMS ML# ML14184B184, 14 pages.

**July 8, 2014**: FENOC filing, "Notification of Documents Related to Davis-Besse Shield Building," including: Enclosure 1 (identical to July 3, 2014 post immediately above); and Enclosure 2, "Full Apparent Cause Evaluation, Shield Building Laminar Crack Propagation." NRC ADAMS Accession No. ML14189A452, 98 pages.

**July 25, 2014**: ASLB Memorandum and Order (Denying Intervenors' Motion for Admission of Contention No. 6 on Shield Building Concrete Void, Cracking and Broken Rebar Problems). 19 pages.

**September 2, 2014**: Intervenors' Motion for Admission of Contention No. 7 on Worsening Shield Building Cracking and Inadequate AMPs in Shield Building Monitoring Program. 37 pages. (Associated September 3, 2014 coalition press release; September 5, 2014 Sandusky Register article)

**September 8, 2014**: Intervenors' Motion to Amend and Supplement Contention No. 7 on Worsening Shield Building Cracking and Inadequate AMPs in Shield Building Monitoring Program. 27 pages. (Associated September 11, 2014 coalition press release; September 11 Toledo Blade article)

**September 10, 2014**: ASLBP Order (Granting Unopposed Motion to Establish Consolidated Briefing Schedule for Proposed Contention 7 Admissibility Filings (unpublished).

**September 12, 2014**: Erratum to Intervenors' Motion to Amend and Supplement Contention No. 7 on Worsening Shield Building Cracking and Inadequate AMPs in Shield Building Monitoring Program. 3 pages.

**September 29, 2014**: Letter from E. Sayoc, NRC, to R. Lieb, FENOC, Request for Additional Information for the Review of the Davis-Besse Nuclear Power Station License Renewal Application (TAC No. ME4640), available at ADAMS Accession No. ML14258A285 (requesting supplemental information regarding 2013 Shield Building operating experience).

**October 3, 2014:** FENOC'S ANSWER OPPOSING ADMISSION OF INTERVENORS' ORIGINAL AND AMENDED CONTENTION NO. 7. 64 pages.

**October 3, 2014**: NRC Staff's Answer to Intervenors' Motion for Admission of Contention No. 7 on Worsening Shield Building Cracking and Inadequate AMPs in Shield Building Monitoring Program. 67 pages.

**October 10, 2014**: Intervenors' Reply in Support of Motion to Amend and Supplement Contention No. 7 on Worsening Shield Building Cracking and Inadequate AMPs in Shield Building Monitoring Program. 21 pages.

NRC's posted schedule for Davis-Besse's License Renewal Application (LRA) proceeding shows that there are few hurdles left before NRC rubberstamps the 20-year extension. Davis-Besse's current, initial 40-year operating license expires on April 22 (Earth Day), 2017. The environmental Intervenors' filed a request for hearings and petitioned to intervene against the license extension by NRC's original deadline of December 27, 2010.

**October 27, 2014:** ASLBP NOTICE AND ORDER (Scheduling Oral Argument) [for November 12, 2014, as well as specifying subject areas of enquiry parties should be ready to discuss]

[As posted online here: [http://www.beyondnuclear.org/relicensing/2014/10/16/environmental-coalition-filings-on-davis-besse-shield-buildi.html](https://urldefense.proofpoint.com/v2/url?u=http-3A__www.beyondnuclear.org_relicensing_2014_10_16_environmental-2Dcoalition-2Dfilings-2Don-2Ddavis-2Dbesse-2Dshield-2Dbuildi.html&d=DwMFaQ&c=kRQx1TXm_68pneFHvOZEGQ&r=Rj7kg0sHXA_bBQqEWf7snqsut1NpVmiitYqsL--HuG0&m=ykqEo340S3R8ANrffhHqBecC8QITke3nRTJgWabkyyo&s=iQfyE9kjjDUFO3DoXY-vCLQZqMMvoaz7TqKyrnHzvII&e=) ]

***October 27, 2014***

[**Beyond Nuclear to challenge Davis-Besse containment cracking at NRC HQ on Nov. 12th**](https://urldefense.proofpoint.com/v2/url?u=http-3A__www.beyondnuclear.org_relicensing_2014_10_27_beyond-2Dnuclear-2Dto-2Dchallenge-2Ddavis-2Dbesse-2Dcontainment-2Dcracking.html&d=DwMFaQ&c=kRQx1TXm_68pneFHvOZEGQ&r=Rj7kg0sHXA_bBQqEWf7snqsut1NpVmiitYqsL--HuG0&m=ykqEo340S3R8ANrffhHqBecC8QITke3nRTJgWabkyyo&s=oQ9sBtGlupG_daFEn0_pbGv9aOY0skXI3FIRf1SsijQ&e=)

Severe sub-surface laminar cracks in the Shield Building concrete adjacent to rebar (left) grow a half-inch every time it freezes at Davis-Besse. Core bore monitoring tests (right) are too few and far between, and too infrequent.

Please listen-in by phone, to show your support, as Beyond Nuclear and environmental allies challenge the problem-plagued Davis-Besse atomic reactor's proposed 20-year license extension. The focus of the Wednesday, November 12th hearing, beginning at 9 AM Eastern sharp, will be worsening cracking of the concrete containment. Your presence on the phone line will let the U.S. Nuclear Regulatory Commission (NRC), its Atomic Safety and Licensing Board Panel (ASLBP), and FirstEnergy Nuclear Operating Company know they are being watched. It will also let Beyond Nuclear and its allies know they have your support.

According to the NRC ASLB point of contact, law clerk Sachin Desa:

**"...The dial-in number for calling in to the Davis-Besse November 12th Oral Argument (listen-only) is 888-790-4078.  When prompted, please enter the passcode 2475418.**

**If others are interested in listening in on the call, please have them reach out to me so we can keep an accurate count.**

**The argument will start at 9:00 AM Eastern Time.  Please try to be on the line at least five minutes early so as to allow time to work through any technical issues that may arise.  Let me know if there are any further questions.**

Sachin Desai, Law Clerk

Atomic Safety and Licensing Board Panel  
U.S. Nuclear Regulatory Commission

[Sachin.Desai@nrc.gov](mailto:Sachin.Desai@nrc.gov) | 301-415-6523"

**Background:**

The U.S. Nuclear Regulatory Commission (NRC) Atomic Safety and Licensing Board Panel (ASLBP) overseeing FirstEnergy Nuclear Operating Company's (FENOC) application proceeding for a 20-year license extension at its problem-plagued Davis-Besse atomic reactor in Oak Harbor, OH on the Lake Erie shore has announced oral argument pre-hearings will be held at NRC HQ in Rockville, Maryland on Wed., Nov. 12th, beginning at 9am Eastern sharp. The hearing will focus on the environmental coalition's latest concrete containment cracking contention, motivated by recent revelations of "ice-wedging crack propagation," despite earlier assurances by FENOC -- backed by NRC staff -- that the already severe cracking could not possibly get worse.

As ordered by the ASLBP, "a listen-only line will be available for members of the public that wish to listen to the proceedings by telephone. **Interested members of the public should contact Sachin Desai [at 301-415-6532 or** [**Sachin.Desai@nrc.gov**](mailto:Sachin.Desai@nrc.gov)**] no later than Monday, November 10, 2014 to receive the listen-only telephone conference number and passcode**...Those participating by telephone should be on the line at least five minutes early so as to allow time to work through any technical issues that may arise."

Please see Sachin Desai's detailed call-in instructions, posted above in bold.

Supporters of this environmental intervention are encouraged to phone and listen-in, to show NRC, the ASLBP, and FENOC that people care, and to show support for the intervening groups and their representatives.

If you happen to be in Washington, D.C. at the time (such as for Michael Mariotte of NIRS's Lifetime Achievement Award event on Nov. 10th, and/or the Sierra Club Nuclear-Free Campaign gathering beginning on Nov. 14th), you can also attend this ASLBP proceeding in person:

"The oral argument will be held at the NRC [Headquarters] on November 12, 2014, in the Advisory Committee on Reactor Safeguards Meeting Room 2 (Room #2B1), which is on the second floor of Two White Flint North, 11545 Rockville Pike, Rockville, Maryland 20852...All persons participating in person should arrive at the NRC at least fifteen minutes early so as to allow sufficient time to pass through security screening."

NRC HQ is located immediately across the street from the White Flint Metro Station on the Red Line.

30-minutes ahead of time would be safer, actually, given NRC's strict security and escorting protocols. Be sure to bring a valid photo ID.

The environmental coalition intervening against Davis-Besse's 2017-2037 license extension includes Beyond Nuclear, Citizens Environment Alliance of Southwestern Ontario, Don't Waste Michigan, and the Green Party of Ohio. The coalition is represented by Terry Lodge, an attorney based in Toledo. The coalition launched its intervention nearly four years ago, on December 27, 2010. The coalition has raised numerous concrete containment cracking contentions since the severe -- and now admittedly worsening -- problem was first revealed in late 2011.

[As posted online here: [http://www.beyondnuclear.org/relicensing/2014/10/27/beyond-nuclear-to-challenge-davis-besse-containment-cracking.html](https://urldefense.proofpoint.com/v2/url?u=http-3A__www.beyondnuclear.org_relicensing_2014_10_27_beyond-2Dnuclear-2Dto-2Dchallenge-2Ddavis-2Dbesse-2Dcontainment-2Dcracking.html&d=DwMFaQ&c=kRQx1TXm_68pneFHvOZEGQ&r=Rj7kg0sHXA_bBQqEWf7snqsut1NpVmiitYqsL--HuG0&m=ykqEo340S3R8ANrffhHqBecC8QITke3nRTJgWabkyyo&s=oQ9sBtGlupG_daFEn0_pbGv9aOY0skXI3FIRf1SsijQ&e=) ]

**November 13, 2014**

[**Coalition presses case against reactors on Great Lakes**](https://urldefense.proofpoint.com/v2/url?u=http-3A__www.beyondnuclear.org_relicensing_2014_11_13_coalition-2Dpresses-2Dcase-2Dagainst-2Dreactors-2Don-2Dgreat-2Dlakes.html&d=DwMFaQ&c=kRQx1TXm_68pneFHvOZEGQ&r=Rj7kg0sHXA_bBQqEWf7snqsut1NpVmiitYqsL--HuG0&m=ykqEo340S3R8ANrffhHqBecC8QITke3nRTJgWabkyyo&s=FyxyHOJhSk1v7E9BbWkgXrygkm68qr7qzW8ElL5g-UA&e=)

An environmental coalition, including Beyond Nuclear, is working at fever pitch against degraded old, and proposed new, reactors on the Great Lakes shoreline in southeast Michigan and northwest Ohio.

**Davis-Besse, OH**

At U.S. Nuclear Regulatory Commission (NRC) headquarters in Rockville, Maryland, the groups Beyond Nuclear, Citizens Environment Alliance of Southwestern Ontario (CEA), Don't Waste Michigan, and the Green Party of Ohio pressed their case against a 20-year license extension at FirstEnergy Nuclear Operating Company's problem-plagued Davis-Besse atomic reactor east of Toledo. An oral argument pre-hearing was ordered to take place on Nov. 12th by the NRC Atomic Safety and Licensing Board Panel (ASLBP) overseeing the License Renewal Application (LRA) proceeding. The coalition first intervented against the license extension nearly four years ago.

Attorney Terry Lodge, Beyond Nuclear's Kevin Kamps, and Don't Waste MI's Michael Keegan represented the coalition before NRC ASLBP. The coalition was joined by expert witness Arnie Gundersen, Chief Engineer of Fairewinds Associates, Inc. The focus of the day-long hearing was the severe, and worsening, cracking of Davis-Besse's concrete containment Shield Building. The dangerously deteriorating Shield Building is the last line of defense against a catastrophic release of hazardous radioactivity, as from a reactor core meltdown and Inner Steel Containment Vessel failure due to a reactor disaster, earthquake, tornado missile, etc. The coalition has filed numerous contentions about the cracking since it was first revealed on October 10, 2011.

The coalition issued a press advisory about the Nov. 12th oral hearing. The Toledo Blade has reported on this story.

[As posted online here: [http://www.beyondnuclear.org/relicensing/2014/11/13/coalition-presses-case-against-reactors-on-great-lakes.html](https://urldefense.proofpoint.com/v2/url?u=http-3A__www.beyondnuclear.org_relicensing_2014_11_13_coalition-2Dpresses-2Dcase-2Dagainst-2Dreactors-2Don-2Dgreat-2Dlakes.html&d=DwMFaQ&c=kRQx1TXm_68pneFHvOZEGQ&r=Rj7kg0sHXA_bBQqEWf7snqsut1NpVmiitYqsL--HuG0&m=ykqEo340S3R8ANrffhHqBecC8QITke3nRTJgWabkyyo&s=FyxyHOJhSk1v7E9BbWkgXrygkm68qr7qzW8ElL5g-UA&e=) ]

**June 26, 2015**

[**Letter to the Editor: NRC's rules too weak at Davis-Besse**](https://urldefense.proofpoint.com/v2/url?u=http-3A__www.beyondnuclear.org_relicensing_2015_6_26_letter-2Dto-2Dthe-2Deditor-2Dnrcs-2Drules-2Dtoo-2Dweak-2Dat-2Ddavis-2Dbesse.html&d=DwMFaQ&c=kRQx1TXm_68pneFHvOZEGQ&r=Rj7kg0sHXA_bBQqEWf7snqsut1NpVmiitYqsL--HuG0&m=ykqEo340S3R8ANrffhHqBecC8QITke3nRTJgWabkyyo&s=ZuxyoJVYefLnvWamD7zlHcKoJ2pM0co-7Qfd944NdLk&e=)

Beyond Nuclear's Kevin Kamps wrote a letter to the editor of the Port Clinton, OH News Herald on June 26, 2015, warning about safety significant systems, structures, and components that are too age-degraded to keep operating safely during FirstEnergy Nuclear's proposed 2017-2037 license extension at its problem-plagued Davis-Besse atomic reactor on the Lake Erie shore in Oak Harbor, OH.

Despite a severely cracked, and ever worsening, concrete containment Shield Building, and questions about how long its reactor lid will last this time, and how its experimental steam generator replacements will go, the U.S. Nuclear Regulatory Commission (NRC) is poised to rubber-stamp Davis-Besse's license extension.

[As posted online at: [http://www.beyondnuclear.org/relicensing/2015/6/26/letter-to-the-editor-nrcs-rules-too-weak-at-davis-besse.html](https://urldefense.proofpoint.com/v2/url?u=http-3A__www.beyondnuclear.org_relicensing_2015_6_26_letter-2Dto-2Dthe-2Deditor-2Dnrcs-2Drules-2Dtoo-2Dweak-2Dat-2Ddavis-2Dbesse.html&d=DwMFaQ&c=kRQx1TXm_68pneFHvOZEGQ&r=Rj7kg0sHXA_bBQqEWf7snqsut1NpVmiitYqsL--HuG0&m=ykqEo340S3R8ANrffhHqBecC8QITke3nRTJgWabkyyo&s=ZuxyoJVYefLnvWamD7zlHcKoJ2pM0co-7Qfd944NdLk&e=) ]

**September 3, 2015**

[**"Protests greet FirstEnergy rate request hearings"**](https://urldefense.proofpoint.com/v2/url?u=http-3A__www.beyondnuclear.org_nuclear-2Dsubsidies_2015_9_3_protests-2Dgreet-2Dfirstenergy-2Drate-2Drequest-2Dhearings.html&d=DwMFaQ&c=kRQx1TXm_68pneFHvOZEGQ&r=Rj7kg0sHXA_bBQqEWf7snqsut1NpVmiitYqsL--HuG0&m=ykqEo340S3R8ANrffhHqBecC8QITke3nRTJgWabkyyo&s=VQVoTgRCI6pwvrRCGpbOgBtHEefwRNFU2yY5Vv3lc7Y&e=)

Jim Provance, Columbus Bureau Chief for the Toledo Blade, has reported on "Protests greet FirstEnergy rate request hearings."

The protest took place at the HQ of PUCO, the Public Utilities Commission of Ohio, in the state capital, Columbus. It marked the beginning of weeks of formal hearings, where PUCO will consider FirstEnergy's requested ratepayer bailout.

The article quotes Harvey Wasserman, senior advisor to Greenpeace U.S.A. as well as NIRS, advocating the carbon-free, nuclear-free "Solartopian" energy future of efficiency and renewables.

The article also quotes Neil Waggoner, spokesman for Sierra Club's Beyond Coal Campaign, which is officially intervening against FirstEnergy's request for $3 billion of ratepayer money, to prop up its uncompetitive Davis-Besse atomic reactor, and Sammis coal burner.

Bob Fritrakis of Columbus Free Press, as well as Pat Marida of Ohio Sierra Club's Nuclear-Free Committe, also spoke. Musician Brian Clash performed. Ohio Sierra Club Nuclear-Free Committee has posted photos, including the one above (see Beyond Nuclear's pamphlet "Dirty, Dangerous, and Expensive: The Verdict is in on Nuclear Power," penned by board member Kay Drey of St. Louis, MO).

Beyond Nuclear, along with Citizen Environment Alliance of Southwestern Ontario, Don't Waste MI, and Ohio Green Party, have been intervening against Davis-Besse's 2017-2037 license extension since Dec. 27, 2010. Attorney Terry Lodge of Toledo serves as the coalition's legal counsel.

Recently, Beyond Nuclear sued the U.S. Nuclear Regulatory Commission (NRC) over its Nuclear Waste Confidence policy, alleging violations of the Atomic Energy Act, National Environmental Policy Act, and Administrative Procedures Act. The lawsuit is before the federal Court of Appeals for the District of Columbia Circuit, the second highest court in the land, just under the U.S. Supreme Court. The appeal is the latest action by Beyond Nuclear to challenge Davis-Besse's 20-year license extension. Beyond Nuclear's legal counsel include Diane Curran of Washington, D.C., and Mindy Goldstein of Turner Environmental Law Clinic at Emory University in Atlanta.

[As posted online here: [http://www.beyondnuclear.org/nuclear-subsidies/2015/9/3/protests-greet-firstenergy-rate-request-hearings.html](https://urldefense.proofpoint.com/v2/url?u=http-3A__www.beyondnuclear.org_nuclear-2Dsubsidies_2015_9_3_protests-2Dgreet-2Dfirstenergy-2Drate-2Drequest-2Dhearings.html&d=DwMFaQ&c=kRQx1TXm_68pneFHvOZEGQ&r=Rj7kg0sHXA_bBQqEWf7snqsut1NpVmiitYqsL--HuG0&m=ykqEo340S3R8ANrffhHqBecC8QITke3nRTJgWabkyyo&s=VQVoTgRCI6pwvrRCGpbOgBtHEefwRNFU2yY5Vv3lc7Y&e=) ]

**September 24, 2015**

[**FirstEnergy Nuclear intends to file License Amendment Request on Shield Building cracking; environmental opponents vow legal action**](https://urldefense.proofpoint.com/v2/url?u=http-3A__www.beyondnuclear.org_relicensing_2015_9_24_firstenergy-2Dnuclear-2Dintends-2Dto-2Dfile-2Dlicense-2Damendment-2Dreques.html&d=DwMFaQ&c=kRQx1TXm_68pneFHvOZEGQ&r=Rj7kg0sHXA_bBQqEWf7snqsut1NpVmiitYqsL--HuG0&m=ykqEo340S3R8ANrffhHqBecC8QITke3nRTJgWabkyyo&s=qVE-u21wWoKCbnbr_XDpe_ykQE5Mj9q5VDbZiorANEM&e=)

**A 38-year old atomic reactor, that has had more close calls with catastrophe than any other in the U.S., that can't compete, with a concrete containment that is literally at risk of falling apart, wants a multi-billion dollar ratepayer bailout, in order to keep operating for 22 more years?!**

Oak Harbor, OH and Washington, DC—At a meeting of the U.S. Nuclear Regulatory Commission’s (NRC) Advisory Committee on Reactor Safeguards (ACRS), held at the agency’s Rockville, MD HQ yesterday, FirstEnergy Nuclear Operating Company (FENOC) and NRC Staff revealed that the nuclear utility plans to submit a License Amendment Request (LAR), in order to restore its Davis-Besse atomic reactor’s Current Licensing Basis and Design Basis in the aftermath of severe Shield Building cracking first discovered four years ago. Representatives from environmental groups, comprising multiple coalitions opposing the 20-year license extension sought by FENOC, as well as current operations, have vowed to legally intervene in opposition to the LAR.

At the meeting, responding to pointed ACRS questioning, FENOC spokesmen confirmed that, if the cracking grows badly enough, large chunks of concrete could detach from the Shield Building, and plummet onto safety-significant structures below, such as the auxiliary building and borated water storage tank.

See the full press release, with quotes from environmental coalition attorney Terry Lodge; Michael Keegan of Don't Waste MI; Patricia Marida of the Ohio Sierra Club Nuclear-Free Committee; and Kevin Kamps of Beyond Nuclear.

[As posted online here: [http://www.beyondnuclear.org/relicensing/2015/9/24/firstenergy-nuclear-intends-to-file-license-amendment-reques.html](https://urldefense.proofpoint.com/v2/url?u=http-3A__www.beyondnuclear.org_relicensing_2015_9_24_firstenergy-2Dnuclear-2Dintends-2Dto-2Dfile-2Dlicense-2Damendment-2Dreques.html&d=DwMFaQ&c=kRQx1TXm_68pneFHvOZEGQ&r=Rj7kg0sHXA_bBQqEWf7snqsut1NpVmiitYqsL--HuG0&m=ykqEo340S3R8ANrffhHqBecC8QITke3nRTJgWabkyyo&s=qVE-u21wWoKCbnbr_XDpe_ykQE5Mj9q5VDbZiorANEM&e=) ]

**December 3, 2015**

[**Solartopia Green Power and Wellness Hour: Davis-Besse's bailout and license extension**](https://urldefense.proofpoint.com/v2/url?u=http-3A__www.beyondnuclear.org_relicensing_2015_12_3_solartopia-2Dgreen-2Dpower-2Dand-2Dwellness-2Dhour-2Ddavis-2Dbesses-2Dbailou.html&d=DwMFaQ&c=kRQx1TXm_68pneFHvOZEGQ&r=Rj7kg0sHXA_bBQqEWf7snqsut1NpVmiitYqsL--HuG0&m=ykqEo340S3R8ANrffhHqBecC8QITke3nRTJgWabkyyo&s=gyy-_HIkMYxTEYdd06tnAocwsg87C5nuVtJPlwwJ4tY&e=)

Harvey Wasserman has Beyond Nuclear on again to discuss Davis-Besse's outrageous bailout and risky license extension rubber-stamp. He also had on Shannon Fisk, Earthjustice attorney representing the Sierra Club, which is officially opposing the Public Utilities Commission of Ohio staff's sweetheart deal for bailing out FirstEnergy, at ratepayer expense.

Harvey also had on Charles Komanoff, author of the 1992 Greenpeace report Fiscal Fission: The Economic Failure of Nuclear Power, to discuss the carbon tax, as the COP21 (Council of Parties UN climate negotiations) got underway in Paris.

Listen to the show here. See Harvey's write up below:

Solartopia is today invaded by the utter insanity of Ohio’s Public Utilities Commission, whose staff is recommending (this is not a typo) that ratepayers be gouged $4 billion to subsidize continued operation of the Davis-Besse nuke and several coal burners between the ages of 40 and 60 years old. We hear from the incomparable atomic expert KEVIN KAMPS of BEYOND NUCLEAR who dissects the terrifying physical condition of the Davis-Besse nuke, which is literally crumbling before our eyes, And from SHANNON FISK of EARTHJUSTICE which is representing the SIERRA CLUB in litigation against this insane mega-robbery. Suffice it to say the level of sheer cynicism comprised in this proposed bail-out defies description. We then hear from world-renowned CARBON TAX advocate Charles Komanoff, who explains how a levy on the burning of fossil fuels can help us right the CLIMATE CHAOS destroying our ability to survive on this Earth. If you intend to survive on this planet, this is an action-packed, fact filled reality show you can’t afford to miss.

[As posted online here: [http://www.beyondnuclear.org/relicensing/2015/12/3/solartopia-green-power-and-wellness-hour-davis-besses-bailou.html](https://urldefense.proofpoint.com/v2/url?u=http-3A__www.beyondnuclear.org_relicensing_2015_12_3_solartopia-2Dgreen-2Dpower-2Dand-2Dwellness-2Dhour-2Ddavis-2Dbesses-2Dbailou.html&d=DwMFaQ&c=kRQx1TXm_68pneFHvOZEGQ&r=Rj7kg0sHXA_bBQqEWf7snqsut1NpVmiitYqsL--HuG0&m=ykqEo340S3R8ANrffhHqBecC8QITke3nRTJgWabkyyo&s=gyy-_HIkMYxTEYdd06tnAocwsg87C5nuVtJPlwwJ4tY&e=) ]

**December 8, 2015**

[**Environmental coalition decries decision to extend Davis-Besse's license**](https://urldefense.proofpoint.com/v2/url?u=http-3A__www.beyondnuclear.org_relicensing_2015_12_8_environmental-2Dcoalition-2Ddecries-2Ddecision-2Dto-2Dextend-2Ddavis-2Dbes.html&d=DwMFaQ&c=kRQx1TXm_68pneFHvOZEGQ&r=Rj7kg0sHXA_bBQqEWf7snqsut1NpVmiitYqsL--HuG0&m=ykqEo340S3R8ANrffhHqBecC8QITke3nRTJgWabkyyo&s=H3sJYeHQn1Ig0Dn3HKYZey2GwgrvWE9ONdU_5mMnxNg&e=)

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.  Read the full press release.

**Update** on December 9, 2015 by [admin](https://urldefense.proofpoint.com/v2/url?u=http-3A__www.beyondnuclear.org_display_ShowJournal-3FmoduleId-3D9206690-26registeredAuthorId-3D540070&d=DwMFaQ&c=kRQx1TXm_68pneFHvOZEGQ&r=Rj7kg0sHXA_bBQqEWf7snqsut1NpVmiitYqsL--HuG0&m=ykqEo340S3R8ANrffhHqBecC8QITke3nRTJgWabkyyo&s=whq2h1_au99hFSnu51J1-r6rRr8Vs-zGQIuQ94xtL1Q&e=)

John Funk at the Cleveland Plain Dealer has reported on this story.

Tom Henry at the Toledo Blade reported:

A coalition of anti-nuclear groups opposed to the extension called the NRC’s decision an example of the agency’s systematic “rubber stamp” for license extensions.

“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,” according to Terry Lodge, a Toledo attorney representing Beyond Nuclear, Citizens Environmental Alliance of Southwestern Ontario, Don’t Waste Michigan, and the Ohio Green Party.

The groups said they are seeking to invalidate license extensions through a lawsuit Beyond Nuclear has filed in the U.S. Circuit Court of Appeals in Washington challenging the lack of a national repository for spent reactor fuel.

Jim Mackinnon at the Akron Beacon Journal reported:

A coalition of environmental groups issued statements, saying the license renewal amounts to two decades of “radioactive Russian roulette.”...

They called the NRC extension a “rubber stamp” bailout that will cost ratepayers billions of dollars in subsidies in upcoming years.

“It would prop up the age-degraded, uncompetitive Davis-Besse atomic reactor, by surcharging households and businesses on their electricity bills,” the group said. “Twenty more years of operations at the problem-plagued Davis-Besse atomic reactor is unacceptably risky to public health and safety.

John Stinchcomb at the Port Clinton News Herald reported:

However, several environmental groups concerned about containment at Davis-Besse have denounced the NRC's decision and vow to continue the fight.

Victoria Clemons, a local activist in Port Clinton, is concerned about storage of the estimated 20 metric tons per year of irradiated nuclear fuel generated by the plant, adding a total of 400 metric tons of high-level radioactive waste to what is already there from the previous 40 years of operation.

"Yet again, NRC has shown it is flippantly fine with the generation, and storage, of high-level radioactive waste on the Great Lakes shoreline, for decades to come," Clemons said.

[In fact, Beyond Nuclear member and supporter Clemons has provided our standing in the legal appeal challenging NRC's Nuclear Waste Confidence policy.]

[As posted online here: [http://www.beyondnuclear.org/relicensing/2015/12/8/environmental-coalition-decries-decision-to-extend-davis-bes.html](https://urldefense.proofpoint.com/v2/url?u=http-3A__www.beyondnuclear.org_relicensing_2015_12_8_environmental-2Dcoalition-2Ddecries-2Ddecision-2Dto-2Dextend-2Ddavis-2Dbes.html&d=DwMFaQ&c=kRQx1TXm_68pneFHvOZEGQ&r=Rj7kg0sHXA_bBQqEWf7snqsut1NpVmiitYqsL--HuG0&m=ykqEo340S3R8ANrffhHqBecC8QITke3nRTJgWabkyyo&s=H3sJYeHQn1Ig0Dn3HKYZey2GwgrvWE9ONdU_5mMnxNg&e=) ]

**December 28, 2012**

[**NRC ASLB rules against environmental coalition's contentions challenging 20-year license extension at Davis-Besse**](https://urldefense.proofpoint.com/v2/url?u=http-3A__www.beyondnuclear.org_relicensing_2012_12_28_nrc-2Daslb-2Drules-2Dagainst-2Denvironmental-2Dcoalitions-2Dcontentions.html&d=DwMFaQ&c=kRQx1TXm_68pneFHvOZEGQ&r=Rj7kg0sHXA_bBQqEWf7snqsut1NpVmiitYqsL--HuG0&m=ykqEo340S3R8ANrffhHqBecC8QITke3nRTJgWabkyyo&s=u24LaNeW_gCkB5mDsii9BfLxVjDXN9n1jdAYlO_8gVU&e=)

The U.S. Nuclear Regulatory Commission's (NRC) Atomic Safety (sic) and Licensing Board (ASLB) today issued two rulings rejecting an environmental coalition's intervention against the 20-year license extension sought by FirstEnergy Nuclear Operating Company (FENOC) at its problem-plagued Davis-Besse atomic reactor near Toledo.

The first ruling supported FENOC's Motion for Summary Dismissal of the environmental interveners' (Beyond Nuclear, Citizens Environment Alliance of Southwestern Ontario, Don't Waste Michigan, Green Party of Ohio, represented by Toledo attorney Terry Lodge) Severe Accident Mitigation Alternatives (SAMA) analyses contentions, previously admitted for hearing. To do so, both ASLB and NRC had to ignore FENOC's assumption that the containment structures at Davis-Besse are fully functional, which they are not. This ruling came despite FENOC's admission that it had made five major errors in its original SAMA analyses, such as under-estimating the value of Ohio farmland and urban property values, and even getting wind directions 180 degrees wrong.

The second ruling rejected interveners' proposed cracked concrete containment contention. Intervenors' have dubbed FENOC's claim that the Blizzard of 1978 severely cracked its concrete containment shield building a "Snow Job," and its cover up of the visual evidence of the cracking with concrete in late 2011, and with a coat of paint on the shield building exterior in August 2012, a "White Wash."

The environmental coalition issued a press release in response to the ASLB rulings, vowing to fight on.

The Toledo Blade has reported on this story. At the bottom righthand side of the article, the Toledo Blade is conducting an online poll as to whether or not Davis-Besse should be re-licensed. Beyond Nuclear encourages readers to vote NO in the poll.

The article quoted Beyond Nuclear's Kevin Kamps:

"...Kevin Kamps, a radioactive-waste specialist for Maryland-based Beyond Nuclear, was unconvinced by the licensing board’s findings.

The cracks pose a 'major safety risk,' he said. 'If they can dismiss the cracking contention given the gravity of that risk, then it’s not a good sign for due process.'

Relicensing opponents believe the NRC and FirstEnergy don’t 'understand the root causes' of the cracking problem, and if the wrong cause is pinpointed then 'they can’t have adequate corrective action in place.'

'[It’s a] huge loss for the public. The risks don’t go away regardless,' he said...

...Mr. Kamps said the licensing board’s rulings are subject to challenge, and re-licensing opponents also may raise new contentions as the renewal process continues. Among unresolved issues is the effect of a June 8 federal appeals-court ruling in Washington declaring that regulators had not assessed potential environmental consequences of long-term radioactive waste storage at nuclear plant sites if no permanent disposal site is developed."

WKSU, the NPR radio affiliate at Kent State University, has also reported on this story. WKSU quoted Kevin:

"Beyond Nuclear is among the groups contesting the proposed license renewal. They contend that cracks discovered last year in Davis-Besse’s concrete shield are due to aging concrete – and a sign of more trouble to come...  
  
...Kevin Kamps, a radioactive-waste specialist for Beyond Nuclear, says the board also rejected an analysis of what would happen in the event of a severe accident at the plant east of Toledo.  
  
'I would say that, looking at a document like the Japanese Parliament report on the Fukushima nuclear catastrophe, where they found that collusion between government and industry was actually the root cause of the catastrophe, that that very much applies to Davis-Besse.'  
  
Kamps says an environmental impact statement is due in February, at which time the group will have another opportunity to file objections. And the board has yet to address a court order regarding the potential environmental impact of on-site radioactive waste storage."

Interveners can still submit contentions based on NRC's Draft Supplemental Environmental Impact Statement (DSEIS), due out in February. Also, the NRC has acknowledged that interveners' application at Davis-Besse, of a recent court victory against its "Nuke Waste Con Game," will result in at least a two year delay in issuance of the final approval for the license extension. NRC has said it will take at least that long to carry out the court-ordered Environmental Impact Statement on its Nuclear Waste Confidence Decision and Rule.

For more information on the Davis-Besse proceeding, click here.

[As posted online at: [http://www.beyondnuclear.org/relicensing/2012/12/28/nrc-aslb-rules-against-environmental-coalitions-contentions.html](https://urldefense.proofpoint.com/v2/url?u=http-3A__www.beyondnuclear.org_relicensing_2012_12_28_nrc-2Daslb-2Drules-2Dagainst-2Denvironmental-2Dcoalitions-2Dcontentions.html&d=DwMFaQ&c=kRQx1TXm_68pneFHvOZEGQ&r=Rj7kg0sHXA_bBQqEWf7snqsut1NpVmiitYqsL--HuG0&m=ykqEo340S3R8ANrffhHqBecC8QITke3nRTJgWabkyyo&s=u24LaNeW_gCkB5mDsii9BfLxVjDXN9n1jdAYlO_8gVU&e=) ]