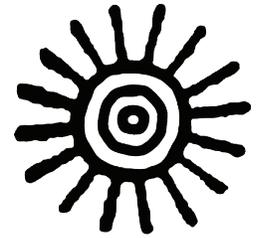


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The CAN-Did Press



THE NEWSLETTER OF THE CITIZENS AWARENESS NETWORK
ACT TODAY TO CHANGE TOMORROW...

CAN's October 2019 Anti-Nuclear Waste Tour

Citizen's Awareness Network (CAN) and its many Nukebuster friends and supporters organized a tour throughout New England during the first week of October to share information and encourage people to take action to ensure that High-Level Nuclear Waste is stored as safely as possible at reactor sites across the country and not moved to proposed "interim" storage sites in the Southwest. From Montpelier, Vermont to the Massachusetts State House and many points in between, we shared stories and strategies from here in New England as well as from New Mexico and Texas. Special guests helped us understand what it would mean to transport waste across the country, while folks from local areas spoke with passion about the terrible choice we need to make to keep the waste here and keep it as safe as possible until a real, safe solution can be found.

The tour started in Burlington, VT, with a stop at the local community media center, where Deb Katz, Leona Morgan, and Diane D'Arrigo were interviewed and shared their information and stories. (See video online at <https://www.youtube.com/watch?v=QDsd6y5bKik/>.) Later that same day, we held an event in Montpelier, where a group learned about how reactor communities, and communities targeted to be waste dumps, can stand together and demand that waste is not moved unnecessarily and is stored as safely as possible.

The group then headed south for a stop in South Royalton,



*The Waste Tour Crew in Newburyport Oct. 3.
Photo by Amy Shollenberger*

VT to talk to some Vermont Law School students and community members, and then on to Brattleboro to meet with a news reporter from *The Reformer*.

That evening, we were in Greenfield, Massachusetts—joined by Wildcat Bill O'Halloran and his blues band for a night of music

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C-10 Calls out NRC and NextEra in Seabrook Concrete Degradation Case

C-10 Research and Education Foundation, a citizens non-profit focused on the safety of Seabrook Station nuclear power plant, has filed its "Proposed Findings of Fact and Conclusions of Law" with the federal Atomic Safety & Licensing Board citing the Board's lack of expertise on the complex and pervasive concrete degradation phenomenon known as alkali-silica reaction (ASR).

"This filing on November 21 is C-10's attempt to crystallize all that we've learned relative to NextEra's deeply flawed approach to managing Seabrook's failing concrete, and to convince the ASLB judges that given what is at stake, NextEra should be sent back to the drawing board with its concrete testing, analysis and monitoring protocols," said Natalie Hildt Treat, executive

director of C-10.

"Unfortunately, the NRC staff's witnesses did not demonstrate any level of expertise regarding alkali-silica reaction (ASR)," said C-10. ASR is an irreversible chemical condition impacting all key structures at the nuclear plant, including the core reactor's containment enclosure building. Seabrook is the first U.S. reactor known to be suffering from ASR, though its presence has been a factor leading to the closure of at least two other plants, globally.

First detected at Seabrook in 2009, the presence of ASR caused NextEra to submit a license amendment request in which the company sought NRC approval of a concrete aging-manage-

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Prioritize Public Health, Not Profit, in Nuclear Waste Disposal

Nuclear advocates always seem to come up with grand ideas to “solve” the high-level nuclear waste problem but they always result in making more waste. Originally there was no waste problem because the waste would be reprocessed and used again in breeder reactors. That idea failed! The only reprocessing facility was West Valley in upstate New York and it shuttered after only five years because it contaminated the land and water around it. It remains a Superfund site to this day. Without reprocessing, nuclear fuel will remain in fuel pools and dry storage at reactor sites all over the country.

This magical idea that nuclear power created no waste ended when India tested a nuclear bomb in the 1970s leading to fears of nuclear proliferation. Because of the threat of proliferation, President Carter ended the research on reprocessing and breeder reactors.

Suddenly there was a “waste problem.” Carter commissioned a study to determine the best way to deal with the waste. The level of naivety, arrogance and thoughtlessness is remarkable. Some of the ideas included sending the waste into space, but a rocket accident could contaminate the planet; placing the waste in a hole in Antarctica or Greenland ice and letting it melt down into the ocean bed was proffered but the waste could contaminate the ocean. Carter’s commission finally settled on deep geological burial in a hole or a mine.

All this was codified under the Nuclear Waste Policy Act (NWPA). Once established, an investigation began to determine the best dump site. Every state that was identified as potential for a waste repository threatened to sue. Instituting the NWPA was in crisis. The NWPA was amended; Congress stopped looking elsewhere and targeted Yucca Mountain, Nevada because Nevada had no political clout.

With the failure of the federal government and the nuclear industry to establish Yucca Mountain as the national repository for nuclear waste, the industry, especially the corporations which are looking to make a profit from cleaning up reactor sites, need to get the high-level nuclear waste offsite to relieve themselves of the responsibility for onsite storage. It costs a lot to store the waste onsite—at least \$5 million out of pocket for NorthStar each year. This could sink NorthStar’s profit-making plan and waste could remain onsite for decades if not centuries.

So in addition to naivety, arrogance, and thoughtlessness add profit and loss.

Now that there’s no permanent solution for the waste, they want to create “interim storage” dump sites in west Texas or New Mexico in working class, poor, Hispanic communities to make their waste problem disappear. These sites don’t have to meet the strict environmental standards that sunk Yucca— i.e., isolation from the environment for 1,000 years; isolation from groundwater for 10,000 years.

This initiative is a statement of the failure of the nuclear industry and the federal government to address the most toxic waste we have ever created. What is needed is a scientifically

sound and environmentally just solution, not more magic or wish fulfillment.

A qualified “panel” must be established and funded to create the standards required to meet the health and safety of the public, not just the profit-driven, monetary bottom line of the nuclear industry.

- Deb Katz, Executive director
Citizens Awareness Network

Vermont Yankee Update

Decommissioning of the Vermont Yankee nuclear power plant is proceeding according to the owner’s plan. NorthStar, the plant owner, has reported that several projects are underway or have been completed. The two cooling tower banks have been demolished and plans are in place to fill in the cooling reservoir. Orano, a NorthStar partner, is continuing to cut up the reactor and other radioactive internals. As part of the process Orano is packing the resulting debris in special containers that will be shipped by rail to Waste Control Specialists (WCS) in Andrews County, Texas.

The Department of Environmental Conservation has reported that an assessment of non radioactive contamination of the VY site has shown little contamination to be concerned with so far. The DEC says there is no bedrock well contamination. It remains to be seen what the radioactive status of the groundwater is.

The Nuclear Decommissioning Citizens Advisory Panel was told that NorthStar is looking at diverting the flow of groundwater into the turbine building. Water flowing into the structure becomes radioactively contaminated and needs to be collected and shipped off site. The diversion project could greatly reduce the amount of water that is ultimately collected and shipped.

- Chris Williams, Citizens Awareness Network



CAN Waste Tour activists were interviewed in Vermont Oct. 1.
Photo by Amy Shollenberger

Anti-Nuclear Waste Tour

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and education at Hawks & Reed Performance Center. Although several attendees thought they would be getting their regular Wednesday evening Salsa lesson, they were turned on to the need to get engaged in our work to stop the temporary Centralized Interim Storage of high-level radioactive waste.

After Greenfield, the group went to Boston where we met up with the Cape DownWinders representatives and also picked up Karen Hadden from Texas for a legislative briefing in the Massachusetts Statehouse. We were joined by staffers from approximately a dozen legislative offices, and again, we shared the information and asked for their help. Many legislators were surprised to learn about how bad an idea it would be to ship the waste out of Massachusetts to the Southwest, United States.

After that we connected with the C-10 group in New Hampshire for another event near the Seabrook reactor. There we visited with a group of long-time anti-nuke activists who are ready to engage around the issues associated with the radioactive waste.

Then it was on to the Glastonbury Abbey for an event there and also one in Plymouth, MA. In Plymouth, we met some new people who dropped in to see what we were up to, and in Hingham at the Abbey we enjoyed some bluegrass music from the "Anybody who shows Up" band. The band ended their performance by singing "This Land is Your Land," and we were all reminded that we are connected to each other and we need to work together to make sure we are keeping everyone as safe as possible from



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this deadly waste.

We wrapped up the tour with another great dance and forum featuring Wildcat and his band at the VFW in Florence, MA. Now, the mock waste cask is again safely parked and we are all dispersed to our homes, but we continue our fight together to deal with this high-level radioactive waste in a responsible, scientifically sound, and environmentally just, way.

- Amy Shollenberger, Action Circles, Inc.
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CAN meets with legislative aides in Boston Statehouse. Photo by Amy Shollenberger

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A Big Thank You from CAN Staff & Board

We couldn't do it without you!

Tim Barash & Amesbury Friends Meetinghouse • Bob Bady Chris Wood & BALE Commons, VT • Boston Downwinders Paul Burton • Carla Racine & The Buzz 413 • Cape Downwinders Christ Episcopal Church Montpelier, VT • Climate Action Now, MA Henrietta Cosentino • David Currie • Ann Darling • Diane D'Arrigo • Charles Delaney Lionel Delevigne • Court Dorsey Extinction Rebellion • Father Andrew & The Glastonbury Abbey • Green Fields Market • Debbie & Chandler Grinnell Guacamole Foundation • Gerry Hersh • Natalie Hildt Treat • Priscilla Jones • Ted Leigh • Lintilhac Foundation • Lisa Malaguti David McLellan • New England Grassroots Environmental Fund • The Nolumbeka Project • Chris Nord • NuclearBan.US Nuclear Information and Resource Service (NIRS) • Occupy Hingham • Plymouth Public Library • Rothschild Foundation Karen Hadden & SEED Coalition, TX • Amy Shollenberger • Patricia Skibbee & Mike Fossberg • Solar Store of Greenfield • Bob Stannard Debra Stoleroff • Sugar Shack Alliance • Diane Turco • Van Itallie Foundation • Gillian Cowley & Vermont Law School Vermont Yankee Decommissioning Alliance • Wildcat O'Halloran Band • Deborah York

Two Major Issues With VY Decommissioning: Where to send the radioactive waste and how to get it there?

Congratulations to NorthStar for aiming to take apart the Vermont Yankee reactor in record time, hopefully by 2026, and hopefully within budget. NorthStar is working with its sister company, Waste Control Specialists (WCS), to open a “temporary” storage facility in Andrews County, Texas, (near the New Mexico border) that is strongly opposed by local environmental and public interest groups along transportation routes.

Here are some of the issues. Clearly all reactor sites undergoing decommissioning i.e., Pilgrim (MA), Oyster Creek (NJ) and sites that have already taken apart reactors such as Maine Yankee, CT Yankee, and MA’s Yankee Rowe, would like to send radioactive reactor spent fuel somewhere else, anywhere else. But the WCS site and another site in New Mexico (CIS) are not licensed to accept spent fuel for storage. Federal law does not allow “temporarily” storing nuclear fuel. Without a permanent solution, “temporary” could be forever. Hopefully VT Congressman Peter Welch will not support House legislation that will allow WCS to open its dump.

Two other issues are of concern. It is not just spent nuclear fuel that is radioactively hot. Much of the voluminous low-level radioactive waste can be shipped to Texas, but the WCS landfill cannot accept it all. Some of the stainless steel from within the Vermont Yankee reactor, (after being bombarded with neutrons for 40+ years), has become radioactive too, as radioactive as the nuclear fuel itself. The carbon, cobalt, nickel and niobium that are part of stainless steel have become radioactive and have very long half-lives: C-14 (5730 years), Ni-63 (101 years), Ni-59 (76,000 years) and Nb-94 (20,000 years).

Contrary to WCS’ wishes, this long-lived highly radioactive metal does not belong in a surface landfill for the tens of thousands of years it will continue to emit deadly penetrating gamma rays. Hot metals belong in an underground repository along with nuclear fuel. That is the present regulatory requirement. Many decommissioned reactors store these reactor parts in separate concrete casks. At Connecticut Yankee, three of the approximately 60 casks store this hot waste, (called greater than class C waste), on site, and NorthStar should do the same at Vermont Yankee.

Finally, transportation is of concern. Transportation casks are quite sturdy, but they are not designed to withstand severe accidents, such as a several hour diesel fire or high-speed impact. We are not transporting peanut butter here. A large transportation cask contains prodigious amounts of radioactivity. Take, for example, one radionuclide, Cs-137. A large cask containing 37 high burn up” fuel assemblies contains about 700 times the amount of cesium-137 released by the Hiroshima bomb. I’m not saying that a transportation cask would explode and release this inventory, but it is an issue that concerns public interest groups along transportation routes. At the least the industry should physically test these transportation casks rather than simply rely on computer simulation analysis. (Disclaimer: I work as an advisor to the State of Nevada on transportation issues.) In sum, spent nuclear fuel and hot reactor parts are not going anywhere soon.

- Marvin Resnikoff, PhD, International consultant on radioactive-waste issues. Radioactive Waste Management Associates, www.rwma.com, 802-732-8008

C-10 Calls out NRC

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ment plan. The NRC determined that the plan was sufficient, and in March 2019, granted the LAR and a 20-year license extension to operate the reactor until 2050. These actions were taken in spite of the planned ASLB hearing on Seabrook’s concrete problems that took place the week of September 23, 2019 in Newburyport, Mass.

At the hearing, C-10 attorney Diane Curran told the licensing board that “The biggest concern posed by ASR at Seabrook is this: **if severe enough, ASR may weaken concrete safety structures to the point that they crack during an earthquake and release radiation into the environment.**”

“The discovery of ASR at Seabrook has presented NextEra and the NRC staff with three unique and difficult problems,” wrote C-10 in its Proposed Findings of Facts and Conclusions of Law:

- **First, ASR is an exceptionally perverse phenomenon, rotting concrete from within.**
- **Second, the insidious effects of ASR are invisible to the naked eye and difficult to diagnose.**
- **Third, while ASR has for decades been known to exist in numerous structures such as dams and bridges, and while ASR is the subject of a significant body of international research,**

it is not regulated by the NRC.

The crux of C-10’s contention is that NextEra relied on concrete testing done at a lab at the University of Texas, Austin, that was a poor stand-in for the actual concrete that has faced decades of exposure on the New Hampshire salt marsh. In particular, the different mineral components of the test samples are not representative of the particular chemical make-up of Seabrook’s concrete, and thus will not behave in the same manner.

About C-10

C-10 Research and Education Foundation (C-10) works to protect public health and the natural environment surrounding the Seabrook Station nuclear power plant. Based in Newburyport, Massachusetts, C-10’s core service is to operate a field monitoring network to measure airborne radiological emissions surrounding the plant, and has provided this critical service under contract with the Comm of MA since 1993.

- Natalie Hildt Treat, Executive Director,
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