The Colossal Failure and Broken Promises of Nuclear Power

Any campaign to confront the crisis in nuclear waste must entail a national, regional and local strategy. We can’t just focus on a green future, we must demand that our government—both State and Federal—hold the nuclear industry accountable for its terrible legacy of waste. To do this we must address the endgame of nuclear power.

Any Trump driven resurgence in nuclear power will require the creation of unsafe waste dumps and the targeting of beleaguered communities. Reactor communities must work together with targeted communities to thwart the nuclear industry’s attempts to pit them against each other, and create a policy that supports the needs and concerns of both. Addressing both the problem and the solution are essential. It won’t be easy and will require sustained public involvement to reach our goal for a Nuclear Free New England and a just solution to nuclear waste. Our campaign in states with operating reactors focuses on nuclear power being an obstruction to the growth of renewables and subsidizing a failing nuclear industry just compounds the problem. In communities where reactors have been shuttered the colossal failure of nuclear power is evident with broken promises and escalating costs. Here’s some of what we plan to do.

1.) Putting a Face to Waste: Organizing Environmental Justice/High Level Waste Tours, bringing organizers from the southwest to New England to share their opposition to the Andrews County LLRW dump and proposed HLRW interim storage sites. The Tours will address the environmental dangers as well as the environmental justice issues of targeting of vulnerable communities.

2.) Do the Right Thing—Responsible and Thorough Cleanup: Organizing opposition to Entergy’s abdicating its responsibility for cleanup of Vermont Yankee and its attempt to transfer cleanup to an untested corporation—NorthStar. We are

NDCAP Learns Entergy’s VY Site Assessment is “Out of Date and Incomplete”

The Nuclear Decommissioning Citizens Advisory Panel has continued to meet monthly since the last edition of the CAN-Did Press.

Of the many issues that have been raised and discussed over the last several months, one exchange revealed the most significant question with any plan to decommission VY. How can we be assured the site will be thoroughly restored when the decommissioning trust fund is not adequate for the job? Entergy and NorthStar continuously state that the current plan will produce a restored site. Their spreadsheet says so!

However, to predict what a project will cost is dependent in great part on knowing what type and levels of contamination exist at the site. At the March 23, 2017 NDCAP meeting, Peter Walke, Deputy Secretary for the Agency of Natural Resources, dropped a bombshell. Mr. Walke informed the panel and the public that Entergy’s site assessment is out of date, incomplete, and the company has not responded to multiple requests for updated information.

Stop the Millstone Nuclear Bailout—and Make CT Nuclear-Free!

Across the country, nuclear power companies are pushing states for billions of dollars in subsidies and bailouts for failing reactors that would otherwise be closing, like Vermont Yankee. In NY, ratepayers are already paying over $40 million each month to prop up four old, uneconomical reactors. The subsidies will total $7.6 billion over the next 12 years. In Illinois, ratepayers are now paying $20 million per month to prop up three more nukes—and will rack up bills totaling $2.4 billion by 2027.

Despite the closure of Vermont Yankee and the announced closure of Pilgrim, New England isn’t safe from this same corporate bailout ploy. For the last two years, the owner of the Millstone reactors in CT have been squeezing the state for another multi-billion-dollar bailout. Long-time CAN members will remember that, in the 1990s, CAN and other grassroots groups—and several courageous whistleblowers—closed one of the Millstone reactors and the CT Yankee reactor. We fought to hold the CT nukes

continued on page 3
Failing Concrete at Seabrook Station: C-10 Foundation Opposes NextEra’s License Amendment Request

Newburyport, Massachusetts — The C-10 Research and Education Foundation is attempting to intervene in the 2016 License Amendment Request (LAR) filed by NextEra, (owners of the Seabrook reactor). NextEra must change their operating license, overseen by the Atomic Safety and Licensing Board (ASLB) of the Nuclear Regulatory Commission, in order to show that they can continue Seabrook’s operation with its failing concrete. Through adoption of this LAR, NextEra wants to legitimatize an experimental method for analyzing the failing strength of safety-related structures at Seabrook due to a chemical degradation of its concrete called Alkali-Silica Reaction (ASR).

ASR causes the formation of an expanding gel within the concrete; and that expansion causes cracking that reduces the strength of the concrete—eventually leading to failure. There is no known way to halt the progression of ASR, or the weakening it causes. By 2012, some of the concrete in “safety-related” structures at Seabrook had already shown a 30 percent reduction in the expected strength. Seabrook is reputed to be the first US commercial reactor known to be undermined by ASR—a fact that adds to the importance of this License Amendment Request, since whatever the ASLB allows for Seabrook could serve as a precedent for handling ASR at other reactors.

The C-10 board has cited unreliable assumptions made by NextEra for the capability of Seabrook’s degraded concrete to perform as designed; NextEra’s calculations are derived from laboratory tests conducted in Texas, and not on the actual concrete onsite in New Hampshire.

“As we see it, the LAR is a “paper” solution. Should the NRC grant this request, it will not mean that the people who live and work near Seabrook Station are any safer. The thousands of tiny cracks and larger ones in the power plant’s concrete dome and retaining walls are still there, and continue to expand,” said Natalie Hildt Treat, Exec Director of the C-10 Foundation.

“Without ongoing testing of the actual concrete, NextEra and the NRC can only guess at the strength of Seabrook’s structures—structures we count on to protect our families from many of the most toxic substances on earth. The need for the greatest assurance of safety imposed by the presence of these toxins requires the most thorough testing that can be devised,” stated Christopher Nord, Newbury resident.

C-10 President Patricia Skibbee, from West Newbury, called NextEra to task for failing to acknowledge the “tipping point” concept—the idea that all seems well, until suddenly, it is not.

“Given that the speed of progression of ASR is unknown, and given that additional cracking is part of that progression, it seems clear that the speed of concrete degradation may gain momentum; therefore, the tipping point phenomenon should not be ignored in this license extension request,” said Skibbee.

The issue of ASR at Seabrook Station was first acknowledged in 2009, and is a common phenomenon in bridges and buildings. “In the case of reactors like Seabrook, long-lived and extremely dangerous radioactive elements are housed within the reactor building, and the Spent Fuel Pool—where the used reactor fuel is stored. At Seabrook, the used fuel contained within the Pool now exceeds 600 tons,” says Nord. “The strength of concrete is all that keeps these extraordinarily toxic substances from escaping to the environment. This is why C-10 has pursued this issue with the Nuclear Regulatory Commission for the last seven years.”

- Chris Nord, C-10 Foundation board member

www.C-10.org

Stop the Millstone Bailout

continued from page 1

then-owner, Northeast Utilities, accountable for its systemic mismanagement and cutting corners on safety. All of the nukes in CT were shut for nearly three years—two of the Millstones came back online, thanks to Northeast Utilities getting a $2 billion bailout from the state. Then NU sold Millstone to Dominion.

Activists in CT have fought off Dominion’s bailout scheme for the last two years, and Dominion is getting desperate. The corporation is now threatening to close what is still the most profitable nuke in the country if CT legislators don’t rush through a massive subsidy this summer. And if Dominion doesn’t get it this summer, the company will be back next year. CT activist groups are holding strong—from the Citizens Campaign for the Environment to the AARP—and CAN urges all of our members and supporters in CT to contact your state legislators and tell them: “NO on the Millstone nuclear bailout.” It’s time to finish the job CAN started in the 1990s: to close Millstone once and for all, and make Connecticut nuclear power-free.

If you don’t know who your CT General Assembly representatives are (House and Senate) or need their contact information, just go to the General Assembly website: www.cga.ct.gov. Tell them: “NO Millstone nuclear bailout in the state budget, or in any other legislation. We choose renewables and efficiency, not dirty, dangerous nuclear power.”

-Tim Judson, Nuclear Information and Resource Service

www.nirs.org
Environmental Justice and Nuclear Waste: The Road from New England to Texas

Every organizing effort starts somewhere. Nearly 20 years ago, various organizations from across the country drove mock high-level nuclear waste casks for thousands of miles and held events in hundreds of communities. The effort was designed to bring awareness of the Department of Energy’s plan to transport thousands of shipments of irradiated nuclear fuel to Yucca Mountain, Nevada, or a handful of temporary parking lot dumps. The threat was put on hold for a good long stretch but the ill-advised plan is now back.

In early May I had the honor of taking part in a tour of New England aimed at bringing awareness of the latest parking lot dump plan to the reactor communities which host Seabrook, Pilgrim, Yankee Rowe, and Vermont Yankee. Deb Katz, along with Kevin Kamps of Beyond Nuclear, presented policy and history lessons on high-level waste. Rose Gardner, of Eunice, New Mexico, provided heartfelt commentary on what it is like to live in a small town targeted to have tens of thousands tons of waste dumped upon it. Rose and her daughters traveled to New England to give a face and a story to the place they call home and express their fear that in many places that produced high-level waste some are not thinking about the people and ecosystems at the proposed dumps. Her message was powerful.

The nuclear industry routinely targets immiserated communities—poor, rural, people of color and Native American—for high-level nuclear waste disposal. This is environmental racism. People in New England need to understand the impacts of “clean-up” on other communities. What is needed is a scientifically sound and environmentally just solution to this monstrous problem.

Our fight this time around is just beginning. We have a great deal of work in front of us. But you have to start somewhere!

- Chris Williams

NDCAP

continued from page 1

Specifically, the ANR is lacking information regarding non-radiological contaminants. It was repeatedly pointed out by the ANR and the Attorney General’s staff that an accurate report on non-radiological materials present at the site was necessary in order to know if the NorthStar proposal is “a viable transaction.” The Department of Health also added that radiological contamination discovered at Yankee Rowe and Connecticut Yankee during active decommissioning were major drivers in the enormous cost overruns at both of those reactor sites.

Members of NDCAP were clearly concerned that without accurate, up-to-date information in the hands of agency staff members, an informed decision on the NorthStar deal could not be made within the present Public Service Board hearing schedule.

- Chris Williams, VCAN

Thanks!

We couldn’t have done it without you:
Paul Burton • Kathie & Al Medeiros
Kevin Kamps • Rose Gardner
Lintilhac Foundation • Block Foundation
Ben and Jerry’s Foundation • Guacamole Foundation
Van Itallie Foundation • Charlene Divoky
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The NRC should require US nuclear power stations like Vermont Yankee to get an “autopsy” during decommissioning to investigate the level of deterioration of reactor components and how that impacts safety margins at other operating reactors.

Rather than mothball reactors, scientific activities during decommissioning can assess the effects of aging, fatigue and radiation on reactor safety margins. This data can play a vital role in protecting public health and safety for those remaining operating reactors and those that seek to extend operating licenses even longer.

There are still a dozen or more nukes in application and scheduled for license renewal.

This is important given the nuclear industry’s “Bridge to the Future” plan to extend license operations of its aging reactor fleet. The United States’ 99 operating units have received 20-year license extensions onto their original 40-year license. But the industry now wants to extend reactor operations into the future—“Subsequent License Renewal”—by extending operating licenses from 60 to 80 years.

Meanwhile material and structural deterioration are constantly attacking reactor safety margins. New “anomalies” that go back to never-before-captured manufacturing processes are emerging. While replacement of some of these components can arguably extend a reactor’s operational life, it is not universal. There are safety-related structures and components that are irreplaceable like the huge steel reactor pressure vessel and large concrete structures including the containment building and irradiated fuel pools.

The NRC needs to require nuclear corporations perform decommissioning autopsies to provide important information to the industry, the NRC and impacted communities if there is to be any scientific integrity or transparency for operating reactor safety margins.

Decommissioning reactors are the science laboratories for public safety with the ability to document, examine and test irreplaceable and inaccessible safety-related structures and components. This examination will expose the effect of aging on reactors still licensed to operate.

To date, the industry and regulator have performed limited examination and material testing during decommissioning. The Nuclear Energy Institute is using two sets of harvested segments from the reactor pressure vessel of the 27-year old Zion reactor in Illinois and another unit in Spain to analyze the safety implications for a proposed 60 to 80-year license extension.

An “autopsy” should be a public safety requirement. Embrittlement, metal fatigue and corrosion are just a few examples of degradation on large, irreplaceable safety-related steel components. Alkali Silica Reaction (ASR), a chemical reaction, is associated with aging—it attacks and undermines the strength of irreplaceable and safety related concrete structures like the containment, the high-level nuclear waste storage pool, as well as the reactor building foundation itself.

In the past, the industry and the NRC refused to analyze the components and instead buried the evidence. The Yankee Rowe nuclear power station in Massachusetts is a good example.

Yankee was the pilot reactor site for the NRC’s original 20-year license extension program. After Yankee Rowe’s continued operation was challenged by an emergency enforcement petition, a severely embrittled reactor vessel was revealed. Yankee Atomic, Rowe’s owner chose closure opting for a rapid cleanup and quick burial.

In 1996, Citizen Awareness Network and 10 other safe energy organizations challenged the decommissioning process for Yankee Rowe and three more permanently closed reactors. The groups wanted the NRC to require that each licensee provide metal and weld specimens from their pressure vessels to the NRC to test and archive the extent of radiation embrittlement. The NRC denied the petitioners’ request and the Yankee Rowe embrittled vessel was buried whole. Ignorance is not bliss where inherent danger puts public safety at risk.

- Paul Gunter, Beyond Nuclear • www.beyondnuclear.org

Nuclear Power Failure

continued from page 1

providing education and information through the Tours, the Citizens Advisory Panel, and activating citizens to participate in both the PSB and NRC proceeding. The VT Public Service Board—(now the Public Utilities Commission) will determine NorthStar and Entergy’s future as well as ours - it will set a precedent for national cleanup.

3.) Decommissioning Coalition to oppose NRC’s radical revised rule on decommissioning that permits the use of decommissioning funds to pay for onsite dry cask storage rather than site cleanup! It undercuts meaningful state and public participation. The coalition seeks to:

• Re-establish EPA oversight of decommissioning.
• Require decommissioning funds be fully funded by closure.
• Establish a separate fund for HLRW management so that ratepayer’s funds can’t be utilized to subsidize the industry’s HLRW problem.
• Legislative initiatives to provide funding to reactor communities to defray the costs associated with the storage of HLRW on site, reducing the pressure to establish interim storage by vulnerable communities and states.

4.) New England Closure and Cleanup Coalition: Organize regional meetings in New England to couple the issues of nuclear closure, decommissioning, and support for renewable expansion as well as opposition to HLRW parking lot dumps.

- Deb Katz- CAN Executive Director
Entergy continues its gambit to sell Vermont Yankee to NorthStar. This deal was at best questionable. Now we think NorthStar’s ability to effectively clean the site up is further compromised by the financial vulnerability of one of its partners. Waste Control Specialist (WCS). NorthStar’s partner attempted to merge with Entergy Solutions of Utah. This deal was opposed by the Department of Justice (DOJ)—the DOJ maintained that the merger would lead to a monopoly that would raise cleanup costs and lower cleanup standards. WCS maintained that the merger was imperative for the company’s financial future. WCS manages the Texas state nuclear waste dump and also owns its own dump in Andrews County, TX. This dump has always lost money, and WCS needed the merger to stem the tide on its continuing financial losses. In fact, WCS withdrew its application to the DOE for its pilot project (to create a parking lot dump for decommissioned reactor’s high level nuclear waste), to focus on the lawsuit with the DOE. In court papers it claimed that the merger was necessary to keep its company afloat.

In June, the District Court agreed with the DOE and ruled against the merger. In all likelihood, WCS will appeal this decision, but there is no guarantee that an Appellate Court will look any more favorably on this deal than the District Court did. This leaves WCS financially vulnerable.

How does WCS’ financial vulnerability effect Vermont Yankee’s Cleanup?

It could have a substantial effect. Entergy acknowledged that Vermont Yankee’s decommissioning fund was substantially underfunded; it acknowledged that it would need to mothball the reactor until there were sufficient funds to make cleanup possible. There is only $450 million or so in the fund with an estimate of $1.2 billion needed to accomplish adequate cleanup. Cleanup costs have routinely been underestimated by both the NRC and nuclear corporations. Decommissioning costs have sky-rocketed at New England reactors. NorthStar has no experience decommissioning a large scale reactor. Areva, (another NorthStar partner), has “consulted” on the decommissioning of New England reactors, but the heavy lifting on cleanup falls to WCS. NorthStar maintains that these are “fixed cost bids.” With no ratepayers to bail NorthStar and its partners out if they run into trouble, WCS’s financial vulnerability raises the stakes on the deal substantially.

Don’t forget NorthStar’s other partner, Areva, has a track record of massive cost overruns, schedule delays, failed projects and bankruptcy. It has a subsidiary headquartered in DC to lobby DOE for billions of dollars in contracts that Areva then goes over budget on and often doesn't complete. Exactly the wrong outfit to work under the cost discipline that NorthStar is selling itself on.

It is important that the Public Service Board—now the Public Utility Commission—hear from people in the Tri-State community to reject the sale. We all want the site cleaned up as quickly as possible. But we all want the job done as responsibly and thoroughly as possible. WCS’s financial vulnerability most definitely puts that in doubt.

You can contact the PUC:
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CONTACT YOUR LEGISLATORS!

We need to contact our New England legislators to oppose legislation to fund Yucca Mountain (a failed boondoggle) as well as a parking lot in Texas. The bill HR3053 was introduced in the House by Representative Shimkus of Illinois. It is an irresponsible attempt to enable the nuclear industry to ignore the problem it created.

The Energy and Commerce Committee passed HR 3053 to amend the Nuclear Waste Policy Act. Unfortunately, most legislators do not know what is in the details of HR 3053, which would take away states’ rights to prevent high-level nuclear waste dumping and relax nuclear waste safety standards, among other things. It would also trigger a “Mobile Chernobyl” of tens of thousands of waste shipments across the country—for no good reason. Rep. Schakowsky of Illinois was one of four who voted against it in committee—due to her meeting with anti-nuclear activists, some of whom are volunteers with the Sierra Club.

The bill is a moving target, with some of the worst parts having been taken out so it could pass out of committee. But the sponsor, Rep. Shimkus of Illinois, has said that these parts can be put back in again before a full House vote.

Rep. Shimkus says he will take this bill to the House Floor in July before the August recess. The Bill moves ahead with a consolidated storage concept that would force this dump onto Nevada, and/or Texas and New Mexico, for starters.

A group letter was sent to Rep. Shimkus and his Co-Chair, opposing the bill and signed by 49 organizations including the Sierra Club.

For more information: Find out through which states and cities this dangerous waste would be transported at http://www.state.nv.us/nucwaste/news2017/pdf/Congressional_Districts_Affected.pdf

These routes are based on shipments to Yucca Mountain, but east of the Mississippi they are also representative of likely transports to NM or TX.

- Deb Katz, CAN • www.nukebusters.org
Declaration of Nuclear Independence

Our causes for the end of nuclear power are neither light nor transient. If these facts were submitted to a candid world, nuclear power production would come to an end. Nuclear corporations have refused their assent to laws, both wholesome and necessary for the public good. The history of the nuclear industry is a history of repeated injuries and usurpations, all directed at an absolute control of our resources and our communities.

The good people of the Northeast united together, free and independent seek to establish a Northeast region free of radiation and its terrifying consequences. We indict the nuclear industry and the federal establishment. It is they who sanction a nuclear economy. This criminal negligence makes possible the elimination of life, liberty and the pursuit of happiness.

Their criminal negligence includes:

1. They have established nuclear power without the informed consent of the people. If ordinary citizens were told of nuclear power production’s consequences in terms of the debasement of democratic safeguards, the illegitimate taking of our peoples’ lives and livelihoods, and the subjugation of our peoples’ rights to the will of the corporations, nuclear power generation would cease to exist.

2. They have engaged in a long train of abuses and usurpations. The nuclear industry has engaged in federal preemption of home rule. Federal regulators grant nuclear reactor operators the privilege of routine and regular discharge of radioactive waste into the water, earth, and air of neighboring communities. The nuclear industry pollutes the air we breathe as well as our rivers and seas. The nuclear industry destroys the lives of our people.

3. The nuclear industry harasses and intimidates courageous individuals who responsibly advocate for adherence to regulations and the safety of their fellow workers and local communities. It systematically drives individuals of conscience from their midst. It undermines their ability to engage in right livelihood.

4. The nuclear industry fatigues the people into a resigned compliance by holding frequent legislative and regulatory meetings on issues of vital importance at such a distance as to make true democratic participation impossible.

5. The nuclear industry shackles our communities with the unbearable burdens of high energy costs, stranded corporate debt, and long-lived radioactive contamination. They pillage the people without mercy through the impositions on ratepayers of stranded costs for the imprudent debts of nuclear utilities.

6. The Nuclear industry unmans our representatives through their corrupting influence thereby representing corporate interests rather than the interests of the people that they represent.

7. They destroy the lives of our people and ravage our land. By deliberate obfuscation of the consequences of nuclear power, they condemn our people to ignorance and our progeny to 250,000 years of contamination.

The nuclear industry denies our children a future, and instead condemns them to live on an irradiated planet among ever-growing piles of deadly radioactive waste. It systematically contaminates reactor and waste communities and disproportionately chooses poor, and rural people of color for nuclear defilement.

We are committed to ending the nuclear colonization of our communities and pledge ourselves and children to a nuclear free New England.

- CITIZENS AWARENESS NETWORK, 2005

Volunteers Needed

CAN is looking for volunteers to rehab our mock high-level waste cask. No experience with radiation necessary! Email: Veronique@nukebusters.org

CAN's mock high-level waste cask before its maiden voyage (above) and now in need of repair (at right.)