

NEWS FROM NIRS

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NIRS CALLS FOR PERMANENT SHUTDOWN OF 23 U.S. GENERAL ELECTRIC MARK I REACTORS—SAME DESIGN AS FUKUSHIMA

CALLS DESIGN FLAWS FUNDAMENTAL—CANNOT BE FIXED

Nuclear Information and Resource Service (NIRS) has launched a new campaign to permanently close the 23 General Electric Mark I reactors currently operating in the United States.

More than 3800 people have sent letters to President Obama, Congress and the Nuclear Regulatory Commission in support of permanent shutdown just since Saturday afternoon (March 19), when a website was first set up to encourage such letters:

(http://org2.democracyinaction.org/o/5502/p/dia/action/public/?action_KEY=6111). The action was added on Monday to Change.org: http://www.change.org/petitions/its-time-demand-permanent-shutdown-of-ge-mark-i-reactors-in-the-us#?opt_new=f&opt_fb=f

“For nearly 40 years, top U.S. safety officials at the Atomic Energy Commission and later the Nuclear Regulatory Commission have warned about the safety shortcomings of the GE Mark I design,” said Michael Mariotte, executive director of NIRS. “A 1972 recommendation that the U.S. stop licensing the design was accepted on technical grounds but denied by the AEC’s top safety official, Joseph Hendrie, because it ‘could very well be the end of nuclear power.’ In 1986 Harold Denton, then the top safety official at the NRC, warned that Mark I containments have a 90% probability of failing under accident conditions.”

Despite these warnings, the NRC has not only allowed these reactors to continue operating, 20 of the 23 already have received license renewals to operate an additional 20 years, including the highly controversial Vermont Yankee reactor yesterday. There was no examination of the fundamental design flaws during the renewal application process for any of these 21 reactors, as the issue is considered generic and only site-specific issues are allowed to be heard in the license renewal process.

Yesterday, a federal appeals court (Third Circuit) ruled that the NRC must "advise the court what impact, if any, the damages from the earthquake and tsunami at the Fukushima Dai-ichi Nuclear Power Station have on the propriety of granting the license renewal application for the Oyster Creek Generating Station." The Oyster Creek renewal has been challenged by a coalition of New

Jersey and national organizations. See: http://articles.chicagotribune.com/2011-03-21/business/ct-biz-0322-oyster-creek-20110321_1_nrc-nuclear-plant-nuclear-reactor

“The world has now seen how these reactors fare in real-world accident situations,” said Mariotte. “Hydrogen and pressure builds up and the outer containment buildings explode.”

NIRS also pointed to the design flaw that places the irradiated fuel pools above the reactor core and outside the primary containment. “When the containment buildings exploded, release pathways from the irradiated fuel pools appeared,” said Mariotte. “And the explosions might not have merely exposed the fuel pools, but damaged them as well, allowing the loss of water and subsequent release of radiation.”

An explanation of the technical flaws of the Mark I design, along with links to three Atomic Energy Commission memos from 1971-72 is available here: <http://www.nirs.org/factsheets/bwrfact.htm>

After the Three Mile Island accident in 1979, the NRC closed several reactors of the same Babcock & Wilcox design for several months until lessons learned from the accident were understood and design and operational changes were made. “While a similar shutdown would obviously be prudent,” said Mariotte, “the reality is that the design flaws of the Mark I’s are already well-known. The problem is that they are fundamental to the design and cannot be fixed short of actually rebuilding the reactor.”

The 23 Mark I reactors have a total capacity of about 20,000 Megawatts, or a little less than 20% of total U.S. nuclear capacity. In 2010, according to a March 2011 report from the Energy Information Administration, nuclear power provided about 19.5% of the nation’s electricity. Thus, the Mark I’s provide less than four percent of U.S. electricity.

“There is more than ample reserve capacity to make up for loss of the Mark I’s,” said Mariotte. “These reactors are older and their construction costs have mostly been paid off by the utilities, so they may be cash cows for their owners. But Americans shouldn’t have to live in a very rational fear of a Fukushima here simply so utilities can accumulate massive profits. It doesn’t take an earthquake to cause a loss of offsite power to a reactor; a myriad of factors can do that. Americans are not protected from that kind of situation.”

The campaign to close the Mark I’s will not be limited to the letter-writing website. Next steps being considered include rallies and protests, administrative actions before the NRC, and possible legal action.

A list of the 23 US GE Mark I reactors is here: <http://www.nirs.org/reactorwatch/accidents/gemk1reactorsinus.pdf>