

**From:** Neil Sheehan *NS*  
**To:** INTERNET: comments@loe.org  
**Date:** 9/22/04 4:48PM  
**Subject:** re: "Aging Nukes" story on "Living On Earth"

Dear "Living On Earth" staff,

I wanted to call to your attention several inaccuracies in the story you aired on Sept. 17th titled "Aging Nukes":

[http://www.loe.org/ETS/organizations.php3?action=printContentItem&orgid=33&typeID=18&itemID=222&User\\_Session=b7d248c8f6c3f2a1703af865dd8b4202](http://www.loe.org/ETS/organizations.php3?action=printContentItem&orgid=33&typeID=18&itemID=222&User_Session=b7d248c8f6c3f2a1703af865dd8b4202)

The piece dealt with a proposed power uprate of 20 percent at the Vermont Yankee nuclear power plant.

Specifically,

- \* Your story stated that the owners of 90 nuclear power plants across the U.S. are asking the NRC for permission to boost the amount of power their plants can generate. In fact, the NRC has, since 1977, approved 101 power uprate requests. They have ranged from less than 2 percent to no more than 20 percent. There are currently 10 power uprate applications - rather than 90 - pending before the NRC.
- \* Your story states that Vermont Yankee is seeking a 20-percent power increase without making "major investments" in the plant. It's our understanding the plant does plan to make several major (and expensive) modifications in conjunction with the uprate, including installing a new transformer (already completed) and a new turbine. That equipment is on the power-generation side of the facility.
- \* Your story quotes reporter Eesha Williams saying that the federal government has estimated that 7,000 people would die within a year of a serious accident at Vermont Yankee. While no source is provided for this information, it may have come from a 1982 NRC report known as "CRAC2." Unfortunately, that report is one that has been widely misused and misconstrued over the years. The report did project numerous fatalities following a severe accident at a nuclear power plant. However, what gets lost in the conversation is that the study looked at the worst of all worst-case scenarios and was not designed to provide realistic estimates of deaths. The scenario involved the reactor vessel rupturing, spouting a radioactive geyser into the air. The entire contents of the reactor then get injected into a rain cloud hovering above the plant and the cloud then floats toward a major population center where it drenches residents with radioactive rain. This one-in-a-billion scenario is outlandish, but outlandish assumptions were necessary in the use of computer modeling in order to produce catastrophic disaster consequences. Just providing the raw fatality numbers offers no context.
- \* The story says there has been only one hearing so far in the area around Vermont Yankee. Actually, no "hearings" have been held to date on the proposed Vermont Yankee power uprate. The NRC did hold a public informational meeting on the subject in Vernon earlier this year, but it was clearly not a hearing, which implies sworn testimony and a judicial-like proceeding.
- \* The story does not accurately portray the way spent fuel pools at nuclear power plants are cooled. It suggests that water is taken from the river, flows around the spent fuel in a pool and is then returned to the river (or other body of water). In fact, the water taken from the nearby body of water circulates through the plant, is used to cool down various components and is then pumped back. In the case of the spent fuel pool, the water contained in the vessel is constantly recirculated, with heat exchangers used to keep the water below a certain temperature. Only a limited amount of water is added to replace that lost by evaporation. There is certainly no constant infusion of water from a nearby body of water.
- \* The story asserts that critics of the plant say the NRC is being "much less rigorous" with regard to Vermont Yankee than it was at Maine Yankee. It's true that Vermont Yankee critics have asked for the same kind of independent safety assessment that was done at Maine Yankee in the 1990s to be performed at Vermont Yankee. However, the independent safety assessment at Maine Yankee was done in response to an investigation of allegations regarding use of a computer code. Because of the nature of these allegations and the involvement of the Inspector General, the NRC determined that the assessment at Maine Yankee should be conducted by persons independent of the routine oversight of Maine Yankee. The NRC decided to conduct the assessment at Maine Yankee because we had significant concerns with conformance to license requirements; that's a situation that does not exist currently at VY. It's also worth noting that the NRC is performing an engineering inspection at Vermont Yankee that will look at several key safety systems that would be affected by the power uprate. What's more, the NRC's review of the

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uprate application is expected to involve about 4,000 hours of review by the agency. That's pretty rigorous in almost anyone's book.

Should you decide to do another piece about the Vermont Yankee power uprate, or on any topic regarding nuclear power or materials in the United States, I would encourage you to contact the NRC's Office of Public Affairs. We would be glad to assist you in any way possible.

Sincerely,  
Neil Sheehan  
NRC Public Affairs Officer, Region I  
(610) 337-5331

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**Subject:** re: "Aging Nukes" story on "Living On Earth"  
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