

**From:** George Hubbard, *NRC*  
**To:** Charles Tinkler, Diane Jackson, Farouk Eltawila,...  
**Date:** Tue, May 23, 2000 9:45 AM  
**Subject:** [Fwd: TROUBLE FOR NRC, CP&L]

FYI

George Hubbard  
2870

**CC:** Richard Dudley, William Huffman

m/74

**From:** Richard Laufer *RL*  
**To:** Christopher Gratton, George Hubbard, Herbert Ber...  
**Date:** Tue, May 23, 2000 9:01 AM  
**Subject:** [Fwd: TROUBLE FOR NRC, CP&L]

FYI - The attached email has a statement that was released by the North Carolina Waste Awareness and Reduction Network (NCWARN).

**From:** Bill Holman <Bill.Holman@ncmail.net>  
**To:** Mel Fry <Mel.Fry@ncmail.net>  
**Date:** Mon, May 22, 2000 5:56 PM  
**Subject:** [Fwd: TROUBLE FOR NRC, CP&L]

----- Original Message -----

**Subject:** TROUBLE FOR NRC, CP&L  
**Date:** Mon, 22 May 2000 16:20:30 -0400  
**From:** "NC-WARN@ix.netcom.com" <NC-WARN@pobox.com>  
**To:** "WARN" <nc-warn@pobox.com>

For Immediate Release Contact: Jim Warren May 22, 2000 919-490-0747  
Science Panel Scolds NRC for Ignoring Nuclear Waste Accident Risks

#### Challenge of CP&L Expansion Gets Boost From NRC's Own Advisors

The Nuclear Regulatory Commission's own outside experts have called on the federal agency to stop its nuclear waste storage rulemaking due to serious deficiencies in the understanding of potentially devastating accidents. In an April 13th letter to NRC Chairman Richard Meserve, the Advisory Committee on Reactor Safeguards (ACRS) also chastised NRC for ignoring expert opinions in its draft study of accidents involving pool storage of "spent" nuclear fuel \* or high-level waste. ✓

The ACRS letter represents another blow to Carolina Power & Light's proposal to double its high-level waste storage at the Harris Nuclear Plant in Wake County, NC. The science panel reinforces a number of safety issues about CP&L's plan raised by Orange County, and comes on the heels of US Senator John Edwards' letter to Chairman Meserve insisting there should be full formal hearings on CP&L's proposal. For the past year, lawyers for CP&L and the NRC have prevented such hearings where CP&L would have to answer, under oath, safety questions raised by two nuclear experts working with Orange County. The letter also bolsters Orange County's contention that there should be a full Environmental Impact Statement performed for the Harris expansion. The NRC has refused such a study \* which is required by federal law \* by claiming that a shorter Environmental Assessment is a sufficient substitute. ✓

The NRC study was performed because the nuclear industry is seeking relaxed regulations for storage of waste fuel at closed nuclear plants, arguing that the risk of major accidents decreases over time as the waste assemblies begin to cool. But the ACRS concluded that "the technical shortcomings of this study are significant and sufficient for us to recommend that rulemaking be put on hold until the inadequacies discussed herein are addressed by the staff." ✓

In technical language with a sharply critical tone, ACRS complains that the NRC has ignored the potential for various causes of waste pool fires and has relied on "relatively geriatric" scientific information instead of newer knowledge about risks. It points out that NRC has done an "unacceptable" job in analyzing accidents which are "dominated by sequences involving human errors and seismic events which involve large uncertainties." The letter also scolds NRC for ignoring the opinion of experts that the plume of radiation released in a fire or other waste

accident would cause far more damage and long-term deaths than NRC has estimated.

Orange County filed a legal motion in April pointing out that the NRC study admits that a waste fuel accident could contaminate an enormous geographic area. In another motion filed with NRC on May 15th, Orange states that the ACRS letter "overlooks some key aspects of spent fuel pool accident behavior, (but) on the whole it reinforces the County's claim that the NRC staff does not properly understand the potential for exothermic reactions (fires) in spent fuel pools." Also that the NRC report's deficiencies "are applicable to the Harris plant, because there is not important distinction for these purposes between an operating plant and a decommissioned (closed) plant."

Orange's experts point out that waste pool risks are higher when pools are located next to an operating reactor, especially at Harris, where CP&L proposes to interconnect the cooling system for all four waste pools to a single cooling system which is also critical for safety of the reactor. Most nuclear reactors have only one waste pool; the national industry is gradually adopting dry storage after the waste cools for five years, although most plants have pools filled with waste which may need safeguarding for decades due to the lack of a permanent solution. High-level waste will remain hazardous for at least 10,000 years. Dr. Gordon Thompson points out that, if CP&L would use dry storage at its generating reactors instead of shipping the waste to Harris, it would dramatically reduce the risk of a major accident. Due to large amounts of radioactive materials stored in cooling pools, a waste accident could far exceed the damage of even a very large reactor accident like that at Chernobyl.

Thompson, who specializes in the analysis of nuclear accident risks, points out that NRC and ACRS continue to ignore the accident scenario caused by partial drainage of a cooling pool. Partial drainage would always precede total drainage, and residual water in the pool would prevent air cooling of waste assemblies, thus allowing heat levels to produce a fire even after waste has cooled for a number of years.

"Being scolded by its own science advisory board further undermines the NRC's credibility," said Rev. Carrie Bolton of Pittsboro, a member of the CANIT coalition opposing the CP&L expansion. "It casts doubt on all previous NRC activities on the Harris expansion, and confirms our claim that the agency is more interested in protecting the nuclear industry than the public. \* This is an alarm going off; so far lawyers have carried the day, but science must now take the lead in this process."

The ACRS noted that the zirconium tubes holding waste fuel can crack off, break open or react with nitrogen in air, as well as catch on fire in the presence of oxygen or steam. ACRS also acknowledges that the tubes can rupture, and release large amounts of cesium, tellurium and other dangerous wastes.

Importantly, the ACRS letter debunks a key claim by CP&L and NRC staff, that what is euphemistically called "older and colder" waste fuel will not catch fire when exposed to air \* as would waste up to five years old: "Spontaneous combustion of zirconium-hydrides would render moot the issue of 'ignition' temperature that is the focus of the staff analysis

of air interactions with exposed [fuel] cladding."

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ACRS letter of 4-13-2000,  
[www.nrc.gov/ACRS/rrsl/Trans\\_Let/index\\_top/ACRS\\_letters/471885.html](http://www.nrc.gov/ACRS/rrsl/Trans_Let/index_top/ACRS_letters/471885.html)

found from NRC homepage ([www.nrc.gov](http://www.nrc.gov)) under "nuclear reactors" under  
(end of 1st line of options) ACRS/ACNW letters, scroll down to 4-13-2000

(Or contact NC WARN for a copy)

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