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From: "Judy Hogan" <judyhogan@mindspring.com>
To: "Durham Herald Sun" <jrw@herald-sun.com>
Date: Sun, May 21, 2000 4:33 PM
Subject: Why am I worried about nuclear waste storage in the Triangle?

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 USNRC

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 May 21, 2000

OFFICE
 OF
 ADMINISTRATION

The Editor
 Durham Herald Sun
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SERVED MAY 24 2000

Dear Sir:

Perhaps you and your readers wonder why some of us in the Triangle are so concerned about doubling the storage of spent nuclear fuel at Shearon Harris near Apex. Here are some of my reasons, especially now that the Nuclear Regulatory Commission has ruled against Orange County's request to have a full, evidentiary hearing, with testimony from scientists about the dangers, on two out of three counts.

- 1) Any disturbance of any cell in the human body by radioactivity can cause cancer.
- 2) Splitting uranium and plutonium atoms, which nuclear plants do to produce heat, creates hundreds of kinds of radioactive atoms. All this is in *spent* waste fuel, and it remains dangerous for at least 3,000,000 years.
- 3) Nuclear plant fuel is allowed to leak radioactive wastes. The limit is 1% failed fuel. But CP&L's Brunswick plant near Wilmington has had up to 15% failed fuel and still operated.
- 4) CP & L has been caught by NRC contaminating the Harris waste pools with radioactive *crud* from Brunswick waste fuel.
- 5) Waste fuel loading and unloading creates accident risks. Dropping a waste cask can do lots of damage to pools and/or waste inside the cask.
- 6) Transportation (presently happening along a railroad line that follows old highway #1, right through Moncure and New Hill) creates accident risks.
- 7) The casks used for shipping are not designed to withstand severe accidents such as a gasoline or diesel fuel fire. The casks warp under their own weight and can develop cracks.
- 8) The greatest risk from waste fuel heat is in pools themselves. Originally, nuclear waste pools were designed to keep waste deep under water, since waste assemblies are so radioactive that a few minutes of direct exposure can be fatal, and separated widely by cooling water*12 to 20 inches between centers of waste assemblies, which are 5-9 inches wide. Thus they are too far apart to go critical (start a nuclear chain reaction) as long as water is there.
 But CP & L has been using a tighter waste packing already in their pools A & B, which requires a neutron shield to prevent a nuclear chain reaction. This design leaves about an inch of cooling water or air space around each assembly.
- 9) The packing scheme for pools C & D that CP & L wants to use involves much closer packing. The neutron shields must have more shielding, and there is literally only about 1/4 inch beside each assembly for cooling.

10) Dr. Gordon Thompson, internationally-experienced nuclear safety expert, calculates that waste fuel up to 9 years out of reaction can still heat up enough to cause a zirconium fire if cooling water is lost.

11) Thompson also warns that reactor accidents could stop cooling of the waste pools. CP & L plans to use just one reactor's cooling systems to cool all four waste pools. This is half the cooling capacity and two whole cooling systems less, than their original design, leading to waste accidents.

12) The NRC's own outside experts, have called on the NRC to stop its nuclear waste storage rulemaking until they can provide technical justification for NRC's estimate of how often waste nuclear fuel will be uncovered and exposed to air.

This is just the tip of the iceberg. Please write to your Congresspersons to investigate the NRC and insist that they hold a full evidentiary hearing about CP & L's plan for Shearon Harris.

Sincerely,

Judy Hogan

cc: Senator John Edwards, Senator Jesse Helms, Representative David Price, Orange, Durham, Chatham, and Wake County Commissioners, Nuclear Regulatory Commission,

Governor James Hunt, Attorney General Michael Easley, Mr. Bill Holman, NC Department of Environment and Natural Resources

NC Senator Eleanor Kinnaird, Mr. William Cavanaugh, CEO, CP & L, c/o Mr. John Caves, Mr. Marc Basnight, NCGA

CC: "Yvonne Brannon Wake" <ybrannon@co.wake.nc.us>, "W..."

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of)
)
CAROLINA POWER & LIGHT COMPANY) Docket No. 50-400-LA
)
(Shearon Harris Nuclear Power Plant))

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing LIMITED APPEARANCE STATEMENT have been served upon the following persons by U.S. mail, first class, or through NRC internal distribution.

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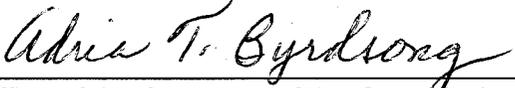
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Docket No. 50-400-LA
LIMITED APPEARANCE STATEMENT



Office of the Secretary of the Commission

Dated at Rockville, Maryland,
this 24th day of May 2000