

September 02, 2003

Mr. Jim Warren
Executive Director
NC WARN
P.O. Box 61051
Durham, North Carolina 27715

SUBJECT: PUBLIC CITIZEN AND NC WARN LETTER TO NORTH CAROLINA
ATTORNEY GENERAL

Dear Mr. Warren:

I received a copy of your letter of August 6, 2003, to North Carolina Attorney General Roy Cooper and believe a response on behalf of the U.S. Nuclear Regulatory Commission (NRC) is appropriate.

Let me start by stating there is no public health and safety hazard posed by the minute amount of surface contamination on a spent fuel shipping cask reported by representatives for Progress Energy (the licensee for both the Shearon Harris and H.B. Robinson sites) on July 29, 2003, in NRC Event Report number 40032. As with all events of this nature, the NRC is reviewing this event to determine if additional actions are appropriate. In this regard, we plan to conduct an inspection of shipping activities at the H. B. Robinson nuclear plant where the shipment originated. The results of the inspection will be documented in an inspection report that will be publicly available. In addition, we are reviewing the adequacy of the Event Report against NRC reporting requirements.

The licensee reported detecting non-fixed (removable) radioactive contamination on the cask's external surface of 7.3 Bq/cm^2 (43,390 disintegration per minute (dpm)) in one area of 100 square centimeters. All other areas wiped were within the 4.0 Bq/cm^2 (22,000 dpm per 100 square centimeters) limit permitted under U.S. Department of Transportation (DOT) regulations (49 CFR 173.443). NRC regulations (10 CFR 71.5) require our licensees to comply with DOT regulations. The total removable surface contamination in this one smear of the cask surface was 20 billionths of a curie, less than the levels of natural radioactivity in a typical cubic foot of top soil. The dose consequences to any member of the public exposed to such contamination under any realistic scenario would be a minuscule fraction of background radiation.

One may ask why the NRC has a one-hour reporting requirement (10 CFR 20.1906(d)(1)) for an incident with no public health and safety consequences. NRC and DOT transportation regulations for radioactive materials derive from International Atomic Energy Agency (IAEA) standards. The IAEA standards for surface contamination were derived from a radiological model developed for the 1961 Edition of the IAEA regulations and apply to all packages, including those shipped by common carriers such as United Parcel Service, Federal Express, and the Post Office where they are mixed with other packages. A spent fuel cask is a dedicated package on a dedicated vehicle and does not fit the very conservative assumptions on which the 1961 Edition was based.

The Commission has considered changing the requirement for surface contamination limits on spent fuel casks and solicited comments on possible changes as part of the Advance Notice of Proposed Rulemaking on revising Part 71 (see the discussion of issue 18 on page 123-128 of Attachment 6 of SECY-01-0035). In the end we decided not to do so in this round of rulemaking. We decided to participate in an IAEA-sponsored coordinated research project to review current surface contamination models, approaches, and standards, which we hope will lead to proposed modifications to the IAEA standards based on risks, costs, and practical experience (see Staff Requirements Memorandum on SECY-01-0035).

As indicated earlier, we plan to conduct an inspection related to this incident and to issue an inspection report that will be publicly available. But to reiterate, we see no public health and safety hazard in view of the actual level of contamination detected.

Sincerely,

/RA/
Martin J. Virgilio, Director
Office of Nuclear Material Safety
and Safeguards

cc: The Hon. Roy Cooper, North Carolina Office of the Attorney General
Senator John Edwards
Senator Elizabeth Dole
Representative Bob Etheridge
Representative Mike McIntyre
Representative David Price
Chatham County Board of Commissioners
Brunswick County Commissioners
Michael J. Ward, Chairman, President & CEO, CSX Corporation
Robert Fronczak, AVP Environment and Hasmat, Association of American Railroads

September 02, 2003

Ms. Wenonah Hauter
Energy Program Director
Public Citizen
215 Pennsylvania Ave., S.E.
Washington, D.C. 20003

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ATTORNEY GENERAL

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