



Union of Concerned Scientists

Citizens and Scientists for Environmental Solutions

September 12, 2006

J. E. Dyer, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

SUBJECT: UPDATE: LEAKS AND SPILLS OF RADIOACTIVELY CONTAMINATED WATER

Dear Mr. Dyer:

I read with little interest the letter dated July 28, 2006, to you from someone at the Nuclear Energy Institute regarding the infamous voluntary industry initiative on groundwater contamination. In it, this NEI spokesperson stated "*The industry has set a completion date of July 31, 2006, for the action plans and communications protocols to be implemented at each site and for the baseline information to be provided to the NRC.*" From the NRC's ADAMS thing, I find the following information:

Date	Reactor(s)	ADAMS Accession No.
08/01/2006	FitzPatrick	ML062200312
08/01/2006	San Onofre 1, 2 & 3	ML062280597
08/02/2006	Callaway	ML062280595
08/03/2006	Catawba 1&2; McGuire 1&2; and Oconee 1, 2 & 3	ML062280592
08/04/2006	Millstone 1, 2 & 3; Kewaunee, North Anna 1&2, Surry 1&2	ML062200224
08/04/2006	Browns Ferry 1, 2 & 3; Sequoyah 1&2; and Watts Bar	ML062280598

The promised completion date of July 31, 2006, for baseline information to be provided to the NRC was clearly missed for 26 reactors, reinforcing the public's lack of confidence in this non-binding, unenforceable, and laughable industry promise.

But it goes behind scheduler malfeasance. From a review of the baseline information provided before and after the promised July 31, 2006, "completion" date, it sure looks like every nuclear plant in the country has spilled or leaked radioactively contaminated water at least once. For the majority of the spills onto ground surfaces and for some of the leaks below ground level, it's less apparent that your licensees have been complying with federal regulations, specifically 10 CFR Part 20. Specifically, the following sections of 10 CFR Part 20:

§ 20.1902 Posting requirements.

- (a) *Posting of radiation areas.* The licensee shall post each radiation area with a conspicuous sign or signs bearing the radiation symbol and the words "CAUTION, RADIATION AREA."

(e) *Posting of areas or rooms in which licensed material is used or stored.* The licensee shall post each area or room in which there is used or stored an amount of licensed material exceeding 10 times the quantity of such material specified in appendix C to part 20 with a conspicuous sign or signs bearing the radiation symbol and the words "CAUTION, RADIOACTIVE MATERIAL(S)" or "DANGER, RADIOACTIVE MATERIAL(S)."

§ 20.1903 Exceptions to posting requirements.

(a) A licensee is not required to post caution signs in areas or rooms containing radioactive materials for periods of less than 8 hours

§ 20.1003 Definitions.

As used in this part:

Radiation area means an area, accessible to individuals, in which radiation levels could result in an individual receiving a dose equivalent in excess of 0.005 rem (0.05 mSv) in 1 hour at 30 centimeters from the radiation source or from any surface that the radiation penetrates.

Collectively, these sections of 10 CFR Part 20 require your licensees to post conspicuous warnings signs with the text CAUTION, RADIATION AREA in each accessible area where individuals could receive a dose in excess of 0.005 rem in one hour or in each area containing more than 10 times the quantity of radioactive material specified in appendix C to 10 CFR Part 20, unless said area is cleaned up within 8 hours. According to appendix C, the limit for tritium is 1,000 μCi , thus the spillage or leakage of more than 10,000 μCi of tritium into an area would require it to be posted per 10 CFR 20.1902(e). Likewise, the appendix C limit for Strontium-90 is 0.1 μCi , so any spillage or leakage of more than 1 μCi of Sr-90 would require the receiving area to be posted.

Whilst we know that the July 31, 2006, "completion" date was a voluntary deadline with absolutely no NRC sanctions for missing it, the requirements of 10 CFR Part 20 are less voluntary in nature. In theory at least, your licensees are supposed to comply with 10 CFR Part 20. Given all the voluntary submittals about leaks of radioactively contaminated water at these nuclear reactors and spills at those nuclear reactors, does the NRC believe all of its power reactor licensees have complied with the posting requirements of 10 CFR Part 20 for all of these events? If so, why?

Sincerely,

A handwritten signature in dark ink, appearing to read "David O. Lochbaum". The signature is written in a cursive, flowing style.

David Lochbaum
Director, Nuclear Safety Project