

Patrick M. Sears
Box 13
Fairfield, PA 17320

James M. Taylor, EDO
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Subject: 10 CFR 2.206 Concerns pertaining to RELAP Computer Code

August 19, 1996

Dear Sir,

In November or December of 1995 a letter in which certain allegations were made concerning Maine Yankee Atomic Power Plant was sent to the Union of Concerned Scientists. In that letter (anonymous) certain statements were made concerning a thermohydraulic computer code, RELAP5YA. That code had been reviewed by Idaho National Engineering Laboratory for NRC. A favorable technical evaluation resulted but with 12 conditions limiting the use of RELAP5YA.

On May 5, 1989, while I was NRC's Project Manager for Maine Yankee, I received a phone call from Steve Nichols of Maine Yankee. In that telecon Mr. Nichols stated that RELAP5YA was "operable" and that it would be used for subsequent reloads. I followed the telecon up with a confirmatory letter which was dispatched May 8, 1989. The statements made to me by Mr. Nichols have subsequently been proven false. Records of RELAP5YA computer runs have (or should have) been kept at Yankee Atomic Electric Company in Bolton, MA. Those records should have been kept in accordance with Yankee Atomic Electric Company's computer code Quality Assurance procedures which have been in effect since the middle 1980's. Yankee Atomic Electric Company has good compute code QA/QC procedures in place. If the records are not kept in accordance with those procedures, Yankee Atomic Electric Company and Maine Yankee Atomic Power Company should be fined in accordance with NRC's regulations.

I did a computer code inspection (10CFR50.59) at Yankee Atomic Electric Company's Bolton, MA headquarters in 1992 but I concerned myself with structural computer codes. I am a registered Structural Engineer in the State of California so I consider myself qualified in structural areas. I am not qualified in thermohydraulic area and would have had to take a qualified consultant with me to do thermohydraulic code inspections. No such person was available at that time.

RELAP is a widely used code and now has shown to have serious deficiencies. I assert that it is NRC's responsibility to assure that those deficiencies do not endanger the

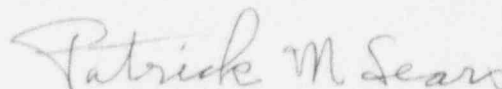
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health and safety of the general public. NRC should conduct an inspection of all users of RELAP and if those users are not operating within required computer code verification procedures, those users should be fined. The RELAP problem is not confined to Maine Yankee Atomic Power Plant but is endemic to the industry as a whole.

As you remember, Mr. Taylor, when I was with the Vendor Inspection Branch before I transferred to NRR, my specialty had become computer code QA/QC. At that time I was told not to do any more computer code inspections (that was actually one of the reasons for requesting a transfer to NRR). No computer code inspections were done by NRC until I did the aforementioned inspection in 1992 at Yankee Atomic Electric Company. And again none were done until 1995. Does it not appear that no one at NRC should be surprised at the Main Yankee affair? I'm not.

Yours truly,


Patrick M. Sears

cc: Chairman S. Jackson
Congressman William F. Goodling

Patrick M. Sears
Box 43113
Fairfield, PA 17320

Congressman William F. Goodling
2263 Rayburn Bldg.
Washington, DC 20515

August 19, 1996

Dear Congressman Goodling,

I worked at the Nuclear Regulatory Commission from April 1980 to January 1993 when I retired. During most of that time I worked as a Project Manager (in general, a person who handles NRC regulatory issues concerning a particular nuclear power plant). From approximately Spring 1985 to Summer 1989 I was assigned Maine Yankee Atomic Power Station. In late 1988 and early 1989 I handled the NRC approval of RELAP5YA which is a large thermohydraulic computer code. RELAP5YA is a computer code modified from RELAP, a computer code developed for NRC by Idaho National Engineering Laboratory. The modifications were to have made RELAP adaptable to Maine Yankee Atomic Power Station. RELAP5YA was reviewed by Idaho National Engineering Laboratory and a favorable Technical Evaluation Report was forwarded to NRC in late 1988. That Technical Evaluation Report contained 12 conditions. I, in my capacity as NRC's Project Manager for Maine Yankee Atomic Power Plant issues, with full concurrence of my management, forwarded a favorable Safety Evaluation to Maine Yankee advising them that RELAP5YA had been reviewed and, contingent upon the 12 conditions, was in conformance with NRC regulations. On May 5, 1989 I received a phone call from Mr. S. Nichols of Maine Yankee telling me in my capacity as an NRC official that RELAP5YA was "operable." On May 8, 1989 I wrote to Mr. Nichols a letter confirming our phone conversation. A copy of that letter is attached.

In November or December 1995 an anonymous person sent a letter to the Union of Concerned Scientists. A copy of that letter is also attached. The allegations therein concerning me are false.

An investigation by the NRC Inspector General's Office has shown that Mr. Nichols lied to me in our May 5, 1989 phone conversation. The NRC's Inspector General's Office generated a report, (copy attached) which, to say the least, is not very complimentary to me.

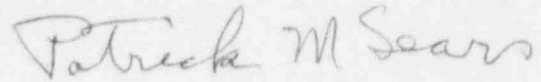
I am sending a letter to NRC, copy attached, outlining my concerns about the Maine Yankee affair and computer code usage Quality Assurance/Quality Control in the nuclear

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industry as a whole. In that letter, I am suggesting that more oversight of computer usage be exercised by NRC.

I am not an intervener nor do I wish to associate myself with organizations such as the Union of Concerned Scientists. I wish only to enjoy my retirement peacefully and not be made a scapegoat for the Maine Yankee event.

Yours truly,

A handwritten signature in cursive script that reads "Patrick M. Sears". The signature is written in dark ink and is positioned above the printed name.

Patrick M. Sears