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**UNION OF
CONCERNED
SCIENTISTS**

October 28, 1999

Mr. Guy S. Vissing, Project Manager - FitzPatrick
Office of Nuclear Reactor Regulation
United States Nuclear Regulatory Commission
Washington, DC 20555-0001

SUBJECT: INOPERABLE HIGH PRESSURE COOLANT INJECTION SYSTEM

Dear Mr. Vissing:

In the NRC's Daily Events Report for October 28, 1999, DER No. 36357 reported that the high pressure coolant injection (HPCI) system at the James A. FitzPatrick Nuclear Power Plant was inoperable for the following reason:

At 1750 EDT on 10/27/99, the HPCI System was declared inoperable and a 7 day limiting condition of operation was entered in accordance with Technical Specification 3.5.c. HPCI System surveillance testing conducted at 0130 EDT met applicable surveillance test acceptance criteria. A more detailed review of HPCI System startup transient data obtained during this testing identified potential problems with HPCI Turbine Speed Control. Evaluation of this transient data established a reasonable doubt concerning HPCI System operability under all design conditions. All other Emergency Core Cooling Systems and the Emergency Diesel Generators are fully operable. Reactor Core Isolation Cooling System is fully operable and the electrical grid is stable. The "B" Reactor Feedwater Pump is out of service for a turning gear problem.

The NRC's Plant Status Report for October 26, 1999, stated that FitzPatrick was at 18 percent power "Preparing to Place Unit Online" while the October 27, 1999, Plant Status Report stated that the plant was at 45 percent power and "Increasing Power." DER No. 36303 dated October 17, 1999, stated that FitzPatrick was in a refueling outage.

Thus, from the available information it appears that the HPCI system was tested during the initial plant startup following the refueling outage as required by the Technical Specifications. It also appears that workers considered the test acceptable at first, but changed their minds after reviewing the instant replay. After declaring HPCI inoperable, they entered a seven day limiting condition of operation.

It appears probable that the HPCI system was broken when the plant started up, but that this condition could not be identified until the initial test. The HPCI system cannot be tested when the plant is shut down. Had it been tested and discovered to be inoperable, the plant would not have been allowed to start up. The Technical Specifications do not permit a plant to start up with emergency core cooling systems in a limiting condition of operation.

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Thus, it seems like either a violation of Technical Specifications or a non-conservative loophole in Technical Specifications to allow a plant with a broken HPCI system to start up and operate for up to seven days. I have worked at boiling water reactor plants like FitzPatrick where the HPCI (or RCIC) system failed the low pressure test coming out of an outage. I cannot recall a single instance where the plant continued to increase power. I recall plenty of shutdowns to repair the broken safety system.

The FitzPatrick event raises three questions:

1. Did FitzPatrick violate its Technical Specifications? If not, why not?
2. Did FitzPatrick gain use of the 7 day LCO option because it initially called the HPCI test acceptable?
3. Had the initial test of the HPCI system been determined unacceptable, would the plant startup been allowed to proceed by the Technical Specifications?

I would appreciate specific responses to these questions.

Sincerely,



David A. Lochbaum
Nuclear Safety Engineer
Union of Concerned Scientists

cc: Mr. Hubert Miller
Mr. Darl Hood, Back-up Project Manager - FitzPatrick