

February 18, 2004

Mr. David Lochbaum  
Nuclear Safety Engineer  
Union of Concerned Scientists  
1707 H Street, NW, Suite 600  
Washington, DC 20006-3919

Dear Mr. Lochbaum:

On behalf of the U.S. Nuclear Regulatory Commission (NRC), I am responding to your letter dated December 18, 2003, concerning Davis-Besse Nuclear Power Station, Unit 1 (Davis-Besse). Your letter raised concerns with the root cause analysis submitted by FirstEnergy Nuclear Operating Company, the licensee for Davis-Besse, concerning the reactor pressure vessel (RPV) head degradation. Specifically, you requested that NRC reconsider the root cause analysis because of the configuration of RPV head nozzle 14. In addition, you also raised concerns with the reactor coolant temperature value used by the licensee in the root cause analysis.

We have reviewed the issues raised in your letter and find that they are not immediate safety concerns. This is based on the fact that the damaged RPV head has been replaced with an RPV head from the canceled Midland plant. The RPV head is effectively new, with no degradation. Thus, the new RPV head would be classified in the LOW susceptibility category of Bulletin 2001-01. In addition, the NRC issued Order EA-03-009 on February 11, 2003, which established interim inspection requirements for RPV heads at all pressurized water reactors. The inspection requirements of the order are expected to remain in place until superseded either by modifications to the order, or by changes to NRC regulations. The Davis-Besse licensee's proposed inspection plan meets the requirements of Order EA-03-009. This inspection regime is sufficient to ensure that any degradation of the control rod drive mechanisms (CRDMs) will be identified in a timely manner. The licensee has also committed to do both ultrasonic testing and surface examination every other refueling outage as well as a bare metal visual inspection every refueling outage for 100 percent of the RPV CRDM nozzles.

However, we believe your concerns merit further evaluation. We do not have sufficient information to draw a definitive conclusion on probable long-term effects, if any, of the unique head vent configuration of nozzle 14 on cracking of other CRDM nozzles. Additionally, we will further explore with the licensee the temperature value used in the determination of the RPV head's susceptibility to degradation. A copy of the questions we are sending to the licensee will be provided to you. Subsequent to completing our evaluation, we will inform you of our findings. In addition to our own evaluation, we are requesting the licensee to evaluate the issues raised in your letter.

D. Lochbaum

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My colleagues at the NRC and I continue to strive to ensure protection of public health and safety. If you have further requests or questions, please contact Mr. William H. Ruland of the Office of Nuclear Reactor Regulation at 301-415-1389.

Sincerely,

***/RA/***

William D. Travers  
Executive Director  
for Operations

My colleagues at the NRC and I continue to strive to ensure protection of public health and safety. If you have further requests or questions, please contact Mr. William H. Ruland of the Office of Nuclear Reactor Regulation at 301-415-1389.

Sincerely,

**/RA/**

William D. Travers  
Executive Director  
for Operations

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