

June 13, 2003

The Honorable Marcy Kaptur
United States House of Representatives
Washington, D.C. 20515

Dear Congresswoman Kaptur:

I am writing on behalf of the U.S. Nuclear Regulatory Commission (NRC) to assure that you have complete and accurate information in response to your May 1, 2002, questions related to the Davis-Besse nuclear power plant and its capability to mitigate the effects of a Loss of Coolant Accident (specifically, question 2). The NRC's original response, dated June 28, 2002, provided the NRC staff's best available information based on analysis at the time and concluded that "...the high and low pressure injection systems would keep the temperature of the fuel rod cladding and the cladding oxidation below the limits established in 10 CFR 50.46. The requirements for maintaining a coolable geometry and long-term cooling would also be met."

Since that time, the NRC has learned that FirstEnergy Nuclear Operating Company, the licensee for Davis-Besse, has identified a design problem with the high pressure injection (HPI) portion of the Emergency Core Cooling System (ECCS) that might make the system non-functional during a later stage of a Loss of Coolant Accident (LOCA). As a result, we re-analyzed the sequence of events based on our current understanding of the system's capability.

Those re-analyses have been completed and confirm that even considering the design defect, the Davis-Besse ECCS would effectively mitigate the effects of a LOCA initiated by a failure of the reactor vessel head stainless steel cladding in the region of boric acid corrosion. For cases involving a complete failure of the cladding in this region, the analyses indicate that the design defect would not be safety-significant since the HPI portion of the ECCS plays only a minor role. For some cases where a smaller LOCA results from a partial failure of the cladding, the reactor operators would need to take additional actions beyond those normally expected for mitigating such an accident. However, the time, procedures, and training available indicate that those operator actions are well within the capability of the operators.

I hope that you find this information useful.

Sincerely,

/RA/

Nils J. Diaz

Identical letters sent to:

The Honorable Edward J. Markey
United States House of Representatives
Washington, D.C. 20515

The Honorable Marcy Kaptur
United States House of Representatives
Washington, D.C. 20515