

May 27, 2011

Mr. Jack M. Davis  
Senior Vice President and Chief Nuclear Officer  
Detroit Edison Company  
Fermi 2 – 210 NOC  
6400 North Dixie Highway  
Newport, MI 48166

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 57 RELATED TO  
THE SRP CHAPTER 11 FOR THE FERMI 3 COMBINED LICENSE  
APPLICATION

Dear Mr. Davis:

By letter dated September 18, 2008, Detroit Edison Company (Detroit Edison) submitted for approval a combined license application pursuant to 10 CFR Part 52. The U.S. Nuclear Regulatory Commission (NRC) staff is performing a detailed review of this application to enable the staff to reach a conclusion on the safety of the proposed application.

The NRC staff has identified that additional information is needed to continue portions of the review. The staff's request for additional information (RAI) is contained in the enclosure to this letter. To support the review schedule, you are requested to respond within 30 days of the date of this letter. If changes are needed to the safety analysis report, the staff requests that the RAI response include the proposed wording changes.

If you have any questions or comments concerning this matter, I can be reached at 301-415-1146 or by e-mail at [Raj.Anand@nrc.gov](mailto:Raj.Anand@nrc.gov).

Sincerely,

*/RA/*

Raj Anand, Project Manager  
BWR Projects Branch  
Division of New Reactor Licensing  
Office of New Reactors

Docket Nos. 052-033

eRAI Tracking Nos. 5633

Enclosure:  
Request for Additional Information

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Request for Additional Information

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NAME	G. Cicotte	E. Roach	M. Carpentier	R. Anand
DATE	04/26/2011	04/26/2011	04/27/2011	05/26/2011

**\*Approval captured electronically in the electronic RAI system.**

OFFICIAL RECORD COPY

Request for Additional Information No. 5633

Fermi Unit 3  
Detroit Edison  
Docket No. 52-033  
SRP Section: 11.04 - Solid Waste Management System  
Application Section: 11.4

QUESTION 11.04-4

FSAR Section 11.4, "Solid Waste Management System [SWMS]," is incorporated by reference from the ESBWR Design Control Document (DCD), Revision 8, with Departure EF3 DEP 11.4-1. In Revision 3 of Section 11.4, Departure EF3 DEP 11.4-1 indicates changes to system component capacities for the SWMS, and includes Figures 11.4-1R and 11.4-2R, and Tables 11.4-1R and 11.4-2R. Figure 11.4-1R includes the revised system process diagram.

The proposed redesigned solid waste management system included the revised system process diagram in Figure 11.4-1R. However, the process diagram shows pumps in series in two places, with no holding tank or other equipment separating the pumps. This is shown for the:

- 1) Reactor Water Cleanup System (RWCU)/Fuel and Auxiliary Pools Cooling System (FAPCS) – the top process line, showing the high activity circulation and high activity transfer pumps, and
- 2) Condensate Filter Backwash Drain/Equipment-Floor Drain Subsystem Filter Backwash Drain/Dewatering Fill Head – the lower process line, showing the low activity circulation and low activity transfer pumps. These pumps are shown as tandem units in parallel but the figure does not show if these pumps provide redundancy since they are lacking isolation valves.

Additionally, the figure appears to be incomplete, in that the detail of the diagram is not sufficient for the NRC staff to fully evaluate whether the system processes are consistent with the regulatory position in Regulatory Guide 1.143 and Branch Technical Position 11-3.

It is not clear from this figure how these pumps are meant to operate, since dual pump units in series may be prone to cavitation. Please provide additional clarifications on the system operation and on the use of these pumps.