

Enclosure

Supplemental Report #5 to  
The Davis Besse Unit 1 SER  
50-346

8.2 Offsite Power Systems

In the published Supplement #1 to the Safety Evaluation Report for Davis Besse Unit 1 (dated April 1977), we required the applicant to submit additional information regarding their design for the Class 1E distribution system to assure that short term or long term degradation in the offsite power system (as recently experienced at the Millstone Unit 2 Plant) would not preclude satisfactory operation of the safety related equipment, including associated circuitry and instrumentation.

In response, the applicant submitted a summary of the detailed analysis conducted on their Class 1E system and provided a description of the proposed modification on the system to assure that, in the event of an offsite power degradation, the design will detect and isolate the Class 1E systems from the degraded offsite power source in sufficient time without adversely affecting the operability of the safety systems. Based on their analysis the applicant identified the following modifications to the design.

- 1) Incorporate an additional Class 1E undervoltage relay on each 4.16KV safety bus (set at 90% of nominal voltage) to isolate the safety buses from their offsite source. These relays will provide primary protection and isolation for the existing instantaneous undervoltage relays set at 59% of nominal grid voltage.
- 2) Provide additional alarms on the essential 4.16KV buses
- 3) Modify the existing one ampere fuses for the motor control center control power to 2.5 ampere slow blow fuses.

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- 4) Revise overcurrent relay setpoints for the essential 4.16KV motors.

In addition, the applicant was requested and agreed to amend the technical specifications to include periodic inspection and testing of this equipment (i.e., periodic verification for the Class 1E 4.16KV motor overcurrent relay setpoints and the undervoltage relay trip settings).

Based on our review of the submitted analysis and the proposed modification described above, we conclude that the design and the applicants response satisfies the staff's requirements stated in the above referenced supplement, and the requirements of the license condition 2C(3)Q which was included in the transmittal of license No. NPF-3 dated April 22, 1977, and is therefore acceptable. The applicant is required to maintain reactor operation within the limits defined in the condition of the license until these design changes have been implemented into the system and operability of the equipment has been verified. The applicant indicated that the implementation of the design changes is scheduled to be completed by October 1, 1977.