



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

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8/2/78

August 7, 1978

Docket No. 50-346

MEMORANDUM FOR: R. Woodruff, Acting Assistant Director for Technical Programs, Office of Inspection and Enforcement

THRU: *JF* G. Fiorelli, Chief, Reactor Operations and Nuclear Support Branch

FROM: J. F. Streeter, Chief, Nuclear Support Section 1

SUBJECT: DAVIS-BESSE 1 - OPERATOR ACTION TO PREVENT OVERLOADING EMERGENCY DIESEL GENERATORS DURING A LOCA FOLLOWING A LOSS OF OFFSITE POWER (AITS F30408H2)

During a recent inspection at Davis-Besse 1, inspectors were informed that operator action would possibly be necessary to prevent overloading the emergency diesel generators (EDG's) if a LOCA occurred after offsite power had been lost and normal shutdown equipment loads were placed on the EDG busses. If such an event occurred with a reactor coolant system makeup pump (non-essential component) on an EDG bus, the operator would have to secure the pump within 20 seconds after initiation of the SFAS (Safety Feature Actuation System) signal to avoid EDG overload when the EDG sequencer completed its cycle. Operators at the plant have been informed by the licensee of the need for the immediate action and the appropriate emergency procedure has been revised to direct the operators to immediately secure the makeup pump under these conditions.

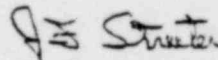
Immediate operator action would not be necessary if the electrical system design was such that non-essential loads were automatically stripped from the emergency busses in the event a LOCA occurred subsequent to a loss of offsite power. That type of automatic design feature would also avoid the possibility of operator error (failure to secure the makeup pumps) and attendant EDG overload during such an event. In addition, that feature would also appear to be consistent with the NRR attitude that the potential for operator misalignments of safety-related equipment immediately following design basis accidents should be minimized. However, there do not seem to be any regulatory bases for requiring such a design feature.

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As stated above, Davis-Besse 1 is presently depending on immediate (less than 20 seconds) operator action to avoid overloading the EDG's. This has been accepted by Region III as an interim measure while the licensee is pursuing a modification to provide automatic stripping of the makeup pumps in the event of an SFAS signal. In addition, Region III is pursuing this matter within Region III to determine if similar circuit designs exist at other plants. At this time, Region III does not have information to indicate that the design is generic.

Region III recommends that (1) other Regions be informed of the possibility of this design existing at plants within their Region, and (2) NRR be informed of this matter so that it can be given consideration during future licensing and rulemaking actions. Region III will advise you if future inspection results indicate a need for a Bulletin or Circular.



J. F. Streeter, Chief
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cc: G. Fiorelli
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