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1 5 1977

MEMORANDUM FOR: T. A. Ippolito, Chief, Instrumentation and Control

Systems Branch, DSS

FROM:

A. J. Szukiewicz, Instrumentation and Control Systems

Branch, DSS

THROUGH:

C. F. Miller, Section Leader, Instrumentation and

Control Systems Branch, DSS

20-346

SUBJECT:

SUMMARY OF MEETING WITH TOLEDO EDISON CO. TO REVIEW THE IMPLEMENTED DESIGN ON DAVIS BESSE UNIT 1 REGARDING

DEGRADED GRID VOLTAGE CONDITIONS

On June 6, 1977, representatives from Davis Besse Unit 1 and Bechtel, Gaithersburg, met with the Regulatory staff to 1) review the modification made in the design to detect and preclude sustained degraded voltage conditions from offsite power sources on safety related Class 1E buses and 2) to resolve the staff's concerns regarding the applicant's response to the staff's concerns identified in the supplemental questions issued on January 25, 1977.

A list of Attendees is enclosed. The following Attachment (A) addresses the problem areas discussed during our review and the resolutions concerning them.

By copy of this memorandum, the LPM is requested to transmit the information addressed in Enclosure A to the applicant in order to assure that their responses to our concerns are consistent with what was agreed upon during the meeting.

Andrew J. Szukiewicz Instrumentation and Control Systems Branch, DSS

Enclosures: As Stated

Contact: A.J. Szukiewicz

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MEETING SUMMARY

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List of Attendees

Davis Besse 1 Meeting June 6, 1977

A. J. Szukiewicz

NRC

F. R. Miller

Toledo Edison Company (TECO)

M. L. McGullough

Bechte1

A. P. Sussman

TECO

J. F. Libbe

TECO

S. M. Canter

Bechtel

M. D. Calcamuggio

TECO

J. E. Reilly

Bechte1

ATTACHMENT A

Davis Besse 1

Meeting June 6, 1977

1. The following drawings were submitted by the applicant to facilitate review of the modifications made to detect and preclude sustained degraded voltage conditions from offsite power sources.

Ε	3	Rev 8		E	34B	Sheet	9 Rev 7	
Ε	22	Sheet 1 Rev	5	Ξ	348	Sheet	11 Rev 4	
Ε	22	Sheet 2 Rev	5	E	348	Sheet	14 Rev 5	
Ε	348	Sheet 1 of 1	Rev 10	Ε	348	Sheet	14A Rev 0	
ε	348	Sheet 3 Rev	4	Ε	648	Sheet	1A Rev 4	
Ε	34	Sheet 5 Rev	5	Ε	648	Sheet	2A Rev 5	

The applicant was requested to submit these drawings formally on the docket.

- 2. The staff identified their concerns regarding the applicants incomplete responses to various questions identified in our letter of January 25, 1977, regarding their offsite power system. The following specific questions of the January 26, 1977, letter were discussed.
 - A. Item lc. The applicant was requested to provide their basis and justification of acceptability to permit exceeding allowable voltage levels on some of the equipment before administrative procedures are taken to lower the voltage levels to within acceptable limits. The applicant indicated that the design may be changed to maintain the voltage level within allowable limits at all times, and thus eliminate

this concern. The applicant, however, did commit to modify their response and describe the adequacy of their present design or describe the modifications that will be made.

- B. Item 1g. The applicant committed to modify their response of this item (1g) to identify all safety related equipment (i.e. valves, fans, pumps, etc.) and redefine the voltage ranges over which safety related equipment can operate continuously and perform their function. The applicant stated that safety related motors (valves, fans and pumps) are designed and tested to function at 70% voltage and will address this in the amended response of this item.
- C. Item 4. The applicant agreed to amend the response to item 4 to state that the modifications made to the setpoints in the relay system would not effect the required starting times assumed in the accident analysis, and that adequate margins are provided in their system. In addition the setpoint Table listed, will be modified to reflect the setpoint setting disussed in the meeting.
- D. Item 5. The applicant agreed to modify their presently documented response and describe in detail the methodology used to verify the adequacy of their design. The applicant agreed to describe the analysis used to verify that the equipment will maintain their operability for the required length of time. (i.e., until isolation of degraded bus voltages is accomplished) and describe the tests, and or standards used to assure that the equipment will sustain, without degradation, these faulted conditions.

The applicant was requested to submit their response as soon as possible, so we may review these items and resolve this conditional item of their license.