

NOV 11 1976

POOR ORIGINAL

Docket No. 50-346

Memorandum for: Thomas A. Ippolito, Chief, Electrical, Instrumentation and Control Systems Branch, DSS

From: Andrew J. Szukiewicz, Electrical, Instrumentation and Control Systems Branch, DSS

Thru: Charles F. Miller, Section Leader, Electrical, Instrumentation and Control Systems Branch, DSS

Original Signed by  
C. F. Miller

SUBJECT: SUMMARY OF MEETING WITH TOLEDO EDISON COMPANY REGARDING DAVIS BESSE UNIT 1 SEPARATION CRITERIA

A meeting was held in Bethesda, Maryland, on October 23, 1976, with Toledo Edison Company to discuss the separation criteria for wireways and conduits in general plant areas and the cable spreading room. This meeting was a followup to our site visit of October 6, 7, and 8, 1976, addressing the staff's concerns identified at the site (see Item 16 of the site visit report dated November 4, 1976). Attached as Enclosure 1 is a list of attendees. Enclosure 2 identifies the concerns expressed by the staff and their resolution.

Project Management is requested to transmit the information addressed in Enclosure 2 to the applicant in order to assure that their responses to our concerns are consistent with what was agreed upon during the meeting.

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Andrew J. Szukiewicz  
Electrical, Instrumentation  
and Control Systems Branch  
Division of Systems Safety

Enclosures:  
As stated

Contact:  
A. J. Szukiewicz  
Ext. 27387

Distribution  
See attached

OFFICE →	EICSB:PS	EICSB:PS	EICSB:PS		
SURNAME →	ASzukiewicz	CFMiller	TAIppolito		
DATE →	11/9/76	11/17/76	11/11/76		

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ENCLOSURE 1

MEETING ATTENDEES  
DAVIS BESSE, UNIT 1

L. Engle	NRC
J. Stolz	NRC
A. Ungaro	NRC
R. Wright	ACRS
A. Szukiewicz	NRC
C. Miller	NRC
G. Stashih	Bechtel
J. Reilly	Bechtel
S. Saba	Bechtel
S. Cantor	Bechtel
P. Anas	Bechtel
F. Cheng	Bechtel
D. Hayes	NRC-Region III
F. Jablonski	NRC-Region III
G. Hurrell	TECo.
M. Calcamuggio	TECo.
L. Roe	TECo.

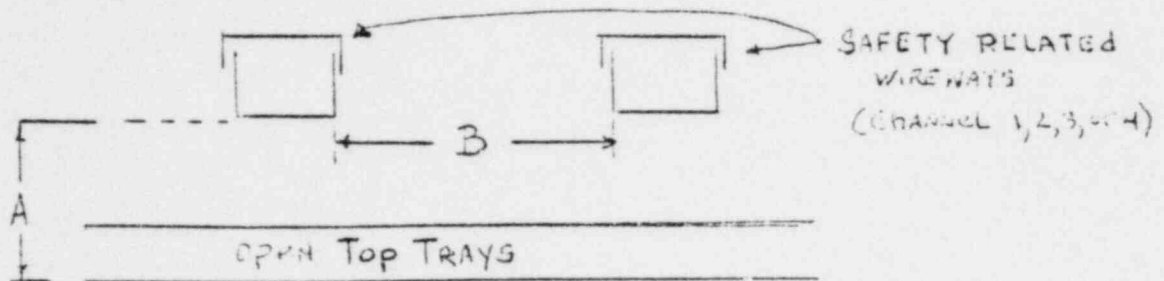
## ENCLOSURE 2

In a recent Amendment (36) to the FSAR the applicant described their proposed separation criteria for cable routing for general plant areas and in the cable spreading room (FSAR Figure 8-20 A, B, and C). The staff expressed concern that the proposed separation criteria as documented in Amendment 36 appeared to be inconsistent with information previously submitted and discussed with NRC Region III Inspection and Enforcement, and NRC Licensing. The applicant was requested and agreed to (1) supplement the FSAR and provide justification for the proposed separation criteria used for cables routed in conduits, (2) clarify the apparent discrepancies in their proposed criteria, and (3) document the following commitments agreed upon during the meeting.

1. The applicant stated that their separation criteria for totally covered trays, wireways and conduits is the same and committed to document this criteria in the FSAR.
2. The applicant pointed out that limited amounts of "CCC" cable used for intercommunication between redundant safety logic cabinets are routed in wireways. This cable has not been verified by test to have equivalent flame retardant properties as the cables previously reviewed by the staff. To resolve the staff's concerns regarding fire in wireways, the applicant committed to inject flame retardant "silica rubber foam" inside the safety related wireways

wherever this cable is routed, and document this commitment in the FSAR. They will also provide justification supporting the adequacy of the fire characteristics of this material.

3. The applicant agreed to document in the FSAR the following criteria for redundant safety related wireways when routed over open trays.



- a. If "A" is less than 46 inches, adequate barriers extending horizontally no less than 12 inches to each side of the wireway between the open tray and the wireway, will be provided to preclude fire damage of redundant safety related wireways in the event of fire in the open tray.
- b. If "B" is less than 24 inches, an adequate fire barrier will be provided between the redundant wireways.

During the discussion, the applicant was advised that their design requirements for fire protection should be consistent with the requirements stated in Appendix A of Regulatory Position 9.5.1.

4. The applicant was requested and agreed to document in the FSAR that when thermal barriers are provided in areas where

minimum horizontal distances between redundant trays and/or wireways is less than one inch, these thermal barriers would extend beyond these raceways with sufficient overlap (i.e., approximately  $\frac{1}{2}$  inch beyond the top of the tray and/or wireway and approximately  $\frac{1}{2}$  inch beyond the bottom of the tray or wireway).

5. The staff's concern regarding cable routing in metal conduits could not be resolved during the meeting and remains an open item in the SER. The staff requested that the applicant justify their proposed criteria (as stated in Figure 8.20 A, B, and C of the FSAR, Amendment 36) in areas where redundant conduits are routed over open trays or modify their design to be compatible with the criteria established for wireways (see Item 4 and Item 1). The applicant indicated that they may submit test results of the fire tests that were conducted on these conduits as their justification, or consider other alternatives. In addition, the applicant identified that in areas throughout the plant the safety related redundant conduit may be touching each other. Subsequent to the meeting the staff reviewed this design feature and concluded that such a design is unacceptable. It is the staff's position that redundant conduits must be separated by at least one inch of free air space or suitable thermal barriers be provided. The applicant is requested to document the implementation of this requirement in the FSAR.

6. The applicant stated that thermal blankets (Kawool or equivalent) will be provided on all open cable trays with certain exceptions (e.g., trays inside containment and within the cable spreading area). The applicant was requested to document this commitment in the FSAR, identify all exceptions and justify these exceptions on some other defined basis. In addition, the staff is pursuing with the applicant the possibility of whether these blankets can be justified for use as barriers in other portions of the plant such as the cable spreading area.