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DMB 016

Docket No. 50-346

Mr. Richard P. Crouse
 Vice President, Nuclear
 Toledo Edison Company
 Edison Plaza
 300 Madison Avenue
 Toledo, Ohio 43652

Dear Mr. Crouse:

SUBJECT: SAFETY FEATURES ACTUATION SYSTEM - SHARED POWER SUPPLY RETURNS

On December 5, 1980, an inadvertent Safety Feature Actuation System (SFAS) actuation occurred at the Davis-Besse Nuclear Power Station. Subsequent investigation of the circumstances leading to this event revealed that hardwired electrical interconnections exist between the circuitry associated with SFAS instrument and logic channels 1 and 3 and channels 2 and 4. Specifically, the power supply returns (floating common) for the + 15 Vdc and + 24 Vdc supplies are electrically connected.

The SFAS design was presented by Toledo Edison Company as a four independent channel system, and the NRC reviewed and licensed the plant on this basis. We have determined that, as a four channel system with shared power supply returns, the SFAS design does not comply with the requirements of IEEE Standard 279, Section 4.6. In your letter of September 15, 1981 (No. 745) you re-described the SFAS as a two channel system consisting of instrument and logic channel combinations 1 and 3, and 2 and 4 with channels 1 and 3 independent from channels 2 and 4. Each combination forms a single actuation channel. Since the SFAS is being presented differently now than was presented during the OL review, additional staff review is necessary to determine the acceptability of this design.

The staff has determined that, pending completion of this review, interim operation is acceptable provided that continuous monitoring of the shared + 15 and + 24 Vdc power supply commons is implemented promptly. You are requested to provide, no later than February 10, 1983, your commitment to implement this requirement within 60 days of the date of this letter.

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OFFICE ▶
SURNAME ▶
DATE ▶

Mr. Richard P. Crouse

-2-

Enclosure 1 to this letter is our Safety Evaluation related to this matter. The Safety Evaluation identifies a number of actions which should be taken by Toledo Edison Company. You are requested to review the Safety Evaluation and provide your responses within 60 days of the date of this letter.

The information requested in this letter affects fewer than ten respondents; therefore, OMB clearance under P.L. 96-511 is not required.

Sincerely,

*ORIGINAL SIGNED BY
JOHN F. STOLZ*

John F. Stolz, Chief
Operating Reactors Branch #4
Division of Licensing

Enclosure:
Safety Evaluation

cc w/enclosure:
See next page

OFFICE ▶	ORB #4:DL	C. ORB #4:DL					
SURNAME ▶	A De Agazio;cf	J Stolz					
DATE ▶	1/27/83	1/31/83					

Toledo Edison Company

cc w/enclosure(s):

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