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MAR 1 1977

MEMORANDUM FOR: Domenic B. Vassallo, Assistant Director
for Light Water Reactors, DPM

FROM: Faust Rosa, Chief
Power Systems Branch

SUBJECT: ADDITIONAL INFORMATION REQUEST ITEMS

Plant Name: Three Mile Island Unit Number 2
Docket No: 50-320
Licensing Stage: Operating License
Milestone No: N/A
Responsible Branch: LWR-4
and Project Manager: H. Silver
Requested Completion Date: N/A
Review Status: Awaiting Information

The enclosed additional information request items were prepared by the Power Systems Branch for transmittal to the applicant. Responses to these items are deemed necessary to complete our review for the Three Mile Island Unit Number 2 Station.

Faust Rosa, Chief
Power Systems Branch
Division of Systems Safety

Enclosure:
As stated

cc: S. Hanauer, TA
R. Heineman, DSS
R. Boyd, DPM
R. Tedesco, PS
S. Varga, DPM
H. Silver, DPM
F. Rosa, PSB
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OFFICE	DSS:PSB	DSS:PSB		93-291		
SURNAME	FAshe:ST	FRosa				
DATE	3/1/77	3/1/77				

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ENCLOSURE

ADDITIONAL INFORMATION REQUEST ITEMS FOR
THREE MILE ISLAND UNIT #2

222.43 In the Three Mile Island Unit Number 2 electrical design, the Safety Features Actuation System (SFAS) output relays powered from the same 120 volt a-c vital power supplies, provide input to actuation logic for both Engineered Safety Features System trains. Therefore, it is the staff's position that these SFAS output relays be qualified as electrical isolation devices. In this regard, provide the results of the qualification tests for these SFAS output relays and also include in the response the test plan, test set-up, test procedures and acceptability requirements.

222.44 In regard to Balance of Plant (BOP) equipment qualification for out of containment applications you have provided information which describes your qualification program for equipment by testing in conformance with industry standards. Testing in conformance with industry standards may be an acceptable basis for qualifying BOP equipment, however, industry standards fail to provide adequate documentation to assure in the staff's opinion that equipment will remain operable over the full-range of environments to which equipment may be exposed. Therefore, we require one of the following:

1. Justification that industry standard tests, performed at some undefined nominal environment, gives reasonable assurance that equipment will operate and perform its function over the full range of environments to which the equipment may be exposed and expected to operate.

2. Additional testing, in accordance with industry standards to demonstrate operability of equipment over the full-range of environment to which the equipment may be exposed and expected to operate.

3. Environmental control system which meets IEEE Std 279-1971 requirements with an analysis to show that the environment at the equipment location is maintained at the environmental conditions at which actual tests were performed.

The staff requires that the applicant perform a review of all applicable Class 1E BOP equipment located outside containment to be performed to determine that each piece of equipment satisfies one of the above requirements. The results of this review should be provided to the staff. Identification of each modification to the present design, which may be required, should be included with description and criteria. Also include identification and justification of each piece of equipment that does not satisfy any of the above requirements. The details of the review shall be maintained by the applicant for future audit.