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FEB 06 1984

Dr. Thomas E. Murley
Regional Administration, Region I
U.S. Nuclear Regulatory Commission
631 Park Avenue
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SUSQUEHANNA STEAM ELECTRIC STATION
INTERIM REPORT ON A DEFICIENCY INVOLVING SPDS
TEC MODEL 156 ISOLATORS
ER 100508
PLA-2063

FILE 821-10

Docket No. 50-388

Dear Dr. Murley:

This letter serves to provide the Commission with an interim report on a deficiency involving SPDS TEC Model 156 isolators. This deficiency was originally reported under 10CFR50.55(e) by telephone to Mr. G. Kelly (NRJ Region I) by Mr. J. Saranga (PP&L) on January 6, 1984.

The attachment to this letter contains a description of the problem, its cause, the safety implications, and the corrective action. This deficiency is addressed for Unit 1 in PLA-2070 dated 2/03/84 (LER 84-003). Since the details of this report provide information relevant to the reporting requirements of 10CFR21 for Unit 2, this correspondence is considered to also discharge any formal responsibility PP&L may have for reporting in compliance thereto.

We trust the Commission will find this report to be satisfactory.

Very truly yours,

N. W. Curtis
Vice President-Engineering & Construction-Nuclear

Attachment

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Dr. Thomas E. Murley

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INTERIM REPORT

Attachment to PLA-2063

DESCRIPTION

Technology for Energy Corporation (TEC) Model 156 isolators procured under Bechtel Purchase Order 8856-J-049-AC do not meet the requirements of the purchase specification which calls for separation of the power source from both input and output signal connections. The power supply to the isolators provided by TEC is conductively connected to the output signal. Consequently, use of the isolator in cabinets with 1E power results in connection of a 1E source to a non 1E circuit.

CAUSE

TEC supplied isolators which did not meet the purchase order requirements.

ANALYSIS OF SAFETY IMPLICATIONS

Separation between Class 1E and non-1E circuits is a design requirement. Failure to meet this requirement could result in loss of the 1E bus due to non analyzed failures affecting the non 1E circuits. Specific problems found included use of the isolator in six APRM channels such that failure originating in the non-class 1E circuit could cause loss of all six APRM channels. TEC isolators are also installed on the HPCI flow loop for interim ERCS such that a failure originating in the non-class 1E circuit could render HPCI speed control inoperative during an accident condition.

CORRECTIVE ACTION

The corrective action to meet the safety concerns raised by this deficiency is underway and is based on the following:

1. Every TEC isolator used in the plant is being reviewed to determine whether separation requirements are violated.
2. Where separation requirements are violated and the output signal is required for safe operation of the plant or required by licensing commitments, revision to the design and the equipment shall be provided.
3. Where separation requirements are violated, but the output signal is not required for safety or licensing issues, the power supply leads will be disconnected with the affected drawings reflecting this change.
4. Where separation requirements are not violated, the isolators will continue to be used as connected.

PP&L expects to provide an updated report by February 21, 1984.