

Docket No. 50-352/353

Mr. Edward G. Bauer, Jr.  
Vice President & General Counsel  
Philadelphia Electric Company  
2301 Market Street  
Philadelphia, Pennsylvania 19101

Dear Mr. Bauer:

SUBJECT: Request for Additional Information  
(Environmental Qualification of Equipment)

As a result of the staff's review of the Limerick environmental qualification of electric equipment important to safety and safety related mechanical equipment several confirmatory items have been identified for which additional information is needed as identified in the enclosure.

Please provide us with the date(s) on which you plan to respond to the above. Any questions concerning this information request should be directed to Mr. Robert E. Martin, the licensing project manager.

Sincerely,

A. Schwencer, Chief  
Licensing Branch No. 2  
Division of Licensing

Enclosure: As stated *AS*

*DL:LB#2/PM*  
RMartin:bdm  
6/11/84

*DL:LB#2/BC*  
ASchwencer  
6/11/84

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

JUN 11 1984

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A handwritten signature in cursive script, appearing to read "A. Schwencer".

A. Schwencer, Chief  
Licensing Branch No. 2  
Division of Licensing

Enclosure: As stated

## Aging

NUREG-0588, Category II outlines two aging program requirements. Valve operators committed to IEEE Standard 382-1972 and motors committed to IEEE Standard 334-1971 must meet the Category I requirements of NUREG-0588. This requires the establishment of a qualified life, with maintenance and replacement schedules based on the findings. For other equipment, the qualification program should address aging to the extent that age susceptible component materials are identified. In addition, a maintenance/surveillance program should be implemented to identify and prevent significant age-related degradation in electrical and mechanical equipment.

The applicant has committed to follow the recommendations in RG 1.33, Revision 2, "Quality Assurance Program Requirements (Operation)," which endorses American National Standard ANS-3.2/ANSI N18.7-1976, "Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants," as noted in SER Section 17. This standard defines the scope and content of a maintenance/surveillance program for safety-related equipment. Provisions for preventing or detecting age-related degradation in safety-grade equipment are specified and include (1) utilizing experience with similar equipment, (2) revising and updating the program as experience is gained with the equipment during the life of the plant, (3) reviewing and evaluating malfunctioning equipment and obtaining adequate replacement components, and (4) establishing surveillance tests and inspections based on reliability analyses, frequency and type of service, or age of the items, as appropriate. The applicant has stated that the maintenance/surveillance program will be implemented at the time of fuel load; however, the specific program which will be used to detect unanticipated, age related degradation of electrical cables inside containment must be submitted for staff review.

Equipment Requiring Additional Information and/or Corrective  
Action

Table 3.11.2 identifies equipment in this category. Corrective action or deficiencies are noted by a letter relating to the following legend:

Legend

- QI - qualification information being developed
- R - radiation deficiency
- AC - accuracy
- OT - operating time deficiency

The deficiencies have been determined on the basis of all the information available to the staff at the time of review and do not necessarily mean that the equipment is unqualified. However, the deficiencies are cause for concern and require further case-by-case evaluation. Before an operating license is issued, the applicant should review the qualification files to ensure that these deficiencies have been eliminated and the resolutions have been documented in an auditable form. The applicant must notify the staff that all equipment is qualified or must submit Justification for Interim Operation in accordance with 10 CFR 50.49(i).

Table 3.11.2

EQUIPMENT REQUIRING ADDITIONAL INFORMATION  
OR CORRECTIVE ACTION

Component Description	Model Number	EQRR Number	Deficiency/ Corrective Action *
<u>Agastat</u> Relay	EGPI	159	R
<u>Alison</u> Temperature Transmitter	LM124	162	AC
<u>Ametek</u> Flow Element Flow Transmitter	20-9651-8550 91X-16 91X-16-4-20	P601-P604 P701-P703	AC AC
<u>Automatic Switch Co</u> Solenoid Pilot Valve Pressure Differential Switch	NP8316E34E NP8316A74A SB31AMR/ TA31A16	87, 88 145 142	QI QI QI
<u>Fluid Components</u> Flow Element Flow Switch	12-64-4R 12-64-4	155 155	QI QI
<u>General Electric</u> Terminal Block Hand Switch	CR151B2 SBM	159 144, 159	R QI
<u>Kepeco</u> DC Power Supply	PCX72-0.3	144	QI
<u>ITT-Barton</u> Pressure Differ- ential Switch	580A-2	180	QI
<u>Love Controls</u> Temperature Switch Temperature Indicating Transmitter	56-8115-8181-817 54-838-8114- 8174-8226	159 144	AC QI

Table 3.11.2 (cont'd)

Component Description	Model Number	EQRR Number	Deficiency/ Corrective Action *
<u>Love Controls (cont'd)</u>			
Flow Indicating Control Switch	541-8115-8187-8132-8174-8226-8108-8134	144	QI
Temperature Indicating Transmitter	54-838-8114-817-8174-82	144	QI
<u>NAMCO</u>			
Limit Switch	EA180-XX302	124	OT
<u>Rockbestos</u>			
600 Volt Power, Control and Instrument Wire	Various	22A, B, C	QI
Thermocouple Extension Cable	Various	24	QI
Shielded Cable	Various	25B, C	QI
Coaxial Cable	Various	25A	QI
Switchboard Wire	Firewall SIS	198	QI
<u>Rosemount</u>			
Differential Pressure Transmitter	1151DP4A22MBGE2	P109	AC, R
Differential Pressure Transmitter	1151GP6A22MBGE3	P101, P103, P104	AC
Pressure Transmitter	1151	P1D2, P1D5-P1D8, P1E2-P1E5	AC
Pressure Transmitter	1151GP6A22T0003PB	P111-P112	AC
Pressure Transmitter	1151GPA22T0003PB	P150-P113	AC
Pressure Transmitter	1151GP7D22MBGE3	P179-P182, P188, P189	AC
<u>Target Rock</u>			
Pilot Solenoid Valve	1/2-SMS-A-01	P201-P213, P243	OT
<u>Tavis</u>			
Pressure Differential Transmitter	P-24	144	QI

Table 3.11.2 (cont'd)

Component Description	Model Number	EQRR Number	Deficiency/Corrective Action *
<u>Veam/Litton</u> In-Line Plug Connector Assembly	CIR Series	44	QI
<u>Westinghouse</u> Transformer	ND	15	QI

\* Legend

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