



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

MAR 28 1985

Docket No. 50-387

Mr. Norman W. Curtis  
Vice President - Engineering and  
Construction - Nuclear  
Pennsylvania Power & Light Company  
Two North Ninth Street  
Allentown, PA 18101

Dear Mr. Curtis:

SUBJECT: ENVIRONMENTAL QUALIFICATION OF ELECTRICAL EQUIPMENT AT SUSQUEHANNA  
STEAM ELECTRIC STATION, UNIT 1 - EXTENSION TO SCHEDULAR REQUIREMENTS  
OF SECTION 50.49(g) OF 10 CFR PART 50

By a letter dated January 30, 1985, Pennsylvania Power & Light Company (PP&L) requested an extension of the deadline for final qualification of electric equipment within the scope of 10 CFR 50.49 and License Condition 2.C.(18)(c) for Susquehanna Steam Electric Station, Unit 1. The licensee requests an extension pursuant to 50.49(g) from March 31, 1985 to November 30, 1985.

Section 50.49(g) of 10 CFR Part 50 requires that each holder of an operating license issued prior to February 22, 1983, shall by May 20, 1983, identify the electrical equipment important to safety within the scope of this section already qualified and submit a schedule for either the qualification to the provisions of this section or for the replacement of the remaining electrical equipment important to safety within the scope of this section. This schedule must establish a goal of final environmental qualification of the electrical equipment within the scope of this section by the end of the second refueling outage after March 31, 1982, or by March 31, 1985, whichever is earlier. The rule also provides that the Director of the Office of Nuclear Reactor Regulation may grant requests for extensions of this deadline to a date no later than November 30, 1985, for specific pieces of equipment if these requests are filed on a timely basis and demonstrate good cause for such an extension, such as procurement lead time, task complications and installation problems. In addition, 10 CFR 50.49(h) provides that each licensee shall notify the Commission of any significant equipment problem that may require extension of the completion date provided in paragraph (g) of this section within sixty days of its discovery. Also, in paragraph (g) of this section, it is stated that the schedule in this paragraph supersedes the June 30, 1982 deadline, or any other previously imposed date, for environmental qualification of electric equipment contained in certain nuclear power operating licenses.

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Pennsylvania Power & Light Company has indicated that for Susquehanna, Unit 1, technical problems with respect to testing and installation scheduling have delayed completion of the qualification program of certain equipment per requirements of 10 CFR 50.49. PP&L has further indicated that the equipment for which qualification will not be completed by March 31, 1985 can be divided into two categories: 1) equipment for which testing will not be completed, and 2) equipment for which modification is required in order to satisfy qualification requirements.

I. Equipment for which testing has not been completed:

A. Conduit Seals

During the qualification process PP&L recognized the need for conduit seals for certain devices, particularly inside containment. Since there is no existing sealing material or methodology that had been qualified which would envelop the Susquehanna SES in-containment requirements, testing of any new seals is required. Testing is now underway and is expected to be completed after March 31, 1985.

B. Silicon Rubber Insulated Cable

Silicon rubber insulated cable is used inside the containment for limit switch and solenoid valve circuits. This cable (rated at 200°C) was selected based upon vendor qualification test reports. There is a test in progress to qualify this cable for Susquehanna environmental parameters.

C. NSIS Cable

Anaconda NSIS FR-EP cable is used inside the containment for connecting electrical devices. This cable has been tested by Anaconda to environmental conditions which envelop the SSES conditions for all parameters except, beta radiation. The cable is being tested in conjunction with the test for conduit seals.

II. Equipment for which modifications are required

There are a number of equipment items that are having modifications implemented in order to achieve qualification. These modifications are currently scheduled for completion during the refueling outage which began in February, 1985 and will end in May, 1985. The following is a brief description of the modifications.


- °Replace HVAC Motors (14)
- °Replace Namco Limit Switches on Standby Liquid Control
- °Add Conduit Seals to Rosemount Transmitters
- °Replace Core Spray Pressure Transmitters
- °Replace Travis Transmitters.
- °Upgrade HPCI Turbine Controls

- °Relocate SGTS Radiation Monitors
- °Replace PDSL Switches in Common Plenum
- °Miscellaneous Conduit Sealing

We have reviewed the submittal of January 30, 1985, and conclude that the request for extension is timely and within the scope of 10 CFR 50.49(g) and that PP&L has shown good cause for the extension. The staff has reviewed the Justifications for Continued Operation and finds them acceptable. Compliance for Category II components is required prior to restart from the current refueling outage. Compliance for Category I components should be achieved at the earliest practicable time, but in no event later than November 30, 1985. We find that Susquehanna, Unit 1's continued operation during the extension period will not adversely affect the public health and safety.

The request for extension of deadline is hereby granted as stated.

Sincerely,



Harold R. Denton, Director  
Office of Nuclear Reactor Regulation

cc: See next page

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Original Signed by  
H. R. Denton

Harold R. Denton, Director  
Office of Nuclear Reactor Regulation

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\*Previous concurrences concurred on by:

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03/20/85	03/21/85	03/ /85	03/21/85		

THE UNIVERSITY OF CHICAGO  
DIVISION OF THE PHYSICAL SCIENCES  
DEPARTMENT OF CHEMISTRY

REPORT OF THE RESEARCH GROUP ON  
THE CHEMISTRY OF THE SOLID STATE  
FOR THE YEAR 1954

BY THE RESEARCH GROUP ON THE CHEMISTRY OF THE SOLID STATE

CHICAGO, ILLINOIS

1955

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Susquehanna

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