

April 9, 1986

Docket No. 50-334

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Mr. J. J. Carey, Vice President  
Duquesne Light Company  
Nuclear Group  
Post Office Box 4  
Shippingport, PA 15077

Dear Mr. Carey:

Subject: Request for Additional Information, Beaver Valley Unit 1, Safety  
Parameter Display System (TAC 51221)

By letter dated April 15, 1983, Duquesne Light Company responded to Generic  
Letter 82-33. Our review of your response is ongoing.

During our review, we developed a number of questions regarding the Safety  
Parameter Display System. These questions are presented in the enclosure to  
this letter. Please respond to these within 45 days of receipt of this  
letter.

The reporting and/or recordkeeping requirements of this letter affect fewer  
than 10 respondents; therefore, OMB clearance is not required under  
P. L. 96-511.

Sincerely,

/s/

Peter S. Tam, Project Manager  
PWR Project Directorate #2  
Division of PWR Licensing-A  
Office of Nuclear Reactor Regulation

Enclosure:  
As stated

cc: See next page

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Mr. J. J. Carey  
Duquesne Light Company

Beaver Valley 1 Power Station

cc:

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cc:

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State Department of Health  
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BEAVER VALLEY UNIT 1

REQUEST FOR ADDITIONAL INFORMATION

SAFETY PARAMETER DISPLAY SYSTEM

Each operating reactor shall be provided with a Safety Parameter Display System (SPDS). The Commission approved requirements for an SPDS are defined in NUREG-0737, Supplement 1. In the Regional workshops on Generic Letter 82-33 held during March 1983, the NRC discussed these requirements and the staff's review of the SPDS.

The staff reviewed the SPDS safety analysis and supplemental documents. The staff was unable to complete the review because of insufficient information. The following additional information is required to continue and complete the review:

Isolation Devices

Please provide the following:

- a. For the type of device used to accomplish electrical isolation, describe the specific testing performed to demonstrate that the device is acceptable for its application(s). This description should include elementary diagrams when necessary to indicate the test configuration and how the maximum credible faults were applied to the devices.
- b. Data to verify that the maximum credible faults applied during the test were the maximum voltage/current to which the device could be exposed, and define how the maximum voltage/current was determined.
- c. Data to verify that the maximum credible fault was applied to the output of the device in the transverse mode (between signal and return) and other faults were considered (i.e., open and short circuits).
- d. Define the pass/fail acceptance criteria for each type of device.
- e. Provide a commitment that the isolation devices comply with the environment qualifications (10 CFR 50.49) and with the seismic qualifications which were the basis for plant licensing.
- f. Provide a description of the measures taken to protect the safety systems from electrical interference (i.e., Electrostatic Coupling, EMI, Common Mode and Crosstalk) that may be generated by the SPDS.
- g. Provide information to verify that the Class 1E isolator is powered from a Class 1E source.