



## Duquesne Light

Nuclear Construction Division  
Robinson Plaza, Building 2, Suite 210  
Pittsburgh, PA 15205

(412) 787-5141  
(412) 923-1960  
Telecopy (412) 787-2629  
September 29, 1982

United States Nuclear Regulatory Commission  
Region I  
631 Park Avenue  
King of Prussia, PA 19406

Attention: Mr. R. C. Haynes  
Administrator

Subject: Beaver Valley Power Station - Unit No. 2  
Docket No. 50-412  
Potential Deficiency of Westinghouse Solid State Protection System  
Significant Deficiency 82-04

Gentlemen:

This interim report is in reference to the potential problem in the Westinghouse Solid State Protection System reported to the Nuclear Regulatory Commission by E. F. Kurtz, Jr., of Duquesne Light Company, on August 30, 1982.

Westinghouse is currently reviewing the on-line test circuitry design and upon completion of this review will recommend design changes, where necessary, to remedy the problem. Pursuant to the requirements of 10CFR50.55(e), an interim report is submitted, and it is expected that a subsequent report on this subject will be issued to the Region I Office by May 20, 1983.

DUQUESNE LIGHT COMPANY

By

E. J. Woolever  
Vice President

JMM/wjs

Attachment

cc: Mr. R. DeYoung, Director, Office of Inspection and Enforcement (3) (w/attachment)  
NRC Document Control Desk (w/attachment)  
Mr. G. Walton, NRC Resident Inspector (w/attachment)  
Ms. E. Doolittle, Project Manager (w/attachment)

Subscribed and sworn to before me this 29 day of SEPT, 1982.

Notary Public

ALAN B. BAHAS, NOTARY PUBLIC  
ROBINSON TWP., ALLEGHENY COUNTY  
MY COMMISSION EXPIRES APRIL 12, 1986  
Member, Pennsylvania Association of Notaries

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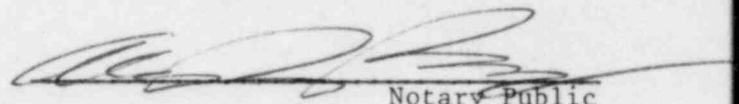
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COMMONWEALTH OF PENNSYLVANIA )

) SS:

COUNTY OF ALLEGHENY )

On this 29 day of SEPT., 1982, before me, ALAN  
B. BANAS, a Notary Public in and for said Commonwealth and County, personally appeared E. J. Woolever, who being duly sworn, deposed, and said that (1) he is Vice President of Duquesne Light, (2) he is duly authorized to execute and file the foregoing Submittal on behalf of said Company, and (3) the statements set forth in the Submittal are true and correct to the best of his knowledge, information and belief.



Notary Public

ALAN B. BANAS, NOTARY PUBLIC  
ROBINSON TWP., ALLEGHENY COUNTY  
MY COMMISSION EXPIRES APRIL 12, 1986  
Member, Pennsylvania Association of Notaries

Beaver Valley Power Station - Unit No. 2  
Duquesne Light Company

Interim Report on Potential Deficiency of Westinghouse  
Solid State Protection System

1. Summary

Westinghouse has identified a potential problem in the solid state protection system (SSPS) on-line testing circuits for system relays which could result in an undetectable failure. The SSPS provides protection and control of plant equipment, reactor trips, and actuates the engineered safety features systems.

2. Immediate Action Taken

Westinghouse notified the Nuclear Regulatory Commission of the potential problem in a letter dated August 6, 1982, from F. P. Rahe to Richard DeYoung, Director of the Office of Inspection and Enforcement. On August 30, 1982, Duquesne Light Company notified R. Keimig of the Region I office by telephone.

3. Description of Deficiency

Periodic testing of the solid state protection system requires actuation of system master relays and continuity test of the output relays. During testing, the voltage applied to the output relays is reduced from 120 V ac to 15 V dc. A pushbutton test switch actuates the master relays and opens a switch contact shunting a proving lamp which verifies continuity of the output relays. Upon completion of the test, 120 V ac is restored to the output relay circuits. If the shunt contact fails to close and the system is called upon to operate, 120 V will be applied to the output relay through the proving lamp. The result could be burnout of the lamp and failure of the output relay to actuate.

4. Analysis of Safety Implications

Failure of the SSPS output relays to actuate when required would prevent safety systems from automatically performing their safety function.

5. Corrective Action to Remedy Deficiency

Westinghouse is currently reviewing the on-line test circuitry design and upon completion of this review will recommend design changes, where necessary, to remedy the problem.

6. Additional Reports

Westinghouse will provide the schedule for completion of the design review and implementation of the corrective action to remedy the deficiency. Duquesne Light Company plans to issue another report, interim or final, when additional details concerning the corrective action are available. It is expected that this report will be submitted to Region I by May 20, 1983.