



Duquesne Light

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October 15, 1984

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

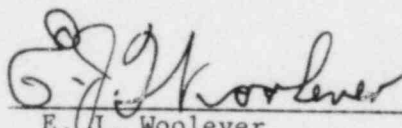
ATTENTION: Dr. Thomas E. Murley
Administrator

SUBJECT: Beaver Valley Power Station - Unit No. 2
Docket No. 50-412
Power Conversion Products, Inc.
Potential Significant Deficiency Report 84-07

Gentlemen:

This interim report is in reference to the Potentially Reportable Significant Deficiency relating to the voltage regulators supplied by Power Conversion Products, Inc. Pursuant to the requirements of 10CFR50.55(e), it is anticipated that a subsequent report will be submitted to Region I by December 14, 1984.

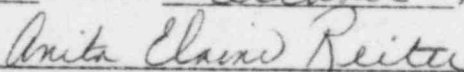
DUQUESNE LIGHT COMPANY

By 
E. J. Woolever
Vice President

SDH/wjs
Attachment

cc: Mr. R. DeYoung, Director (3) (w/a)
Ms. M. Ley, Project Manager (w/a)
Mr. E. A. Licitra, Project Manager (w/a)
Mr. G. Walton, NRC Resident Inspector (w/a)
INPO Records Center (w/a)
NRC Document Control Desk (w/a)

SUBSCRIBED AND SWORN TO BEFORE ME THIS
15th DAY OF October, 1984.

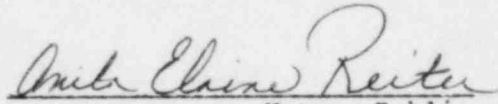

Anita Elaine Reiter
Notary Public

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PDR ADJCK 05000412
S PDR

ANITA ELAINE REITER, NOTARY PUBLIC
ROBINSON TOWNSHIP, ALLEGHENY COUNTY
MY COMMISSION EXPIRES OCTOBER 20, 1986

COMMONWEALTH OF PENNSYLVANIA)
) SS:
COUNTY OF ALLEGHENY)

On this 15th day of October, 1984, before me, 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.


Notary Public

ANITA ELAINE REITER, NOTARY PUBLIC
ROBINSON TOWNSHIP, ALLEGHENY COUNTY
MY COMMISSION EXPIRES OCTOBER 20, 1986

BEAVER VALLEY POWER STATION - UNIT NO. 2
DUQUESNE LIGHT COMPANY

Potential Significant Deficiency Report 84-07
Voltage Regulators Supplied by Power Conversion Products, Inc.

1. SUMMARY

A limited inspection of the voltage regulators supplied by Power Conversion Products, Inc., (PCP) under Purchase Order 2BV-337 was performed by Beaver Valley Power Station Unit 2's (BVPS-2) Site Quality Control Group (SQC). This inspection resulted in identifying potentially significant deficiencies in internal wiring workmanship. An evaluation is continuing to determine the specific safety significance of this issue. On September 14, 1984, BVPS-2 submitted the initial to Region I, NRC Office.

2. IMMEDIATE ACTION TAKEN

On August 10, 1984, Mr. Hall, Acting Manager of Duquesne Light Company's Regulatory Affairs Department, notified Mr. G. Meyer of the NRC Region I Office of this potentially significant deficiency. The subject PCP equipment was incorporated into a 100% inspection/repair program for Class IE electrical equipment. Refer to Section 5, "Corrective Action to Remedy Deficiency."

3. DESCRIPTION OF THE DEFICIENCY

Specific instances of poor wiring workmanship that were noted by SQC included:

- ° problems with crimping practices
- ° broken conductor strands
- ° unauthorized use of solder
- ° nicked and gouged insulation on conductors
- ° incorrect type of connectors
- ° excessive tension on conductors
- ° improper use of splice connectors

4. ANALYSIS OF SAFETY IMPLICATION

Of the observed deficient conditions, instances of poorly crimped conductors were the most numerous. If one of the improperly crimped wires were to detach from its lug under vibratory seismic loadings, a loss of function for the voltage regulators could result. Conductors with broken strands or damaged insulation could likewise cause a loss of regulator function under seismic loadings. Thus, the above deficient conditions have the potential to cause the loss of Class IE voltage regulators during a seismic event and/or prolonged exposure to the natural frequencies experienced during normal operation of the equipment. In addition to regulating the voltage to the required loads, the PCP equipment functions as Class IE isolation devices. The loss of either this isolation function or the ability to deliver power to downstream Class IE loads, due to deficient wiring workmanship, coupled with a single failure of a redundant vital bus or isolating transformer, could adversely impact the capability of the plant to safely shutdown under certain accident conditions.

Currently, evaluations are being performed for the subject equipment to determine if any of the noted vendor wiring deficiencies could result in the loss of the equipment's isolation functions or ability to deliver power to Class IE loads. The results of these evaluations will be used in the safety analysis for this potential deficiency. Evaluations are scheduled to be completed by December 14, 1984, at which time an additional report will be submitted.

5. CORRECTIVE ACTION TO REMEDY DEFICIENCY

The inspection/repair program regarding workmanship of internal wiring of vendor supplied Class IE electrical equipment for BVPS-2 is presently in process. Specific wiring workmanship criteria have been incorporated into Specification 2BVS-931, which is the controlling document for electrical equipment installation at BVPS-2. The subject equipment is included in the general vendor-supplied Class IE electrical equipment workmanship inspection/repair program and evaluation of the noted problems will be performed using the workmanship program documents. Noted deficiencies will be corrected following defined approved procedures (2BVS-931 and vendors standards). The completion date for the workmanship inspection/repair program is scheduled for June 30, 1985.

6. ADDITIONAL REPORTS

In addition to this interim report, another report regarding the potentially significant deficiency with Power Conversion Products voltage regulators will be issued by December 14, 1984.