Duquesne Light

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July 20, 1983

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
Deficiency in Bergen Paterson Welded Clevises
Significant Deficiency Report No. 83-04

Gentlemen:

The attached report is the final report on the above subject. This report is submitted in accordance with the requirements of 10CFR50.55(e) and our commitment of June 29, 1983.

DUQUESNE LIGHT COMPANY

By E. J. Woolever /mw
E. J. Woolever
Vice President

KAT/wjs
Attachment

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

SUBSCRIBED AND SWORN TO BEFORE ME THIS
20th DAY OF July, 1983.

Elva G. Lesondak
Notary Public

ELVA G. LESONDAK, NOTARY PUBLIC
ROBINSON TOWNSHIP, ALLEGHENY COUNTY
MY COMMISSION EXPIRES OCTOBER 20, 1986

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COMMONWEALTH OF PENNSYLVANIA)
) SS:
COUNTY OF ALLEGHENY)

On this 20th day of July, 1983, 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.

Elva G. Lesondak
Notary Public

ELVA G. LESONDAK, NOTARY PUBLIC
ROBINSON TOWNSHIP, ALLEGHENY COUNTY
MY COMMISSION EXPIRES OCTOBER 20, 1986

KAT/wjs
Attachment

bcc: R. Coupland (w/attachment)
C. E. Ewing "
INPO Records Center "
T. J. Lex (4) "
NCD File "
J. Pedro (NUS) "
S. Phillips (W) "
P. RaySircar (3) "
J. Sutton (S&W) "
K. A. Troxler "
J. F. Zagorski "
C. R. Bishop (w/o attachment)
T. D. Jones "
H. M. Siegel "
R. J. Swiderski "

REFERENCES: 1) Significant Deficiency Report No. 83-04

2) Preliminary copy of Stone & Webster Report on Potential Significant Deficiency of Pipe Rupture Restraints (2DLS-18028)

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

Significant Deficiency 83-04
"Bergen Paterson Welded Clevises"

1. SUMMARY

A total of 44 pipe rupture restraints are being fabricated by Bergen-Paterson Pipe Support Corporation for BVPS-2. In this instance, Bergen-Paterson is a subvendor to Applied Engineering Company. On May 5, 1983, a stop work order was issued to Bergen-Paterson by Applied Engineering Company for the reasons listed below:

A. Bergen-Paterson offered for acceptance a total of 16 clevis assemblies which supposedly satisfied all design and specification requirements. All 16 were rejected because of the following deficiencies:

   i. The clevis design requires that all welds on the carbon steel clevises be full penetration welds. None of the 16 units had complete penetration welds.

   ii. A number of welds on the subject clevises exhibited lack of fusion, overlap or cold roll, porosity, undercut and insufficient weld reinforcement.

B. Bergen-Paterson had not performed nondestructive examinations in accordance with approved procedures.

C. Bergen-Paterson could not provide acceptable documentation to satisfy specification requirements.

2. IMMEDIATE ACTION TAKEN

As noted in Section 1, a stop work order was issued to Bergen-Paterson on May 5, 1983, for the 44 pipe rupture restraints for BVPS-2.

3. DESCRIPTION OF DEFICIENCY

Bergen-Paterson failed to demonstrate compliance with specification requirements in the following instances:

A. The clevis components of the pipe rupture restraints were not fabricated with the required full penetration welds. The welds also exhibited lack of fusion, overlap or cold roll, porosity, undercut, and insufficient reinforcement.

B. Nondestructive examinations were not performed in accordance with approved procedures.

C. Acceptable documentation of materials, fabrication, and inspection was not provided.

4. ANALYSIS OF SAFETY IMPLICATION

Most of the pipe rupture restraints supplied by Bergen-Paterson are to be placed inside the containment; several will also be located in the service building.

In the case of pipe rupture, the failure of any one pipe rupture restraint to perform its intended function could cause a propagation of breaks and cause the containment to lose its integrity or simply prevent the plant from attaining safe shutdown.

Even though none of the affected equipment has been shipped to Beaver Valley (BV-2), the item is deemed potentially reportable due to its possibility for BV-2 affect.

5. CORRECTIVE ACTION TO REMEDY DEFICIENCY

The following corrective actions are being implemented to remedy the deficiency and prevent its recurrence:

A. The unacceptable clevis parts have been scrapped and will be replaced by newly fabricated components

B. The new clevis parts will be required to satisfy all conditions of the original specification.

C. Retraining and requalification of all Bergen-Paterson inspectors has been accomplished.

D. Nondestructive examination reports will be completed and signed off on the same day that the inspection is performed.

E. The new clevises are scheduled to be completed by November 1984.