



Duquesne Light

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May 23, 1983

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

ATTENTION: Mr. J. Allan
Acting Administrator

SUBJECT: Beaver Valley Power Station - Unit No. 2
Docket No. 50/412
Potential Deficiency of Westinghouse Gate Valve Position
Indication
Significant Deficiency No. 83-01

Gentlemen:

Pursuant to the requirements of 10CFR50.55(e), the Final Report on Potential Deficiency in Westinghouse Gate Valve Position Indication is attached for your review. If there are any questions concerning this report, please contact the Beaver Valley Unit 2 Project Office.

DUQUESNE LIGHT COMPANY

By E. J. Woolever
E. J. Woolever
Vice President

RWF/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. L. Lazo, Project Manager (w/attachment)

SUBSCRIBED AND SWORN TO BEFORE ME THIS
23rd DAY OF May, 1983.

Anita Elaine Reiter
Notary Public

ANITA ELAINE REITER, 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 23rd day of May, 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 exe-
cute 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.

Anita Elaine Reiter
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

Final Report on Potential Deficiency of Westinghouse
Gate Valve Position Indication

1. SUMMARY

Westinghouse has identified a potential significant deficiency in Westinghouse supplied EMD gate valve position indication instrumentation which could result in an indication that the valve is "closed" prior to the valve disc fully isolating flow. Should the valve stall or bind following the premature indication, the operator would have an inaccurate indication of true valve position.

2. IMMEDIATE ACTION TAKEN

On January 12, 1983, Duquesne Light Company notified B. Crocker of the Region I office by telephone. Duquesne Light Company also instructed Westinghouse to continue with their investigation of the potential deficiency.

3. DESCRIPTION OF DEFICIENCY

A geared limit switch rotor is set to provide an electrical bypass of the OPEN torque switch at the beginning of the opening stroke. On a closing stroke, this switch changes state before the flow path is completely blocked. As a result, it is likely that monitor and/or indicator lights also operated by that rotor will indicate valve closure slightly before the flow path is completely shut off. If the valve were to stop between this setpoint and the full shut off position, a flow path through the valve could exist even though a CLOSE indication had been achieved.

The various generic gate valve applications have been reviewed to determine those that may result in unacceptable consequences. These are:

- a. Hot leg safety injection (high and low pressure)
- b. Alternate cold leg (high pressure) injection (3-loop plants only)
- c. Cold leg injection (low head)

All valves which have been identified as potentially requiring modification and which incorrect position indication by itself could cause an unacceptable situation that violates the established licensing basis for Beaver Valley Power Station Unit 2 are:

8816
8886
8889
8814
8888A
8888B

4. ANALYSIS OF SAFETY IMPLICATIONS

Inaccurate position indication of safety-related isolation valves could result in improper system isolation or system operation and possible inaccurate operator response, degrading the affected system's ability to perform its safety function.

5. CORRECTIVE ACTION TO REMEDY DEFICIENCY

Westinghouse has completed a plant specific review for Beaver Valley Power Station Unit 2. It confirms that the six (6) valves listed above are the only safety related valves which could require corrections due to this potential significant deficiency. Duquesne Light Company will modify the Westinghouse-supplied position indication wiring on each of the six safety related valves to use a torque switch input in place of the current limit switch. This change will ensure that true valve position will be provided to the operator for these six EMD gate valves. This change is expected to be completed by June, 1984.

6. ADDITIONAL REPORTS

This is the final report.