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October 29, 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
Supplement 1 to Potential Deficiency of Westinghouse Gate Valve
Position Indication
Significant Deficiency Report No. 83-01 Final Report

Gentlemen:

Pursuant to the requirements of 10CFR50.55(e), Supplement 1 to the Final Report on the 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

SDH/wjs
Attachment

cc: Mr. R. DeYoung, Director (3) (w/a)
Mr. B. K. Singh, Project Manager (w/a)
Mr. G. Walton, NRC Resident Inspector (w/a)
NRC Document Control Desk (w/a)

SUBSCRIBED AND SWORN TO BEFORE ME THIS
29th DAY OF October, 1984.

Anita Elaine Reiter
Notary Public

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

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

Supplement 1 to Final Report on
Potential Deficiency of Westinghouse
Gate Valve Position Indication

1. SUMMARY

Westinghouse 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 (DLC) notified B. Crocker of the Region I office by telephone. DLC also instructed Westinghouse to continue with their investigation of the potential deficiency. DLC submitted subsequent reports in accordance with the requirements of 10CFR50.55(e) on February 11, 1983; April 29, 1983; and May 23, 1983.

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 shutoff 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:

8616	8814
8386	8888A
8889	8888B

4. ANALYSIS OF SAFETY IMPLICATIONS

Inaccurate position indication of safety-related isolation valves could result in improper system 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 completed a plant specific review for Beaver Valley Power Station Unit 2. It confirmed that the six (6) valves listed above were the only safety related valves which would require corrections due to this potential significant deficiency. DLC 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. The elementary drawings for these changes to these six valves have been issued. The revised schedule for the expected completion of the rework on these valves is December 14, 1984.

6. ADDITIONAL REPORTS

It is expected that this will be the final report to be submitted on this potential significant deficiency.