



# Duquesne Light

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October 12, 1984

United States Nuclear Regulatory Commission  
Region I  
631 Park Avenue  
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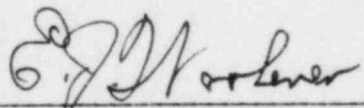
ATTENTION: Dr. Thomas E. Murley  
Administrator

SUBJECT: Beaver Valley Power Station - Unit No. 2  
Docket No. 50-412  
Potential Cracking/Breakage of the Lube Oil Pump  
Bosses on the Diesel Generators  
Significant Deficiency Report No. 84-08, Final Report

Gentlemen:

This final report is in reference to the reportable significant deficiency relating to potential cracking/breakage of the lube oil pump bosses on the diesel generators. Pursuant to the requirements of 10CFR 50.55(e), it is anticipated that no additional reports will be submitted to Region I.

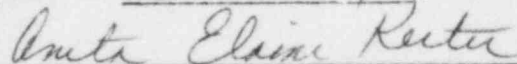
DUQUESNE LIGHT COMPANY

By   
E. J. Woolever  
Vice President

JS/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)  
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SUBSCRIBED AND SWORN TO BEFORE ME THIS  
12th DAY OF October, 1984.

  
Anita Elaine Reiter  
Notary Public

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PDR ADOCK 05000412  
S PDR

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

Report on Significant Deficiency No. 84-08  
Potential Cracking/Breakage of the  
Lube Oil Pump Bosses on the Diesel Generators

1. SUMMARY

During factory tests of the first Colt-Pielstick PC-2.3 diesel generator set, constructed for LILCO's Shoreham Nuclear Power Station, a broken boss was discovered on the engine-driven lube oil pump discharge nozzle. The engine-driven lube oil pump on the second LILCO diesel generator set was examined by Colt, and the boss area was found to be cracked. A broken/cracked boss significantly reduces the sealing area between the pump and an adapter which screws into the boss. This condition, were it to occur on the Shoreham engines or the similarly designed BVPS-2 engines (model PC-2), could permit oil leakage sufficient to prevent operation of the affected engine.

2. IMMEDIATE ACTION TAKEN

On September 24, 1984, Mr. S. D. Hall, Lead Compliance Engineer in Duquesne Light Company's (DLC) Regulatory Affairs Department, notified Mr. Lowell Tripp of NRC Region I of this reportable deficiency.

3. DESCRIPTION OF THE PROBLEM

The engine-driven lube oil pumps on certain Colt diesel generator sets (models PC-2, PC2.3, and PC-5), are supplied with a tapered thread adapter which screws into the pump boss. Overtorquing of the tapered thread adapter can result in breaking or cracking of the pump boss. Boss failures have occurred on the LILCO engines and are a potential problem for the Colt engines at BVPS-2.

4. ANALYSIS OF SAFETY IMPLICATIONS

The emergency diesel generators are required during design basis events to supply electric power to various safety-related components and ESF systems. The cracking or breaking of the lube oil pump bosses, should it occur with sufficient severity on the BVPS-2 engines, could prevent a diesel generator from performing its intended safety functions. Thus, the safe operation of the plant under design basis event conditions could be adversely affected.

5. CORRECTIVE ACTION TO REMEDY DEFICIENCY

The tapered thread adapters on the lube oil pumps of the Colt diesel generator sets at BVPS-2 will be replaced with adapters having straight threads with an undercut, thus eliminating the potential for overtorquing the threaded adapters. The threaded hole in the boss has straight threads and does not require modification. The replacement of the tapered adapters will be completed prior to fuel load.

6. ADDITIONAL REPORTS

It is anticipated that no additional reports will be issued in regards to this issue.