

Cooper Industries
Cooper-Bessemer
Reciprocating Products Division
150 Lincoln Avenue
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412 458-8000

June 15, 1995



Cooper Energy Services

Our Ref: QCG-10167

Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Enterprise
Report #167

Dear Sir:

In accordance with the requirements of the Nuclear Regulatory Commission Title 10, Chapter 1, Code of Federal Regulations, Part 21, Cooper-Bessemer Reciprocating Products Division, a division of Cooper Industries, hereby notifies the Commission of a potential defect in a component of a DSRV and DSR Enterprise Standby Diesel Generator System.

There exists a potential problem with a Bellofram Air Cylinder, Cooper part number AJ-009-000 which is used to control a butterfly valve in the diesel engine intake air system. These air cylinders are installed on all nuclear Enterprise EDG's currently in service.

<u>UTILITY</u>	<u>SITE</u>	<u>SERIAL NO.</u>	<u>MODEL</u>
LILCO	Shoreham	74010-12	DSR-48
ENTERGY	Grand Gulf	74033-34	DSRV-16-4
GULF STATES	River Bend	74039-40	DSR-48
CP&L	Shearon Harris	74046-48	DSRV-16-4
DUKE	Catawba	75017-20, 74049	DSRV-16-4
CLEVELAND ELEC	Perry	75051-54	DSRV-16-4
TVA	Bellefonte	75080-83	DSRV-16-4
TVA	Hartsville	77024	DSRV-16-4
TU ELECTRIC	Comanche Peak	76001-04	DSRV-16-4
GEORGIA POWER	Vogtle	76021-24	DSRV-16-4

INTERNATIONAL SITES

KOREA ELECTRIC	KORI 3 & 4	79029-32	DSRV-16-4
KOREA ELECTRIC	Yonggwang 1 & 2	81021-24	DSRV-16-4
TAIWAN	Kuosheng	75005-08	DSR-48
TAIWAN	Maanshan	78006-09	DSRV-16-4

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On May 16, 1995, a newly installed air cylinder failed at Grand Gulf Nuclear Station on engine S/N 74033, during their refueling outage RF07, after fewer than 12 actuations the left bank air cylinder piston/rod assembly separated which allowed the butterfly valve to go closed. With the left bank butterfly valve closed, the engine tried to maintain load with the right bank cylinders, which caused the right bank turbocharger to be overloaded and the EDG was shut down.

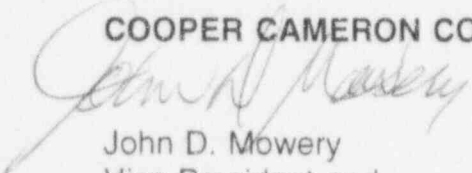
Inspection of the failed cylinder revealed that the piston/piston rod assembly had failed in the area where they were joined by projection welding. The root cause of this failure was a poor quality weld between the piston/piston rod.

Cooper-Bessemer has discussed this failure with the manufacturer of the air cylinder, Bellofram Corporation, and has reviewed their processes utilized in manufacturing and testing of the affected cylinder. Bellofram Corporation reports no known failures in other commercial applications of this type of air cylinder. Cooper-Bessemer also has no previously reported failures of this cylinder. Based on this information from Bellofram, Cooper-Bessemer has judged this failure to be an isolated incident, with no further corrective action required at affected utilities or at Cooper-Bessemer.

Our investigation into this matter was concluded on June 12, 1995. If you have any questions concerning this report, please contact Ronald G. Billig, Supervisor, Enterprise Engineering or John R. Schneider, Quality Assurance Manager at 412-458-8000.

Sincerely,

COOPER CAMERON CORPORATION



John D. Mowery
Vice President and
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JDM/kll

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