

**Crosby Valve &
Gage Company**

A Moorco Company

P.O. Box 308
43 Kendrick Street
Wrentham, Massachusetts 02093
Telephone: 617/384-3121
Telex: 924443



February 15, 1985

Director,
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Gentlemen:

During the course of a Vibration Aging and Seismic Testing Program of an EFCO-600 Series 600 Actuator manufactured by Gulf & Western Fluid Systems Division, a latch roller bearing failure was observed. The bearing is the latching roller located on the blocking lever mechanism. These tests were being conducted under a contract from Stone & Webster Engineering Corporation, the designated Architect/Engineer for Niagara Mohawk Power Corporation for the Nine Mile Point Plant. The EFCO-600 Series Actuators are quarter turn actuators used to actuate (on/off) main steam isolation valves (MSIV) that were manufactured by Gulf & Western Fluid Systems Division formerly of 25 Graystone Avenue, Warwick, RI 02886.

Subsequent to the bearing failure a static load test was conducted on an identical bearing installed in the EFCO Series 600 Actuator to determine the actual static load on the bearing. These static load tests were conducted at the Crosby Valve & Gage Company, Wrentham, Massachusetts, under contract to Stone & Webster. These tests showed that the static loads imposed on the bearing exceeded the bearing manufacturer's maximum published load for that bearing. (Torrington Bearing Design Number 28NBL4855YJ.)

Since failure of the bearing in service would render the main steam isolation valve inoperative, Crosby Valve & Gage Company and Gulf & Western Manufacturing Company have determined that, in their opinion, a probable cause for reporting under 10CFR21 exists.

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To the best of Crosby's knowledge the following is a complete list of EFCO-600 Actuators that have been manufactured and delivered:

| <u>Gulf & Western Shop Order</u> | <u>Size</u> | <u>Type</u> | <u>Owner/Location</u> | <u>Quantity</u> |
|--|-------------|-------------|---|-----------------|
| 1732 | 28" | MSIV | Consumer Power Corporation Midland Units 1 & 2 | 4 |
| 1798 | 24" | MSIV | Duquesne Power Company Beaver Valley - Unit 2 | 3 |
| 2471 | 20" | FWIV | BBC Leibstadt | 2 |
| 2473 | 24" | MSIV | BBC Leibstadt | 4 |
| 2538 | 24" | MSIV | Niagara Mohawk Power Corp. Nine Mile Point 2 | 4 |
| 2540 | 24" | MSIV | Niagara Mohawk Power Corp. Nine Mile Point 2 | 4 |

Gulf & Western Manufacturing Company of 26261 Evergreen Road, Southfield, Michigan 48076, has notified the Consumer Power Corporation, Duquesne Power Company and BBC Leibstadt of the test results and the possibility that the latch roller bearings in their actuators may be subject to failure under similar test conditions. Niagara Mohawk Power Corporation has been advised of the bearing problem by Stone & Webster.

Work has begun on the design of a new bearing and retrofit package for this application in anticipation of specific direction from Gulf & Western Manufacturing Company and Stone & Webster.

Very truly yours,



W. D. Greenlaw
Vice President - Engineering

WDG/da

Distribution List Attached

Distribution List

- cc: M. Bauer
Gulf & Western Manufacturing Company
26261 Evergreen Road
Southfield, Michigan 48076
- cc: E. Doppelt
Gulf & Western Manufacturing Company
1 Gulf & Western Plaza
New York, New York 10023
- cc: Mr. V. A. Anderson
Director of Purchasing
Consumers Power Company
212 West Michigan Avenue
Jackson, Michigan 49201
- cc: Mr. H. A. Van Wassen
Project Manager
Duquesne Light Company
435 Sixth Avenue
Pittsburgh, Pennsylvania 15219
- cc: Kernkraftwerk Leibstadt AH
CH 4353
Leibstadt, SWITZERLAND
- cc: Mr. J. T. Niezabytowski
Manager Contract Administration
Niagara Mohawk Power Corporation
300 Erie Blvd. West
Syracuse, New York 13202
- cc: R. G. Friend - Crosby
J. J. Greene - Crosby
R. T. Levis - Crosby
J. F. Walter - Crosby