

**Crosby Valve &  
Gage Company**

A Moorco Company

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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 &amp; 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