



NIAGARA MOHAWK POWER CORPORATION / 300 ERIE BOULEVARD WEST, SYRACUSE, N.Y. 13202 / TELEPHONE (315) 474-1511

March 8, 1984
(8139)

Mr. R. W. Starostecki, Director
U.S. Nuclear Regulatory Commission
Region I
Division of Project and Resident Programs
631 Park Avenue
King of Prussia, PA 19406

Re: Nine Mile Point Unit 2
Docket No. 50-410

Dear Mr. Starostecki:

Enclosed is an interim report in accordance with 10CFR50.55(e) for the problem concerning linear converters furnished by Pacific Air Products Company (55(e) - 84-07). This problem was reported via telecon to S. Collins of your staff on February 13, 1984.

Very truly yours,

C. V. Mangan

C. V. Mangan
Vice President

Nuclear Engineering & Licensing

CVM/TL:ja

Enclosure

xc: Director of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, DC 20555

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NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT UNIT 2
DOCKET NO. 50-410

Interim Report for a Problem
Concerning Linear Converters

Description of the Problem

The problem pertains to the linear converters supplied by Pacific Air Products Company for damper operation used in diesel generator building HVAC system design. The dampers are provided with electrohydraulic actuators. The converter unit converts the linear (push-pull) motion of an actuator into rotary motion. A problem concerning these linear converters was reported by Pacific Air Products Company to the Nuclear Regulatory Commission under 10CFR21 (copy attached).

The matter is still under investigation and a final report will be submitted by July 30, 1984.

10CFR PART 21 - NOTIFICATION OF CONCERN

This report is submitted by:

PACIFIC AIR PRODUCTS CO.
3133 W. Harvard Street
P.O. Box 5277
Santa Ana, CA 92704
Louis R. Hess, President

BACKGROUND

Pacific Air Products Co. has received from the Edgewater Generating Plant (Non Nuclear) a linear converter unit which shows signs of excessive wear. Analysis of the wear and a determination of its cause is underway at the present time. The preliminary analysis indicates excessive wear of the brass shaft guides on the input and output shafts.

CONCERN

The linear converter is a mechanical device that converts the linear (push-pull) motion of an ITT Electro-hydraulic actuator into rotary motion. Pacific Air Products Co. has supplied approximately 768 of these linear converters since 1978 mounted to ITT actuators on 10 nuclear plant projects and three non nuclear projects. A list of these projects is attached. (See Attachment "A".)

Some of the linear converters are used in safety-related HVAC systems. While Pacific Air Products Co. does not have any evidence of a generic defect in the linear converter, the possibility of such a defect warrants informing the users of this product.

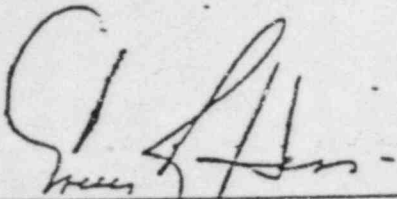
This notification is intended to assist the users in the inspection of the units in their possession. An inspection procedure is attached. (See Attachment "B".)

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ACTION

Pacific Air Products Co. is presently investigating the possible causes of the excessive wear to the linear converter. A report of this investigation will be issued within 90 days.

If you have any questions, please contact Mr. James Dodson or Mr. William Nagurski.



Louis R. Hess
President



James P. Dodson
Director of Quality Assurance

1/17/84

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ATTACHMENT "A"

UTILITY AND POWER PLANTS WITH
LINEAR CONVERTER UNITS

<u>UTILITY</u>	<u>POWER PLANT</u>	<u>NO. OF CONVERTERS</u>
Commonwealth Edison Co.	Byron Nuclear Station ✓	165
Commonwealth Edison Co.	Braidwood Nuclear Sta. ✓	157
Public Service Company of Indiana	Marble Hill Nuclear Generating Station	185
Illinois Power Company	Clinton Nuclear Station ✓	106
Niagara Mohawk Power Corporation	Nine Mile Point Unit 2	12
Virginia Electric & Power Company	Surrey Power Station ✓	6
Duke Power Company	Catawba Nuclear Station ✓	35
Cleveland Electric Illuminating Co.	Perry Nuclear Station ✓	52
Consumers Power Company	Midland Power Station ✓	21
Wisconsin Power & Light	Edgewater Generating Plant	31
Wisconsin Power & Light	Columbia Generating Plant	4
Exxon Nuclear Idaho, Inc.	6th Calcined Storage Bins (INEL)	1

ATTACHMENT "B"

LINEAR CONVERTER INSPECTION PROCEDURE

PURPOSE

To determine if excessive wear is visible on linear converter components.

PROCEDURE

1. Inspect actuator to linear converter mounting and coupling. All connections should be tight and aligned.
2. Visually inspect the linear converter input shaft (this is the 3/4" diameter rod that is connected to the ITT actuator.) The input shaft passes through brass shaft guides at the top and bottom of the linear converter. Be sure that the input and output shafts on the linear converter are:
 - A. Clean and free from dirt.
 - B. Unpainted.
 - C. Lubricated with either grease or medium grade oil.
3. If possible, energize the actuator and observe the linear converter. The action should be smooth, with no binding of parts.

IF SUSPECT UNIT IS IDENTIFIED

1. Note damper I.D. number and size of damper.
2. Note actuator Model Number and I.D. number.
3. Note actuator mounting position - horizontal or vertical.
4. Note date of initial service.

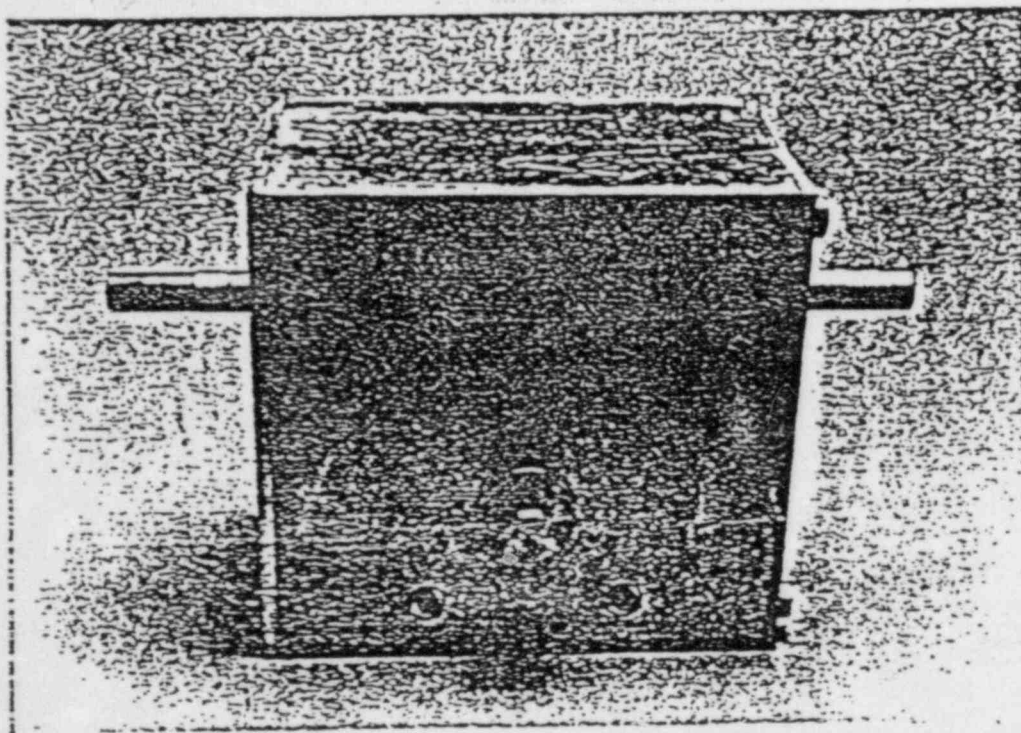
(2)

TRANSMIT INFORMATION TO:

PACIFIC AIR PRODUCTS CO.
3133 W. Harvard Street
P.O. Box 5277
Santa Ana, CA 92704

Attention: Mr. James Dodson
Director of Quality Assurance

Telephone: 714/557-1710



LINEAR CONVERTER