

CATEGORY 1

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 FITZPATRICK, E.E American Electric Power Co., Inc.
 RECIP.NAME RECIPIENT AFFILIATION
 Document Control Branch (Document Control Desk)

SUBJECT: Part 21 rept re Limitorque torque assembly used in SMB-00
 valve actuators that were missing spacer. Replaced or
 repaired defective assemblies by addition of spacer.

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Indiana Michigan
Power Company
500 Circle Drive
Buchanan, MI 49107 1395



April 9, 1997

AEP:NRC:0971H
10 CFR 21

Docket Nos.: 50-315
50-316

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

Gentlemen:

Donald C. Cook Nuclear Plant Units 1 and 2
10 CFR 21 REPORT CONCERNING TORQUE SWITCH ASSEMBLIES

In accordance with 10 CFR 21.21(c)(4), Indiana Michigan Power provides notification of defective torque switch assemblies received from Limitorque Corporation.

Initial notification of this matter was provided by facsimile to the NRC Operations Center in accordance with 10 CFR 21.21(c)(3) on March 10, 1997.

The information required by 10 CFR 21 is provided in attachment 1 to this letter.

Sincerely,

A handwritten signature in cursive script, appearing to read 'E. E. Fitzpatrick'.

E. E. Fitzpatrick
Vice President

SWORN TO AND SUBSCRIBED BEFORE ME

THIS 9th DAY OF April, 1997

A handwritten signature in cursive script, appearing to read 'Jan Watson'.

Notary Public

My Commission Expires _____

JAN WATSON

vlb

NOTARY PUBLIC, BERRIEN COUNTY, MI
MY COMMISSION EXPIRES FEB. 10, 1999

Attachments

c: A. A. Blind
A. B. Beach
MDEQ - DW & RPD
NRC Resident Inspector
J. R. Padgett

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PDR ADDCK 05000315
S PDR



IE 19 1/1



ATTACHMENT TO AEP:NRC:0971H

- (i) Name and address of the individual informing the Commission:

E. E. Fitzpatrick
Vice President
Indiana Michigan Power Company
500 Circle Drive
Buchanan, MI 49107

- (ii) Identification of the facility which fails to comply or contains a defect:

Donald C. Cook Nuclear Plant, Unit 2
Indiana Michigan Power

- (iii) Identification of the firm constructing the facility or supplying the basic components which contain a defect:

Limitorque Corporation
5114 Woodall Road
Lynchburg, VA 24506

- (iv) Nature of the defect and the safety hazard which is created or could be created by such defect:

The double pole torque switch assembly used in SMB-00 valve actuators was missing a spacer. The missing spacer allowed the torque switch shaft to rotate slightly along the shaft length. This shaft rotation allowed the torque switch contacts to open. With the closed torque switch contacts open, the actuator control circuit would not allow the actuator to run in the closed direction, and therefore would not allow the valve to fully close. The actuator control circuit used only the closed set of contacts and therefore the open operation is not affected.

The seven assemblies supplied by Limitorque were placed in open stock, available for use in the next valve requiring replacement. Therefore, the three torque switch assemblies in open stock could have been used in any number of safety related applications with unknown results. The failures in the four valves in which they were installed did not result in any safety impact. However, this could not be guaranteed for all other SMB-00 valve actuators in the plant due to the large variety of applications for the assembly. Because it is not possible to definitively evaluate all possible applications for significant safety hazard, it was conservatively decided to submit this event as a Part 21.

- (v) The date on which the information of such defect was obtained:

March 10, 1997

- (vi) In the case of a basic component which contains a defect, the number and location of all such components in use at the facility subject to the regulations in this part:

The double pole torque switch is a standard configuration for Indiana Michigan Power and is used extensively at the Cook Nuclear Plant in SMB-00 actuators.

Seven defective torque switch assemblies were received from the manufacturer, only four of which were installed. These assemblies were installed in valves 2-WMO-728, 1-WMO-724, 2-MMO-421, and 2-CMO-415.

With the exception of 2-CMO-415, all the valves in which the defective assemblies had been installed had either an "open" safety function (2-WMO-728 and 1-WMO-724) or were a balance of plant valve (2-MMO-421), and thus their operability was not in question.

2-CMO-415 was originally declared inoperable when the problem with the torque switch assembly was discovered and an ENS notification made. During the investigation of that event, an operability evaluation was performed for 2-CMO-415. The valve was found to have been successfully tested under dynamic conditions during the September 1966 to January 1997 interval and it was determined that the defective torque switch assembly would not have kept the valve from performing its design basis function of closing. Therefore, the valve had never been inoperable. The ENS notification for 2-CMO-415 was retracted on February 22, 1997.

- (vii) The corrective action which has been, is being, or will be taken; the name of the individual or organization responsible for the action; and the length of time that has been or will be taken to complete the action:

All four of the defective assemblies that were installed have either been replaced or repaired by addition of a spacer.

The three defective assemblies that were never installed were returned to Limitorque on March 10, 1997. These assemblies will be evaluated by Limitorque to determine the cause of the defect. Limitorque has stated that they will also be performing failure mode analysis on the defective assemblies.

- (viii) Any advice related to the defect that has been, is being, or will be given to purchasers or licensees:

None.