

# REGULATOR INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8709020271 DOC. DATE: 87/08/26 NOTARIZED: NO DOCKET #  
 FACIL: 50-315 Donald C. Cook Nuclear Power Plant, Unit 1, Indiana & 05000315  
 50-316 Donald C. Cook Nuclear Power Plant, Unit 2, Indiana & 05000316  
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 ALEXICH, M. P. Indiana & Michigan Electric Co.  
 RECIP. NAME RECIPIENT AFFILIATION  
 MURLEY, T. E. Document Control Branch (Document Control Desk)

SUBJECT: Part 21 rept re defective torque switches for SMB-000 valve motor operator supplied to plant by Limitorque Corp.  
 Initially reported on 870821. Caused by inadequate design of double torque switch. Defective switches replaced.

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# INDIANA & MICHIGAN ELECTRIC COMPANY

P.O. BOX 16631  
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August 26, 1987  
AEP:NRC:0971D

Donald C. Cook Nuclear Plant Units 1 and 2  
Docket Nos. 50-315 and 50-316  
License Nos. DPR-58 and DPR-74  
10 CFR 21 NOTIFICATION: INADEQUATELY DESIGNED  
TORQUE SWITCHES IN VALVE MOTOR OPERATORS

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

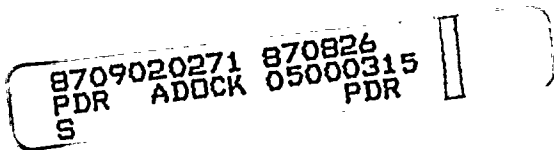
Attn: T. E. Murley

Dear Dr. Murley:

Pursuant to 10 CFR 21, this letter is being submitted to provide written notification of the existence of a defect associated with torque switches for the SMB-000 operator supplied to the D. C. Cook Nuclear Plant by the Limitorque Corporation via Hammel-Dahl & Jamesbury Controls Company. Initial notification was made in a telephone conversation between representatives of the American Electric Power Service Corporation and Mr. D. C. DiIanni of the NRC Office of Nuclear Reactor Regulation on August 21, 1987.

On August 13, 1987, a Limitorque torque switch on one of the DC auxiliary feedwater regulating valve operators (SMB-000) shorted during MOVATS (motor-operated valve analysis and testing system) testing. After the torque switch failed, the failure was analyzed by American Electric Power personnel, and on August 21, 1987, it was concluded that the switch failure was sufficient to cause a potential safety hazard. This was based on the fact that failure of the switch could leave the safety-related valve incapable of remotely changing position (electrically). During procurement of the torque switches for the auxiliary feedwater regulating valves, we requested a double pole, double torque switch for the SMB-000 operator; therefore, the supplied torque switch was not of standard Limitorque design.

The standard SMB-000, double torque switch, breaks one set of series connected contacts in the opening rotation and a second set in the closing rotation. The double break, single pole switches were modified at Limitorque by removing the jumper straps between the series connected contacts. Removal of the jumper straps provides four separate terminations for each torque rotation, thus producing a double pole, double torque switch design.



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We have procured new torque switches of the standard design in order to replace the defective switches. Control circuitry for the motor operators involved have been revised to allow the standard SMB-000 torque switch design.

We are not aware of other facilities or activities subject to 10 CFR 21 to which these switches have been supplied.

This document has been prepared following Corporate procedures which incorporate a reasonable set of controls to insure its accuracy and completeness prior to signature by the undersigned.

Very truly yours,



M. P. Alexich  
Vice President

cm

cc: John E. Dolan  
W. G. Smith, Jr. - Bridgman  
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