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SUBJECT: Part 21 rept re environ qualification of torque switches.

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Donald C. Cook Nuclear Plant Units Nos. 1 and 2
Docket Nos. 50-315 and 50-316
License Nos. DPR-58 and DPR-74
ENVIRONMENTAL QUALIFICATION OF TORQUE SWITCHES

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

Attn: T. E. Murley

April 4, 1988

Dear Dr. Murley:

This letter provides a written report confirming the telephone conversation of March 30, 1988, between Indiana Michigan Power and the NRC Operations Center, regarding notification made pursuant to Title 10 CFR Part 21.

On March 30, 1988, American Electric Power Service Corporation received notification from Limitorque Corporation that the torque switch design employed on some valve operators in use at Cook Nuclear Plant have not been qualification tested for nuclear safety related service. These valve operators are Limitorque Model SMB-00 that incorporate a design used during the first few years this model was produced.

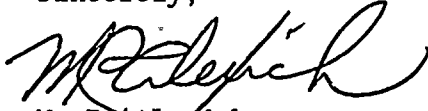
Based on our evaluations, which considered the lack of torque switch qualification tests, we believe that safe plant operation will continue to be maintained.

Additional details are included in the attachment. For further details on clarification, Mr. Paul A. Barrett, Manager, Nuclear Safety and Licensing, can be reached at 614/223-2040.

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

Sincerely,



M. P. Alexich
Vice President

eh

Attachment

cc: D. H. Williams, Jr.
W. G. Smith, Jr. - Bridgman
R. C. Callen
G. Bruchmann
G. Charnoff
NRC Resident Inspector - Bridgman
A. B. Davis - Region III

INDIANA MICHIGAN POWER
DONALD C. COOK NUCLEAR PLANT

Attachment to 10 CFR 21 Letter

Environmental Qualification of Torque Switches

Background and Discovery of Defect

Acceptable types of materials used in the switch body and dielectric of Limitorque valve operators were presented as a portion of environmental qualification training given to plant personnel. This training identified the acceptable types of torque switch materials to be limited to white melamine, brown fibrite, and red or black durez. Plant maintenance personnel recalled a fourth type of material (also brown in color) used in installed Model SMB-00 valve operators. The material appears to be a laminated phenolic. These switches can be mistaken for the qualified fibrite switches because of their brown color. Thus, the potential exists for torque switches which have not been qualification tested.

A review of Limitorque Model SMB-00 valve operators in use at Cook Nuclear Plant revealed a total of 70 such operators. Condition Report (Deficiency Report) 12-3-88-0450 was initiated on March 25, 1988 to investigate the qualification of these valve operators.

A suspect torque switch was sent to Limitorque Corporation and was analyzed. The Limitorque Corporation review revealed that this torque switch design (1) was used during the first few years Model SMB-00 was produced and (2) has not been qualification tested for nuclear safety related service. Notification of this finding was received by American Electric Power Service Corporation on March 30, 1988.

Corrective Action

The untested torque switches will either be replaced during the next respective Unit 1 and Unit 2 refueling outages or the existing torque switch design will be confirmed to be qualified by an acceptable test.

Locations of Torque Switches

Limitorque Model SMB-00 valve operators using the untested laminated phenolic material in the torque switch design are potentially installed on the following Cook Nuclear Plant valves:

<u>Valve Number</u>	<u>Unit(s)</u>	<u>Description</u>	<u>Original Supplier</u>
CMO-419	1 and 2	CCW from RHR Heat Exchanger	Centerline
CMO-429	1 and 2	CCW from RHR Heat Exchanger	Centerline
IMO-212	1 and 2	CTS Pump Eductor/Mini Flow	Wallworth
IMO-222	1 and 2	CTS Pump Eductor/Mini Flow	Wallworth
ICM-260	2	SI Pump Discharge	Wallworth
ICM-265	2	SI Pump Discharge	Wallworth
IMO-262	1 and 2	SI Pump Mini Flow/RWST Return	Westinghouse
IMO-263	1 and 2	SI Pump Mini Flow/RWST Return	Westinghouse
IMO-270	1 and 2	SI Pump Discharge Cross-Tie	Wallworth
IMO-275	1 and 2	SI Pump Discharge Cross-Tie	Wallworth
IMO-312	1 and 2	RHR Pump Mini Flow	Westinghouse
IMO-322	1 and 2	RHR Pump Mini Flow	Westinghouse
IMO-314	1 and 2	RHR Pump Discharge Cross-Tie	Anchor Darling
IMO-324	1	RHR Pump Discharge Cross-Tie	Westinghouse
IMO-324	2	RHR Pump Discharge Cross-Tie	Anchor Darling
IMO-320	1 and 2	RHR Pump Suction from RWST	Westinghouse
IMO-330	1 and 2	RHR Sprays	Wallworth
IMO-331	1 and 2	RHR Sprays	Wallworth
IMO-360	1 and 2	SI/CCP Suction Cross-Tie	Westinghouse
IMO-361	1 and 2	SI/CCP Suction Cross-Tie	Westinghouse
IMO-362	1 and 2	SI/CCP Suction Cross-Tie	Westinghouse
IMO-910	1 and 2	CCP Suction From RWST	Westinghouse
IMO-911	1 and 2	CCP Suction from RWST	Westinghouse
MCM-221	1 and 2	Main Steam to AFW Terry Turbine	Rockwell
MCM-231	1 and 2	Main Steam to AFW Terry Turbine	Rockwell
NMO-151	1 and 2	Pressurizer PORV Block Valve	Westinghouse
NMO-152	1 and 2	Pressurizer PORV Block Valve	Westinghouse
NMO-153	1 and 2	Pressurizer PORV Block Valve	Westinghouse
QCM-250	1 and 2	RCP Seal Return	Westinghouse
QMO-225	1 and 2	CCP Mini Flow	Westinghouse
QMO-226	1 and 2	CCP Mini Flow	Westinghouse
VMO-101	1 and 2	CEQ Fan Suction (H ₂ Skimmer)	Fisher
VMO-102	1 and 2	CEQ Fan Suction (H ₂ Skimmer)	Fisher
WMO-721	1	Diesel Generator After Coolers ESW	Centerline
WMO-722	2	Diesel Generator After Coolers ESW	Centerline
WMO-723	1	Diesel Generator After Coolers ESW	Centerline
WMO-724	2	Diesel Generator After Coolers ESW	Centerline
WMO-725	1	Diesel Generator After Coolers ESW	Centerline
WMO-726	2	Diesel Generator After Coolers ESW	Centerline
WMO-727	1	Diesel Generator After Coolers ESW	Centerline
WMO-728	2	Diesel Generator After Coolers ESW	Centerline