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MEMORANDUM FOR: Thomas M. Novak, Director
Division of Safety Programs
Office for Analysis and Evaluation
of Operational Data

FROM: Jack E. Rosenthal, Chief
Reactor Operations Analysis Branch
Division of Safety Programs
Office for Analysis and Evaluation
of Operational Data

SUBJECT: SUMMARY OF THE MARCH 31, 1988 NUMARC - NRC MEETING
ON MOTOR OPERATED VALVE PERFORMANCE

The NRC staff met with representatives from NUMARC, INPO, NMAC (EPRI), and the nuclear industry on March 31, 1988 in Washington, D.C., to receive an information briefing about the industry program to address motor operated valve (MOV) performance and reliability problems. This was a followup meeting to understand the progress of the industry program in response to the EDO request in December 1986. This memorandum provides a summary of the meeting. Enclosure 1 is a list of meeting attendees. Enclosure 2 is the meeting agenda.

The NMAC effort, under the direction of a Technical Advisory Group (TAG), involves development of a Maintenance Guide (Repair Standard) and an Application Guide. The preparation of the documents is being done by two separate companies under contract to NMAC (EPRI). The Maintenance Guide has been under development since September 1987. It was reported that the TAG meeting on March 31, 1988 resulted in several suggestions for revisions to the draft. The draft has more than twenty sections addressing areas such as torque/limit switch setup, basic electrical control, design considerations for actuator and motor sizing, environmental qualification data, preventive maintenance evaluation, equipment inspection, predictive maintenance, actuator failure modes, failure analysis to determine cause and corrective action, and preoperational/post-maintenance testing. Completion of the Maintenance Guide

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is planned soon after a final review of the draft scheduled for early June 1988. NMAC will publish and distribute the document. It is planned that the Maintenance Guide will be maintained and updated as needed.

The Application Guide is in the initial planning phase. The contractor has established a scope of issues to be addressed. Major engineering issues are matching the valve to system requirements, matching the operator to valve and system requirements, and establishing operator settings from the valve and system requirements. An initial draft is scheduled for late summer 1988. Copies of the viewgraphs of the NMAC presentation are provided in enclosure 3.

The INPO effort addresses the following areas:

- ° Importance of Proper MOV Performance Stressed to Utility Senior Nuclear Managers.
- ° Additional Emphasis on MOV Maintenance During Evaluation and Assistance Visit.
- ° Verify implementation of SGCR 83-9 on Maintenance, Training, and Testing.
- ° Apprise Maintenance Personnel of MOV Problems and Solution Techniques.
- ° Identify Good MOV Performance and Communicate Lessons Learned.

A letter to senior utility management to highlight MOV problems and stress the importance of resolution to assure MOV performance was issued by INPO in September 1987. In addition, INPO Evaluation and MAFT visits have included an extra emphasis for 2 to 3 days to review MOV programs. INPO has visited approximately 27 plants, including two with E. Brown, AECD, as an observer, as part of this increased attention for MOVs. Visits to plants with good MOV programs have identified that some attributes of a good program include issues such as MOV program control (including interface between departments), design review, design control, procedures, training and qualification, program/testing implementation, preventive maintenance, and a

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spare parts program. INPC plans to issue a communication this year (1988) to identify elements of a good MOV program. The MOV reviews at operating plants will be continued as part of the INPC evaluation and MART visit. Also, a maintenance managers workshop is planned for October 1988. Copies of the viewgraphs of the INPC presentation are provided in enclosure 4.

The NPC staff indicated they plan to meet to review the overall NUMARC (industry) MOV program with respect to various staff programs. The intent is that the staff and NUMARC efforts will be complementary.

Jack E. Rosenthal, Chief, ROAB, DSP, AEOD

cc w/enclosures:

All Attendees

E. Jordan

G. Arlotto

J. Partlow

L. Shao

V. Stello

E. Beckjord

T. Murley

J. Snizek

T. Martin

J. Taylor

J. Grace

W. Russell

A. Davis

R. Martin

J. Martin

M. Taylor

ACRS

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ENCLOSURE 1

NUMARC - NRC MEETING ON MOVs

<u>NAME</u>	<u>ORGANIZATION</u>
Earl J. Brown	NRC/AEOD
L. B. Marsh	NRC/NRR/DEST
Carl H. Berlinger	NRC/NRC/DOEA
J. Heltemes	NRC/AEOD
E. Jordan	NRC/AEOD
T. Novak	NRC/AEOD
J. Rosenthal	NRC/AEOD
George Davis	Bishop, Cook, Percell & Renolds
Boyd Brooks	EPRI
Robert J. McPherson	SCE-SONGS 1-2-3
Armando Masciantonio	NRR/EMEB
W. S. Former	NRC/RES
G. H. Weidenhamer	NRC/RES
Jeff Jacobson	NRC/NRR
Robert Baer	NRC/PES
Frank Cherny	NRC/RES
Robert Bosnak	NRC/RES
Richard J. Kiessel	NRC/NRR
Owen Rothberg	NRC/RES
Pich E. Webb	NUMARC
Jim Lang	EPRI
Jim Tills	INPO
Victor Benaroya	NRC/AEOD
T. Branman	WEPCO
Dan Waising	Limitorque
Brian Curry	Phil. Electric Co.

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ENCLOSURE 2

MEETING AGENDA

MOTOR-OPERATED VALVE PERFORMANCE

H STREET NRC BUILDING, WASHINGTON, D.C.

MARCH 31, 1988

3:30 - 5:30 PM

Opening Remarks	Joe Colvin, NUMARC Rich Enkeboll, NUMARC
EPRI Initiatives	Jim Lang, EPRI
INPO Initiatives	Jim Tills, INPO
NRC Activities	Earl Brown, NRC AEOD
Discussion	

FACSIMILE TRANSMISSION

TO: RICH ENKE BOLL 785-1898

FROM: EARL BROWN

DATE 5/3/88

TIME _____

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