

SEP 03 1991

MEMORANDUM FOR: James M. Taylor
Executive Director for Operations
FROM: Edward L. Jordan, Chairman
Committee to Review Generic Requirements
SUBJECT: MINUTES OF CRGR MEETING NO. 209

The Committee to Review Generic Requirements (CRGR) met on Tuesday, August 27, 1991, from 8:00 a.m. - 12:10 p.m. A list of attendees at the meeting is enclosed (Enclosure 1). The following items were discussed at the meeting.

1. The Committee reviewed a proposed generic letter transmitting to power reactor licensees for information the case study, NUREG-1275 Vol. 6, "Operating Experience Feedback Report on Solenoid-Operated Valve Problems". The CRGR endorsed issuance of the generic subject to several minor revisions to be coordinated with the CRGR staff. This matter is discussed in Enclosure 2.
2. The Committee reviewed a proposed generic letter to alert power reactor licensees to the forthcoming NRC effort to upgrade the agency's emergency telecommunications system (ETS). The CRGR endorsed issuance of the generic letter subject to minor clarifications to be coordinated with the CRGR staff. This matter is discussed in Enclosure 3.
3. The Committee reviewed a proposed Supplement to Generic Letter 88-01, "NRC Position on IGSCC in BWR Austenitic Stainless Steel Piping", to modify the augmented inspection guidance contained in the earlier generic letter. The Committee endorsed issuance of the supplement subject to minor revisions to be coordinated with the CRGR staff. This matter is discussed in Enclosure 4.

In accordance with the EDO's July 18, 1983 directive concerning "Feedback and Closure of CRGR Review," a written response is required from the cognizant office to report agreement or disagreement with CRGR recommendations in these minutes. The response is to be forwarded to the CRGR Chairman and if there is disagreement with CRGR recommendations, to the ED for decision making.

Questions concerning these minutes should be referred to James H. Conran (492-9855).

[Signature]
Edward L. Jordan, Chairman
Committee to Review Generic
Requirements

Enclosures: As stated

cc: Next page

[Signature]
JH Conran
8/31

CRGR: AEOD
DPAN/ison
8/ /91

DD: AEOD
DFRoss
8/ /91

[Signature]
G: CRGR/AEOD
EL Jordan
9/3/91

DF03
1/1

Docname: CRGR. 209

310309

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PDR REVGP NRGRGR
MEETING209 PDR

9406070128

cc:w/enclosures

- Commission (5)
- SECY
- J. Lieberman
- P. Norry
- D. Williams
- R. Fraley
- Regional Administrators
- CRGR Members
- C.E. Rossi
- B.D. Liaw
- R.L. Spessard

Distribution:

- Central File w/o encl.
- PDR(NRC/CRGR) w/o encl.
- RGR C/F
- CRGR S/F
- J. Sniezek
- M. Taylor
- D. Ross
- D. Allison
- J. Conran
- P. Kruzic
- T. Novak
- A. Chaffee
- R. Priebe
- R. Wessman
- T. Kellam
- W. Koo
- C. Berlinger
- P. Cota
- P. Kadambi
- R. Emrit

JH
 CRGR/AEOD
 JH Conran
 8/30/91

DP
 CRGR:AEOD
 DP Allison
 8/ /91

DD:AEOD
 DFRoss
 8/ /91

DP
 C: CRGR/AEOD
 EJ Jordan
 9/3/91

ATTENDANCE LIST

CRGR Meeting No. 209

August 27, 1991

CRGR Members

D. Ross (for E. Jordan)
F. Miraglia
R. Burnett (for G. Arlotto)
B. Sheron
J. Moore
J. Callan

CRGR Staff

J. Conran

NRC Staff

C.E. Rossi
A. Chaffee
T. Novak
H. Ornstein
R. Dennig
J. Carter
D. Chamberlain
S. Long
S. Mays
T. Rotella
W. Jones
P. Kadambi
P. Kruzic
R. Wessman
T. Kellam
R. Priebe
G. Zech
A. Munuera
T. McLellan
C.Y. Cheng
R. Capra
E. Sullivan
S. Black
R. Clark

Enclosure 2 to the Minutes of CRGR Meeting No. 209
Proposed Generic Letter Transmitting to Licensees
NUREG-1275 Vol.6, on Solenoid Operated Valve Problems

August 27, 1991

TOPIC

C.E. Rossi (NRR) and A. Chaffee (NRR) presented for CRGR review a proposed generic letter for transmitting to licensees a recent AEOD Case Study (NUREG-1275 Vol.6) on Solenoid-Operated Valve Problems. The letter was proposed as a non-requirements generic letter, i.e., no backfits were to be imposed on licensees and no specific licensee response of any kind was to be required. The briefing slides used by the staff in presenting and discussing this item with the Committee are enclosed (see Attachment).

BACKGROUND

1. The proposed generic letter submitted for CRGR review in this matter was transmitted by memorandum, dated July 26, 1991, F.J. Miraglia to E.L. Jordan. Since the proposed action did not involve backfitting or require any specific response to NRC, no other supporting documentation was submitted for review.
2. The CRGR staff provided additional documents to Committee members for information in their consideration of this item, as follows:
 - a. NUREG-1275 Vol.6, dated February 1991, "Operating Experience Feedback Report - Solenoid-Operated Valve Problems";
 - b. Equipment Qualification Group comments, dated March 6, 1991, on draft NUREG-1275 Case Study;
 - c. Memorandum dated April 30, 1991, Long to Baranowsky, on risk implications of SOV Case Study;
 - d. Memorandum dated May 13, 1991, Murley to Jordan, regarding NRR assessment of need for regulatory action on SOV problems;
 - e. BWR Owners' Group letter, dated July 31, 1991, regarding proposed Supplement to Generic Letter 88-01.

RECOMMENDATIONS/CONCLUSIONS

As a result of their review of this matter, the Committee recommended in favor of issuing the proposed generic letter, subject to incorporation of several minor revisions given below. The Committee agreed with the NRR staff view that no need for new NRC staff positions or new requirements had been demonstrated by the information presented in the AEOD Case Study; but the report does provide a comprehensive and integrated treatment of SOV experience and useful

insights into root causes of those problems. The Committee felt that the report will be a very useful tool for both licensees and NRC inspectors to help focus on remaining SOV problems; and transmitting the report via generic letter will provide appropriate emphasis on NRC's concerns regarding the need for added attention by the industry to remaining SOV problems.

Specific modifications to the draft Supplement recommended by the Committee are as follows:

1. At p. 1 of the draft Supplement, move the third, fourth, and fifth sentences of the first paragraph into a new second paragraph; and revise the third and fourth sentences to read as follows:

"In the study, several events are described in which SOV failures affected redundant safety components, multiple trains of safety systems or multiple safety systems. Three of the most significant events were isolated occurrences involving the failure to close of...and simultaneous failure of several BWR control rods to insert."

2. Move the first paragraph on the second page of the draft Supplement into the new second paragraph on p.1; and revise the first sentence of the original paragraph to read as follows:

"The NRC is concerned about the reliability of SOVs used in safety applications. As part of NRC's ongoing regulatory activities, inspections such as Safety System Functional Inspections (SSFIs) include the reliability of SOVs as well as other components required by safety-related applications."

3. Revise the beginning of the second paragraph on p.2 of the draft Supplement to read as follows:

"No specific action or written response is required by this generic letter. However, it is expected that recipients... to avoid similar problems."

All changes made to the package in response to CRGR comments and recommendations are to be coordinated with the CRGR staff, prior to issuance of the generic letter supplement.

CRGR MEETING
AUGUST 27, 1991

TOPIC: SOLENOID-OPERATED VALVE PROBLEMS

*Attachment to
Enclosure 2*

*Mtg 209
Chair - NER*

SOLENOID OPERATED VALVES

NUMEROUS POTENTIAL COMMON-MODE AND REPETITIVE FAILURES REPORTED

AEOD REQUESTED (2/88) TO STUDY CAUSE AND SAFETY SIGNIFICANCE

DRAFT REPORT ISSUED (6/90) FOR PEER COMMENTS

FINAL REPORT AVAILABLE (11/90) - NUREG 1275 VOL 6

INSTANCES OF MULTIPLE SOV FAILURE OR DEGRADATION DISCUSSED

INTER RELATION OF ROOT CAUSES PRESENTED

MANY SYSTEMS IMPACTED

RECOMMENDATIONS

SAFETY SIGNIFICANCE

WIDELY USED - MANY 100s/PLANT

SAFETY RELATED SYSTEMS + SUPPORT SYSTEMS

OPERABILITY SENSITIVE TO ENVIRONMENT

SERVICE LIFE SHORTER THAN EXPECTED

IMPROPER APPLICATION

INADEQUATE SURVEILLANCE

UNRECOGNIZED FAILURES

PROPOSED NRC ACTION

ISSUE GENERIC LETTER (FOR INFORMATION ONLY)

PROVIDES AEOD REPORT

STRESSES WIDE USE OF SOVs

FLAGS IMPORTANT USES

EMPHASIZES POTENTIAL VULNERABILITY TO COMMON MODE FAILURE

PROVIDES BROAD EVALUATION OF USES AND CAUSE OF FAILURE

PROVIDES SYNERGISTIC ROOT CAUSES

IDENTIFIES NRC ACTIVITIES

RATIONALE FOR GENERIC LETTER (INFORMATION ONLY)

PRIOR COMMUNICATIONS HAD NARROW SCOPE

AEOD REPORT FIRST BROAD DISCUSSION

NO NEW SPECIFIC REQUIREMENTS IDENTIFIED

RISK ANALYSIS IS NOT SUFFICIENT TO SUPPORT NEW REQUIREMENTS

REQUIRING NEW LICENSEE PROGRAMS NOT COST EFFECTIVE

ROUGH ESTIMATE OF BURDEN PER LICENSEE*

ACTIONS OF NUREG 1275 VOL 6

\$450K + \$45K/YR

ASSESS MSIV AND DIESEL STARTING SYSTEMS

\$75K + \$8K/YR

LICENSEE ASSESSMENT OF GENERIC LETTER

\$20K + \$2K/YR

*PLANT AVAILABILITY SAVINGS NOT INCLUDED

RECENT SOV EVENTS

- 8/25/91 PEACH BOTTOM 2 - ESW PLUS OTHER SYSTEMS
REPETITIVE FAILURES - MECHANICAL AGITATION
- 8/9/91 CALVERT CLIFFS 1 & 2 - SERVICE WATER/SALT WATER COOLING
ASCO ERROR - Cv (INDUSTRY - WIDE)
MANUFACTURING ERRORS (2 SETS OF 20 SOVs)
- 7/23/91 BRAIDWOOD 1 - FWIVs
3 OF 8 SOVs FAILED
ROOM HEATING/AGING
- 6/3/91 BRUNSWICK 1 & 2
MULTIPLE CONTAINMENT ISOLATION VALVES
SAME VALVES FAILED 1/88
- 4/16/91 OCONEE 2
3/28/91 COMANCHE PEAK
7/9/90 HADDAM NECK
- } SINGLE, NON-SAFETY, NON-MAINTAINED COMMERCIAL SOV
COULD CAUSE LOSS OF HPI SYSTEM

POWER REACTOR

EVENT NUMBER: 21704

FACILITY: PEACH BOTTOM	REGION: 1	NOTIFICATION DATE: 08/25/91
UNIT: [] [3] []	STATE: PA	NOTIFICATION TIME: 17:24 [ET]
RX TYPE: [2] GE-4, [3] GE-4		EVENT DATE: 08/25/91
		EVENT TIME: 14:15 [EDT]
NRC NOTIFIED BY: R MCKINLEY		LAST UPDATE DATE: 08/25/91
HQ OPS OFFICER: JOHN MacKINNON		

EMERGENCY CLASS: NOT APPLICABLE
 10 CFR SECTION:
 AIND 50.2(b)(2)(iii)(D) ACCIDENT MITIGATION

NOTIFICATIONS
 PAUL SWETLAND RDO

UNIT	SCRAM CODE	RX CRIT	INIT PWR	INIT RX MODE	CURR PWR	CURR RX MODE
3	N	Y	96	POWER OPERATION	96	POWER OPERATION

EVENT TEXT

FOR A SHORT TIME, HPCI & RCIC ESSENTIAL SERVICE WATER (ESW) ROOM COOLERS WERE FOUND TO BE INOPERABLE DURING SURVEILLANCE TESTING.

"B" HPCI ESW ROOM COOLER & "A" RCIC ESW ROOM COOLER WERE BLOCKED (ISOLATED) SOME TIME BACK BECAUSE LICENSEE HAS PROBLEMS IN DEVELOPING ENOUGH HEAD PRESSURE IN ORDER TO MEET FLOW REQUIREMENTS TO ESW LOADS SUCH AS ESW FLOW TO THEIR EDGs.

THE LICENSEE PERFORMED SURVEILLANCE TEST, FT-0-033-410-3 (IN-SERVICE TESTING OF ESW AIR OPERATED VALVES) ON THE UNBLOCKED ESW ROOM COOLERS, "A" HPCI ESW ROOM COOLER AND ON THE "B" RCIC ESW ROOM COOLER (EACH COMPONENT HAS TWO ROOM COOLERS, "A" AND "B") TO INSURE THAT THEY WERE OPERABLE SINCE THEIR OTHER ESW ROOM COOLERS WERE BLOCKED.

THE LICENSEE FOUND THAT THE "A" HPCI ESW ROOM COOLER FAN WOULD NOT START WHEN REQUIRED BY THE SURVEILLANCE TEST PROCEDURE. ON INVESTIGATION THEY FOUND THAT THE "A" HPCI ESW ROOM COOLER FAN THERMAL LOAD BREAKER WAS OPEN AND THAT IT WAS OPEN BEFORE THEY TRIED STARTING THE FAN. THE LICENSEE DOES NOT KNOW WHY THE BREAKER WAS OPEN AND THEY ARE INVESTIGATING THIS PROBLEM. THEY CLOSED THE THERMAL BREAKER TO THE FAN IT, STARTED IT SUCCESSFULLY SEVERAL TIMES, AND CONSIDER THE FAN FULLY OPERABLE ("A" HPCI ESW ROOM COOLER IS CONSIDERED FULLY OPERABLE).

THE LICENSEE FOUND "B" RCIC ROOM COOLER ASSOCIATED AIR OPERATED VALVE FAILED TO OPEN. THE LICENSEE FOUND THE VALVE TO BE MECHANICALLY BOUND AND THEY IMMEDIATELY AGITATED THE VALVE ENOUGH SO IT WOULD OPERATE PROPERLY. THE LICENSEE HAS OPERATED THIS VALVE SEVERAL TIMES NOW AND IT OPERATES PROPERLY. THE "B" RCIC ROOM COOLER IS CONSIDERED FULLY OPERABLE.

(Continued on next page)

THE LICENSEE SAID THAT THEY HAVE HAD SEVERAL PROBLEMS WITH AIR OPERATED VALVES FAILING TO OPEN IN THE PAST ON OTHER SYSTEMS. THEY HAVE ALWAYS BEEN ABLE TO MECHANICALLY AGITATE THESE VALVES SO THEY BECAME OPERATIONAL AGAIN. THE LICENSEE WAS ASKED IF THEY HAD INCREASED THE SURVEILLANCE TESTING TIME ON THESE AIR OPERATED VALVES. HE SAID THAT, AS FAR AS HE KNEW, THE SURVEILLANCE TESTING ON THESE TYPES OF VALVES HAD NOT BEEN INCREASED. LICENSEE SAID THAT PER TECH SPEC, THEY ARE ALLOWED TO HAVE ONLY ONE ESW ROOM COOLER OPERABLE IN EACH ROOM OF HPCI & RCIC WITHOUT ANY TIME LIMITS ON HOW LONG THEIR BACKUP ESW ROOM COOLER ARE OUT OF SERVICE. LICENSEE SAID THAT THEY NEVER DECLARED HPCI OR RCIC INOPERABLE BECAUSE THEIR ROOM COOLER PROBLEMS WERE CORRECTED IMMEDIATELY UPON DISCOVERY.

THE NRC RESIDENT INSPECTOR WILL BE INFORMED BY THE LICENSEE.

ROUTING AND TRANSMITTAL SLIP

Date

5-24-94

(Name, office symbol, room number, building, Agency/Post)

Initials Date

BCS P1 37

PDR

2.

3.

4.

5.

Action	File	Note and Return
Approval	For Clearance	Per Conversation
As Requested	For Correction	Prepare Reply
Circulate	For Your Information	See Me
Comment	Investigate	Signature
Coordination	Justify	

REMARKS

This previous Central File material can now be made publicly available.

MATERIAL RELATED TO CAGR
MEETING NO. 209

CC (LIST ONLY) JEAN RATAJE,
PDR L STREET

DO NOT use this form as a RECORD of approvals, concurrences, disposals, clearances, and similar actions

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Room No.—Bldg.

DENNIS ALLISON

Phone No.

24148

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ROUTING AND TRANSMITTAL SLIP

Date

5-24-94

TO: (Name, office symbol, room number, building, Agency/Post)

Initials Date

BCS P1 37

PDR

2.

3.

4.

5.

Action	File	Note and Return
Approval	For Clearance	Per Conversation
As Requested	For Correction	Prepare Reply
Circulate	For Your Information	See Me
Comment	Investigate	Signature
Coordination	Justify	

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MEETING NO. 209

CC (LIST ONLY) JEAN RATAJE,
PDR & STRIET

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DENNIS ALLISON

Phone No.

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1/1

MATERIAL RELATED TO CRGR MEETING NO. 209
TO BE MADE PUBLICLY AVAILABLE

1. MEMO FOR J. TAYLOR FROM E. JORDAN DATED 9-3-91
SUBJECT: MINUTES OF CRGR MEETING NUMBER 209
INCLUDING THE FOLLOWING ENCLOSURES WHICH WERE NOT
PREVIOUSLY RELEASED:
 - a. ENCLOSURE 2
A SUMMARY OF DISCUSSIONS OF A PROPOSED GL Transmitting
to licensees NUREG-1275 Vol. 6 on Solenoid Operated
Valve Problems
 - b. ENCLOSURE 3
A SUMMARY OF DISCUSSIONS OF A PROPOSED GL on NRC
Upgrade of the Emergency Telecommunications System
 - c. ENCLOSURE 4
A SUMMARY OF DISCUSSIONS OF A PROPOSED Supp. to GL
88-01 to Modify Augmented Inspection Requirements
Relating to IBSCC in BWR Piping
2. MEMO FOR E. JORDAN FROM F. Meraglia DATED 7-26-91
FORWARDING REVIEW MATERIALS ON A PROPOSED GL on
SOV Problems
3. MEMO FOR E. JORDAN FROM L. Spessard DATED 8-12-91
FORWARDING REVIEW MATERIALS ON A PROPOSED GL on
Emergency Telecommunications
4. MEMO FOR E. JORDAN FROM J. Richardson DATED 8-1-91
FORWARDING REVIEW MATERIALS ON A PROPOSED Supp. to GL
88-01 "The Position on IBSCC in BWR Austenitic
Stainless Steel Piping"

