



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

August 15, 1988

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MEMORANDUM FOR: Victor Stello, Jr.  
Executive Director for Operations

FROM: Edward L. Jordan, Chairman  
Committee to Review Generic Requirements

SUBJECT: MINUTES OF CRGR MEETING NUMBER 141

The Committee to Review Generic Requirements (CRGR) met on Tuesday, July 14, 1988 from 1-4 p.m. A list of attendees for this meeting is attached (Enclosure 1). The following items were addressed at the meeting:

1. A. Thadani (NRR) presented for CRGR review a proposed Generic Letter, "Instrument Air Supply Problems Affecting Safety-Related Equipment." The Committee recommended in favor of issuing the proposed Generic Letter, subject to several modifications and minor wording clarifications (to be coordinated with the CRGR staff). This matter is discussed in Enclosure 2.
2. B. Morris (RES) and J. Telford (RES) presented for CRGR review a proposed draft rule to require college degrees for senior reactor operators. The Committee recommended that the rule not go forward at this time, but that the staff should develop additional information to better demonstrate the need or justification for such a rule. This matter is discussed in Enclosure 3.
3. W. Minners (RES) and R. Woods (RES) presented for CRGR review the proposed resolution for USI A-45, "Shutdown Decay Heat Removal Requirements." The Committee recommended in favor of adopting the proposed resolution, which would involve addressing this issue in the context of the planned Individual Plant Examinations (IPEs), subject to minor revisions to be coordinated with the CRGR staff. This matter is discussed in Enclosure 4.
4. C. E. Rossi (NRR) presented for CRGR review a proposed NRC Bulletin, "Thimble Tube Thinning in Westinghouse Reactors." The Committee recommended in favor of issuing the proposed bulletin, subject to several minor modifications (to be coordinated with the CRGR staff). This matter is discussed in Enclosure 5.

In accordance with the EDO's July 18, 1983 directive concerning "Feedback and Closure on CRGR Reviews," a written response is required from the cognizant office to report agreement or disagreement with the CRGR recommendations in

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these minutes. The response, which is required within five working days after receipt of these minutes, is to be forwarded to the CRGR Chairman and if there is disagreement with CRGR recommendations, to the EDO for decisionmaking.

Questions concerning these meeting minutes should be referred to Jim Conran (492-9855).

Original signed by  
E. J. Heltemes, Jr.

Edward L. Jordan, Chairman  
Committee to Review Generic  
Requirements

Enclosures:  
As stated

cc w/enclosures:  
Commission (5)  
SECY  
Office Directors  
Regional Administrators  
CRGR Members  
W. Parler  
B. Morris  
W. Minners  
A. Thadani  
C. E. Rossi

Distribution: w/o enc.  
Central File  
PDR (NRC/CRGR)  
S. Treby  
W. Little  
M. Lesar  
B. Doolittle (w/enc.)  
CRGR SF (w/enc.)  
CRGR CF (w/enc.)  
M. Taylor (w/enc.)  
E. Jordan (w/enc.)  
J. Heltemes (w/enc.)  
J. Conran (w/enc.)  
C. Sakenas (w/enc.)

OFC	: AEOD: CRGR	: AEOD: DD	: C/CRGR: AEOD	:	:	:	:
NAME	: J. Conran:cg	: C. Heltemes	: E. L. Jordan	:	:	:	:
DATE	: 8/03/88	: 8/15/88	: 8/18/88	:	:	:	:

Enclosure 1  
ATTENDANCE LIST  
CRGR MEETING NO. 141

July 14, 1988

CRGR

E. Jordan  
D. Ross  
R. Bernero  
T. Collins (for J. Sniezek)  
J. Goldberg  
C. Paperiello (via telecon)

NRC STAFF

A. Thadani  
J. Wermiel  
W. Minners  
W. LeFave  
P. Lam  
D. Jones  
S. W. Jones  
T. P. Gwynn  
G. Edison  
V. Hodge  
J. Wachtel  
S. Shankman  
J. Persensky  
B. Morris  
J. Telford  
M. fleishman  
P. Kadambi  
L. Lois  
T. Collins  
J. Ramsey  
M. Wegner  
C. Rossi  
W. Scott  
J. Mazetis  
C. Berlinger  
S. Hou  
R. Woods

Enclosure 2 to the Minutes of CRGR Meeting No. 141  
Proposed Generic Letter on Air System Problems

TOPIC

A. Thadani (NRR) presented for CRGR review a proposed Generic Letter, "Instrument Air Supply Problems Affecting Safety-Related Equipment," requesting that licensees and applicants (1) perform a design and operations verification of the instrument air system, and (2) consider the need for improvements based on the concerns and recommendations identified in NUREG-1275, Volume 2, "Operating Experience Feedback Report - Air Systems Problems" (distributed earlier to licensees/applicants via IN 87-28). Copies of the briefing slides used by the staff to guide their presentation and the discussion at this meeting are enclosed (see Attachment 1 to this enclosure).

BACKGROUND

The package submitted by the staff for review by CRGR in this matter was transmitted by memorandum dated May 20, 1988, J. H. Sniezek to E. L. Jordan; that package contained the following documents:

1. Draft Generic Letter (undated), "Instrument Air Supply Problems Affecting Safety-Related Equipment"; and
2. Summary of CRGR Review Package (in accordance with Section IV.B of the CRGR Charter)

The following additional document was distributed to CRGR members at the meeting and was considered by the Committee in connection with their review of this proposed action:

3. Report by Science Applications International Corporation entitled, "A Risk-Based Review of Instrument Air Systems at Nuclear Power Plants," dated June 23, 1988 (Attachment 2 to this enclosure).

CONCLUSIONS/RECOMMENDATIONS

As a result of their review of this matter, including the discussions with the staff at this meeting, the Committee recommended in favor of issuing the proposed Generic Letter, subject to several minor modifications and wording clarifications (to be coordinated with the CRGR staff), as follows:

1. The staff should include a requirement that licensees' programs adequately provide for maintaining proper instrument air quality (in addition to the one-time verification called for in the proposed Generic Letter).
2. The staff should add a caution regarding the possibility of initiating adverse systems interactions if air system testing is done "on-line," i.e., while the reactor is at power.

3. The wording of the Generic Letter should be revised to refer more generally to gas-operated (in contrast to only air-operated) components, to take into account the role of nitrogen (or other gas) filled accumulators.
4. At page 1 of the proposed Generic Letter, the word "verification" (or "confirmation") should be used consistently in specifying the actions expected of licensees, to make clear that no distinction is intended where the different words are used.
5. At page 1 of the proposed Generic Letter, in the first sentence of the bottom paragraph, change the word "requests" to "requires."
6. At page 2 of the proposed Generic Letter, in the first paragraph, the staff should reference 50.54(f) and include the appropriate "oath and affirmation" language with regard to licensees' submittals in response to this Generic Letter.

CPGR BRIEFING - PROPOSED GENERIC LETTER ON  
INSTRUMENT AIR SYSTEMS

- o BACKGROUND
  - o INSTRUMENT AIR SYSTEMS ARE ARE NONSAFETY-RELATED BUT SERVE SAFETY-RELATED COMPONENTS (VALVES)- DESIGN BASIS ASSUMES SAFETY-RELATED VALVES WILL FAIL SAFE (SRP SECTION 9.3.1)
  - o SOME PORTIONS MAY BE SAFETY-RELATED SUCH AS ACCUMULATORS PROVIDED FOR AIR OPERATED VALVES WHICH ARE REQUIRED FOR POST-ACCIDENT SYSTEM CONTROL
- o STAFF EVALUATION OF INSTRUMENT AIR SYSTEM FAILURE EVENTS/PROBLEMS
  - o AEOD CASE STUDY (C701) AND SUBSEQUENT NUREG-1275, VOL. 2 IDENTIFIES A NUMBER OF FAILURES IN AIR OPERATED COMPONENTS OVER SEVERAL YEARS DUE TO INSTRUMENT AIR SYSTEM PROBLEMS WHICH RESULTED IN PLANT TRIPS AND LOSS OR DEGRADATION OF SAFETY FUNCTIONS
    - o FAILURES DUE PRIMARILY TO AIR SYSTEM CONTAMINATION, DESIGN DEFICIENCIES AND HUMAN ERROR
    - o INFORMATION NOTICES 87-28 AND 87-28 SUPPLEMENT 1 TRANSMITTED NUREG-1275, VOL. 2 TO ALL LICENSEES/APPLICANTS
    - o AEOD IDENTIFIED FIVE RECOMMENDATIONS FOR IMPROVEMENT IN INSTRUMENT AIR SYSTEM PERFORMANCE

- o THE PROPOSED GENERIC LETTER ADOPTS FOUR OF THE FIVE AEOD RECOMMENDATIONS
  - o THE FOUR ADDRESS MOST OF THE CONCERNS IDENTIFIED IN THE AEOD EVENTS ASSESSMENT AND RELATE TO AIR SYSTEM DESIGN BASIS COMPLIANCE - NO NEW REQUIREMENTS
  - o THE FIFTH AEOD RECOMMENDATION (PERFORMANCE OF A GRADUAL LOSS OF AIR TEST) IS A NEW REQUIREMENT NEEDING FURTHER JUSTIFICATION (COST/BENEFIT)
  - o FOUR ITEMS IN PROPOSED GENERIC LETTER
    - o CONFIRM ATP QUALITY BY TEST
    - o CONFIRM AIR ACCUMULATOR DESIGN BY TEST
    - o CONFIRM ADEQUACY OF MAINTENANCE PRACTICES AND EMERGENCY PROCEDURES
    - o VERIFY DESIGN AND TEST FOR PROPER VALVE FAILURE POSITION ON LOSS OF AIR
- o ACTIONS PROPOSED IN GENERIC LETTER
  - o LICENSEE TO ADDRESS THE FOUR ITEMS WITHIN 180 DAYS - SOME TESTING CAN BE DEFERRED TO NEXT SCHEDULE REFUELING AS NECESSARY AND IDENTIFY ANY CORRECTIVE ACTIONS
  - o DOCUMENTATION TO BE RETAINED FOR 2 YEARS FOR FUTURE STAFF AUDIT
  - o TOTAL COST TO LICENSEE RANGES FROM APPROXIMATELY 5 TO 63K \$ PER PLANT DEPENDING UPON CURRENT PRACTICES (TESTING AND MAINTENANCE)