



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

OCT 14 1986

MEMORANDUM FOR: Robert Bernero, NRR  
Richard W. Starostecki, IE  
Richard E. Cunningham, NMSS  
Denwood F. Ross, RES  
Clemens J. Heltemes, Jr., AEOD  
Joseph Scinto, OGC

THRU: John E. Zerbe, Director  
Regional Operations and Generic Requirements Staff

FROM: James H. Conran  
Regional Operations and Generic Requirements Staff

SUBJECT: SUMMARY AND ISSUE IDENTIFICATION FOR CRGR MEETING NO. 98

Enclosed for your information and use is the ROGR staff summary associated with the proposed resolution of USI A-46, "Seismic Qualification of Equipment in Operating Plants." This matter is scheduled for CRGR review at Meeting No. 98 on Thursday, October 16, 1986.

James H. Conran  
Regional Operations and  
Generic Requirements Staff

Enclosure:  
As stated

cc: J. Snizek

Summary and Issue Identification  
CRGR Review Item - Meeting No. 98  
October 16, 1986

IDENTIFICATION:

Proposed resolution for USI A-46, "Seismic Qualification of Equipment in Operating Plants."

OBJECTIVE:

The CRGR is requested to review and recommend final approval of a package containing the proposed resolution for USI A-46 and the proposed method for implementation of that resolution. The package provided for review by CRGR includes, as the principal review items: 1) NUREG-1030, a report containing a summary of the work accomplished by the Nuclear Regulatory Commission staff and its contractors in studying alternative approaches to resolution of this issue, and a description of the work done by the Seismic Qualification Utility Group (SQUG) and the Senior Seismic Review Panel (SSRAP) in collecting and evaluating seismic experience data for use in resolving this issue; and 2) NUREG-1211, a report containing the staff's regulatory analysis of the costs and potential benefits associated with the proposed resolution, as well as a (draft) Generic Letter which the staff intends to use as the vehicle for actually implementing their proposed resolution.

BACKGROUND:

The package submitted initially for review by CRGR was transmitted by memorandum dated October 1, 1986, Harold R. Denton to James Sniezek; that package included the following documents:

1. ACRS Letter dated September 17, 1986 - Subject: ACRS Comments on the Resolution of USI A-46...
2. NUREG-1211, (Undated-For Internal Review Only), "Regulatory Analysis for Proposed Resolution of Unresolved Safety Issue A-46, 'Seismic Qualification of Equipment in Operating Plants'", and attachments:
  - a) Appendix A - Draft Generic Letter (undated) - Subject: Verification of Seismic Adequacy of Mechanical and Electrical Equipment in Operating Reactors, Unresolved Safety Issue (USI) A-46, with Enclosure:  
  
--- "Seismic Adequacy Verification Procedure"
  - b) Enclosure - "Operating Plants To Be Reviewed to USI A-46 Reqt's"

3. NUREG-1030, (dated August 1986, per draft Generic Letter), "Seismic Qualification of Equipment in Operating Nuclear Power Plants"

Subsequently, the following additional related documents were provided to CRGR in connection with their review of this matter:

4. "Background Information for CRGR Review of USI A-46 Resolution" (Required by CRGR Charter - Hand delivered to ROGR staff on October 8, 1986 - See attached as enclosure to this memo)
5. Letter dated September 23, 1986, Nuclear Utility Group on Equipment Qualification to James Snizek, CRGR Chairman, re: NRC Staff Proposed Resolution of Unresolved Safety Issue A-46, Seismic Qualification of Equipment in Operating Nuclear Power Plants. (Transmitted to CRGR members by memorandum dated October 10, 1986 from James Conran, ROGR Staff)

#### DISCUSSION:

The USI A-46 matter was considered earlier by CRGR at Meeting No. 71 (December 3, 1984) and at Meeting No. 78 (July 8, 1985). The staff's proposed resolution was issued for public comment on September 13, 1985; and the current version being reviewed by CRGR reflects the staff's disposition of comments received from a number of individual utilities, several industry or utility groups, and one national laboratory. Generally, the technical substance of the staff's proposed resolution has changed very little as a result of that process; in fact, the summary description provided in the Minutes for Meeting No. 78 appears to apply still almost entirely and is excerpted and attached to this Issue Sheet for the convenience of CRGR members. (see attachment to this memo). One notable exception, which is indicative of the level of continuing effort on the part of the Seismic Qualification Utility Group (SQUG) in the collection and evaluation of seismic experience data, is that each SQUG utility has spent approximately \$200K in developing the experience data base; this would correspond to a total expenditure of about \$7.2M. Also, the estimated additional cost for a utility choosing not to participate in the generic resolution proposed by the staff has now risen to \$150K to \$200K (see Regulatory Analysis, p.24).

Another aspect of the staff's proposed resolution that has changed significantly since this matter was considered earlier by the Committee is that the staff does not now consider the reassessment of seismic adequacy of equipment in the operating plants affected to be a backfit. Instead, the staff now treats the imposition of the proposed resolution as a "request for information" under 50.54(f) for the purpose of verifying compliance with existing seismic qualification requirements in the older operating plants. This position has been challenged by the Nuclear Utility Group on Equipment Qualification (see Background Item #5 above); CRGR has been asked specifically by the EQ Group to examine carefully this aspect of the staff's treatment of this issue, and the validity of the staff's interpretation of both 10 CFR 50.54(f) and 10 CFR 50.109 in arriving at this position. (See further discussion below under "Issues.")

A second complication that has developed regarding the proposed resolution of USI A-46 since the Committee last considered the matter is the ACRS position on this issue. Whereas the ACRS appeared to agree with and support the staff's "experience data" approach to resolution of A-46 at that earlier stage (and still claim to agree generally with it - see Background Item # 1 above), they now appear to recommend significant additional analyses and treatment of a scope considerably beyond that contemplated by the staff in the current version of their proposed resolution for A-46. In the letter transmitting the review package to CRGR, the Director, NRR has noted pointedly that "... the staff does not recommend revising the USI A-46 scope at this time. The current scope is well defined and understood by the staff and industry. Scope expansion would introduce major delays in achieving the benefits in the implementation of A-46." The ACRS has requested specifically to be informed of the outcome of the CRGR review. (See further discussion below under "Issues.")

#### ISSUES:

1. At several points in the package provided for CRGR review in this matter, the staff states that the seismic adequacy of equipment in older operating plants must be reassessed to ensure its safe shutdown capability (e.g., Section I, p. 1, of NUREG-1211; Section 1.1, p.1-1, of NUREG-1030; Paragraph 1, p.1, of Draft Generic Letter (Appendix A to NUREG-1211; etc.), while at other points the staff indicates that their seismic adequacy should be reassessed (e.g., Paragraph 1, p.iii, of NUREG-1030; and Paragraph 1, p.iii, of NUREG-1211). Since the terms "must" and "should" have different connotations in a strict regulatory sense, the Committee should clarify this point with the staff. A clear and unequivocal position from the staff on this question is no small thing; this is, in fact, the very question that a number of commenters are getting at in expressing their judgments that the cumulative work done to date by the staff, its contractors, and the utilities (e.g., SQUG) appears to already provide reasonable assurance of the seismic adequacy of equipment in the older plants. In this context, it is worth noting that, although they have cooperated with the staff in developing the alternative approach now proposed by the staff for resolution of USI A-46, on the record, the position of the SQUG is unchanged from that provided to CRGR in connection with their earlier treatment of this issue; i.e., with the exception of inspection of anchorages, it is not necessary to go beyond the work that has already been done in connection with A-46 in order to have reasonable assurance on the question of seismic adequacy of equipment in the older plants.
2. The Committee should take note of the tougher position taken by the ACRS recently regarding the adequacy of the resolution proposed by the staff (see Background Item above), and the staff's response to the ACRS' recommendations for extensive additional analyses and broadening of scope beyond that proposed by the staff for resolution of this issue (see Transmittal Memo, p.1, Paragraph 3). Although a proposed USI resolution that does not require a rule change would not normally require Commission attention, the sharp differences between the staff's position and the ACRS' position in this matter have been addressed to the attention of the Commission by the letter dated September 17, 1986.

3. The proposed resolution submitted for CRGR review has been reviewed and concurred in by the appropriate major (technical) program offices; but it has not been concurred in by OGC, as is normally required by the CRGR procedures for (proposed) final action on a major issue such as this one. This is a particularly important in this instance, in view of the serious challenge posed by the EQ Group to the staff's interpretation of 10CFR50.54(f) and 10CFR50.109 (in determining that no backfit is involved in imposing the proposed A-46 resolution, unless the reassessment required by the staff results in actual modifications to the plants affected). The Committee should pursue vigorously with the staff the important backfit policy questions raised by the EQ Group in Background Item #5 above, and reemphasize to the staff the importance of obtaining review and concurrence by OGC on proposed major actions such as this one that are brought to CRGR for consideration. Another point regarding the EQ Group's letter and comments on these matters, it is interesting (and perhaps significant) to note that of the 24-or-so utilities that make up the EQ Group membership, 21 are members also of the SQUG. In that sense, the views expressed by the EQ Group regarding this important backfit policy question could be considered as a surrogate for the majority (21 out of 36) of the SQUG as well.
4. Although the relationship of this proposed USI resolution to USI A-45 is addressed in the package provided for review by CRGR, there seems lacking in both the staff's position, and the ACRS' position on the seismic qualification and related systems interaction issues involved (as articulated in Background Item #1), any real attempt to consider the resolution of this specific USI in a more broadly integrated context. The Committee may wish to pursue this question with the staff at this meeting. This could be the point that the EQ Group and other commenters are trying to get at in insisting that the staff be required to perform a more thorough and comprehensive analysis of this proposed action, whether in the context of 10CFR50.54 or 10CFR50.109.
5. The staff has received several inquiries from utilities with operating plants undergoing re-review, or with plants under OL review, about the potential use of the seismic data base (see attachment to this memo). The Committee has considered this question generally in the context of its recent review of Revision 2 to Reg. Guide 1.100. The Committee may wish to recommend to the EDO that the initiative taken by DSRO toward applying the seismic experience data more broadly than just as an alternate means for seismic qualification of equipment in older operating plants be pursued further and with a higher priority (specifically, as a means of improving the licensing process and seismic qualification requirements for future plants).