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NUCLEAR REGULATORY COMMISSION
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JAN 14 1988

Reference
1105

PDR: per
R. ENRIT

MEMORANDUM FOR: Themis Speis, Deputy Director for Generic Issues
Office of Nuclear Regulatory Research

FROM: Guy A. Arlotto, Director
Division of Engineering
Office of Nuclear Regulatory Research

SUBJECT: GENERIC ISSUES PROGRAM

This memorandum is in response to your memorandum of January 4, 1988. Each of the items applicable to the Division of Engineering (DE) in the enclosure to that memorandum is discussed individually in Enclosure 1 to this memorandum.

It should be noted that the resolution schedule for most of the generic issues is dominated by the long and complicated review process that takes place after the DE prepares the proposed resolution package. This review process, which includes 14 mostly sequential steps, (see Table 2 of Encl. 1) is largely outside the control of DE. I recommend that we focus our attention on this area. We are in the process of attempting to develop recommendations such as the inclusion of maximum hold times for concurrence, to better manage the review process. Only in this way do I believe that a significant improvement in the resolution schedule can be achieved.

G. A. Arlotto
Guy A. Arlotto, Director
Division of Engineering
Office of Nuclear Regulatory Research

Enclosures:

1. Detailed Response to Speis Memo dated 1/4/88
2. Chronology for USI A-47
3. Chronology for GI-103
4. Chronology for USI A-17
5. Chronology for USI A-40
6. Chronology for GI B-5

cc: E. Beckjord, RES B. Sheron, RES K. Steyer, RES
D. Ross, RES R. Bosnak, RES N. Anderson, RES
A. Burda, RES R. Baer, RES F. Cherny, RES
B. Morris, RES M. Vagins, RES
W. Houston, RES C. Serpan, RES

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Enclosure 1

Detailed Response to Speis Memorandum of Jan. 4, 1988

1. General Item 1.

Five resolution packages have been transmitted to NRR for concurrence since the reorganization in April 1987. A chronology for each issue is provided in Enclosures 2 through 6. NRR has concurred in two of the packages, USI A-47 and USI A-40. A summary is provided in Table 1.

Table 1
RESOLUTIONS PACKAGES SENT TO NRR FOR REVIEW

<u>Issue Number & Name</u>	<u>Date to NRR</u>	<u>Date of NRR Conc.</u>	<u>Length of Time for NRR Concurrence</u>
USI A-47, Safety Implications of Control Systems	5/1/87	10/19/87	5 1/2 months
GI 103, Design for Maximum Probable Precipitation	5/9/87		8 months*
USI A-17, System Interactions	7/8/87		6 months*
USI A-40, Seismic Design Margin	7/17/87	12/29/87	5 1/2 months
GI B-5, Buckling Behavior of Steel Containments	7/29/87		5 months*

As this Table shows, no resolution package has received concurrence in less than 5 1/2 months, and some have been in the concurrence process for more than 8 months. These actual times considerably exceed the span times assumed in our typical resolution schedule, as discussed in item 4 below.

2. General Item 2

As part of the review of the first quarter (1Q) FY 88 GIMICS update, which is currently underway, we will review each generic issue assigned to DE and identify those where additional resources would speed-up the resolution. We expect to complete this effort by Jan. 15, 1988.

3. General Item 3

The GIMICS schedules are currently being updated. This update will be reviewed by division management, and will reflect the attempt to accelerate the schedules on specific generic issues identified in the enclosure to your memorandum. As requested, I will promptly bring to your attention any delays in the GSI schedules that make them inconsistent with the Five Year Plan.

* NRR concurrence not complete.

4. Specific Item 3

General

The dates listed in specific item 3 of the enclosure to your memorandum are the scheduled date for issuance of the final resolution of the particular generic issue. In most cases this includes a long and complicated review process whose schedule is largely outside the control of the Division of Engineering (DE). The development of the proposed resolution package, which is within the control of DE are scheduled to be completed well before the dates listed in your memorandum. This is discussed for the individual generic issues in items (a) through (c) and (i) below.

The steps typically involved in the review process are listed in Table 2 along with the accumulated span times usually allotted in the schedules. The review process is complicated, and has 14 separate steps after the technical resolution package has been prepared. The steps are mostly sequential and the typical schedule for the review process is 21 months and dominates the schedule for issue resolution. We believe the span times shown in Table 2 are generally achievable, provided that concurrence from other offices (including NRR) are received in a timely manner. However, as noted in Table 1, since the April 87 reorganization, the actual time to obtain NRR concurrence has been a minimum of 5 1/2 months, not the two months allotted in the typical schedule shown in Table 2.

In order to shorten the overall process for the resolution of generic issues, the review process must be streamlined and better managed. We are in the process of attempting to develop recommendations to accomplish this.

(a) GI-23, Reactor Coolant Pump Seals

The fourth quarter (4Q) FY 87 GIMICS shows the proposed resolution package for this issue is scheduled to be completed during August 1988. This schedule is being reviewed as part of the GIMICS update for the 1Q FY 88 update; no major change in that date is anticipated. As noted above, the resolution schedule is dominated by the 21 month review process schedule beyond August 1988.

In regard to the second point in your memorandum regarding this issue, we have coordinated the resolution of GI-23 with the resolution of USI A-44 (station blackout) throughout the process. We recently had discussions with DRPS members regarding proposed industry changes to the resolution of USI A-44 and its potential impact on the resolution of GI-23. Schedule delays have occurred in the past on this issue to accommodate Westinghouse and the Westinghouse owners group who are conducting parallel analyses. We are obligated to consider the Westinghouse work and attempt to resolve the differences in the analyses and the different conclusions reached by our contractors and Westinghouse. Any impact on the schedule of the resolution of GI-23 will be reflected in the GIMICS update currently being prepared.

(b) GI-51, Improving the Reliability of Open Cycle Service Water Systems

The 4Q FY 87 GIMICS shows the proposed resolution package for this issue is scheduled to be completed during July 1988. This schedule is being reviewed

as part of the GIMICS update for the 1Q FY 88 update; no major change in that date is anticipated. As noted above, the resolution schedule is dominated by the 21 month review process schedule beyond July 1988.

TABLE 2
TYPICAL REVIEW SCHEDULE ASSUMPTIONS

MILESTONE	ACCUMULATIVE TIME (Months)
FINAL DRAFT OF PROPOSED RESOLUTION PACKAGE COMPLETED*	0
DIVISION DEPUTY DIRECTOR REVIEW COMPLETED	1
CONCURRENCE BY OTHER OFFICES	3
REVIEW PACKAGE TO CRGR	3
ACRS REVIEW COMPLETED	5
CRGR REVIEW COMPLETED	5
EDO APPROVAL	6
FRN NOTICE OF ISSUANCE OF PROPOSED RESOLUTION FOR PUBLIC COMMENT	8
END OF PUBLIC COMMENT PERIOD	10
COMPLETE DE REVIEW OF PUBLIC COMMENTS AND PREPARE FINAL RESOLUTION PACKAGE	13
DIVISION DEPUTY DIRECTOR REVIEW COMPLETED	14
CONCURRENCE BY OTHER OFFICES	16
CRGR & ACRS REVIEW COMPLETED	18
EDO APPROVAL	19
FRN OF ISSUANCE OF FINAL RESOLUTION	21

* The draft reflects comments received from the technical staff in RES and NRR.

(c) GI-70, PORV & Block Valve Reliability

The 4Q FY 87 GIMICS shows the proposed resolution package for this issue is scheduled to be completed during March 1988. This schedule is being reviewed as part of the GIMICS update for the 1Q FY 88 update; no major change in that date is anticipated.

The overall resolution schedule for this issue does not contemplate the full review process shown in Table 1 since the final product is a Commission Paper. That is, publication for public comment is not planned. Acceleration of the schedule by two months, as requested by your memorandum, will require timely concurrence by NRR in the proposed resolution and issuance of a Commission Paper.

(d) GI-77, Flooding of Safety Equipment Compartments by Back Flow through Drains

This issue has been subsumed in the resolution of USI A-17. A memorandum from R. Bosnak to K. Kniel stating this was issued on May 27, 1986. We will coordinate with DRA to see if another memorandum is needed to eliminate this issue from GIMICS.

(e) GI-79, Unanalyzed Reactor Vessel Thermal Stress During Natural Circulation

The 4Q FY 87 GIMICS shows the proposed resolution package for this issue is scheduled to be completed during July 1988. This schedule is being reviewed as part of the GIMICS update for the 1Q FY 88 update. As discussed below, it does not appear that it is possible to accelerate the schedule for resolution of this issue.

Unlike the issues discussed above, the schedule anticipates closing of this issue with a memorandum that does not propose any new requirements. Therefore, the review process shown in Table 2 is not applicable. We will attempt to accelerate the schedule as requested in your memorandum; however, a key contractor reviewer has left BNL. Although he is still under contract he is currently out of the country. He is needed to attend a meeting with the B&W owner's group and to review their formal response to the questions previously developed by BNL and transmitted to the owner's group. Because he is no longer a full-time employee of BNL, expediting the schedule will probably be difficult to accomplish.

(f) GI-105, Interfacing Systems LOCA at LWRs

As stated in your memorandum, this issue was transferred from DRPS to DE on November 23, 1987. The primary output of this generic issue is a final report from BNL which will provide the basis for the Regulatory Analysis in support of a requirement to test all Pressure Isolation Valves. The preparation of the CRGR package and subsequent actions culminating in issuance of the testing requirement to industry are contained in the GIMICS for GI II.E.6.1. The GI-105 report from BNL is expected to be received in February, 1988.

After receipt of the BNL report, GI-105 can be considered as subsumed into GI II.E.6.1. For the 1Q 1988 GIMICS update there will be no slippage for the PIV portion of II.E.6.1.

(g) GI-106, Piping and Use of Combustible Gases in Vital Areas

This issue has been transferred from DE to DRPS, not DRAA.

(h) GI-135, Steam Generator and Steam Line Overfill

As requested, we will review this issue and other issues to determine if additional technical assistance funding can speed up the resolution. However, it should be noted that as a result of the recent budget cuts, 50K has been deleted from the FY 88 technical assistance contract for GI-135. We will attempt to reallocate funds from other generic issues, but only if this does not adversely affect their schedules. Currently, the loss of FY 88 funds is estimated to delay the GI-135 schedule by about 5 months.

(i) USI A-17, Systems Interactions

The 4Q FY 87 GIMICS shows the proposed resolution package for this issue was

completed during August 1987, including review by the Deputy Director, DE. As shown in Table 1, this resolution package has been in NRR for concurrence since July, 1987. As yet we don't have consolidated comments from NRR (See enclosure 4 for the chronology). Any hope of accelerating the resolution schedule for this issue, or even maintaining the schedule shown in the 4Q FY 87 GIMICS, will depend on management ability to expedite the review process shown in Table 2. As stated previously, we are attempting to develop recommendations to accomplish this.

(j) GI B-64, Decommissioning of Reactors

This issue will be completed when the decommissioning rule, presently with the Commission (SECY 87-309), is issued in the Federal Register by RES and a Standard Review Plan change based on the content of the decommissioning rule is prepared and issued by NRR. Therefore, the GI B-64 completion date cannot be moved from January 89 to January 88 since the decommissioning rule is not expected to be ready for issuance until about March 88. GIMICS currently anticipates issuance of the SRP within 14 months following publication of the final rules. The responsibility for the SRP rests with NRR. The issue could be closed out following publishing of the final rule by indicating that the SRP is under development by NRR.

(k) GSI I.D. 3, Safety System Status Monitoring

The requested acceleration of this schedule appears possible. The 1Q FY 88 GIMICS sheet will show a revised schedule with resolution of this issue completed during February 1989.

(l) GI I.D.5(3), On-Line Reactor Surveillance Systems

Peach Bottom is now not expected to startup until the spring of 1988. This will delay program completion to the spring of 1989. The alternative would be to move the hardware to Susquehanna and complete the program there. This would require an additional 100K funding for installation after which a year's measurements are needed to test the system. Thus, acceleration of the schedule for this issue does not appear possible.

(m) G.I.II.F.5, Classification of Instrumentation, Control, and Electrical Equipment

For the past fifteen years IEEE/NPEC and NRC staff have been attempting to develop a standard to define requirements for equipment and systems that are not safety-related, but are sufficiently important to safety to warrant special consideration. These efforts have not met with success; nor has Brookhaven National Laboratory been able, in the opinion of EMEB, to develop an acceptable "standard" over the past several years under contract to NRC. IEEE/NPEC Working Group 6.2 is currently trying to develop a standard. We will participate in this activity by appointing an NRC staff member to the Working Group.

Enclosure 2

Chronology for USI A-47, Safety Implications of Control Systems

May 1, 1987 A-47 CRGR package issued for Division and office concurrence.

May 11, 1987 R. Bosnak concurs.

May 12, 1987 Package sent to T. Murley

May 21, 1987 Meeting with A. Thadani to resolve comments

May 28, 1987 Revised package and reissued it to T. Murley

July 1, 1987 Meeting with R. Starostecki and A. Thadani to resolve additional comments regarding implementation of requirements. (Additional information to be included in the package was to be provided to the task manager by OTSB).

Aug. 3, 1987 Meeting with A. Thadani, E. Butcher, to expedite resolution of comments.

Aug. 14, 1987 Redrafted generic letter issued to A. Thadani and E. Rossi for comment. This included a draft generic SER, detailed guidance to licensees, and a sample Sholly Amendment statement.

Aug. 27, 1987 A revised A-47 package incorporating additional implementation guidelines issued for R. Starostecki's concurrence.

Sept. 1, 1987 Package returned to E. Rossi by R. Starostecki for additional revisions. (Sample Tech. Specs. were to be included and the generic SER and the sample Sholly Amendment were to be revised. OTSB was to provide necessary input to task manager.)

Sept. 2, 1987 Revised and resubmitted A-47 package for EIR and OTSB comments.

Sept. 29, 1987 Resubmitted package to A. Thadani for T. Murley's concurrence.

Oct. 1, 1987 A. Thadani concurred.

Oct. 2, 1987 L. Shao and R. Hebdon concurred, and package sent to R. Starostecki for concurrence.

Oct. 19, 1987 NRR concurrence memorandum signed by T. Murley and issued.

Oct. 28, 1987 A-47 package concurred by AEOD

Nov. 9, 1987 RES issues package to CRGR for review

Dec. 23, 1987 CRGR Meeting to review the USI A-47 proposed resolution

Enclosure 3

Chronology of GI-103, Design for Probable Maximum Precipitation

April 29, 1987	GI-103 CRGR package issued for Division and Office concurrence
May 8, 1987	R. Bosnak concurs
May 9, 1987	Package routed to T. Murley, NPR
May 15, 1987	L. Shao recommends NRR concurrence R. Starostecki sends package to T. Speis
May 15, 1987	T. Speis concurs
May 20, 1987	R. Starostecki concurs
May 22, 1987	Note from J. Snizek to R. Starostecki "Let's discuss - I'm not sure I agree"
June 26, 1987	G. Bagchi (ESGB/NRR) routes package to E. Jordan with route slip notation "SRP change is acceptable, but 50.54(f) letter is not acceptable"
June 29, 1987	E. Jordan concurs
July 6, 1987	S. Treby concurs
July 9, 1987	G. Arlotto concurs
July 10, 1987	E. Beckjord signs CRGR package
July 14, 1987	R. Baer retrieves package from Director RES
July 16, 1987	R. Baer, F. Cherny, and L. Heller meet with S. Treby and E. Jakel of OGC re 50.54(f) dilemma due to NRR non-concurrence
Aug. & Sept. 1987	RES provides a number of changes to package to satisfy OGC review comments (J. Scinto).
October 6, 1987	R. Baer, F. Cherny and L. Heller meet with S. Treby, W. Olmstead, and E. Jakel of OGC
October 19, 1987	S. Treby sends memo to R. Baer: "I believe that there is sufficient justification to issue a 50.54(f) letter to the licensees of existing operating nuclear power plants."
October 23, 1987	R. Baer, F. Cherny, and L. Heller meet with J. Snizek, J. Richardson and G. Bagchi re 50.54(f) resolution. Agree to replace 50.54(f) letter with a generic letter with wording similar to 50.54(f) letter.

October 26, 1987 Package revised by RES per meeting with J. Snizek, et al. Package logged in to ESGR. G. Bagchi is expected to proceed as necessary to obtain T. Murley's concurrence on the CRGR package.

December 16, 1987 A memo to T. Murley from L. Shao is being finalized by ESGB/NRR.

December 29, 1987 Memo to S. Treby from R. Baer providing the latest version of the generic letter for OGC review.

Enclosure 4

Chronology of USI A-17, Systems Interactions

March 1986	Package submitted to CRGR (with NRR concurrence)
April 1986	CRGR basically agreed with package - wanted some clarification
May 1986	ACRS expressed problems/concerns with A-17 (scope, definition)
August 1986	EDO signed memo to ACRS; said we would address ACRS comments
November 1986	Package submitted to NRR Divisions for re-concurrence
April 1987	Had received concurrence of 3 of 4 NRR divisions and AEOD
April 1987	Reorganization
July 1987	Sent advance copy to Treby (OGC), Jordan (AEOD), Thadani and Richardson (NRR)
October 1987	OGC concurred
November 1987	Meeting with NRR people via W. Schwink/F. Hebdon. Promised consolidated NRR comments by end of December
November 1987	Received copy of memo, Thadani to Hebdon, with DEST comments
January 8, 1988	Waiting for NRR consolidated comments (but revising based on copy of DEST comments)

Enclosure 5

Chronology for USI A-40, Seismic Design Criteria

The following chronology identifies the major activities during the NRR review.

July 17, 1987	Advanced copy of CRGR package issued for Office concurrence
July 24, 1987	RES management (R. Bosnak) raised the issue of seismic adequacy of tanks not covered by USI A-46 implementation program.
August 18, 1987	Changes made in CRGR Package. 10 plants (15 units) identified with not enough information to judge seismic adequacy of tanks. Package issued for Office concurrence
September, 1987	ESGB/NRR verbally suggested to take a detailed look at 10 identified plants for seismic adequacy of tanks. RES contacted licensees and A/E's after a thorough search of information in FSAR's to determine seismic adequacy of tanks and was able to resolve this issue for all but 4 plants (6 units). There was not enough information available on those plants.
Oct. 22, 1987	ESGB/NRR and its contractor BNL provided comments to be incorporated in the CRGR package.
Nov. 17, 1987	ESGB and BNL comments resolved. CRGR package reissued for NRR concurrence.
Dec. 2, 1987	ESGB/NRR verbally requested N. Anderson and K. Shaukat to make further changes in the CRGR package to deal with tank issue for the 4 plants for which sufficient information was unavailable.
Dec. 15, 1987	CRGR package revised to include a plant-specific 10 CFR 50.54(f) letter to obtain the needed information for the 4 identified plants.
Dec. 29, 1987	NRR concurred in the package to be sent to CRGR.

Enclosure 6

Chronology of Generic Issue B-5, Buckling Behavior of Steel Containments

July 29, 1987 R. Baer sent advance copy of CRGR package to E. Jordan and J. Richardson

August 10, 1987 GI B-5 package issued for Division and Office concurrence

August 14, 1987 R. Bosnak concurs. Draft comments on advance copy by NRR received by RES. RES revised package to accommodate NRR comments.

October 8, 1987 G. Bagchi sent formal comments in a memo to F. Hebdon, copies to RES

October 16, 1987 R. Baer sent concurrence copy of revised CRGR package to F. Hebdon. Asked for NRR concurrence in 3 weeks.

October 19, 1987 T. Cox, NRR, scheduled meeting of NRR and RES to address NRR concerns.

October 26, 1987 NRR and RES met (W. Schwink, R. Paulus, H. Brummer, S. Chan, F. Cherny and L. Heller) NRR asked that package be redone and a number of items be added to package.

November 23, 1987 R. Baer requests NRR assistance to document NRR review practices in the CRGR package, as suggested by NRR (W. Schwink)

December 16, 1987 PES has revised package per NRR suggestions. RES awaits NRR statements to include in the CRGR package.

January 8, 1988 Still awaiting NRR statements to include in CRGR package.