

JUL 25 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. 202

The Committee to Review Generic Requirements (CRGR) met on Tuesday, March 12, 1991 from 8:00 a.m. to 1:30 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 revised proposed generic letter on licensee commercial-grade dedication and procurement programs. (This matter had been previously reviewed at Meeting No. 197 on December 12, 1991.) The CRGR endorsed issuance of the letter subject to some revisions and circulation of the revised letter to CRGR members. This matter is discussed in Enclosure 2.
2. The Committee reviewed a proposed generic letter on Individual Plant Examinations for Severe Accident Vulnerabilities Due to External Events (IPEEE). The CRGR recommended in favor of issuance of the letter, subject to revisions to be coordinated with the CRGR staff. This matter is discussed in Enclosure 3.

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, 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 decision making.

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

Original Signed by:
Denwood F. Ross

ELJ
Edward L. Jordan, Chairman
Committee to Review Generic
Requirements

Enclosures:
As stated

cc: See next page

OFC	: CRGR:AEOD	: DD:AEOD	: C/CRGR:AEOD	:	:	:
NAME	: JHConran	: DFRoss	: ELJordan	:	:	:
DATE	: 7/25/91	: 7/ /91	: 7/25/91	:	:	:

OFFICIAL RECORD COPY
Document Name: MN202

9405260190 910725
PDR REVOP NRCRGR
MEETING202 PDR

JUL 25 1991

- 2 -

cc w/enclosures:

Commission (5)

SECY

J. Leberman

P. Norry

D. Williams

Regional Administrators

CRGR Members

Distribution:

Central File w/o encl.

PDR (NRC/CRGR)

P. Kadambi

CRGR C/F

CRGR S/F

J. Sniezek

M. Taylor

W. Russell

B. Grimes

G. Cwalina

G. Mizuno

D. Ross

D. Allison

E. Jordan

J. Conran

R. Freeman

T. King

A. Murphy

J. Heltemes

W. Minners

L. Shao

ATTENDANCE LIST

CRGR Meeting No. 202

March 12, 1991

CRGR Members

E. Jordan
G. Arlotto
W. Russell (for F. Miraglia)
B. Sheron
J. Moore
S. Collins (for L. Callan)

CRGR Staff

J. Conran
D. Allison
R. Freeman

NRC Staff

G. Grimes
E. Baker
U. Potapovs
R. McIntyre
R. Weisman
G. Bagchi
R. Rothman
J. Richardson
D. Houston
R. Architzel
C. McCracken
W. Beckner

Enclosure 2 to the Minutes of CRGR Meeting No. 202
Proposed Generic Letter on Licensee
Commercial-Grade Dedication and Procurement Programs

March 12, 1991

TOPIC

B. Grimes of NRR presented for CRGR review a revised proposal on a generic letter on licensee commercial-grade dedication and procurement programs. The staff had recently instituted a pause in inspection in this area in order to allow time for licensees to improve their programs in accordance with an industry initiative. When inspection activities were resumed, they would initially consist of assessments to determine that a substantive improvement effort was underway. The purposes of the proposed generic letter were to: (1) announce (or confirm) the staff's recent pause in inspections; (2) describe the staff's enforcement practices; and, (3) discuss misunderstandings or weaknesses found in NRC inspections.

This matter had been previously reviewed at Meeting No. 197 on December 12, 1990. The revised package addressed the CRGR comments at that meeting. In particular, with regard to backfitting, the revised package had retained certain elements of the enclosure that appeared to be backfits, considered them to be backfits, and provided appropriate justification for the backfits.

BACKGROUND

The revised review package was transmitted by a memorandum for E. Jordan from F. Miraglia, dated February 22, 1991. The package included:

- (1) CRGR review package (answers to standard CRGR questions)
- (2) Draft generic letter

CONCLUSIONS/RECOMMENDATIONS

The CRGR supported issuance of the generic letter subject to several revisions and circulation of the revised letter to CRGR members. Specific comments included:

1. The letter should be more clear as to exactly which of the many statements in the letter and its enclosure are new staff positions. These new positions should be moved from the enclosure to the letter and identified. It should then be clearly stated that there are no other new positions in the enclosure; the enclosure provides supplementary information.
2. The criterion for programmatic reexamination of the program should be problems with "several different products from different vendors." The sentence that discusses this issue should also say "in accordance with Criterion XVI of Appendix B.

3. On page 2 of Enclosure 1, the staff should consider emphasizing the safety significance of the previous inspection findings rather than the enforcement levels that resulted.
4. It was noted that page 2 of the CRGR review package, item iii, needed a conforming change as to what, exactly, were the new staff positions. It was also noted that page 4 of the CRGR review package, item viii, should be revised to indicate that:
 - (1) This is not an adequate protection exception under the backfit rule;
 - (2) This is not a cost justified substantial safety enhancement under the backfit rule; and
 - (3) It is a compliance exception under the backfit rule.

It was agreed that these items would be documented in the meeting minutes rather than by actually revising the CRGR review package.

BACKFITTING

This action was considered to be justified as a backfit under the compliance exception in the backfit rule.

SAFETY GOALS

The staff's consideration of the Commission's safety goal policy was considered adequate.

PERFORMANCE BASED OBJECTIVES

It was not considered feasible to further pursue a quantitative performance based objective in lieu of the proposed action.

Enclosure 3 to the Minutes of CRGR Meeting No. 202
Proposed IPEEE Generic Letter

March 12, 1991

TOPIC

T. King (RES) and A. Murphy (RES) presented for CRGR review the proposed generic letter on Individual Plant Examination for Severe Accident Vulnerabilities Due To External Events (IPEEE). Briefing slides used by the staff to guide their presentation and discussion with the Committee at this meeting are enclosed (see Attachment).

BACKGROUND

The documents submitted to CRGR for review in this matter were transmitted by memorandum dated February 25, 1991, E.S. Beckjord to E.L. Jordan; the review package included the following documents:

1. Draft Commission Paper, dated February 22, 1991, "Individual Plant Examination For Severe Accident Vulnerabilities Due To External Events (IPEEE)", and attachments as follows:
 - a. Enclosure 1 - Draft Supplement 4 to Generic Letter No. 88-20, dated February 24, 1991, "Individual Plant Examination of External Events (IPEEE) For Severe Accident Vulnerabilities - 10 CFR 50.54 (f)", with attachments:
 - i. Appendix 1 - Summary of Seismic IPEEE Methodology Enhancements
 - ii. Appendix 2 - Containment Performance
 - iii. Appendix 3 - Criteria for Reporting Important Severe Accident Sequences
 - iv. Appendix 4 - Documentation
 - v. Appendix 5 - 50.54 (f) Analysis for IPEEE
 - b. Enclosure 2 - NUREG-1407 (undated), "Procedural and Submittal Guidance for the Individual Plant Examination of External Events (IPEEE) for Severe Accident Vulnerabilities", including attachments:
 - a. Appendix A - Review Level Earthquake
 - b. Appendix B - Comparison Between a Reduced-Scope and Full-Scope Seismic Margins Evaluation

- c. Appendix C - Detailed Documentation and Reporting Guidelines
 - d. Appendix D - NRC Response to Comments and Questions
2. The Committee was also provided for information a memorandum, dated July 27, 1990, W.C. Parler to the Commissioners, "Backfit Considerations of Proposed IPEEE Generic Letter", evaluating the legal question of whether the IPEEE should be categorized/justified as an information request in accordance with 50.54 (f), or as a backfit in accordance with 50.109. (Attachment 2)

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 issuance of the proposed IPEEE generic letter as a 50.54 (f) request, as proposed by the staff. The Committee's endorsement was based on, and subject to, the following comments:

1. There was much discussion regarding whether the proposed IPEEE generic letter should be treated as an information request like the original IPE generic letter, or (in view of the substantial implementation costs and the planned review of licensees' submittals against criteria beyond the current licensing bases of the operating plants) whether it should be regarded and justified as a backfit. The Committee was guided by the NRC General Counsel's views on the legal question involved (see Attachment 2), and noted further that the issue was mooted somewhat in any case by the value-impact analysis provided with this ackage (not included in the Draft-for-Comment version published last year). The Committee complimented the staff on the quality of the value-impact and agreed with the staff's view that the issuance of the IPEEE information request has been properly justified in accordance with the criteria of 50.54 (f) and applicable Commission guidance.

The Committee recommended several specific changes to the package to more clearly convey the final NRC position on this question:

- a. The new value-impact analysis (provided in the package as an Attachment to Appendix D) should be referenced explicitly in the 50.54 (f) analysis included in the package (i.e., Appendix 5 of the Generic Letter)
- b. The discussions of this question in the package (e.g., at p.2 of the Commission Paper, and at p.66 in Appendix D of Enclosure 2) should be revised to read as follows:

"On the basis of an OGC evaluation of this question, the staff does not believe that, as a legal matter, a 50.109 backfit analysis is required to justify issuance of the proposed IPEEE generic letter. The IPEEE is properly considered to be a

request for information under 50.54(f) and the required analysis justifying that request is included with the Generic Letter (Appendix 5). As a matter of prudent policy, however, in view of the significant licensee resource commitment required to respond to this request, the staff has prepared a value-impact analysis that is also included with the Generic Letter (Attachment to Appendix D of NUREG-1407)."

2. The Committee questioned seriously the need for licensees to use both (or the "higher" of) the LLNL and EPRI hazard curves in performing seismic PRAs for the IPEEE, because the staff states that the merits of either cannot be disputed and both are considered credible and valid. (This would seem to imply that either one could be applied equally.) After much discussion on this point, however, the Committee deferred to the technical judgement of the staff, on the bases put forward at various locations in the package (e.g., at p.4 of the draft generic letter, in Section 3.1.1.2 of NUREG-1407 and the responses to Questions 7.1, 7.2, 7.8 at pp. 69 and 80-84 of Appendix D of NUREG-1407 in the package reviewed by CRGR), with the added clarification that licensees need not perform two separate plant response and fragility analyses.
3. The Committee questioned what was intended by the provision that each utility conduct an "independent peer review", to ensure the accuracy of documentation and to validate both the IPEEE process and its results. This provision could be construed to involve an effort involving mandatory participation of outside experts and a resource commitment equal to that required for performance of the IPEEE in the first place. The staff clarified that the basic intent is for licensees to provide for a reasonably independent review by knowledgeable individuals not directly involved in or associated the performance/approval of the initial IPEEE. The use of knowledgeable in-house individuals is acceptable, provided the utility has confidence that the reviewer can be objective and is capable of providing a critical review. Utilities may resort to the use of outside expertise to help perform the review, but that is not considered mandatory (i.e., the use of outside expertise will be determined as appropriate by the licensees). The expected level of resource commitment is a fraction of the cost of performing the initial IPEEE.

To more clearly convey this intent, the Committee recommended that the intended review be retitled as simply a "Peer Review", and that the discussion in Appendix D of NUREG-1407 (at p. 41 in the document submitted for CRGR review) be revised to reflect this clarification. Conforming changes should be made, as appropriate, throughout the package (e.g., at p. 2 of the draft Generic Letter, at p.22 in Appendix 4 of the draft Generic Letter, and at pp. vi, xiv, 2, 10, 19, 35, 58, and 72 in NUREG-1407 and Appendices C and D of the package submitted for CRGR review).

4. In order for the staff to clearly understand the "as is" risk in the operating plants at the end of the IPEEE process, the Committee recommended that the documentation requirements in the Generic Letter explicitly call for a discussion of anticipated benefits, in terms of averted potential risk or increased seismic capacity, in licensees' IPEEE submittals. Licensees should also highlight explicitly in

their IPEEE submittals any improvements that have been taken credit for in the analysis but have not yet been implemented at the plant. Appropriate revisions should be made by the staff in Section 4.1.4 in Appendix 4 of the Generic Letter (at p.22 of the package submitted to CRGR for review) in this regard.

5. The Committee observed that there are a number of instances in the draft package documents of language that could be construed as new requirements or applicable generic staff positions. (Examples are at pp.3 and 4 of the draft Generic Letter, at pp. 14, 16-20, 23, 36, 39, and 41 of NUREG-1407 and pp.77, 82, 83, 86, 88, and 90 of Appendix D to NUREG-1407 in the package submitted for CRGR review). In this regard, the use of phrases such as "...it is required..", "it is necessary..", "...as necessary..", "the staff's position is..", "...licensees should..", "...such and such has to be done..", etc. should be avoided. Substitute language such as "...it is requested that..", "...the staff's view is..", "...the staff prefers that..", "the staff recommends..", or "...as appropriate.." should be used instead.

The entire package should be scrubbed for inappropriate and potentially confusing language of this type to make clear NRC's intent that the IPEEE Generic Letter (including attached guidance) imposes no new regulatory requirements. Its purpose is to request information from licensees (in areas that go beyond the current licensing basis for the operating plants). If licensees do not respond voluntarily to the IPEEE information request, consideration can be given then to imposing new requirements. At this time, however, there are no new regulatory requirements approved for imposition in connection with the IPEEE; and the package should reflect that unambiguously.

6. The Committee recommended additional specific changes to the package as follows:

Draft Generic Letter

Page 2:

- a. Revise the second sentence of the first paragraph to read as follows:

"It must be emphasized...the key outcome is the knowledge and appropriate improvements resulting from...any of the approaches discussed below, or an acceptable alternate approach if acceptable to the NRC."

(Make conforming changes in NUREG-1407, at the top of the second page of the Executive Summary, i.e., p.xii).

- b. Revise the third sentence of the first paragraph to read as follows:

"Besides the completion of the IPEEE, closure of the severe accident issue involves the completion of the internal IPE and applicable items from the Containment Improvement Program, and future NRC and industry efforts in the severe accident management area."

- c. Add a sentence at the end of the second paragraph that reads as follows:

"NUREG-1407 is not intended to go beyond the information request contained in this generic letter."

- d. Revise subitem (2) under Section 2., Examination Process, to read as follows:

"The maximum benefit from the IPEEE would be gained from... examination into procedures, training programs, and appropriate hardware changes."

Pages 3, 4, and 5:

- a. Insert the following after the first sentence in Section 4., Examination Methods:

"The staff recognizes that other methods may exist that are capable of identifying plant-specific severe accident vulnerabilities. The staff will review any systematic examination methods for acceptability to perform an IPEEE."

- b. Delete the first three sentences of the last paragraph under Section 4., Examination Methods, and move the second, third, fourth, and fifth sentences in the first paragraph of that section to the last paragraph. (Change the words "...as necessary..." in the fifth sentence to "...as appropriate...".

- c. Include the following sentence under Section 4.2, Internal Fires:

"An alternative fire vulnerability evaluation method (FIVE) is under review by the staff at this time, and may become a viable option for the treatment of fire in the IPEEE."

Page 8:

- a. Revise paragraph 1., under Section 7., Use of IPEEE Results, (bottom of page) to read as follows:

"If NRC consideration... indicates that the plant design or operation does not meet the facilities current licensing basis, appropriate actions will be required consistent with the Commission's rules and regulations."

Page 9:

- a. Change the ending of the sentence in paragraph 3., under Section 7., Use of IPEEE Results, (top of page) to read as follows:

"...enhancements would not be required."

- b. Revise the wording of Section 8., Accident Management, to follow more closely the carefully crafted language used in the initial IPE Generic Letter on that topic.
- c. Revise the last sentence under Section 9., Documentation of Examination Results, to read as follows:
"A summary of the documentation format and content is provided.."
- d. Revise the first sentence under Section 10., Licensee Response, to read as follows:
"Licensees are required to submit...a response which describes their proposed programs.."

Page 10:

- a. Delete the entire second paragraph on the page (last paragraph under Section 10., Licensee Response).
- b. Revise the paragraph under Section 11, Regulatory Basis, to do the following:
 - i. Reference clearly Section 182 of the Atomic Energy act and 10 CFR 50.54(f).
 - ii. Reference explicitly in this section of the Generic Letter the 50.54(f) analysis provided in Appendix 5 of the Generic Letter.
 - iii. Note explicitly in this section of the Generic Letter that a value/impact analysis for implementation of the IPEEE is provided as part of NUREG-1407, Appendix D (to be attached to the Generic Letter).

Figure of the Generic Letter:

- a. Insert the word "or" where inadvertently omitted from the flow diagram entitled Recommended IPEEE Approach.
- b. Make conforming changes to Figure 5.1 of NUREG-1407.

Appendix 1 of the Generic Letter:
(p.15 in the draft package)

- a. Change the word "and" to "or" in the second item of guidance entitled Existing PRA.

Appendix 2 of the Generic Letter:
(p.17 in the draft package)

- a. In the first sentence on the page, change the word "enhanced" to "fostered".

Appendix 5 of the Generic Letter:
(p.31 in the draft package))

- a. In the second sentence of paragraph b., delete the words "...to correct identified vulnerabilities..".

NUREG-1407

Page 7:

- a. In the first paragraph under Section 2.6, Lightning, the last two sentences need to be restructured to clarify intent. The wording of those sentences should also reflect that the concern regarding effects of lightning should be focused where past operating experience at an individual facility indicates that lightning strike could be a credible event to be addressed in the severe accident context.

Page 21:

- a. In Section 3.2.4.3., Soil Failures, under the guidance for Full Scope and 0.5g plants, delete the entire second sentence.

Page 29:

- a. In the second sentence of Section 4.2, Use of an Existing PRA, delete the word "too".

Page 35:

- a. In the last sentence of Section 6.2.2.3., External Flooding Program, insert the words "new PMP" after the phrase "...should assess the effects of applying.."

Appendix D of NUREG-1407:

- a. Page 66 in the draft package:

In subparagraph 1) of Section D.1, Introduction and Summary add the words "...with the risk/safety benefit obtained." after the words "...would be commensurate.." at the end of the last sentence.

- b. Page 77 in the draft package:

Add the following sentence at the beginning of the Staff's Response to Question 5.5:

"The IPEEE imposes no requirements on licensees."

IPEEE
SUMMARY OF FINAL GENERIC LETTER
AND GUIDANCE DOCUMENT

PRESENTATION TO CRGR -
3/12/91

T. KING - RES
L. SHAO - RES

Attachment 1
To Enclosure 3

SCOPE OF IPEEE

LICENSEES ARE TO PERFORM A PLANT SPECIFIC SYSTEMATIC EXAMINATION TO IDENTIFY VULNERABILITIES TO SEVERE ACCIDENTS RESULTING FROM EXTERNAL EVENTS:

- SEISMIC EVENTS
- INTERNAL FIRES
- HIGH WINDS, FLOODS, TRANSPORTATION AND NEARLY FACILITY HAZARDS
- OTHER SITE UNIQUE HAZARDS

IMPLEMENTATION

DOCUMENTS

- o NEGATIVE CONSENT COMMISSION PAPER
- o GENERIC LETTER 88-20, SUPPLEMENT 4
- o NUREG-1407

SCHEDULE

- o LICENSEE MUST SUBMIT PLANS WITHIN 180 DAYS
- o IPEEE MUST BE COMPLETED IN 3 YEARS

BASIS FOR IPEEE

- o 50.54(F) REQUEST:
 - INFORMATION TO BE DEVELOPED COULD RESULT IN CHANGES TO THE PLANT ASSOCIATED WITH A SUBSTANTIAL INCREASE IN SAFETY.
 - COST OF DEVELOPING INFORMATION NOT EXPECTED TO EXCEED 6 STAFF YEARS (~ \$1 MILLION) PER PLANT
- o SAFETY GOALS MAY NOT BE MET WITHOUT ADDITIONAL ATTENTION TO SEVERE EXTERNAL HAZARDS.

o RISK FROM EXTERNAL EVENTS
(MEAN VALUES):

	CDF	INDIVIDUAL PROMPT FATALITIES	INDIVIDUAL LATENT FATALITIES
- SURRY (NUREG-1150)			
- FIRES	$1.1 \times 10^5/\text{RY}$		
- SEISMIC (EPRI)	$2.8 \times 10^5/\text{RY}$	$2.0 \times 10^8/\text{RY}$	$4.0 \times 10^9/\text{RY}$
- SEISMIC (LLNL)	$1.9 \times 10^4/\text{RY}$	$2.0 \times 10^7/\text{RY}$	$4.0 \times 10^8/\text{RY}$
- PEACH BOTTOM (NUREG-1150)			
- FIRES	$2.0 \times 10^5/\text{RY}$	$5.0 \times 10^{10}/\text{RY}$	$3.0 \times 10^9/\text{RY}$
- SEISMIC (EPRI)	$1.8 \times 10^6/\text{RY}$	$4.0 \times 10^8/\text{RY}$	$1.0 \times 10^8/\text{RY}$
- SEISMIC (LLNL)	$4.8 \times 10^5/\text{RY}$	$2.0 \times 10^6/\text{RY}$	$3.0 \times 10^7/\text{RY}$
- OTHER PLANT PRAs			
- FIRES	$0.3 - 20 \times 10^5/\text{RY}$		
- SEISMIC	$0.5 - 14 \times 10^5/\text{RY}$		
- CDF FLOODS/WINDS	$0.01 - 7 \times 10^5/\text{RY}$		

RELATIONSHIP TO OTHER PROGRAMS/ISSUES

- o CERTAIN ISSUES TO BE RESOLVED VIA IPEEE:
 - EXTERNAL EVENTS PORTION OF A-45 "DECAY HEAT REMOVAL"
 - GI-131 - "SEISMIC INTERACTION INVOLVING IN-CORE FLUX MAPPING SYSTEM (W PLANTS)"
 - "EASTERN SEISMICITY ISSUE"
- o CERTAIN ISSUES SHOULD BE COORDINATED WITH THE IPEEE:
 - USI A-46 - "SEISMIC QUALIFICATION"
 - GI-57 - "EFFECT OF FIRE PROTECTION SYSTEM ACTUATION"

ACRS COMMENTS

- o STAFF HAS NOT PROVIDED A DEFINITION OF A VULNERABILITY OR GUIDANCE ON HOW TO IDENTIFY ONE.

- o SHOULD NOT CHARACTERIZE HIGHER OF TWO SEISMIC CURVES AS CONSERVATIVE.

IPEEE WORKSHOP

DATES: SEPTEMBER 10-13, 1990

PLACE: PITTSBURGH, PENNSYLVANIA

ATTENDANCE:

APPROXIMATELY 250 REGISTRANTS

UTILITY & UTILITY ORGANIZATIONS 50%

A/E & NSSS 10%

CONSULTANTS 25%

GOVERNMENT (STATE & FEDERAL) 15%

GENERAL COMMENTS

1. PERFORM A BACKFIT ANALYSIS BEFORE ISSUANCE OF THE GENERIC LETTER

NOT REQUIRED

2. UNDERESTIMATED COST AND RESOURCE REQUIREMENT

ESTIMATES BASED ON NUREG-1150 AND HATCH SEISMIC MARGINS EVALUATION (EXTRAPOLATED TO IPEEE SCOPE)

SOME INDUSTRY ESTIMATES COMPARABLE WITH STAFF'S

3. EXTEND TIME FOR PERFORMING THE IPEEE

CONSIDER EXTENSIONS ON A CASE-BY-CASE BASIS

4. EXTEND THE 60 DAY INITIAL RESPONSE TIME

TIME EXTENDED TO 180 DAYS

GENERAL COMMENTS

FIRE

NO MAJOR COMMENTS EXCEPT REQUEST FOR
NRC EXPEDITIOUS REVIEW OF FIRE
VULNERABILITY EVALUATION METHODOLOGY

WIND, FLOOD & OTHERS

NO MAJOR COMMENTS

SEISMIC EVENTS

1. USE OF BOTH LLNL AND EPRI HAZARD CURVES
STAFF PREFERS THAT BOTH CURVES ARE USED
USE OF A SINGLE CURVE (THE MORE
CONSERVATIVE ONE) IS ACCEPTABLE
2. FOCUSED SCOPE FOR RELAY CHATTER EVALUATION

FIRE EVALUATION

- PRA METHODOLOGY
 - o PROCEDURAL CLARIFICATIONS ONLY
- NUMARC/EPRI FIRE VULNERABILITY EVALUATION (FIVE) METHODOLOGY
 - o TO BE ADDRESSED SEPARATE FROM IPEEE GENERIC LETTER AND GUIDANCE DOCUMENT

SCHEDULE FOR STAFF REVIEW OF NUMARC/EPRI FIRE METHODOLOGY

- o METHODOLOGY AND DATA BASE CURRENTLY UNDER REVIEW
- o REPORT FROM NUMARC ON DEMONSTRATION DUE - 3/91
- o DRAFT STAFF POSITION - 4/91
- o ACRS - 6/91
- o CRGR - 6/91
- o LETTER TO NUMARC - 7/91

HIGH WINDS, FLOODS, TRANSPORTATION AND
NEARBY FACILITY HAZARDS

- NO MAJOR CHANGES

REVIEW LEVEL EARTHQUAKE

0.3G BIN WAS FURTHER DIVIDED INTO TWO
CATEGORIES BASED ON THE SEISMIC DESIGN BASIS
AND SEISMIC HAZARD ESTIMATES

FULL-SCOPE 0.3G

FOCUSED-SCOPE 0.3G (NEW)

PLANTS WITH HIGHER SEISMIC HAZARD AND LOWER
SEISMIC DESIGN BASIS REQUIRE MORE DETAILED
EVALUATION

PROCEDURE USED TO "SUBBIN" 0.3G PLANTS

ASSIGNMENT BASED ON SEISMIC DESIGN BASIS
COUPLED WITH SEISMIC HAZARD ESTIMATE AND
ENGINEERING JUDGEMENT

CRITERIA, INITIALLY PROPOSED BY NUMARC, IS
SIMILAR TO THE WEIGHTED APPROACH USED BY THE
STAFF FOR THE INITIAL PLANT BINNING

DEVELOPED A COMPOSITE CONDITIONAL
PROBABILITY OF EXCEEDING THE UNIFORM
HAZARD SPECTRA AT 4 GROUND MOTION
FREQUENCIES FOR EPRI, LLNL4, & LLNL5 CURVES
AND FOR MEAN, MEDIAN, & 84%

SIX SITES CONSISTENTLY FELL INTO THE TOP GROUP
(FULL-SCOPE)

RESOLUTION OF THE EASTERN U.S. SEISMICITY ISSUE
IDENTIFIED EIGHT PLANTS AT FIVE SITES AS OUTLIERS

THESE PLANTS SHOULD BE IN THE FULL-SCOPE
BIN

ADDED ARKANSAS NUCLEAR ONE, UNIT 1 TO THE
FULL-SCOPE BIN

REVIEW LEVEL EARTHQUAKE - PLANT SITES EAST OF THE ROCKY MOUNTAINS

Reduced Scope

Big Rock Point
Comanche Peak
Crystal River

Duane Arnold*
Grand Gulf
River Bend

South Texas
St. Lucie

Turkey Pt.
Waterford

0.3 g Focused Scope

Arkansas #2
Beaver Valley
Belleville
Braidwood
Browns Ferry
Brunswick
Byron
Callaway
Calvert Cliffs
Catawba*
Clinton
Cook
Cooper
Davis-Besse

Dresden
Farley
Fermi
Fitzpatrick
Fort Calhoun
Ginna
Haddam Neck
Harris
Hatch
Hope Creek

Kewaunee
LaSalle
Limerick

McGuire
Millstone
Monticello
Nine Mile Pt.
North Anna*

Oyster Creek
Palisades
Peach Bottom
Perry
Point Beach
Prairie Island
Quad Cities

Salem

Shoreham
Summer*
Surry
Susquehanna
Three Mile Island
Vermont Yankee
Vogtle
Watts Bar
Wolf Creek

Zion

0.3g Full Scope

Arkansas #1
Indian Point

Maine Yankee
*Oconee

Robinson
Sequoyah

Yankee Rowe

0.5 g**

Pilgrim

Committed to Perform a Seismic PRA

Seabrook***

NOTES:

- * Special attention to shallow soil conditions is appropriate for these locations (see Section 3.2.2).
- ** Based on the staff studies, a review level earthquake greater than 0.3g is appropriate for this site. Because the component capacity data sets associated with the margin methods are categorized at two screening levels, 0.3g and 0.5g, the RLE for this site is set at 0.5g.
- *** Relay chatter evaluation for Seabrook should be similar to a full scope review.

REVIEW LEVEL EARTHQUAKE - WESTERN UNITED STATES PLANT SITES

0.5 g*

Trojan
Washington Nuclear

Rancho Seco
Palo Verde

Seismic Margin Methods Do Not Apply To the Following Sites:

Diablo Canyon

San Onofre

NOTES:

- * Indicates a Western United States site whose default bin is 0.5g unless the licensee can demonstrate that the site hazard is similar to those sites east of the Rocky Mountains that are found in the 0.3g bin.

Changes in the review level earthquake from 0.5g to 0.3g should be approved prior to doing significant analysis.

RELAY CHATTER EVALUATION

REDUCED SCOPE

USI A-46 PLANTS: A-46 REVIEW

NON A-46 PLANTS: NO ACTION

FOCUSED SCOPE

USI A-46 PLANTS: A-46 REVIEW

IF LOW SEISMIC RUGGEDNESS
RELAYS ARE FOUND EXPAND
SCOPE TO INCLUDE RELAYS
OUTSIDE A-46 BUT IN IPEEE

NON A-46 PLANTS: LOCATE AND EVALUATE LOW
SEISMIC RUGGEDNESS RELAYS

FULL SCOPE AND 0.5G (INCLUDING WESTERN US SITES)

USI A-46 PLANTS: FOLLOW A-46 PROCEDURES
FOR A-46 REVIEW

REVIEW IPEEE SYSTEMS,
INCLUDING THOSE THAT ARE
ALSO PART OF A-46 SCOPE AT
THE ASSIGNED REVIEW LEVEL

NON A-46 PLANTS: RELAY REVIEW FOR ALL IPEEE
SYSTEMS AT THE ASSIGNED
REVIEW LEVEL



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

July 27, 1990

MEMORANDUM FOR: Chairman Carr
Commissioner Rogers
Commissioner Curtiss
Commissioner Remick

FROM: William C. Parler
General Counsel

SUBJECT: BACKFIT CONSIDERATIONS OF PROPOSED IPEEE GENERIC LETTER

In SECY-90-192 (July 17, 1990), the Commission requested that OGC review a backfit issue raised by the Nuclear Utility Backfitting and Reform Group (NUBARG) in an April 13, 1990 letter from Nicholas S. Reynolds to Edward L. Jordan. In that letter, NUBARG asserts that a 10 CFR 50.109 backfit analysis should be performed for the IPEEE generic letter. We have reviewed that letter, as well a June 20, 1990 letter from Mr. Reynolds to the Commission presenting essentially the same arguments, the advance notice of proposed rulemaking (ANPR) for the 1985 Backfit Rule (48 Fed. Reg. 44217, September 28, 1983), the proposed rule (49 Fed. Reg. 47034, November 30, 1984), the final rule (50 Fed. Reg. 38097, September 20, 1985), and the NRC Manual Chapter 0514 on the management of plant-specific backfitting. We disagree with NUBARG's position that a 10 CFR 50.109 backfit analysis should be performed for the IPEEE generic letter.

First, the IPEEE generic letter is not a "backfit" as that term is defined in Section 50.109(a)(1) of the Backfit Rule. Backfits are defined in that section as modifications or additions to any plant systems, structures and components, design or design approvals, or plant procedures. The IPEEE generic letter does not involve such modifications or additions to hardware, design, or procedures. Therefore, the information request is not a "backfit," and a backfit analysis need not be prepared.

NUBARG, however, argues that because of the substantial costs of the IPEEE¹ and because the IPEEE would require reviews against criteria which may be more stringent than a plant's current licensing basis, the IPEEE is more appropriately characterized as a backfit and a backfit analysis should be

¹NUBARG also argues that a backfit analysis is necessary because the NRC Staff's estimates of the cost of performing an IPEEE are not accurate, citing the ACRS's concern about the accuracy of the Staff's estimate, and presenting some evidence that the cost of the underlying IPE was underestimated by the Staff in a previous analysis for the IPE. OGC does not see why a cost estimate performed pursuant to 50.54(f) is or need be any more or less accurate than one performed pursuant to 50.109.

Attachment 2
to Enclosure 3

performed. See June 20, 1990 letter, p. 1. In support of this position, NUBARG quotes several passages from the statement of consideration (SOC) for the final 1985 Backfit Rule².

We do not agree with NUBARG's analysis. NUBARG's first point, that a 50.54(f) information request constitutes a 10 CFR 50.109 backfit if the cost of responding to the information request is high, is not supported by the history of the 1985 rulemaking. In that rulemaking, 50.54(f) was amended to require preparation of an evaluation demonstrating that the burden imposed by a 50.54(f) information request "is justified in view of the safety significance of the safety issue being addressed." When the amendment to 50.54(f) was proposed, the Commission stated:

The proposed amendment of 50.54(f) is to assure that information requests of licensees are not unduly burdensome. Accordingly, each information request is justified in view of the potential safety significance of the issue to be addressed. Amendment of this section also provides for management control and accountability by requiring that staff evaluations be reviewed by the Executive Director for Operations prior to issuance of the request.

49 Fed. Reg. 47035. In the SOC accompanying the final rule, the Commission expanded its discussion of the need for the amendment:

The proposed amendment of 50.54(f) ensures that except for information sought to verify licensee compliance with the current licensing basis for that facility, the reason or reasons for each information request must be prepared prior to its issuance to determine whether the request is for information already in the possession of the applicant or licensee or instead will require the institution of studies, procedures, or other extensive effort to generate the necessary data to respond. If extensive effort is reasonably anticipated, the request will be evaluated to determine whether the burden imposed by the information request is justified

²In addition to adopting the text of Section 50.109, the 1985 rulemaking also adopted a revision to 50.54(f) which required preparation of an "evaluation" for each 50.54(f) information request which demonstrates that the burden imposed by the information request is justified by the potential safety significance of the issues addressed in the information request. The 1985 rule was overturned on appeal, see *UCS v. NRC*, 824 F.2d. 103 (D.C.Cir. 1987); a slightly-modified rule was adopted in 1988, see 53 Fed. Reg. 20603 (June 6, 1988). However, the 1985 amendment to 50.54(f) was not the subject of the 1985 appeal, and was not modified in the 1988 rulemaking. Therefore, this memorandum assumes the continuing vitality of the 1985 SOC's discussion of 50.54(f).

in view of the potential safety significance of the issue to be addressed.

50 Fed. Reg. 38102. Clearly, the Commission was well aware of the potential burden that could be imposed by unreasonable 50.54(f) information requests. The Commission could have addressed the problem by requiring that 50.109-type backfit analyses be performed for 50.54(f) information requests, either by defining such requests as backfits (thereby requiring preparation of 10 CFR 50.109 backfit analyses unless otherwise exempted under 10 CFR 50.109(a)(4)), or by incorporating the standards of 50.109(a)(3) and the factors that a backfit analysis must address directly into 50.54(f). Significantly, the Commission did not take either of these approaches and instead adopted the requirement for an evaluation balancing the burden of the information request against the safety significance of the issue, even for 50.54(f) requests which required "extensive effort." OGC regards this as compelling evidence that the Commission did not intend 10 CFR 50.109 backfit analyses to be a necessary precondition to issuing 50.54(f) information requests, but instead intended only that an evaluation be made showing whether the burden to imposed by the information request was justified in view of the safety significance of the issue being addressed.

That the 50.54(f) information request in the IPEEE generic letter would have the effect of requiring some licensees to review their plants against criteria more stringent than the licensees' current licensing basis for their plants is not significant, in OGC's view. The purview of 50.54(f) is broader than simply the acquisition of information for the purpose of determining whether the licensee's plant is in conformance with its licensing basis. 50.54(f) also extends to acquiring information for the purpose of determining whether, in light of new information and understanding, licenses should be modified, suspended or revoked because previously accepted standards and requirements are no longer sufficient to assure adequate protection, or that enhancements to adequate protection are currently justified. Once the NRC requires that such licenses be modified, suspended or revoked, there is a backfit and the requirements of 50.109 come into play. Since the IPEEE is an information request, OGC does not regard it as a backfit.

NUBARG asserts that, as a practical matter, performance of the IPEEE is likely to result in backfits, and that the SOC accompanying the 1985 amendment to 50.54(f) indicates that 10 CFR 50.109 backfit analyses should be prepared for those 50.54(f) information requests which are likely to result in backfits. OGC does not agree with NUBARG's reading of the final rule's SOC. It is our view that when the passages quoted by NUBARG are considered in context, the SOC does not clearly establish that a 10 CFR 50.109 backfit analysis should be prepared for extensive information requests which are likely to result in backfits. The full discussion in the SOC states:

The proposed amendment of 50.54(f) ensures that except for information sought to verify licensee compliance with the current licensing basis for that facility, the reason or reasons for each

information request must be prepared prior to its issuance to determine whether the request is for information already in the possession of the applicant of licensee or instead will require the institution of studies, procedures, or other extensive effort to generate the necessary data to respond. If extensive effort is reasonably anticipated, the request will be evaluated to determine whether the burden imposed by the information request is justified in view of the potential safety significance of the issue to be addressed.

It should be noted that 50.54(f) does not by its terms apply to the review of applications for licenses or amendments. Consequently, if the staff seeks information of the type routinely sought as part of the standard procedures applicable to the review of applications, no analysis will be necessary. If the request is not part of routine licensing review and falls within the purview of 50.109, however, a full analysis is most likely indicated. Requests for information to determine compliance with existing facility requirements or for fact-finding reviews, inspections and investigations of accidents or incidents, however, usually are not made pursuant to 50.54(f) nor are such requests normally considered within the scope of the backfit rule. Amendment of this section also provides for management control and accountability for backfits by requiring that staff evaluations be reviewed by the Executive Director for Operations or his designees prior to the issuance of the request.

The amendment of 50.54(f) should be read as indicating a strong concern on the part of the Commission that extensive information requests be carefully scrutinized by staff management prior to initiating such requests. The Commission recognizes that there may be instances where it is not clear whether a backfit will follow an information request. Those cases should be resolved in favor of analysis. In short, staff management should develop an internal review process to ensure that there is a rational basis for all information requests, even where it is not clear that a backfit will result.

50 Fed. Reg. 38102. OGC believes that the reference in the second paragraph to "a full analysis" of an information request which is not part of a routine licensing review but which is within the "purview of 50.109," is limited to those few situations where a backfit (as defined in 50.109) is included with the "information request". By "within the purview of 50.109," we believe the Commission meant, "otherwise subject to the Backfit Rule." Therefore, OGC does not believe that this passage offers support for NUBARG's contention that 10 CFR 50.109 backfit analyses must be prepared where backfits are likely to follow the 50.54(f) information request.

The third paragraph suggests that "where it is not clear whether a backfit will follow an information request," such cases "should be resolved in favor of analysis." It is not clear whether the "analysis" being referred to is a 10 CFR 50.109 backfit analysis or a 50.54(f) evaluation. However, the next sentence encourages NRC staff management to develop an "internal review process" to ensure rationality of the information request, even when it is "not clear" that a backfit will result. OGC does not read this language as calling for 50.109 backfit analyses for all 50.54(f) information requests likely to result in backfits. Rather, the SOC is simply emphasizing the point that 50.54(f) information requests should be carefully scrutinized in a regularized internal staff process to ensure that the burden of responding to the request is justified whatever the outcome of the information request might be. The "analysis" being referred to in this paragraph, then, is the "evaluation" under 50.54(f) - not the 10 CFR 50.109 backfit analysis.

In sum, we do not agree with NUBARG that a 10 CFR 50.109 backfit analysis must be prepared for 50.54(f) information requests such as the proposed IPEEE generic letter which are likely to result in backfits. The evaluation required by 50.54(f), if properly conducted and documented, should provide a sufficient basis to determine whether the information request is warranted. No change to the existing regulation or the language of the SOC is necessary to reach this result^{2/}. However, if the Commission believes that a 50.54(f) evaluation is not sufficiently rigorous for the information gathering activities associated with the IPEEE, then more can be done as a matter of policy.

/s/

William C. Parler
General Counsel

DISTRIBUTION:

Central Files
OGC s/f
R&FC s/f
STreby
WParler

Regs
OGC r/f

~~GMizuno~~
KForner

FC	: R&FC/OGC	: AGC: R&FC/OGC	: OGC	: OGC	:
AME	: GMizuno	: STreby for	: MMalsch for	: WParler	:
ATE	: 7/ 27/90	: 7/ -27/90	: 7/ 27/90	: 7/27/90	:

cc: IPEEE.wp/JEC C Drive

OFFICIAL RECORD COPY

^{2/}A 50.54(f) evaluation was prepared for the proposed IPEEE generic letter. See SECY-90-192, Enclosure 1, Appendix 5.

ROUTING AND TRANSMITTAL SLIP

Date

5-19-94

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

Initials

Date

BCS P1 37

2.

PDR

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. 202*

*CC (LIST ONLY) JEAN RATAJE,
PDR L STREET*

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

FROM: (Name, org. symbol, Agency/Post)

Room No.—Bldg.

DENNIS ALLISON

Phone No.

24148

5041-102

OPTIONAL FORM 41 (Rev. 7-76)

Prescribed by GSA
FPMR (41 CFR) 101-11.206

☆ U.S. GPO: 1974-1-500-437 3034

280106

*DF013
1/1*

MATERIAL RELATED TO CRGR MEETING NO. 202
TO BE MADE PUBLICLY AVAILABLE

1. MEMO FOR J. TAYLOR FROM E. JORDAN DATED 7-25-91
SUBJECT: MINUTES OF CRGR MEETING NUMBER 202
INCLUDING THE FOLLOWING ENCLOSURES WHICH WERE NOT
PREVIOUSLY RELEASED:
 - a. ENCLOSURE 2
A SUMMARY OF DISCUSSIONS OF A PROPOSED GL on
Licensee Commercial-Grade Dedication - Procurement
Programs
 - b. ENCLOSURE 3
A SUMMARY OF DISCUSSIONS OF A PROPOSED IPEEE
Generic Letter
 - c. ENCLOSURE _____
A SUMMARY OF DISCUSSIONS OF A PROPOSED
2. MEMO FOR E. JORDAN FROM F. Miraglia DATED 2-22-91
FORWARDING REVIEW MATERIALS ON A PROPOSED Generic
Letter on Licensee Commercial-Grade Procurement and
Dedication Programs
3. MEMO FOR E. JORDAN FROM Eric Beckford DATED 2-26-91
FORWARDING REVIEW MATERIALS ON A PROPOSED IPE for
Severe Accident Vulnerabilities Due to External Events
4. MEMO FOR E. JORDAN FROM _____ DATED _____
FORWARDING REVIEW MATERIALS ON A PROPOSED





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

February 22, 1991

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

FROM: Frank J. Miraglia, Deputy Director
Office of Nuclear Reactor Regulation

SUBJECT: PROPOSED GENERIC LETTER ON LICENSEE COMMERCIAL-GRADE
PROCUREMENT AND DEDICATION PROGRAMS

The Office of Nuclear Reactor Regulation requests that the Committee to Review Generic Requirements (CRGR) consider the enclosed revised draft generic letter and impact analysis. A draft of this package was sent to the CRGR on November 28, 1990, and was discussed with CRGR at a meeting on December 18, 1990. However, the CRGR determined that the generic letter should not be issued in its proposed form. The review package and the draft generic letter have been revised to include a compliance backfit analysis.

The staff is proposing to issue the enclosed generic letter which notifies the industry of the staff's intention to pause in conducting programmatic procurement inspection and enforcement activities and discusses a number of failures which were identified during recent NRC inspections of licensees' commercial-grade dedication programs. This generic letter also provides information to assist licensees in assuring that their commercial-grade procurement and dedication programs meet existing regulatory requirements. NRC views on corrective actions are also provided.

The findings from previous inspections of commercial-grade dedication programs, based upon 10 CFR Part 50, Appendix B requirements, are discussed in the attachment to the proposed generic letter. This generic letter discusses acceptable methods of meeting existing Appendix B requirements and augments the information previously provided in Generic Letter 89-02, "Actions to Improve the Detection of Counterfeit and Fraudulently Marketed Products." Since the proposed generic letter presents a new staff position regarding implementation of existing regulatory requirements as contained in Appendix B to 10 CFR Part 50, the staff has concluded, based on a backfit analysis, that this is a compliance backfit and has prepared this draft generic letter in accordance with 10 CFR 50.109(a)(4)(i).

The proposed generic letter also addresses corrective action. The staff will not initiate enforcement action in cases of past programmatic violations that have been adequately corrected. In addition, the staff does not expect licensees to review all past procurements. However, if during current

Contact: Richard P. McIntyre, NRR
492-3215

X-A
9103040178

Edward L. Jordan

- 3 -

is not requested, a complete CRGR package is attached for your information. If the CRGR would like to discuss the proposed generic letter, contact Brian K. Grimes, Director, Division of Reactor Inspection and Safeguards at your earliest convenience.



Frank J. Miraglia, Deputy Director
Office of Nuclear Reactor Regulation

Enclosures:

1. CRGR Review Package
2. Draft Generic Letter on Licensee
Commercial-Grade Procurement
and Dedication Programs

CRGR REVIEW PACKAGERESPONSE TO REQUIREMENTS FOR CONTENT OF PACKAGE SUBMITTED FOR CRGR REVIEW

- (i) The proposed generic requirement or staff position as it is proposed to be sent out to all holders of operating licenses and construction permits for nuclear power plants.

The staff position is:

The proposed position is stated in the proposed generic letter. In summary, all holders of operating licenses and construction permits for nuclear power reactors would be notified of the staff's intent to pause in conducting programmatic procurement inspection and enforcement activities. However, the NRC will conduct selected assessments to determine the progress of the industry in improving procurement and dedication programs. As of January 1, 1990, utilities are implementing the Nuclear Management Resources Council (NUMARC) Initiative on the Dedication of Commercial-Grade Items. Also, the implementation of the Comprehensive Procurement Initiative as described in NUMARC 90-13, "Nuclear Procurement Program Improvements" (to be fully implemented by July 1992) is already underway. This generic letter identifies a number of failures in the licensees' commercial-grade dedication programs that were identified during recent NRC inspections. Since the proposed generic letter presents a new staff position regarding implementation of existing regulatory requirements, as contained in Appendix B to 10 CFR Part 50, the staff has concluded, that this is a compliance backfit and has prepared this generic letter in accordance with 10 CFR 50.109(a)(4)(i).

- (ii) Draft staff papers or other underlying staff documents supporting the requirements or staff (regulatory) positions. (A copy of all materials referenced in the document shall be made available upon request to the CRGR staff. Any committee member may request that the CRGR staff obtain a copy of any referenced material for his or her use.)

The following documents support the staff position:

- (a) Proposed NRC Generic Letter 91-XX: "Licensee Commercial-Grade Procurement and Dedication Programs"

- (b) Enclosure 1 of the proposed generic letter lists 13 NRC inspection reports regarding licensees' procurement and dedication programs.
 - (c) NRC Generic Letter 89-02: "Actions to Improve the Detection of Counterfeit and Fraudulently Marketed Products." Enclosure 1 to Generic Letter 89-02 lists NRC bulletins and information notices regarding nonconforming materials and equipment.
 - (d) SECY-90-057, Advance Notice of Proposed Rulemaking, "Acceptance of Products Purchased for Use in Nuclear Power Plant Structures, Systems, and Components."
 - (e) SECY-90-076, "Inspection and Enforcement Initiatives for Commercial-Grade Procurement and Dedication Programs."
 - (f) SECY-90-261, "Inspection and Enforcement Initiatives for Commercial-Grade Procurement and Dedication Programs."
 - (g) SECY-90-304, "NUMARC Initiatives on Procurement."
 - (h) NUMARC 90-13, "Nuclear Procurement Program Improvements."
- (iii) Each proposed requirement or staff (regulatory) position shall contain the sponsoring office's position as to whether the proposal would increase requirements or staff (regulatory) positions, implement existing requirements or staff (regulatory) positions, or would relax or reduce existing requirements or staff (regulatory) positions.

The proposed generic letter expresses the staff position that licensee programs must assure the suitability of commercially procured and dedicated equipment for its intended safety-related application. The commercial-grade dedication findings discussed in Enclosure 1 of the proposed generic letter do not constitute new NRC requirements, but constitute a new staff position as to actions necessary to meet existing 10 CFR Part 50, Appendix B requirements. The staff views in this generic letter are also being provided to clarify and augment the information previously provided to licensees in Generic Letter 89-02. Accordingly, the staff has determined that this is a compliance backfit and that the backfit provisions of the generic letter are justified under 10 CFR Part 50.109(a)(4)(i).

The staff will not initiate enforcement action in cases of past programmatic violations that have been adequately corrected. In

addition, the staff does not expect licensees to review all past procurements. However, if during current procurement activities, licensees identify shortcomings in the form, fit, or function of specific vendor products, or if failure experience or current information on supplier adequacy indicates that a component may not be suitable for service, corrective actions are expected for all such installed and stored items. In performing these actions for both stored and installed items, licensees must follow the existing requirements for corrective and follow-up actions contained in Criterion XVI of 10 CFR Part 50, Appendix B. A licensee must determine programmatic root causes when actual deficiencies in several different vendor products are identified during current procurement activities and these deficiencies lead to the replacement of installed items as part of the corrective action. In such cases, a further sampling of previously procured commercial-grade items may be warranted.

The pause in the conduct of procurement and commercial-grade dedication inspections does not relieve licensees from their Appendix B responsibility for corrective action when deficiencies or problems are found.

- (iv) The proposed method of implementation along with concurrence (and any comments) of OGC on the method proposed.

The staff proposes to promulgate the new staff position by means of a generic letter. This method has been effective in the past. The Office of the General Counsel (OGC) has no legal objection to this CRGR submittal package.

- (v) Regulatory analyses generally conforming to the directives and guidance of NUREG/BR-0058 and NUREG/CR-3568. (Make sufficient to address the Paperwork Reduction Act, the Regulatory Flexibility Act, and Executive Order 12291.)

A staff regulatory analysis or value impact assessment, per the above directives, is not required on the basis that this generic letter is justified under 10 CFR 50.109(a)(4)(i) as a compliance backfit.

- (vi) Identification of the category of reactor plants to which the generic requirement or staff position is to apply (that is, whether it is to apply to new plants only, new operating licenses (OLs) only, OLs after a certain date, OLs before a certain date, all OLs, all plants under construction, all plants, all water reactors, all PWRs only, some vendor types, some vintage types such as BWR 6 and 4, jet pump and nonjet pump plants, etc.).

As described in Item (i) above, the requirements apply to all holders of operating licenses and construction permits for nuclear power reactors.

- (vii) For each such category of reactor plants, an evaluation which demonstrates how the action should be prioritized and scheduled in light of other ongoing regulatory activities. The evaluation shall document for consideration information available concerning any of the proposed backfit factors as may be appropriate and any other information relevant and material to the proposed action.

Response to this item is not required pursuant to 10 CFR Part 50.109(a)(4)(i) and Revision 4 of the CRGR Charter, Section III.D., because the proposed generic letter provides information regarding an NRC inspection pause and the staff's views on key dedication activities which are acceptable methods to bring licensees into compliance with existing regulatory requirements. This backfit action should not affect the industry's schedule for improvements because the initiative on commercial-grade dedication was to be implemented by January 1990 and the comprehensive procurement initiative as described in NUMARC 90-13, "Nuclear Procurement Program Improvements," is already underway.

- (viii) For each evaluation conducted pursuant to 10 CFR 50.109, the proposing office director's determination, together with the rationale for the determination based on the considerations of paragraphs (i) through (vii) above, that:

- (a) There is a substantial increase in the overall protection of public health and safety or the common defense and security to be derived from the proposal; and

The NRC has identified numerous instances in which the nuclear industry received, accepted, and installed products that were not of the quality identified by the manufacturer or supplier. The NRC has also identified examples of significant deficiencies regarding programs for the procurement and dedication of commercial-grade items, with errors traceable to both suppliers and purchasers who dedicated the items for safety-related applications. These issues were initially discussed in Generic Letter 89-02.

The adequate dedication of commercial-grade items by suppliers and purchasers (including licensees), increases the probability that hardware installed in safety-related applications will perform as desired. The staff views in the proposed generic letter provide for overall protection of public health and safety.

The NUMARC Initiative on the Dedication of Commercial-Grade Items requested that utilities review and, if necessary, develop or upgrade current programs to meet the intent of EPRI NP-5652. Generic Letter 89-02 conditionally endorses EPRI NP-5652 as a guideline for commercial-grade dedication. The EPRI guideline presents several approaches to implement existing requirements as they apply to commercial-grade items.

- (b) The direct and indirect costs of implementation, for the facilities affected, are justified in view of this increased protection.

Any direct or indirect costs associated with this generic letter result primarily from the evaluation by licensees of their existing procurement programs to the NUMARC initiatives. Implementation to NRC requirements should have been previously incorporated through Generic Letter 89-02.

- (ix) For each evaluation conducted for proposed relaxations or decreases in current requirements of staff positions, the action is justified because of the proposing office director's determination, together with the rationale for the determination based on the considerations of the above, that:

- (a) the public health and safety and the common defense and security would be adequately protected if the proposed reduction in requirements or (regulatory) positions were implemented; and
- (b) the cost savings attributed to the action would be substantial enough to justify taking the action.

This item is not applicable to the proposed generic letter because the staff is not proposing a relaxation or decrease in current requirements.



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

DRAFT

TO: ALL HOLDERS OF OPERATING LICENSES AND CONSTRUCTION PERMITS FOR
NUCLEAR POWER REACTORS

SUBJECT: LICENSEE COMMERCIAL-GRADE PROCUREMENT AND DEDICATION PROGRAMS
(GENERIC LETTER 91-XX)

This generic letter notifies the industry of the staff's pause in conducting certain procurement inspection and enforcement activities and identifies a number of failures in licensees' commercial-grade dedication programs identified during recent team inspections performed by the U.S. Nuclear Regulatory Commission (NRC). The pause, which began in March of 1990, will end in late summer of 1991. The purpose of the pause is to allow licensees sufficient time to fully understand and implement guidance developed by industry to improve procurement and commercial-grade dedication programs. This generic letter expresses staff positions regarding certain aspects of licensee commercial-grade procurement and dedication programs which would provide acceptable methods to meet regulatory requirements.

During the period from 1986 to 1989, the NRC conducted 13 team inspections of the licensees' procurement and commercial-grade dedication programs. During these inspections, the NRC staff identified a common, programmatic deficiency in the licensees' control of the procurement and dedication process of commercial grade items for safety-related applications. In a number of cases, the staff found that licensees had failed to adequately maintain programs as required by 10 CFR Part 50, Appendix B, to assure the suitability of commercially procured and dedicated equipment for its intended safety-related applications. In addition, the staff identified equipment of indeterminate quality installed in the licensees' facilities.

Because of a decrease in the number of qualified nuclear-grade vendors, the NRC staff is aware that there has been a change in the industry's procurement practices. Ten years ago, licensees procured major assemblies from approved vendors who maintained quality assurance programs pursuant to Appendix B of Part 50 of Title 10 of the Code of Federal Regulations (10 CFR). Currently, due to the reduction in the number of qualified nuclear-grade vendors, licensees are increasing the numbers of commercial-grade replacement parts that they procure and dedicate for use in safety-related applications. This has necessitated an increased emphasis by the staff that licensees maintain procurement and dedication programs that adhere to the requirements of 10 CFR Part 50, Appendix B, and thus assure the quality of items purchased and installed in safety-related applications. Therefore, dedication processes for commercial-grade parts have increased in importance and NRC inspections have determined that a number of licensees have not satisfactorily performed this procurement and dedication process.

DRAFT

The industry has been made fully aware of the NRC's concerns in this program area. In the past, escalated enforcement cases have provided notice to the affected licensees and to the industry of NRC's findings, concerns, and expectations in the implementation of procurement and dedication programs.

Further, the NRC staff continues to participate in numerous industry meetings and conferences at which the NRC's positions in this area have been presented. The Nuclear Utility Management and Resources Council (NUMARC) Board of Directors recently approved a comprehensive procurement initiative as described in NUMARC 90-13, "Nuclear Procurement Program Improvements," which commits licensees to assess their procurement programs and take specific action to enhance or upgrade the program if they are determined to be inadequate. The initiative on the dedication of commercial-grade items, which is part of NUMARC 90-13, was to be implemented by January 1, 1990. The staff is monitoring implementation of licensee program improvements by conducting assessments of their procurement and commercial-grade dedication programs and maintaining close interaction with the nuclear industry through participation in conferences, panels, and meetings.

The staff will continue to perform reactive inspections relating to plant specific operational events or to defective equipment and, as required, will continue to initiate resultant enforcement actions. In addition, the staff will continue to perform inspections of vendors. The staff expects to resume procurement and dedication inspection activities in the late summer of 1991. These resumed inspections will be conducted using 10 CFR Part 50, Appendix B (not the NUMARC initiatives) as the applicable regulatory requirement. Licensee programs must assure the suitability of commercially procured and dedicated equipment for its intended safety-related application.

The staff will not initiate enforcement action in cases of past programmatic violations that have been adequately corrected. In addition, the staff does not expect licensees to review all past procurements. However, if during current procurement activities, licensees identify shortcomings in the form, fit, or function of specific vendor products, or if failure experience or current information on supplier adequacy indicates that a component may not be suitable for service, corrective actions are required for all such installed and stored items. In performing these actions for both stored and installed items, licensees must follow the existing requirements for corrective and follow-up actions contained in Criterion XVI of 10 CFR Part 50, Appendix B. A licensee must determine programmatic root causes when actual deficiencies in several different vendor products are identified during current procurement activities and these deficiencies lead to the replacement of installed items as part of the corrective action. In such cases, a further sampling of previously procured commercial-grade items may be warranted.

In NRC Generic Letter 89-02, "Actions to Improve the Detection of Counterfeit and Fraudulently Marketed Products," the staff described its perspective on good practices in procurement and dedication and provided the NRC's conditional endorsement of an industry standard (EPRI NP-5652) on methods of commercial-grade procurement and dedication. A number of recent inspection findings indicate that licensees have failed to include certain key activities, as appropriate, in the implementation of the dedication process. Enclosure 1

DRAFT

includes further discussion of the NRC staff's views on the successful implementation of licensees' programs for commercial-grade dedication. The commercial-grade dedication inspection findings discussed in Enclosure 1 do not constitute new NRC requirements, but present staff guidance and clarification regarding implementation of existing regulatory requirements, as contained in Appendix B to 10 CFR Part 50, and augment the characterization of effective procurement and dedication programs previously described in Generic Letter 89-02.

BACKFIT DISCUSSION:

Based on past inspection findings and the resulting enforcement actions, the NRC staff has determined that licensee commercial-grade procurement and dedication programs needed to be improved to comply with the existing NRC requirements as described in 10 CFR Part 50, Appendix B, Criterion III (Design Control), IV (Procurement Document Control), VII (Control of Purchased Material, Equipment and Services), and XVIII (Audits). Specifically, licensees have failed to adequately maintain programs to assure the suitability of commercially procured and dedicated equipment for its intended safety-related application. Since the generic letter presents a new staff position regarding implementation of existing regulatory requirements, as contained in Appendix B to 10 CFR Part 50, the staff has concluded, that this is a compliance backfit and has prepared the generic letter in accordance with 10 CFR 50.109 (a)(4)(i). In light of the inadequacies identified in the procurement and dedication programs of a large number of licensees, the issuance of this generic letter is necessary to express the staff's position on the key element that licensees must include as part of the dedication process, specifically that commercial-grade procurement and dedication programs must assure the suitability of equipment for its intended safety-related application. This generic letter is also intended to clarify the elements of effective procurement and commercial-grade dedication programs that were previously provided to licensees in Generic Letter 89-02. Since licensees' procurement and dedication programs may contain programmatic deficiencies, the staff has included in the generic letter the necessary licensee corrective action to address shortcomings identified in specific vendor products or components that directly lead to the component not being suitable for safety-related service.

Although no response to this letter is required, if you have any questions regarding this matter, please contact the persons listed on the following page.

Sincerely,

James G. Partlow
Associate Director for Projects
Office of Nuclear Reactor Regulation

Enclosures: See page 4

DRAFT

Enclosures:

1. Characteristics of Effective Commercial-Grade
Procurement and Dedication Programs
2. List of Recently Issued Generic Letters

Technical Contacts: Richard P. McIntyre, NRR
(301) 492-3215

Uldis Potapovs, NRR
(301) 492-0959

DRAFT

Enclosure 1

CHARACTERISTICS OF EFFECTIVE COMMERCIAL-GRADE PROCUREMENT AND DEDICATION PROGRAMS

Background

Appendix B to 10 CFR Part 50 contains the NRC's regulations for procurement quality assurance (QA) and quality control (QC) for products to be used in safety-related applications. In addition, the NRC has provided further guidance in Regulatory Guides 1.28, 1.33, and 1.123. These requirements and guides, if properly implemented, assure the suitability of equipment, including commercial-grade items for use in safety-related systems. Criterion III of Appendix B requires licensees to select and review for suitability of application materials, parts, equipment, and processes that are essential to the safety-related functions of the structures, systems, and components. Criterion IV requires that procurement documents specify the applicable requirements necessary to ensure functional performance. Criterion VII requires licensees to assure that the following are sufficient to identify whether specification requirements for the purchased material and equipment have been met: source evaluation and selection, objective evidence of quality, inspection of the source, and examination of products upon delivery. The process used to satisfy these requirements when upgrading commercial-grade items for safety-related applications is commonly called "dedication." The process of ensuring compliance with 10 CFR Part 50, Appendix B, must include all those activities necessary to establish and confirm the quality and suitability of commercially procured and dedicated equipment for its intended safety-related application. Some of the dedication activities may occur early in the procurement cycle, before the item is accepted from the manufacturer. Generic Letter (GL) 89-02, "Actions to Improve the Detection of Counterfeit and Fraudulently Marketed Products," discussed commercial-grade dedication in terms of engineering involvement in the procurement process, product acceptance, and the dedication process as identified in the EPRI NP-5652 guidelines. This enclosure further discusses the characteristics of effective procurement and dedication programs previously discussed in GL 89-02 and provides examples of specific failures by licensees to effectively implement these characteristics for dedicating and ensuring the suitability of commercial-grade products for safety-related applications. Appropriate implementation of these characteristics would have avoided the failures to meet 10 CFR Part 50, Appendix B requirements in licensee procurement and commercial-grade dedication programs which were identified during past NRC inspections.

Inspection Observations and Findings

From 1986 to 1989, headquarters and regional personnel conducted 13 team inspections of licensees' procurement and dedication programs. These inspections have identified a common, broad programmatic deficiency in licensees' control over the process of procurement and dedication of commercial-grade

items. In a number of cases, licensees have not maintained programs to ensure the suitability of equipment for use in safety-related applications as required by 10 CFR Part 50, Appendix B, Criterion III. From these 13 inspections, the staff identified 8 findings that were considered to be Severity Level III violations and 3 findings that were Severity Level IV violations. At one plant, the staff did not assign a severity level to individual violations. Instead, the staff considered the entire group to be a Severity Level III problem and used enforcement discretion, as provided under the enforcement policy, based on the licensee's corrective actions (see 10 CFR Part 2, Appendix C, Section V.G.2). Only one of the plants that were inspected did not receive violations in this program area.

In GL 89-02, the NRC has conditionally endorsed the dedication methods described in EPRI NP-5652 guidelines. The staff believes that licensees who implement these dedication methods, in accordance with the NRC's endorsement, can establish a basis for satisfying the existing requirements of Appendix B to 10 CFR Part 50 as these requirements apply to the dedication process for commercial-grade items. An effective commercial-grade dedication program must include provisions to demonstrate that a dedicated item is suitable for safety-related applications. For a licensee to adequately establish suitability, certain key activities must be performed, as appropriate, as part of the dedication process. This generic letter is intended to clarify and augment the dedication approaches described in GL 89-02.

During each of the 13 inspections, the staff identified a common element in each of the inspection findings. This element was the failure of the licensee to assure that a commercially procured and dedicated item was suitable for the intended safety-related application. A dedicated commercial-grade item must be equivalent in its ability to perform its intended safety function to the same item procured under a 10 CFR Part 50, Appendix B QA program. The following is a list of the 13 licensees inspected and the inspection report numbers. A summary of the general inspection findings and NRC observations on these findings follows the list of licensee inspections.

<u>LICENSEE and PLANT</u>	<u>INSPECTION REPORT NO.</u>
1. Tennessee Valley Authority (Sequoyah)	50-327/86-61 50-328/86-61
2. Southern California Edison (San Onofre)	50-206/87-02 50-361/87-03 50-362/87-04
3. Alabama Power (Farley)	50-348/87-11 50-364/87-11
4. Louisiana Power and Light (Waterford)	50-382/87-19

DRAFT

<u>LICENSEE and PLANT</u>	<u>INSPECTION REPORT NO.</u>
5. Sacramento Municipal Utility District (Rancho Seco)	50-312/88-02
6. Maine Yankee Atomic Power (Maine Yankee)	50-309/88-200
7. Northern States Power (Prairie Island)	50-282/88-201 50-306/88-201
8. Portland General Electric (Trojan)	50-344/88-39 50-344/88-46
9. Connecticut Yankee Atomic Power (Haddam Neck)	50-213/89-200
10. Washington Public Power Supply System (WNP-2)	50-397/89-21 50-397/89-28
11. Florida Power (Crystal River)	50-302/89-200
12. Gulf States Utilities (River Bend)	50-458/89-200
13. Commonwealth Edison (Zion)	50-295/89-200 50-304/89-200

1. Inspection Findings

- a. Failure to identify the methods and acceptance criteria for verifying the critical characteristics, such as during receipt inspection, dedication process, or post-installation testing.
- b. Failure to establish verifiable, documented traceability of complex commercial-grade items to their original equipment manufacturers in those cases where the dedication program cannot verify the critical characteristics.
- c. Failure to recognize that some commercial-grade items cannot be fully dedicated once received on site. Certain items are manufactured using special processes, such as welding and heat treating. Dedication testing of these items as finished products would destroy them. For these items, licensees may need to conduct vendor surveillances or to witness certain activities during the manufacturing process.

Discussion

The NRC staff has met on several occasions with NUMARC and licensee representatives to discuss "critical characteristics" as used in the context of commercial-grade procurement and dedication. The term "critical characteristics" is not contained in Appendix B and has no special regulatory significance beyond its use and definition in various industry

DRAFT

guides and standards. The NRC first used the term critical characteristics in GL 89-02 as constituting those characteristics which need to be identified and verified during product acceptance as part of the procurement process. The NRC has not taken the position that all design requirements must be considered to be critical characteristics as defined and used in EPRI NP-5652. Rather, as stated in Appendix B, Criterion III, licensees must assure the suitability of all parts, materials, and services for their intended safety-related applications (i.e., there needs to be assurance that the item will perform its intended safety function when required). The licensee is responsible for identifying the important design, material, and performance characteristics for each part, material, and service intended for safety-related applications, establishing acceptance criteria, and providing reasonable assurance of the conformance of items to these criteria. There is no minimum or maximum number of critical characteristics that need to be verified. Further, the critical characteristics for an item may vary from application to application depending on the design and performance requirements unique to each application.

A licensee may take different approaches for the verification of the critical characteristics, depending on the complexity of the item. In many cases, the licensee can verify the critical characteristics of each item during receipt inspection testing. However, for a complex item with internal parts which receive special processing during manufacturing, the licensee may need to conduct a source verification of the manufacturer during production to verify the critical characteristics identified as necessary for the item to perform its safety function. When these methods cannot verify the critical characteristics related to special processes and tests, certification by the original equipment manufacturer may be an acceptable alternative provided documented, verified traceability to the original equipment manufacturer has been established and the purchaser has verified by audit or survey that the original equipment manufacturer has implemented adequate quality controls for the activity being certified.

For simple items with critical characteristics that can be verified for the most severe or limiting plant application, the licensee might prefer to identify and verify the item's critical characteristics to qualify that item for all possible plant applications. For complex items that would be purchased for specific plant applications, it may be appropriate to address the acceptance criteria for each item individually. Engineering involvement is important in either method because the technical evaluation will identify the critical characteristics, acceptance criteria, and the methods to be used for verification.

2. Inspection Findings

- a. Failure to demonstrate that a like-for-like replacement item is identical in form, fit, and function to the item it is replacing. Part number verification is not sufficient because of the probability of undocumented changes in the design, material, or fabrication of commercial-grade items using the same part number.
- b. Failure to evaluate changes in the design, material, or manufacturing process for the effect of these changes on safety function performance (particularly under design basis event conditions) of

replacement items that are similar as opposed to identical to the items being replaced.

- c. Failure to ensure that items will function under all design requirements. On some occasions, licensees only ensured that the commercial-grade item would function under normal operation conditions.
- d. Failure to verify the validity of certificates of conformance received from vendors not on the licensee's list of approved vendors/suppliers. An unverified certificate of conformance from a commercial-grade vendor is not sufficient.

Discussion

A like-for-like replacement is defined as the replacement of an item with an item that is identical. A like-for-like replacement does not change the engineering analysis or as-built configuration of the component or system in which it is installed, and the replacement item meets the same design specifications, technical and quality requirements, and functional characteristics as the item it replaces. If differences from the original item are identified in the replacement item, then the item is not identical, but similar to the item being replaced, and evaluation is necessary to determine if any changes in design, material, or the manufacturing process could impact the functional characteristics and ultimately the component's ability to perform its required safety function.

If the licensee can demonstrate that the replacement item is identical, then the licensee need not identify the safety function or review and verify the design requirements and critical characteristics. For example, the replacement item would be identical if it was purchased at the same time from the same vendor as the item it is replacing, or if the user can verify that there have been no changes in the design, materials, or manufacturing process since procurement of the item being replaced.

Engineering involvement is necessary in the above activities. The extent of this involvement is dependent on the nature, complexity, and use of the items to be dedicated. Participation of engineering personnel is appropriate in the procurement process, and product acceptance, to develop purchase specifications, determine specific testing requirements applicable to the products, and evaluate the test results. When engineering personnel specify design requirements for inclusion on the purchase documents for replacement components, they need not reconstruct and reverify design adequacy for procurement purposes, but need only ensure that the existing design requirements (which may reference the original design basis) are properly translated into the purchase order.

Reliance on part number verification and certification documentation is insufficient to ensure the quality of commercially procured products. Effective product acceptance programs have as elements, receipt and source inspection, appropriate testing criteria, effective vendor audits and surveillances (including witness/hold points as appropriate), special tests and inspections, and post-installation tests. Procedures and adequate qualifications and training for implementing personnel are also necessary factors in successful implementation.