



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

February 25, 1997

MEMORANDUM TO: Chairman Jackson
Commissioner Rogers
Commissioner Dicus
Commissioner Diaz
Commissioner McGaffigan

FROM: L. Joseph Callan *L. Callan*
Executive Director for Operations

SUBJECT: REVIEW OF LICENSEES' RESPONSES TO THE 10 CFR 50.54(f) LETTER
OF OCTOBER 9, 1996, ON THE ADEQUACY AND ACCURACY OF DESIGN
BASES INFORMATION FOR NUCLEAR POWER PLANTS

Numerous inspection findings during late 1995 and 1996 highlighted the importance of operating and maintaining plants within their design bases. Although the staff took action to address concerns identified at specific plants, the staff recognized the need to increase its reactor oversight of licensees' performance in maintaining and using design bases information for their plants.

To establish a baseline from which the staff could determine appropriate regulatory action, including future design inspections, on October 9, 1996, the EDO issued a 10 CFR 50.54(f) letter to each utility Chief Executive Officer (CEO) that required the licensee to submit various types of information (within 120 days of receipt of the letter) on engineering design and configuration control processes and their effectiveness at each facility. The letter explained that NRC required the information in order to (1) verify compliance with the terms and conditions of plant operating licenses and NRC regulations, (2) verify that the plant's updated final safety analysis report properly describes the facilities, and (3) determine whether other inspection activities or enforcement action should be taken.

Given the importance of operating and maintaining plants within their design bases, the staff recognized the need to perform timely reviews of the licensees' responses to the 10 CFR 50.54(f) letter and to make appropriate adjustments in NRC's reactor oversight program. During the past few months, the staff has examined alternatives for reviewing the responses and performing followup activities. The staff has determined that the most efficient and effective process would be one that is performed by the responsible line organizations (the Regional offices and the Office of Nuclear Reactor Regulation (NRR) Projects) and makes use of existing reactor oversight program elements. The process includes the following elements:

- Review of licensee responses.
- Integration of review results with historical regulatory performance information.

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*L-4-1 PT50 Design Criteria
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- Identification of the scope, depth, and priority of NRC followup activities, based on the first two elements, including inspections to verify adequate licensee implementation of design basis programs.
- Integrated management of the followup activities at a facility and within a region.
- A tracking mechanism to ensure completion of followup items.
- A final closure mechanism documenting the actions taken for each facility to verify and reestablish, where necessary, a facility's operation within its design basis.

The process for review of licensee responses to the 10 CFR 50.54(f) letter and performance of followup activities to assure licensees are appropriately using design basis information will consist of both short-term and long-term activities. Because NRC followup activities must be tailored to each plant and customized within budgeted NRC reactor oversight program resources, the staff expects that performance of this initiative will extend over a period of years. At this time, the staff has identified short-term activities that will be accomplished over the remainder of the 1997 calendar year. These short-term activities will be conducted in four phases. The staff's schedule for accomplishing the short-term activities is attached. The actions to take place in each of the four phases are briefly summarized below.

Phase 1

During Phase 1, the responsible NRR project manager (PM) will promptly perform an acceptance review of the licensee's response for the assigned facility and prepare an acknowledgment letter or request for additional information that will be transmitted to the licensee within about 2 weeks of the completion of the review. This review is expected to identify any issue of significant regulatory concern requiring prompt NRC followup and whether the licensee has been responsive to the request for information in the 10 CFR 50.54(f) letter. The review of responses to requests for additional information (RAIs) will be considered under Phase 4.

Phase 2

During Phase 2, one licensee response per region will be selected as part of a pilot staff review program. In the pilot program, regional representatives and the NRR-PM, will review the response using the draft review guidance contained in the review template (Attachment 1). This effort will determine the ability of the draft review process to evaluate the responses and highlight or identify areas where additional regulatory oversight of licensee's programs for design controls may be warranted. Upon completion of the four pilot reviews, the staff will meet to evaluate the success of the pilot program, revise the guidance to better focus the staff reviews and issue revised review guidance to be used in Phase 3 of the staff review.

Phase 3

Following completion of Phase 2, each region, with active participation by the NRR-PM, will use the revised review guidance to complete the initial NRC review of the remaining 50.54(f) responses. The reviewers will use the revised guidance to evaluate each response for the presence or absence of certain key pieces of information required by the 10 CFR 50.54(f) letter. Then the staff will use insights derived from readily available regulatory information to reach a conclusion regarding a facility's performance with respect to operating within its design bases. Pertinent regulatory information that is available to the staff includes data, observations and findings from: NRC inspections of procedures, technical specification interpretations, operability evaluations, 10 CFR 50.72 reports, licensee event reports, quality assurance programs and audits, onsite and offsite safety committee evaluations, and training programs; NRC inspections of maintenance and engineering activities (including Safety System Functional Inspections, Safety System Outage Modification Inspections, and Architect Engineer Design Inspections); NRC reviews of Updated Final Safety Analysis Reports, 10 CFR 50.59 evaluations, requests for enforcement discretion, exemption requests and license amendment requests; correspondence related to violations of 10 CFR 50.59, 10 CFR 50.71(e), and 10 CFR 50 Appendix B Criteria III and XVI; and NRC performance data captured in Office of Analysis and Evaluation of Operational Data performance indicators, systematic assessment of licensee performance results, and the facility's Plant Issues Matrix. During this phase the staff will not be required to retrieve historic information on licensee use of design bases information, except as would be required to support the normal plant performance review process. The need for a more exhaustive compilation of historical regulatory information will be considered in Phase 4.

The factual information garnered from reviewing the licensee's response will be integrated with information related to the licensee's performance in the design-basis area to identify any near-term and long-term regulatory followup activities. The results of the review and analysis would then be discussed in the upcoming Senior Management Meeting (SMM) screening meetings (scheduled for April 1997). Phase 3 will culminate in May 1997 with a status report to the Commission on the results of the initial reviews of the responses to the 10 CFR 50.54(f) letter, identification of any insights gained to date, and the recommendations for Phase 4 of the initiative.

Phase 4

In Phase 4 of the initiative, it is anticipated that the regions and the project manager will perform a more in-depth integration of available regulatory information with the insights gained from reviewing the licensee's response, including any response to RAIs. We expect to receive valuable feedback from the first three phases that must be assessed before finalizing the final phase of the process. In addition, the review is

expected to be performed as an integral part of the PPR/SMM cycle to be conducted in late 1997. More comprehensive plans for conducting Phase 4 will be submitted to the Commission in the staff's May 1997 report.

Attachments: 1. Draft Review Template
2. Milestones and Schedule for Short-Term Activities
Related to the Staff's Review of Licensees'
Responses to the 10 CFR 50.54(f) Letter

cc: SECY
OGC
CIO
CFO
OCA
OPA
H. Thompson
E. Jordan
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*See previous concurrences

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Review & Plan Summary
50.54(f) Response on Facility Design Basis Information
Pre-Decisional Information

Facility _____

Operating License Date _____

Plant Type _____

Purpose and Process:

This document summarizes the results of the staff's review of the licensee's response to the 10 CFR 50.54(f) letter of October 9, 1996, that requested currently licensed nuclear generating facilities to submit specific information pertaining to their programs and processes for ensuring operation in accordance with design, the availability and adequacy of design basis information, and the effectiveness of such programs or processes for maintaining operation with design. The licensee's response was reviewed by both regional and program office personnel. The results of this review were presented to and discussed with regional management, inspection specialist, and program office representatives who were knowledgeable of the facility's regulatory performance and history as it relates to the availability and use of design basis information. Based on integration of the review results with regulatory information specific to the facility these same individuals then determined the need for near term and/or long term regulatory followup.

The results of the review are presented in the following format:

- 1. *Statement of Facts Gained from Response Review***
- 2. *Analysis of Facts with Integration of Available Regulatory Information***
- 3. *Conclusion & Recommendations for Followup Activities.***
- 4. *Attachments (optional: examples include PIM, MIP modified with recommendations)***

- 1. Statement of Facts Gained from Response Review**

In this section of the summary, provide factual statements extracted from the licensee's response which might be useful in focusing the analysis and formulation of conclusions on the status of a licensee's design basis programs and processes. Insights such as highlighting previously unknown information about the licensee's design control processes or information you have reason to believe needs to be tested based on your experience with the facility would be especially useful. In addition, as a minimum factual statements should address the following:

- a. Did licensee provide required information? On what basis did they conclude their processes were effective in maintaining conformance of their facility and operations in accordance with their design basis?*
- b. Did licensee perform a design basis reconstitution or some other similar design basis documentation effort? If so, what were its attributes? If not, what was the rationale for not performing it?*

- c. What did licensee do with problem areas identified based on the above efforts? Is the followup complete; or if not, are followup actions being tracked and appropriately prioritized?
- d. What has licensee done to evaluate effectiveness of its ability to operate in accordance with its design? Are these assessments continuing and broad in scope?
- e. What additional actions has the licensee taken or planned based on preparing its response to the 50.54(f) request or any other previously initiated effort related to maintaining or verifying operation within their design basis?
- f. Has licensee validated FSAR and TS (i.e., recent FSAR review or Improved TS)? If not, on what basis does it believe these documents appropriately reflect their design basis?
- g. Other notable information found to be noteworthy in light of your regulatory experience with the facility.

If any of the information for answering these questions is not available, it should be noted.]

2. Analysis of Facts with Integration of Available Regulatory Information

[Include relevant inspection and licensing insights in the design basis area from a facility's regulatory history. These insights are derived from NRC inspection of procedures, technical specifications interpretations, operability evaluations, 50.72 reports, LERs, QA programs and audits, onsite and offsite safety committee evaluations, and training; NRC inspections of maintenance, modifications and engineering (including SSFIs, SSOMIs, and AE Design inspections); NRC reviews of UFSARs, 50.59 evaluations, requests for enforcement discretion, exemption requests and license amendment requests; NRC enforcement correspondence related to 50.59, 50.71(e), and 10 CFR 50 Appendix B Criteria 3 and 16 violations; and NRC performance data captured in AEOD performance indicators, SALP and the Plant Issues Matrix. Use the Plant Issue Matrix (PIM) as a starting point. However, do not limit the review to just the last SALP cycle of data (standard in most regions) normally contained in the PIM. If other information is available it should be used in gaining additional perspectives. In addition, a major objective for presenting these perspectives and information gained from the response review at a PPR like meeting is to gain insights from senior personnel with historical perspectives on a facility's performance in the design basis arena.]

3. Conclusions & Recommendations for Followup Activities

[Following presentation of information in Sections 1 and 2 above at a PPR like meeting to regional management a decision regarding near term and long term followup activities should be implemented. As a suggestion, for the purpose of efficiently using time of management personnel at the PPR like meeting, the individuals responsible for reviewing the response and gathering the regulatory information could develop preliminary recommendations to be used as a starting point at the meeting. At this time, it is envisioned that followup recommendations could range from assigning the resident staff under the current core engineering module to spend time looking at a particular aspect of a

facility's design basis control process for the purpose of testing an area, to recommending a large engineering team inspection (HQ or Region based) such as the current Architect-Engineer inspection team inspections being conducted, or anywhere in between. In addition, while there are currently less than a dozen inspection modules with guidance in this area, recommendations could also include resurrecting inspection procedures like those used during initial licensing of the facilities to determine if a system configuration was in accordance with design specifications. If recommendations take additional resources to accomplish or would impact ongoing operations, so state.]

4. Attachments (Optional)

- [• PIM
- *Inspection/Activity Plan as proposal modified from insights gained from this process.]*

Response Review & Plan Summary prepared by: _____

MILESTONES AND SCHEDULE FOR SHORT-TERM ACTIVITIES RELATED TO THE STAFF'S
REVIEW OF LICENSEES' RESPONSES TO THE 10 CFR 50.54(f) LETTER

The overall goal of the short-term activities is to identify specific followup activities for each plant. The staff's schedule for accomplishing the short-term activities is as follows:

<u>Date</u>	<u>Milestone</u>
02/14/97	Approach coordinated between senior program office and regional management and finalized for review Phase 1 (acceptance review of responses), Phase 2 (pilot reviews and revision of draft review guidance), and Phase 3 (completion of initial response reviews)
02/18/97	Regions propose responses to be subjected to pilot application of the initial review process (one response from each region)
02/19/97	Begin acceptance review of responses by project managers (PMs) and pilot response reviews by region and the Office of Nuclear Reactor Regulation (NRR) Projects staff*
02/24/97	Memorandum to Commission submitting the action plan and schedule for near-term reviews
02/26/97	Completion of pilot response reviews
02/27/97	Meeting/conference call to factor pilot response review experience into the guidance for performing initial reviews
02/28/97	Completion of acceptance reviews of responses by PMs
03/05/97	Completion of revision of guidance for performing initial reviews; initial review of all responses begins
03/10/97	Memorandum to the Commission submitting results of the pilot response reviews and the finalized guidance that will be used for performing the initial response reviews
03/14/97	Acknowledgment letters addressing the acceptance reviews due to licensees*
04/97	Results of initial response review discussed at plant performance review screening meetings

05/23/97

Report to the Commission on results of review Phases 1 through 3, insights obtained, and plans for Phase 4 review tentatively planned (in-depth review of responses and regulatory performance information for each site)

*Regarding those responses not received by this date the staff will begin its acceptance review immediately upon receipt and will complete the review within 1 week. The staff will send a letter to the licensee acknowledging receipt approximately 2 weeks after receipt of the response.

WITS ITEM

*Should
be
DRPM*

DUE: 3-24-97

WITS CONTROL: 9600179

NRR RECEIVED: November 21, 1996

ACTION:

~~DISP: BARNETT~~

DRPM MARTIN

DM 12/6

NRR ROUTING:

MIRAGLIA
~~INADANT~~
ZIMMERMAN
SHERON
MARTIN
TRAVERS
BOHRER

rec'd 12/4/96

*Action -
PGEB
(Aksatukewig)*

ACTION

DUE TO NRR DIRECTOR'S OFFICE

BY *Mar 19, 1997*

ASSIGNED TO	SUBJECT	DUE DATE	COMMENTS
AEOD	R. Reliability and Availability Information for Risk-Significant Systems and Equipment in Nuclear Power Plants. (9400180)		
	1. Evaluation of proposed voluntary approach	4/30/97	Taylor memo 10/24/96
	2. Final Rule - 6 months following Commission Decision	TBD	
NRR	<div> <div> </div> <div> </div> </div> S. Review of 50.54(f) responses complete/action plan (9600179)	3/97	Responses due 2/97
	III. TECHNICAL ISSUES - MATERIALS		
NMSS	A. Programmatic changes in HLW regulation		
	a. Commission Paper on Comments on Proposed EPA Standard (9600037)	1/30/97	EPA draft rule has not been published. Paper is due 60 days after publication of draft EPA rule in the FR (based on assumption of 90-day comment period).
NMSS	B. Dry Cask Storage for HLW		
	1. Issue Final "Standard Review Plan for Dry Cask Storage Systems" NUREG 1536 to include enhanced guidance on potential adverse chemical and materials interactions with power plant systems and equipment. (9600110)	1/97	Delay is due to staff prep. of the draft SRP on Spent Fuel Dry Storage Facilities (NUREG-1567) and the need to ensure consistency between the Dry Cask Storage System SRP and the Spent Fuel Dry Storage Facilities SRP.
	2. Receive, evaluate, followup and complete report on short-term responses [items 1(a), 1(b), and 1(c)] to NRC Bulletin 96-04, "Chemical, Galvanic or Other Reactions in Spent Fuel Storage and Transportation Casks" (9600111)	12/22/96	Allows time for staff to conduct complete analysis of responses received. August 18 represented 45 days from publication of the Bulletin.