

September 13, 1996

MEMORANDUM TO: James M. Taylor
Executive Director for Operations

FROM: Greta J. Dicus
Commissioner

SUBJECT: SECY-96-189, 10 CFR 50.54(f) LETTERS ON THE
AVAILABILITY AND ADEQUACY OF DESIGN BASIS
INFORMATION

*Jim -
Jenne Chan gave
me the following
questions regarding
the 50.54f letter. I
will forward them to NRC
for a response due by
COB Friday 9/17.*

Uic

cc: B D

To assist in my evaluation of the action requested by this paper, I request that the following questions be addressed:

1. The paper seems to base the need for information from all licensees primarily on the findings from Millstone and Haddam Neck, all of which are operated by Northeast Utilities. How was the staff able to conclude that similar types of deficiencies and the associated safety significance or regulatory significance are also likely to exist at other NRC licensed plants to the extent that 50.54(f) letters to all licensees are warranted. Was supplemental information also used in making such a determination?
2. What are the anticipated staff resource implications involved in the review of licensee responses, and the schedule or time table in which the staff will complete its reviews? How does staff plan to respond to the licensees once the reviews have been completed?
3. The staff, through Requests Nos. 1 and 2 of the proposed 50.54(f) letter, strongly implies that NRC wants licensees to implement a design review or design basis reconstitution program that contain the various elements of Subitems (a) and (b). It also appears that information relating to several separate and distinct administrative programs or processes are being requested in subitems (a) through (e) of the letter: Corrective Action, design change, configuration control, quality assurance, problem identification and resolution, operability determinations, and 50.59 evaluation procedures.

These all appear to be programs of which the NRC has been conducting inspections in order to assess licensee performance and program effectiveness. If this information is available through inspection reports, what is the purpose of requesting this information from each licensee now?

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Since the questions seem to relate more to process than results, how will the information that is requested by the 50.54(f) letters allow the staff to determine whether a particular licensee or plant is performing well or poorly with respect to maintaining their plants in accordance with their designs and design documents, or whether they have an effective design basis management program, which in turn, would help the staff better prioritize and focus its future design-related inspection activities?

Wet
Were alternatives to a 50.54(f) letter were considered (i.e., limited number of team inspections)?

23⁷
(EDO Suspense - 9/30/96)

SECY, please track.

cc: Chairman
Cmr. Rogers
Cmr. Diaz
Cmr. McGaffigan
SECY

AVAILABILITY AND ADEQUACY OF DESIGN BASES INFORMATION NEED FOR 50.54(f) LETTER TO LICENSEES

Presenters

B. Givins
D. Matthews
S. Reynolds

DA
Sorenson
Keesman
Gray
Allen
Vette Lock
Katie Smith
Miller
Holia
Chao
Jones
Mankley



Linda Postbury
Collette

NRR STAFF
SEPTEMBER 18, 1996

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NEED FOR STAFF PROPOSED ACTION

INFORMATION REQUESTED IN 50.54(f) LETTER IS NECESSARY:

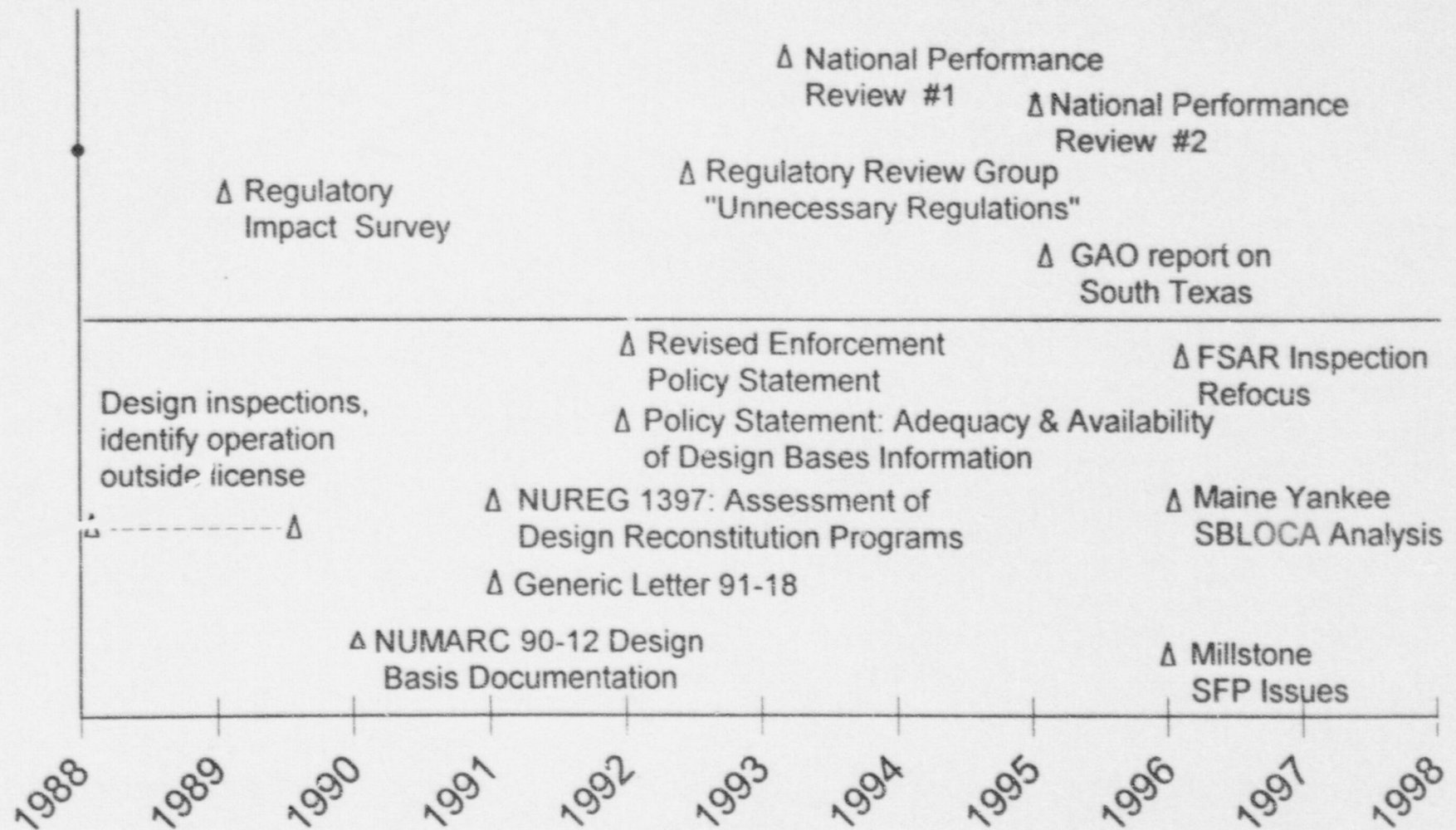
- TO ESTABLISH A CONSISTENT AND LOGICAL APPROACH TO ADDRESSING STAFF FOLLOW-UP (AS REQUIRED BY SRM OF 7/11/96) ON THE VOLUNTARY INDUSTRY PROGRAM
- EVALUATE WHETHER ADDITIONAL REGULATORY ACTIONS ARE NECESSARY TO ENSURE THAT EXISTING REGULATIONS ARE BEING MET
- GAIN ADDITIONAL CONFIDENCE THAT LICENSEES ARE OPERATING THEIR PLANTS UNDER THE TERMS AND CONDITIONS OF THEIR LICENSES

we have serious doubts about some and are afraid there are others

sticking points to TAs

- 1) why not ask them if they are complying? - we need them to discuss respond to a level of detail on the voluntary program.
- 2) why can't we SRM to ask if they have program?
- 3) Is this not just a knee-jerk reaction to all this?
- 4) why not a GL → want to focus on individual licensee response. 50.54(f) language requires under → safe/affirmation - gets
- 5) Fold Ent. Policy into the letter - Draft SRM now 1 being developed.
- 6) what about items a) → f) → we are using to gather assessment of the scope / attributes of the program. The criteria is how old SRM can do a) → f) (this is guidance that has been set)
- 7) ask S. → can you strengthen the design basis examples, review TAs issues

Design Basis Chronology



HISTORY OF ISSUES

MID-TO-LATE 1980's NRC TEAM INSPECTIONS IDENTIFY POTENTIAL PROBLEMS WITH DESIGN BASES DOCUMENTATION AFFECTING SAFETY SYSTEM FUNCTIONALITY/OPERABILITY - SSFF, SSOHIS,

EARLY 1990 INDUSTRY RESPONSE -- NUMARC 90-12 AND VOLUNTARY INDUSTRY EFFORT TO IMPROVE DESIGN BASES INFORMATION

LATE 1990 NRC ENDORSES NUMARC 90-12 WITH COMMENTS

1991 REGULATORY IMPACT SURVEY IDENTIFIES REGULATORY BURDEN OF NRC TEAM INSPECTIONS ON LICENSEES

1992 STAFF CONSIDERS OPTIONS FOR ADDRESSING ISSUE OF ACCURATE DESIGN BASES INFORMATION

STAFF CONCLUDES THAT CHANGES TO REGULATIONS WERE NOT NEEDED. RECOMMENDS ISSUANCE OF A POLICY STATEMENT TO OUTLINE NRC EXPECTATIONS AND GENERIC LETTER THAT WOULD REQUEST LICENSEES TO DESCRIBE THEIR PROGRAMS FOR ADEQUACY AND AVAILABILITY OF DESIGN BASIS

COMMISSION ISSUES POLICY STATEMENT

ENFORCEMENT POLICY REVISED TO ALLOW ENFORCEMENT DISCRETION FOR SELF-IDENTIFIED DESIGN BASES DEFICIENCIES

DRAFT GENERIC LETTER ISSUED FOR COMMENT. INDUSTRY STATES THAT GENERIC LETTER IS UNNECESSARY. STAFF CONCLUDES THAT GENERIC LETTER WOULD NOT FURTHER LICENSEES' AWARENESS OF THE IMPORTANCE OF THE ISSUE

ENGINEERING CORE INSPECTION PROGRAM REVISED TO EMPHASIZE OPERATIONS. INSPECTIONS REFOCUSED TO EVALUATE HOW WELL ENGINEERING SUPPORTED OPERATIONS AND MAINTENANCE

TOWERS-PERRIN REPORT PRESENTED REGULATORY BURDEN ISSUES

COMMISSION SRM DIRECTS STAFF TO MONITOR AND TRACK VOLUNTARY INDUSTRY PROGRAMS

STAFF DETERMINES THAT TOTAL ENGINEERING EFFORT FOR DESIGN-RELATED TEAM INSPECTIONS DECREASED SINCE ISSUANCE OF THE POLICY STATEMENT, WITH MOST HOURS BEING DEVOTED TO OPERATIONALLY ORIENTED SERVICE WATER INSPECTIONS

LICENSEES ARE RESPONSIBLE FOR MAINTAINING THEIR DESIGN BASIS. WHEN NRC REDUCED DESIGN INSPECTIONS FOLLOWING POLICY STATEMENT, SOME LICENSEES STOPPED IMPLEMENTING DESIGN RECONSTITUTION PROGRAMS.

RECENT EVENTS

some TAs felt it lacked safety significance
Crystal River IPAP design compliant
Zion

- EVIDENCE IS BUILDING THAT PROBLEM WITH ACCURACY OF DESIGN BASIS INFORMATION IS NOT LIMITED TO MILLSTONE AND HADDAM NECK
- DESIGN AND ENGINEERING INFORMATION HAS NOT BEEN APPROPRIATELY MAINTAINED OR ADHERED TO AT A NUMBER OF OTHER PLANTS (SPENT FUEL POOL COOLING - CRYSTAL RIVER - DRESDEN - MAINE YANKEE - QUAD CITIES - SALEM - ZION)
- RELIANCE ON INDUSTRY VOLUNTARY EFFORTS HAS NOT BEEN SUFFICIENT TO MAINTAIN CONFIGURATION CONTROL AT SOME PLANTS
- AUGUST 1996, NEI PROPOSES LICENSING BASES INITIATIVE, CONDITIONED ON RESOLUTION OF THREE ISSUES. INITIATIVE IS SIGNIFICANTLY LESS THAN NUMARC 90-12 IMPROVEMENTS. CHAIRMAN JACKSON INFORMS NEI THAT INITIATIVE MISSES THE MARK
- CONSISTENT WITH CHAIRMAN'S RESPONSE TO NEI'S INITIATIVE, STAFF DETERMINES THAT INSPECTIONS ARE NECESSARY IN THE AREA OF DESIGN BASES DOCUMENTATION TO ESTABLISH CONFIDENCE THAT DESIGN BASES ARE BEING MAINTAINED AND THAT PLANTS ARE BEING OPERATED WITHIN THE DESIGN BASES

Q- ? Resource implications of review of programs before focusing → several person months

THAT → comp. program does not look at design issues.

Q- did we also back off because we weren't finding safety issues?

→ Supporting self - SSFES, (audit) industry initiatives.
→ Resource issues → where we putting resources in best possible place

BENEFITS OF PROPOSED ACTION

- TO APPROPRIATELY PLACE THE BURDEN ON LICENSEES OF TELLING NRC WHERE THEY STAND ON IMPLEMENTING THE VOLUNTARY EFFORT TO IMPROVE THE DESIGN BASES INFORMATION FOR THEIR PLANTS
- INFORMATION WILL PROVIDE A BETTER MEANS OF SELECTING AND PRIORITIZING PLANTS FOR INSPECTIONS
- NRC DOES NOT HAVE SUFFICIENT RESOURCES TO PERFORM INSPECTIONS AT EVERY FACILITY IN A TIMELY MANNER. (AT A MAXIMUM OF 3 INSPECTIONS/QUARTER, IT WOULD TAKE NRC ~8 YEARS TO COMPLETE INSPECTIONS AT ALL OPERATING PLANTS)

- Insp. program will evolve based on results of early inspections.

~~This~~ is an "information need" request

Comment - Help inspectors by providing baseline to which we can inspect

FOLLOW-UP ACTIONS

AFTER COMMISSION APPROVAL TO ISSUE THE 50.54(f) LETTERS, THE STAFF WILL ESTABLISH:

- INTERNAL REVIEW GROUP TO EVALUATE THE RESPONSES
- SCHEDULE FOR INSPECTIONS AT PLANTS

*also use
SAR, CER data
to buttress actions are
well inspected - priority.*

Commissioner Diaz' Comments on SECY-96-189

I approve issuance of the proposed 50.54(f) letter under the signature of the EDO with the following comments:

- 1) I agree with the modifications to the letter suggested by Chairman Jackson and Commissioners McGaffigan and Dicus.
- 2) I understand that the primary use of the information gained from the responses to these letters will be to select and prioritize plants for upcoming inspections. I also understand that the need for these inspections is based, in part, on staff's findings that some licensees have failed to maintain configuration control and the concern that industry's voluntary efforts have not been effective in all cases.
- 3) I recommend deletion of the phrase on page 5 "to decide whether to modify, suspend, or revoke the operating license(s) for your facility or facilities, or whether other inspection activities or enforcement action should be taken". This phrase restates language from 50.54(f), which is implied, and does not need to be repeated. Other changes are suggested on the attached pages.

I/1

of the potential impact on public health and safety should safety systems not respond to challenges from off-normal and accident conditions.

It is emphasized that the NRC position has been, and continues to be, that it is the responsibility of individual licensees to know their licensing basis, to have appropriate documentation that defines their design bases, and to have procedures for performing the necessary assessments of plant or procedure changes required by NRC regulations. Attachments 3 and 4 are a recent exchange of correspondence between J. Colvin, NEI, and Chairman S. Jackson, NRC, regarding these subjects.

Action

The NRC has concluded that it requires information that can be used to verify compliance with the terms and conditions of your license(s) and NRC regulations, and assure that the plant UFSAP(s) properly describe the facilities, ~~and which may be used to decide whether to modify, suspend, or revoke the operating license(s) for your facility or facilities, or whether other inspection activities or enforcement action should be taken.~~ Therefore, you are required, pursuant to Section 182(a) of the Atomic Energy Act of 1954, as amended, and 10 CFR 50.54(f), to submit a response to this letter within 120 days of its receipt. Your response must be written and signed under oath or affirmation.

Please submit your response to the Director, Office of Nuclear Reactor Regulation, with a copy to the appropriate regional administrator and to the NRC Document Control Desk. The following information is required for each licensed unit:

- (1) A description of any design review or reconstitution programs, including identification of the systems, structures, and components, and plant-level design attributes (e.g., seismic, high-energy line break, moderate-energy line break), that have already been completed, are planned, or are being conducted to ensure the correctness and accessibility of the design bases information for your plant and to ensure that it is maintained current. If the program is planned or being conducted but has not been completed, provide an implementation schedule for systems, structures, and components, and plant-level design attribute reviews and the expected completion date.
- (2) A rationale for not implementing such a program, if no design review or reconstitution program has been implemented or planned.

The responses provided pursuant to paragraphs (1) and (2) above should address how current or planned plant processes or programs address the following areas of particular interest, as expressed in NUMARC 90-12, the staff's comments on the industry guidelines, and the Commission policy statement:

In SECY-93-292, "Generic Letter on the Availability and Adequacy of Design Bases Information," dated October 21, 1993, the staff recommended that the generic letter not be issued. The staff stated that publication of the policy statement and the proposed generic letter conveyed to the industry the Commission's concern and that publication of the generic letter would not further licensees' awareness of the importance of the activities. The staff proposed to continue performing design-related inspections and to gather information and insights as to how well the licensees' design-related programs were being implemented. The Commission issued a staff requirements memorandum that agreed with the staff's proposal.

In response to the findings relating to the regulatory burden of team inspections identified in the 1991 Regulatory Impact Survey, during the past several years, the staff has reduced its effort on specific, resource-intensive, design-related team inspections, and followed the issue of accurate and accessible design documentation at plants principally as an element of inspection and followup of operations-related activities. The issuance of the NUMARC guidelines and ongoing industry efforts to improve and maintain design bases information also contributed to this decision.

Current Problem

Over the past several months, NRC's findings during inspections and reviews have identified broad programmatic weaknesses that have resulted in design and configuration deficiencies at ~~a number of~~ ^{some} plants which could impact the operability of required equipment, raise unreviewed safety questions, or indicate discrepancies between the plant's updated final safety analysis report (UFSAR) and the as-built or as-modified plant or plant operating procedures. These inspections and reviews have also highlighted numerous instances in which timely and complete implementation of corrective action for known degraded and nonconforming conditions and for past violations of NRC requirements has not been evident. Overall, the NRC staff has found that some licensees have failed (1) to appropriately maintain or adhere to plant licensing and design bases information, (2) to comply with the terms and conditions of licenses and NRC regulations, and (3) to assure that UFSARs properly reflect the facilities. Attachment 2 provides examples of some of the deficiencies recently identified by the staff. As a consequence of this new information, the NRC believes that the industry's voluntary efforts to improve and maintain design bases information for their plants, consistent with NUMARC 90-12, the staff's comments on the industry guidelines, and the Commission policy statement, have not been effective in all cases.

The magnitude and scope of the problems that the NRC staff has identified raise concerns about the presence of similar design, configuration, and operability problems and the effectiveness of quality assurance programs ~~throughout the industry~~ ^{at other plants}. Of particular concern is whether licensee programs to maintain configuration control are sufficient to demonstrate that plant physical and functional characteristics are consistent with the design bases and whether operating plants are being maintained in accordance with their design basis. The extent of the licensee's failures to maintain control and to identify and correct the failures in a timely manner is of concern because

at all plants