February 12, 1997

FOR: The Commissioners

FROM: Hugh L. Thompson, Jr. /s/
Acting Executive Director for Operations

SUBJECT: MILLSTONE LESSONS LEARNED REPORT, PART 2:POLICY ISSUES

PURPOSE:

To inform the Commission of the results of the staff's evaluation of the "Millstone Lessons Learned Task Group Report, Part 1: Review and Findings," and obtain Commission approval of the staff's recommended approach to address the key policy issues that were identified.

BACKGROUND:

In a memorandum of November 30, 1995,[1] the Chairman of the Nuclear Regulatory Commission (NRC) requested that the staff perform a Millstone lessons-learned review to "explore whether existing oversight processes need improvement or new processes need to be developed which would have produced earlier NRC recognition of and action on Millstone Unit 1 noncompliance with its FSAR [final safety analysis report]." A task group was chartered to review the findings of various NRC reviews, investigations, and inspections pertaining to Millstone's refueling practices and associated topics for their implications for NRC processes. The lessons-learned review was conducted and reported in two parts. The first part consisted of a staff-level review with recommendations in the areas of inspection, licensing, enforcement, and licensee reporting. The staff-level review was reported in "Millstone Lessons Learned Task Group Report Part 1: Review and Findings" (Part 1 report) issued September 1996 and given to the Commission by memorandum from the Executive Director for Operations (EDO) on September 19, 1996. In the second part, the staff identifies policy issues related to its findings in the Part 1 report and presents its options and recommendations for addressing the issues in the Part 2 report, which is attached to this paper.

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The results of several of the staff's activities, which were in response to the Millstone related issues and that were reviewed by the Millstone lessons-learned task group, have been reported to the Commission. The staff's review[2] of the conformance of spent fuel pool operating practices with the description of such operations in licensing documents at all operating power reactors (survey of refueling practices) was reported to the Commission on May 21, 1996. The special team inspections of engineering and licensing at Millstone and Haddam Neck were reported in inspection reports in September 1996[3] and July 1996,[4] respectively. An analysis[5] of inspection results from a reemphasis on FSARs was reported to the Commission on September 17, 1996. The staff's plan[6] for reviewing Section 50.59 of Title 10 of the *Code of Federal Regulations* (CFR) was given to the Chairman in April 1996 and discussed at a Commission meeting on May 31, 1996. The staff's positions on 10 CFR 50.59 and its implementation recently have been reported to the Commission in SECY 97-XX, "Regulatory Guidance Related to the Implementation of 10 CFR 50.59."

DISCUSSION:

The issue at Millstone Unit 1 that initiated the reviews, investigations, and inspections by the NRC was that the licensee's refueling practices were inconsistent with information provided to and reviewed by the NRC through the licensing and license amendment processes. The utility's root cause analysis of the situation showed that (1) the plant's FSAR (a key licensing document) contained errors and omissions; (2) the plant's administrative process, if followed precisely, would not have maintained the FSAR accurately; and (3) utility staff did not fully understand the interrelationship of licensing and design documents. The associated investigations at Millstone and Maine Yankee by NRC's Office of the Inspector General raised concerns about NRC's process for reviewing and approving licensing actions and NRC's reliance on information submitted by the licensee. The subsequent NRC reviews and inspections dealt with (1) how well the regulatory process for determining if changes to facilities effect the FSAR or require prior NRC approval is implemented (Section 50.59 review); (2) how well the NRC-reviewed designs for spent fuel pools are maintained (survey of refueling practices); (3) how Millstone's licensee identifies, evaluates, and resolves technical issues (special team inspection of engineering and licensing); and (4) how well facilities are conforming to their FSARs (reemphasis of FSARs in NRC inspections).

The reviews conducted in response to the issues at Millstone have indicated that, although the operational safety performance of the industry remains good and NRC's regulatory processes are fundamentally sound, improvements are needed to ensure that the problem areas identified are appropriately addressed to prevent their recurrence. The staff has already initiated actions to address weaknesses in the regulatory process and the industry's performance with respect to the lessons learned from Millstone. Several key actions that have been implemented are the following:

- The staff developed and began implementing guidance that requires inspectors to verify FSAR commitments by reviewing the applicable portions of the FSAR during inspection preparation and verifying that the commitments had been properly incorporated into plant practices, procedures, or design. Pending any additional guidance from the Commission, the staff will update inspection procedures and manual chapters with FSAR inspection guidance at planned revisions. In addition, the Commission approved modifications to the enforcement policy that provide additional guidance to the staff on how to address licensees' departures from FSARs.

- With Commission approval, the NRC began a series of special design inspections to verify that selected plants are operating under the terms and

conditions of their licenses. These inspections focus on reviewing the plant's original design and configuration and conformance with the licensee's safety analysis report. Each inspection team is made up of engineers from the NRC and design specialists from the architect/engineering firms of Stone & Webster or Sargent & Lundy. To-date, inspections have been conducted at St. Lucie, Three Mile Island, and Washington Nuclear Project-2. Similar inspections will be performed periodically over the next 2 years.

- On the basis of findings from the special team inspections of engineering and licensing conducted at Millstone, Haddam Neck, and Maine Yankee, the staff sent 10 CFR 50.54(f) letters[7] to all power plant licensees to get information on design and configuration control processes, problem identification and correction processes, and each licensee's rationale for ensuring that its plants and procedures are consistent with the design bases. The information will be used to better focus and set priorities for design-related inspections such as the special design inspection described above.

- The Associate Director for Projects of the Office of Nuclear Reactor Regulation (NRR) established a Process Improvement Plan[8] (PIP) to address the concerns pertaining to NRC's licensing process that were raised at Millstone, Haddam Neck, and Maine Yankee. The plan, which includes over 100 separate actions, is approximately 40 percent complete.

- Under the 10 CFR 50.59 action plan, the staff has developed proposed guidance that clarifies definitions for words in the rule and that reaffirms, clarifies, or establishes staff positions on specific implementation issues. The staff's proposed guidance is being forwarded to the Commission in a separate paper. During its review of the implementation of 10 CFR 50.59, the staff identified two areas where it felt rulemaking could be effective in resolving some of the differences between the staff and licensees in interpretation and expectations of the process. These two areas are: (1) the scope of 10 CFR 50.59, and (2) the criteria that establish when an unreviewed safety question exists such that prior staff approval is needed.

Although these and other actions, including those adopted as a result of the Part 1 report, will result in continued improvement, analysis of the underlying policy issues that may have contributed to the problems at Millstone has identified a few major areas in which the staff is seeking Commission guidance. These areas are licensing basis, design bases, and FSARs. A brief summary of the concern in each area, short- and long-term actions, approach recommended by the staff, and associated implications and considerations follow. In each area, the short-term actions can be implemented by the staff within the current regulatory framework and do not need Commission-level decisions. The long-term actions involve establishing new regulations (or modifying existing ones) that change the directions or policies previously established by the agency and that may not meet the threshold for a substantial increase in public health and safety of the backfit rule, 10 CFR 50.109. Therefore, Commission direction is needed for the staff to pursue these actions.

Although discussed separately, the staff recognizes the interrelationship of the areas and associated actions, especially for the long-term actions. The long-term actions discussed below and in the Part 2 report are presented for the Commission's consideration, but the staff needs to develop additional information, including resource estimates, before it can make its final recommendations to the Commission. The long-term actions need to be considered in an integrated manner to assure that all the associated staff activities are coordinated, consistent and correctly sequenced.

Licensing Basis

The Millstone lessons-learned review showed that major licensing-basis documents (primarily FSARs) for a number of plants contained many discrepancies,[9] and some plants were not complying with certain license conditions or not incorporating pertinent information into associated plant procedures. In its survey[10] of refueling practices at all reactor sites, the staff found pertinent licensing information in several key types of documents. The review also showed that some licensees and the NRC had difficulty in retrieving licensing-basis information. Although it is the licensee's responsibility to know and comply with its licensing basis, difficulty in retrieving it from agency records affects NRC's ability to independently verify compliance.

To address this concern, the staff recommends the following short- and long-term actions. These actions are intended to provide increased assurance that licensees know and are complying with their licensing basis without imposing an undue regulatory burden on them. In addition the actions will improve the systems that NRC uses to independently identify and retrieve a plant's licensing basis.

Short-term Actions

Action 1: Have licensees explicitly identify their licensing-basis commitments in future written communications with the agency. This action would clearly identify new commitments made by licensees and is the forward-looking action that is complementary to Action 5. Through several actions on the ADPR PIP (see Attachment 2), the staff is determining the feasibility of having licensees add to their FSARs, or NRC add a license condition for, certain commitments made during licensing actions and activities as a condition of NRC's approval.

Action 2: Encourage licensees to use Nuclear Energy Institute's (NEI's) guideline for managing commitments made to the NRC titled "Guideline for Managing NRC Commitments." The staff endorsed the guideline in January 1996 and began efforts to evaluate its effectiveness. Continuing these efforts will help the NRC determine if additional guidance or rulemaking is necessary.

Action 3: Continue to implement the ADPR PIP. In addition to the items related to Action 1, above, the plan contains additional actions to improve the agency's licensing process for nuclear power reactors. The actions include ones to (1) better communicate licensing commitments between NRC projects

divisions and inspectors, (2) clarify guidance on documents to be reviewed when processing licensing actions, and (3) develop procedures for documenting verbal communications between NRC licensing and review staff and licensees. More than one-third of all the actions on the ADPR PIP have been completed.

Action 4: Develop a process to identify and track licensing commitments made to the NRC by individual licensees. The ADPR PIP contains several items on developing such a process. Commitments made to the NRC after the process is implemented are to be included. The staff will review selected past licensing issues to identify existing commitments and to verify their implementation.

Long-term Actions

Action 5: Develop a rulemaking plan to explore the need to require licensees to compile their licensing bases into either the FSAR or some other document that has comparable controls. This action would be required in order to note all existing licensing-basis commitments and is the retrospective action that is complementary to Action 1 (having licensees identify licensing-basis commitments in future actions).

Action 6: Develop a rulemaking plan to reevaluate whether the NRC should adopt a definition of current licensing basis for 10 CFR Part 50, and whether the definition should be similar to that in 10 CFR Part 54 or some narrower definition.

Action 7: Develop a plan for establishing required controls for licensing-basis commitments not now covered by requirements.

Recommended Approach

The staff recommends continuing the implemention of Actions 1 through 4, which will improve identification of new licensing-basis commitments and will establish processes for licensees and the NRC to manage them. The NRC then can inspect licensees' implementation of NEI's commitment management guidance, design control practices, and compliance with licensing-basis documents to determine if new controls need to be imposed on existing licensing-basis information and if long-term Actions 5 through 7 should be pursued.

Implications and Considerations

Actions 1 through 4 should have minimal effect on licensees. Action 1 would result in licensees only highlighting in future submittals and correspondence that information considered to be commitments. Action 2 would help standardize criteria for processes most licensees already use.

Actions 3 and 4 would principally affect NRC processes and staff, and many of the associated action items have been completed or are in progress. Developing systems to identify, track, and follow up on commitments and licensing actions could have significant implications for agency resources, although exact resource estimates are unknown at this time. Changing the workload for inspectors by having them verify implementation of licensing actions, without regard to significance, could divert the inspectors from more performance-based, operationally significant inspections, although exact resource estimates are unknown at this time.

Actions 5 through 7 could have a significant impact on licensees by imposing new requirements resulting in licensees developing new administrative processes or having to examine their complete set of documents previously submitted to the NRC.

Design Bases

The inspection findings at Millstone, Haddam Neck, and Maine Yankee and the survey of refueling practices indicated that design-basis information has not been appropriately maintained and implemented at these and several other facilities.

In its 1992 policy[11] on adequacy and availability of design bases, the Commission emphasized that licensees are responsible for ensuring that (1) their plants' physical and functional characteristics are maintained and are consistent with the design bases as required by NRC regulations; (2) systems, structures, and components can perform their intended functions; and (3) the plants are operated in a manner consistent with the design bases. The Commission also recognized that the regulatory framework exists to address the need for accessible design bases and control of design information. The availability of current design and licensing bases will expedite regulatory processes.

The NRC and industry, however, did not implement the FSAR update rule, 10 CFR 50.71(e), to require that the updates contain new design bases developed as a result of rules, generic communications, or actions not directly associated with new requirements. As a result of the evolution of licensing, FSARs differ for each plant and can differ significantly between earlier licensed plants (before the accident at Three Mile Island) and later licensed plants.

The following recommended actions are intended to provide increased understanding of design bases and greater assurance that facilities are controlling and are in compliance with their design bases.

Short-term Actions

Action 8: Encourage licensees to explicitly identify design bases in future written communications with the NRC. This action would clearly identify new or revised design bases developed by licensees to address new safety issues raised by the Commission and would facilitate their separation from other information in FSARs. This action would be part of Action 1, identifying licensing-basis commitments. It also is the forward-looking action that is complementary to Action 15.

Action 9: Provide guidance to licensees to implement 10 CFR 50.71(e) as explained in the rule's statement of consideration and to include in FSARs new

design bases (as defined in 10 CFR 50.2) developed at the Commission's request. This action may require an analysis pursuant to 10 CFR 50.109 as a new interpretation of the Commission's rule and also may be subject to the Small Business Regulatory Fairness Act. Design bases are defined in regulation (10 CFR 50.2) and are required to be in the FSAR (10 CFR 50.36), and, therefore, changes to them are controlled by regulation (10 CFR 50.59 and 50.71(e)). Therefore, Actions 5 and 6, which may significantly affect FSARs and place regulatory controls on information not now controlled, would not greatly affect design bases, even though they are part of the licensing basis.

Action 10: Use the information submitted by licensees on their programs in response to the 10 CFR 50.54(f) letters discussed above. The staff will use this information to assign priorities to and to better focus design-related inspections, and to help ensure that FSARs properly describe the associated facility.

Action 11: Pay increased attention to inspection and enforcement of licensee compliance with 10 CFR 50.71(e). The agency recently issued a change[12] to its enforcement policy that contained examples of various severity level violations of 10 CFR 50.71(e). The ADPR PIP includes actions for project managers to verify FSAR updates. The inspection program is being enhanced to reemphasize using FSARs in preparing for all inspections.

Action 12: Reemphasize design inspections. The NRC has begun a program of headquarters-led team inspections using contractor inspectors with current experience in nuclear plant design and is considering other design verification activities. These inspections will be in addition to the normal inspections conducted at nuclear power plants to maintain the inspection program's focus on operational safety.

Action 13: Publish guidance for the staff on design bases (10 CFR 50.2) and supporting information beyond the design bases (subject of NUREG-1397[13] and the 1992 policy statement on availability and adequacy of design bases[14]) and their relationship to licensing and inspection.

Long-term Actions

Action 14: Evaluate the need to establish requirements from the 1992 policy statement on availability and adequacy of design bases at nuclear power plants. As discussed previously, the Commission stated in its policy statement that licensees should assess the accessibility and adequacy of their design-basis documents and that such assessments would provide licensees with "current design documents and adequate technical bases to demonstrate" that the configuration of the plants was within the design bases, intended safety functions could be performed, and plants were being operated consistent with the design bases. The responses to the recent 10 CFR 50.54(f) letters on the same topic will be used to help the NRC determine if additional inspections are needed and if voluntary licensee activities have achieved the Commission's expectations or new regulations concerning design-bases programs are needed.

Action 15: Evaluate the benefits of having licensees identify design bases that exist outside their facilities' FSARs and incorporate them into the FSARs. As discussed previously, the FSAR update rule was not consistently implemented so that new design bases were incorporated into FSARs; therefore, some design bases exist in other docketed records. This is the historical, complementary action to Action 8.

Recommended Approach

The staff recommends that Actions 8 through 13 be implemented to better identify and control new design bases as they are developed, and to better gauge the understanding and use of design bases at individual plants.

The information gathered through the 10 CFR 50.54(f) letters and the design team inspections can be used to determine if additional controls are necessary or if long-term Actions 14 and 15 should be pursued. These results can also be used to determine if individual plants may need to backfit design-basis information into the FSAR or design documents.

Implications and Considerations

Actions 8 through 13 would have minimal effect on licensees beyond the effects normally associated with team inspections. Actions 8 and 9 would result in licensees only highlighting in future submittals and correspondence certain information they already need to provide to the NRC and ensuring that new design bases are incorporated into updated FSARs. However, Actions 14 and 15 could significantly affect licensees and their programs.

Actions 11 and 12 would affect agency resources. Action 11, which increases the requirements in the inspection program to inspect and follow up on FSAR updates, could divert existing resources from their primary goal of operational safety, although exact resources are unknown at this time. For Action 12, the NRR budget includes $4.5M and 1 FTE for each year (FY97 and FY98) to conduct 12 inspections annually.

FSARs

Decisions made on actions related to licensing basis and design bases will have an effect on FSARs because of that document's relationship and importance to licensing and design descriptions.

As part of the operating license application, the FSAR for each plant is a major part of the licensing basis for the plant, but is not the complete licensing basis. The FSAR contains the information required by regulation (10 CFR 50.34(b)), including the design bases, and is intended to be an accurate reference for certain information (10 CFR 50.71(e)) submitted to the Commission after the operating license is issued. The ultimate authority for discrepancies still would be the original FSAR plus the plant's docket file.[15] As noted earlier, FSARs vary in the level of detail and information contained therein.

10 CFR 50.71(e) requires periodic updates to FSARs that contain "all changes necessary to reflect information and analysis submitted to the Commission

by the licensee." However, it has not been implemented to consistently add new design bases or commitments for new regulations, generic issues, or plant-specific actions. The variability in the content of FSARs, as discussed above, also contributes to the inconsistent content of FSAR updates in two ways: (1) the updates are to be, as a minimum, at the same level of detail as the original FSAR, and (2) the updates are to include the effects of "all changes made in the facility or procedures as described in the FSAR."

Implementation of 10 CFR 50.59 also is affected by the variability in FSARs. Licensees may make changes to their facilities "as described in the safety analysis report" and may conduct tests not described in the safety analysis report without prior NRC approval if the change or test meets certain criteria. Therefore, more recently licensed plants with more detailed FSARs have plant information that is within the scope of 10 CFR 50.59 that earlier licensed plants with less detailed FSARs do not have. The staff's evaluation of 10 CFR 50.59 and its positions and recommendations are discussed in SECY 97-XX, "Regulatory Guidance Related to the Implementation of 10 CFR 50.59."

The following actions are intended to facilitate licensees updating their FSARs with the appropriate information and help to determine if additional information should be added to updated FSARs and if it is necessary to establish a standard level of detail for FSAR updates.

Short-term Actions

Action 9, above, addresses implementing 10 CFR 50.71(e) as described in the statement of consideration and requiring that new design-basis information developed in response to Commission requests be included in periodic updates of FSARs.

Action 16: Continue to audit FSAR accuracy through inspections. The inspection program has been modified to reemphasize using FSARs in preparing for all inspections.

Action 17: Identify information to be added to FSARs. The staff could identify, in generic communications and in safety evaluations for licensing actions, information it finds should be included in FSARs. Establishing internal criteria for the level of change control necessary for information relied on for regulatory decisions would facilitate including that information in a document controlled by regulations. Also, encouraging licensees to specifically identify their commitments in correspondence (Action 1) and repeating in safety evaluations the commitments made by them in regard to the licensing issue would make such commitments easier to identify.

Long-term Actions

Actions 5 and 6 address re-evaluating the need for licensees to compile their licensing basis and the need for adopting a definition for current licensing bases for 10 CFR Part 50. Adding licensing-basis information not now contained in FSARs needs to be part of those evaluations. Such evaluations will also affect decisions on the scope of 10 CFR 50.59.

Action 18: Revise Regulatory Guide 1.70[16] to include format, content, and level of detail for updates to FSARs. Standards for FSAR updates would provide greater consistency in the information added to FSARs. Such standards may require an analysis pursuant to 10 CFR 50.109 (and may be subject to the requirements of the Small Business Regulatory Fairness Act) as a new interpretation of the Commission's rule because 10 CFR 50.71(e) does not address level of detail for FSAR updates.

Recommended Approach

The staff recommends implementing Actions 16 and 17. These actions, along with Actions 9 and 11, will make implementation of the FSAR update rule more consistent and will improve the NRC's verification of FSAR information. The results of design-based inspections, inspection focus on FSARs, and the 10 CFR 50.54(f) letters on the adequacy of design-basis information can be used to determine if Action 18 or additional longer term actions are necessary.

Implications and Considerations

The short-term actions that address licensing basis, design bases, and FSARs would have minimal impact on licensees. In general, these actions would not change the information licensees are already submitting to the NRC; they only highlight the information and ensure that the appropriate information is included in future periodic updates to FSARs.

Actions that identify information from licensing actions or FSAR updates for NRC verification or followup could affect the focus of existing inspection resources, although exact resource estimates are unknown at this time.

The long-term actions addressing licensing basis and design bases also could affect what information is in FSARs. In addition, decisions made on these issues, which can change the information in and management of FSARs, also could affect implementation of 10 CFR 50.59. (Issues concerning 10 CFR 50.59 are presented in a separate Commission paper.)

IMPLEMENTATION:

The findings (and resultant recommendations) from the Millstone Lessons Learned Task Group Report, Part 1, pertain to the specific program areas that the task group reviewed: inspection, licensing, enforcement, licensee reporting, and management oversight. The findings overall led to questions of policy that were further reviewed by agency managers and reported in the attached Millstone Lessons Learned Report, Part 2.

The staff is proceeding with implementation of the recommendations from the Part 1 report. Upon approval of its approach to addressing the policy issues, the staff will develop and forward to the Commission an integrated plan for implementing Millstone lessons learned improvements, including

major activities and milestones. The Commission paper on the 10 CFR 50.59 process also raises two policy issues with the potential for rulemaking that would enhance the regulatory effectiveness of the process. Those two issues are (1) a revision of the rule to better define the scope of 10 CFR 50.59, and (2) a revision of the criteria that define when an unreviewed safety question exists. The staff will incorporate these issues into its evaluation of the issues raised in this paper so it can present integrated recommendations to the Commission at a later date.

Many of the long-term and short-term actions could affect staff resources. For example, actions regarding the identification and verification of commitments would require additional effort on the part of inspectors and project managers. This could divert existing resources from their primary purpose such as direct inspection of operational safety. Exact resource estimates are unknown at this time.

Several of the long-term actions to address the policy issues could likely result in backfits, and the required regulatory analysis for backfits takes considerable staff effort. It is likely that the regulatory analysis supporting most of those actions would not show them to be "a substantial increase in overall protection" as prescribed in 10 CFR 50.109, although the staff will analyze each action as it develops its proposals for the Commission's consideration. Therefore, should the Commission approve the approaches proposed in this paper, it should be with the understanding that further review may show that the actions may not be justifiable under 10 CFR 50.109 criteria.

COORDINATION:

The Office of the General Counsel has reviewed this paper and has no legal objections.

This paper has been coordinated with the Office of the Chief Financial Officer which has no resource objection.

RECOMMENDATIONS:

The staff recommends that:

1. The Commission approve the staff's overall approach and its recommendations in each of the areas of licensing basis, design bases, and FSARs.
2. The Commission direct the staff to continue implementing the short-term actions in each of the areas of licensing basis, design bases, and FSARs.
3. The Commission direct the staff to develop a coordinated, integrated action plan that considers together all of the long-term actions following additional staff review.

original /s/ by
Hugh L. Thompson, Jr.
Acting Executive Director for Operations

Attachments:
1. Millstone Lessons Learned Report, Part 2:Policy Issues
2. Associate Director for Projects Process Improvement Plan

ATTACHMENT 1

MILLSTONE LESSONS LEARNED

REPORT

PART 2: POLICY ISSUES

ABBREVIATIONS

ACR	adverse condition report
ADPR	NRC Associate Director for Projects
AEA	Atomic Energy Act
AEOD	NRC Office for Analysis and Evaluation of Operational Data
CFR	Code of Federal Regulations
CLB	current licensing basis
EDO	NRC Executive Director for Operations
FSAR	final safety analysis report
IPAP	independent performance assessment process

LCO	limiting condition for operation
LER	licensee event report
NEI	Nuclear Energy Institute
NRC	Nuclear Regulatory Commission
NRR	NRC Office of Nuclear Reactor Regulation
NU	Northeast Utilities
OIG	NRC Office of the Inspector General
PIP	process improvement program
PPR	plant performance review
RES	NRC Office of Nuclear Regulatory Research
RG	regulatory guide
RRG	NRR Regulatory Review Group
SALP	Systematic Assessment of Licensee Performance
SMM	senior management meeting
SRP	standard review plan
TS	technical specifications

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INTRODUCTION

The NRC's Office of Nuclear Reactor Regulation (NRR), in response to a request from the Chairman, established a task group to evaluate the lessons that could be learned and applied to NRC's programs from the issues raised by the refueling practices at the Millstone nuclear power plants. In September 1996, the task group issued the "Millstone Lessons Learned Task Group Report Part 1: Review and Findings" (Part 1 report). In the report, the task group described its review and findings and presented the task group's recommendations for specific agency programs and management oversight of those programs. The task group also formulated several questions on policy, which were presented in the Part 1 report.

Senior agency staff decided to discuss issues regarding agency policy in a second report following a review of the Part 1 report by senior managers and after getting feedback from the Commission on the first report. The second report presents the policy issues for the Commission's consideration with options or recommendations. It also discusses the task group's specific recommendations to clearly identify ongoing activities related to the recommendations, new recommendations, and their relationship to the policy issues. This report is the Part 2 report for the Millstone lessons learned

effort.

This Part 2 report discusses various agency processes to place the policy issues and recommended actions in context with past agency deliberations and decisions. The processes were analyzed when, in 1991, the agency developed and promulgated Part 54 of Title 10 of the *Code of Federal Regulations* (CFR), "Requirements for Renewal of Operating Licenses for Nuclear Power Plants," and developed the concept of and defined "current licensing basis" in the rule. The discussion of the processes is presented from the perspective of current licensing basis because the discussion is based on the previous analysis, although the definition in Part 54 relates to license renewal.

Section , Actions and Recommendations, discusses actions that the agency has already taken and additional actions the agency can take. It identifies those actions that involve establishing new regulations (or modifying existing regulations) that change the directions or policies previously established by the agency. Therefore, Commission direction is needed for the staff to pursue these actions.

A. Background

In October 1993, Northeast Utilities (NU) submitted a licensee event report (LER 93-11) for Millstone Unit 1 indicating that the unit had operated outside of the plant's design bases during refueling outages. At issue in the LER were (1) how much of the reactor core the licensee moved from the reactor vessel to the spent fuel pool during refueling operations and (2) the assumptions used in its (a) updated final safety analysis report and (b) analyses that supported a previous license amendment. The NRC followed up on the LER in several inspection reports between April 1994 and September 1995. The original LER was supplemented once on December 27, 1995. The supplement contained more detail than the original LER and showed the number of times the plant had refueled inconsistently with its updated final safety analysis report and license amendment request. By July 1995, NU had submitted a request for a license amendment that would allow the utility to off-load the full core as its normal practice. In August 1995, the NRC received a petition under 10 CFR 2.206, which included among other things a request that the agency deny the change in the license. The petition, the LER, and other information prompted a number of reviews by the NRC, including investigations by the agency's Office of the Inspector General (OIG) and the agency's Office of Investigations.

NU assessed the root causes of problems at Millstone Unit 1 (Adverse Condition Report (ACR) 7007 issued in February 1996) and the NRC distributed the executive summary from that report to the rest of the nuclear power industry through an NRC information notice.[17] By February 1996, both the licensee and the NRC had undertaken a number of reviews and inspections at two of the utility's sites: Millstone and Haddam Neck. In addition to its focus on the individual plants, the agency initiated reviews of the underlying issues raised by the refueling practices at Millstone. These reviews included (1) 10 CFR 50.59 and processes for implementing the rule, (2) conformance of spent fuel pool operating practices with the description of such operations in licensing documents at all operating power reactors (survey of refueling practices), and (3) results from routine inspections that reemphasized reviews of incorporating final safety analysis reports (FSARs). Concurrently, the staff developed new guidance for enforcing compliance with regulations associated with FSARs.

In May 1996, the OIG issued a report on Maine Yankee addressing some of the same programs and processes affected by the issues raised at Millstone and that were the subject of the lessons-learned review.

In the Chairman's memorandum of November 30, 1995, the staff was asked to perform a Millstone lessons-learned review to "explore whether existing oversight processes need improvement or new processes need to be developed which would have produced earlier NRC recognition of and action on Millstone Unit 1 noncompliance with its FSAR." As the agency developed a greater understanding of issues at Millstone and Maine Yankee, several focused reviews and inspections were initiated that subsequently expanded the scope of the Millstone lessons-learned effort. The scope was to examine the results of the other reviews, inspections, and investigations to determine the implications of their findings on the NRC's programs and processes. The eventual Millstone lessons-learned approach was for the review to be conducted and reported in two parts. The first part consisted of a staff-level review with recommendations in the areas of inspection, licensing, enforcement, and licensee reporting. This second part identifies policy issues related to the staff's findings in the Part 1 report and presents actions and recommendations for addressing the issues.

The staff-level review was conducted by a task group formed of staff members from the offices of NRR, Office for Analysis and Evaluation of Operational Data (AEOD), and Region III. The task group developed a plan to identify problems or deficiencies in NRC's regulatory program for power reactors and to determine the implications of the lessons learned from the other specific reviews. The task group reported its findings and recommendations in the Part 1 report, dated September 1996.

The actions that address the specific recommendations from the Part 1 report are summarized in the appendix to this report. The appendix notes previous staff actions and new actions being planned by the staff associated with each recommendation from the Millstone lessons learned task group. The majority of the actions come from the process improvement plan developed by the Associate Director for Projects to address the specific findings of the OIG reports associated with, and issues raised by, Millstone's refueling practices.

This report presents Part 2 of the Millstone lessons-learned review effort. The objectives of Part 2 are (1) to evaluate the findings of Part 1 and to develop policy issues with actions and recommendations for Commission consideration and (2) describe the staff activities associated with the specific recommendations from the Part 1 report. Senior staff and management from headquarters, the regional offices, and the Office of the General Counsel participated in the evaluation of this report. The major policy issues are presented in this report along with options for agency action that address the issues from a perspective of licensee responsibilities and from NRC internal practices. Short-term, interim actions are identified as well as longer term actions that address underlying shortcomings in several regulations. The report also recognizes a number of ongoing actions regarding internal staff practices that have resulted from the Millstone lessons-learned effort.

The staff will develop detailed plans necessary to implement the recommendations after receiving the Commission's guidance.

B. Summary of Part 1 Report

The issues raised by Millstone's refueling practices and by findings at several other facilities indicated that some problems in the agency's licensing and oversight processes. The Millstone lessons-learned task group reviewed the findings of various NRC activities related to the issues raised by refueling practices at Millstone Unit 1. These activities included (1) processes related to and implementation of Section 50.59 requirements, (2) identifying and verifying certain licensing- and design-basis information for spent fuel pools at all nuclear power reactors, (3) special team inspections of licensing and engineering operations at Millstone and Haddam Neck, (4) reports from the NRC's Office of the Inspector General on aspects of NRC's oversight at Millstone and Maine Yankee, and (5) the results from a reemphasis on incorporating FSAR information into routine inspections. Many of the findings from these activities, as well as the experiences of staff members associated with the activities, were related to the staffs' and licensees' abilities to identify, retrieve, and properly use information on and off the docket.

In reviewing the staff activities, the task group found few examples of problems with safety significance. The staff's verification of refueling practices found that the design bases for spent fuel pools at all plants had been reviewed and approved by the NRC, although a few plants may have refueled their reactors inconsistently with their FSARs. The staff concluded from its analysis of FSAR inspection data that the large majority of the findings were of low significance and those few issues that were potentially risk important had been identified (some previously) and were within the group of issues being enforced through the agency's normal processes. Conversely, the special inspection of engineering and licensing practices at NU plants did find significant problems and confirmed problem areas previously identified by the NRC and the licensee. The experience with the Millstone and Haddam Neck plants highlights the importance of regulatory issues and their correlation to safety.

The task group concluded that (1) the concepts of current licensing basis and design bases are not clearly understood by some licensees and some NRC staff; (2) both licensees and staff have difficulty identifying and locating licensing- and design- basis documents and information; and (3) licensing- and design- basis documents are not always appropriately used in NRC licensing and inspection activities and in licensee design and facility changes. In its various reviews, the staff noted that some information which should be in updated FSARs has not been put there. It has also noted that some information, which the staff has relied on in ensuring that licensees are in compliance with new rules and in approving licensing actions or other licensing activities, is not in documents that are subject to any regulatory control for changes the licensee may subsequently make. The NRC recognized, through its dealings with current licensing basis under Part 54 (license renewal), that certain commitments were not subject to regulatory controls. In December 1995, the staff endorsed a voluntary industry commitment management process that licensees may use to change such commitments.

In accordance with Section 50.34, the FSAR is to contain the design bases for each facility, but the FSAR update rule, Section 50.71(e), has not been implemented to incorporate all new design bases into the FSAR. NRC team inspections have found that some licensees did not have sufficient documentation to adequately support their design bases for subsequent plant changes and modifications.

In the Part 1 report, the task group made recommendations to improve agency processes in the areas of licensing, inspection, enforcement, and licensee reporting. It also made recommendations in management oversight of those processes and a recommendation related to license renewal. The recommendations are presented in the Part 1 report and are repeated in the appendix to this report.

The task group also formulated several questions on policy, which were presented in the Part 1 report. Those questions were:

- What should be the licensing basis for an operating plant and in which documents should it be located so it is accessible to the licensee, the NRC, and the public?
- What information should be in the FSAR?
- What information, if any, may licensees remove from their FSARs without a corresponding change to the facility?
- Has the NRC done enough to ensure the design basis is sufficiently understood and is being used properly?
- What should be the scope and threshold of Section 50.59?
- Should the agency more formally establish its position on the actions a licensee should take after identifying degraded or nonconforming conditions?

Following their review of the Part 1 report and subsequent deliberations, senior agency managers acknowledged that the above questions of policy were issues that needed resolution. The managers also acknowledged that all of the issues had been previously considered by the agency and had resulted in the agency taking positions or actions. The broadest issue raised by the above questions is the issue of licensing basis. The NRC extensively deliberated issues regarding the licensing basis, and analyzed the agency's oversight processes, when it promulgated the license renewal rule, Part 54, in 1991. Therefore, the discussions that follow are based on those past analyses and deliberations. The actions recommended in Section , Actions and Recommendations, address the above policy questions by following the general progression of the questions: licensing basis (the broadest issue), design bases (a part of the licensing basis), and FSARs (a major licensing-basis document that includes the design bases).

II. PROCESSES AND RESPONSIBILITIES

The issue at Millstone Unit 1 that initiated the various reviews, investigations, and inspections by the NRC was that certain aspects of the licensee's refueling practices were inconsistent with information submitted to and reviewed by the NRC through the licensing and license amendment processes. The utility's root-cause analysis of the situation showed that (1) Millstone Unit 1's FSAR (a key licensing document) contained errors and omissions, (2) Millstone's administrative process, even if followed precisely, would not have maintained the FSAR accurately, and (3) utility staff did not fully

understand how licensing and design documents were related. Investigations at Millstone and Maine Yankee by the NRC's Office of the Inspector General raised concerns with the NRC's process for reviewing and approving licensing actions and NRC's reliance on information submitted by the licensee.[18] Subsequent NRC reviews and inspections dealt with (1) the regulatory process for determining if changes to facilities affect the FSAR or require prior NRC approval (Section 50.59 review), (2) how well the NRC-reviewed designs for spent fuel pools are maintained (survey of refueling practices), (3) how NU identifies, evaluates, and resolves technical issues (special team inspection of engineering and licensing practices), and (4) how well facilities are conforming to their FSARs (reemphasis of FSARs in NRC inspections).

The Millstone lessons-learned task group, after evaluating these various activities, raised questions concerning the information used by licensees and the NRC in licensing and regulating operating nuclear power plants. This information has been called alternately "licensing basis" and "current licensing basis" information.

The following sections discuss the agency's processes and agency and licensee responsibilities consistent with the definition of current licensing basis in 10 CFR Part 54, "Requirements for Renewal of Operating Licenses for Nuclear Power Plants."

A. Current Licensing Basis

The Commission issues an operating license to an entity under the authority of the Atomic Energy Act of 1954 (AEA), as amended, after finding, pursuant to Section 50.57, that the facility has been constructed in accordance with its design and would be operated in accordance with the operating license application, the rules and regulations of the Commission, and the provisions of the AEA, and that the activities associated with operation can be conducted without undue risk to the health and safety of the public. However, the licensing basis upon which the Commission makes this conclusion is unique to each plant and does not remain fixed for the term of the operating license; it evolves throughout the term of the license because of the continuing activities of the licensee and the NRC.

The term "current licensing basis" (CLB) appears once in 10 CFR Part 50, but is not defined in Part 50; it is, however, defined in 10 CFR Part 54, the license renewal rule.[19] The term evolved from the Commission's development of the license renewal rule; however, the concept is an important part of the Commission's regulatory process. The Commission bases its initial licensing decision for each licensee on the set of plant-specific design bases,[20] the NRC regulations applicable to the facility being licensed, and a licensee's commitments for compliance with and operation within the applicable NRC requirements and the facility's design bases at the time of licensing. Over the term of the operating license, a plant undergoes changes and the NRC adjusts its regulations from time to time to address new safety issues or areas of concern that are identified. As such, a plant's "current" licensing basis does not remain fixed, but rather evolves throughout the operating life of the plant. The differences in CLB among plants arise because plants are licensed at different times, at different sites, with different designs, and have individual operating experiences.

The CLB is comprised of the NRC rules and regulations, the license (including technical specifications, license conditions, orders, exemptions), the plant-specific design bases required to be in the updated FSAR, as well as written and docketed commitments made by licensees for ensuring compliance with and operation within applicable NRC requirements and the plant-specific design bases. The commitments that form part of the CLB may be found in a number of documents sent to the NRC by the licensees and included in the associated docket file.

Managing the CLB and controlling changes to it are important because of the regulatory significance of the elements that make up the CLB. Changes to Commission rules and regulations are controlled by the Commission using a rulemaking process pursuant to 10 CFR Part 2 that provides for public participation in creating and promulgating new requirements or changing existing requirements. Exemptions to NRC rules and regulations must receive NRC's approval pursuant to various sections of the Commission's regulations, including 10 CFR 50.12. Similarly, changes or amendments to a utility's license (including the technical specifications) also must receive NRC's review and approval before the changes are implemented. Sections 50.90, 50.91, and 50.92 establish the process for such changes and cover notice and public hearing.

Through Section 50.59, licensees may make changes to their facilities and procedures as described in a plant's FSAR (and conduct tests not described in the FSAR) without prior NRC approval if the changes or tests do not affect technical specifications or do not involve an unreviewed safety question. Licensee safeguards contingency, quality assurance, and emergency preparedness plans, which are required by NRC regulations and are reviewed and approved by the NRC, also have regulatory requirements in Section 50.54 for changing them. A licensee may make changes to these NRC-approved plans without prior Commission approval as long as certain conditions are met. If the conditions in Sections 50.54 and 50.59 are not met, NRC must review and approve the changes before they are implemented. Additionally, these regulations mandate reporting these changes to the NRC after their implementation. The last component of the CLB, docketed licensee commitments, are not subject to any mandated regulatory control or management processes, although the NRC expects licensees to fulfill them. In 1996, the agency endorsed[21] an industry guideline for managing commitments made to the NRC by licensees.

Changes in the regulation of nuclear power plants over time have also affected the variability in the CLB among plants. As each change in the regulations was made, the agency made considered decisions about imposing the changes only on holders of newly issued licenses or also on existing licensees, and whether the changes should be only forward looking or imposed retroactively. In the 1960's, technical specifications were separated from the hazards summary report. The technical specifications remained part of the operating license and the hazards summary report became the safety analysis report. Over the next 20 years, the guidance on content and format for safety analysis reports underwent changes, and the last guidance was issued in 1978 as Regulatory Guide (RG) 1.70. Each revision of the guidance incorporated changes reflecting new developments in the industry and new Commission needs for information on which to base its findings for issuing a license. Similarly, the agency's criteria for reviewing license applications changed and was published in NUREG-0800, "Standard Review Plan," (SRP) in 1975. The standard review plan was completely revised in 1981 and is currently being revised again to reflect the considerable changes in regulating the nuclear power industry since 1981. Licensees are required to meet the agency's regulations concerning FSARs and applications, but are not required to conform with the standard format for FSARs or the SRP. Applications for an operating license after 1982 were required to include an evaluation of the facility against the SRP and evaluations of alternatives to the criteria in the

SRP for differences between the license application and the SRP.

B. Consideration of Whether To Require Compiling the CLB

In the proposed license renewal rule,[22] 10 CFR Part 54 dated July 17, 1990, and further clarified in SECY-91-138, "Final Rule on Nuclear Power Plant License Renewal," the staff proposed to require applicants for license renewal to compile and submit a list of documents comprising their CLB and require the applicants to review this compiled CLB to determine the systems, structures, and components that will be evaluated for renewal. Although the industry opposed such a requirement because all documents comprising the CLB are already on file with the NRC in the plant's docket file, the staff maintained that compilation and reference to the CLB was desirable for license renewal. The staff contended that the design of many systems, structures, and components, including safety margins, was initially based on an assumed service life of 40 years. Therefore, a review of the CLB would be necessary to define and evaluate the technical limits for operation of these systems, structures, and components to ensure that operation during the renewal term would not exceed their design capabilities or safety margins. The staff concluded that CLB compilation was necessary to ensure that no obvious systems, structures, and components were omitted.

The staff considered an alternative to compiling the CLB that would still address the staff's concern that a renewal applicant's review of important systems, structures, and components was complete. The staff's alternative, which was approved by the Commission in June 1991[23] and adopted in the final rule,[24] required all license renewal applicants to formally describe and justify their method of reviewing their CLB to ensure all systems, structures, and components important to license renewal have been considered. To further address the staff's concern for potentially omitting systems, structures, and components whose design was based on a 40-year life, the alternative approach called for an explicit accounting of such systems, structures, and components. The staff's approach therefore addressed the "completeness" concern by requiring renewal applicants to describe and justify the methods used to identify from their CLBs those systems, structures, and components needing a management review of aging, as well as subjecting this methodology to staff review and acceptance. The staff's rationale for this alternative approach to compilation of the CLB was based on a licensee's CLB already existing on the docket with the NRC; that is, the CLB is available for NRC's review and audit during the course of its license renewal review; and further, this CLB documentation continues to remain subject to NRC oversight and regulatory process throughout the term of a renewed license. The staff's revised philosophy was consistent with the second principle of the license renewal rule, which is that the CLB must be maintained in the renewal term. Integral to this principle is the Commission's belief that the NRC's regulatory process (regulations, licensee implementation of those regulations, and NRC oversight) is adequate to ensure that the CLB is maintained.[25]

The Commission decided to explore the value of compiling the CLB for currently operating reactors because of the significant consideration given to this topic during the deliberations for the license renewal rule. In November 1991,[26] the Commission directed the staff to solicit industry participants for a pilot program to compile CLBs and to provide the Commission with information and recommendations concerning the usefulness of CLB compilation for all operating plants.

When no licensees volunteered, the staff audited 14 facilities to determine licensee practices for maintaining and updating CLB documentation and, as a result of these audits, recommended to the Commission that it not require compilation of the CLB for current operating reactors.[27] As its rationale for its recommendation, the staff stated that it found licensee processes for maintaining and retrieving CLB documentation acceptable, if proper attention was given to particular vulnerabilities and if NRC continued to provide oversight that encourages improvement of these processes. In essence, the staff reaffirmed its findings from its previous consideration to not compile the CLB for license renewal (i.e., the CLB documentation is retrievable, and the NRC regulatory process will ensure the CLB is maintained). The staff, however, did note issues related to specific elements of the CLB that warranted additional staff action. For example, although 10 CFR 50.59 sets up a controlled process for changes to the facility and procedures as described in the FSAR, the staff's principal concern was that an element of the CLB, licensee commitments that are not contained in a plant's FSAR, are not controlled by a similar regulatory process.

Additionally, a Regulatory Review Group (RRG), assembled in January 1993 by the Executive Director for Operations (EDO) to identify where efficiencies could be gained in regulatory requirements, recommended changes to the regulatory process that addressed the additional staff actions identified in SECY-92-314. The RRG recommendations included rulemaking to define "commitment" and to describe a change process for commitments in 10 CFR 50.54. Additionally, the RRG recommended clarifying the scope and depth of the term "design bases" and incorporating a definition of "current licensing basis" into 10 CFR Part 50, consistent with the definition in Part 54. In its plan for implementing the RRG's recommendations,[28] the staff proposed exploring the endorsement of an industry commitment management guideline rather than immediately proceeding with rulemaking as suggested by the RRG. The staff also proposed to look again at the definition of CLB and design bases to determine what, if any, additional clarifications were necessary in 10 CFR Part 50.

As a part of the immediate followup actions to the concerns regarding commitments, the staff conducted additional audits of programs at seven licensee facilities to determine how licensees identify, track, implement, and change commitments. The staff concluded from its reviews that the audited licensees had developed processes for managing commitments they make to the NRC and for controlling changes to these commitments, even though licensees are not required to report changes to commitments that are not included in their license or FSAR.[29] Similar to its previous conclusion on compiling the CLB, the staff concluded that the licensees' conservative implementation of their administrative processes and the NRC's regulatory process, as described in 10 CFR Part 54, ensure the CLB will be maintained to provide an acceptable level of safety. However, consistent with the previous RRG findings, the staff confirmed that licensees and NRC staff do not have a clear understanding of when commitments can be changed without NRC consultation. The staff began efforts to address the issue of commitments, but additional work is necessary.

The staff, as proposed in SECY 94-003, reviewed the Nuclear Energy Institute's (NEI's) draft guidance document for managing commitments and reported the results of its review to the Commission in December 1995.[30] The staff informed the Commission that it had found the document an

acceptable guide for licensees to follow for managing and changing their commitments to the NRC. The staff further stated that it would evaluate the need for additional actions regarding commitment management after licensees had gained experience using the NEI guideline.

The staff reexamined the definitions of CLB and design bases and documented the completion of these actions in SECY-96-024.[31] In this paper, the staff stated that it determined that minimal benefit, if any, would be gained by revising the definition of CLB contained in 10 CFR Part 54, or by incorporating the definition into Part 50. The paper also reported on the Office of the General Counsel's review of the statements of consideration for Part 54 and that office's support for the position that the regulatory history of the current definition of CLB points to a broad reading so as to include all licensee commitments remaining in effect that were made in docketed correspondence, and not just those necessary for ensuring compliance with legal requirements and the plant-specific licensing basis. Because the broad interpretation of the current definition is consistent with the commitment change process defined in the NEI commitment management guideline, the staff saw no benefit to revising the definition or to incorporating it into Part 50.

The staff also stated in SECY-96-024 that the existing definition of design bases was unambiguous and no benefit would be gained from modifying it. The staff had reviewed earlier work on design bases and determined that the definition did not need to be revised.

C. Maintaining the CLB: The Regulatory Process

Licensees are expected to know their licensing basis, to have appropriate documentation that defines their design bases, and to have appropriate procedures for performing necessary assessment of plant or procedure changes. Adherence to CLB is a licensee's responsibility. The NRC verifies the licensee's adherence to aspects of the CLB through its regulatory oversight program. Assurance of continued licensee compliance with its current licensing bases, therefore, rests on (1) the licensee's programs and NRC's rules and regulations and (2) NRC's regulatory oversight. Collectively, these two parts constitute the regulatory process. The key elements of the regulatory process are briefly discussed next.

1. APPLICABLE RULES AND REGULATIONS

The NRC establishes regulations that set standards for licensees and mandate notification and reporting requirements. The required notifications and reports enable the NRC to, in a timely manner, identify issues that can potentially affect safety and to take appropriate oversight actions. One expectation the NRC has of licensees, delineated in Section 50.9, is that licensees will provide the NRC with complete and accurate information. The operating license that the Commission issues under authority of the AEA describes the facility and contains specific conditions imposed on the facility and licensee, and incorporates the technical specifications for operation as required by 10 CFR 50.36 and approved by the NRC. Other conditions, such as requirements for plans or programs dealing with quality assurance, emergency planning, and safeguards, are incorporated into the license through 10 CFR 50.54, "Conditions of Licenses." Sections 50.90, 50.91, and 50.92 establish the process for changing the license. Section 50.54(f), which is made a condition of all operating licenses, requires licensees to submit written information under oath or affirmation when requested by the Commission to determine if a license should be modified, suspended, or revoked. This rule further provides that no reason for the Commission's request need be prepared if the information is sought to verify licensee compliance with the CLB. This exception from justifying a request for information is the only use of the term "current licensing basis" in 10 CFR Part 50.

The contents of an application for an operating license are delineated in 10 CFR 50.34 and include (1) the FSAR, (2) a safeguards contingency plan, (3) a physical security plan, (4) an evaluation of the facility against the standard review plan, and (5) evaluations to show that alternative methods to standard review plan criteria are acceptable. By the same regulation, FSARs contain a description of the plant and present the design bases for the facility and limits on the facility's operation. FSARs also present the safety analysis for the facility's structures, systems, and components. A standard content and format for safety analysis reports was developed in the early 1970's and revised several times until 1978, which is its present form. This standard is published in RG 1.70, "Standard Format and Content of Safety Analysis Reports for Nuclear Power Reactors."

The term "design bases" is defined in 10 CFR 50.2, "Definitions." The definition covers the specific functions that systems, structures, and components need to perform, the parameters that need to be controlled to assure their functions, and the values that bound the design. Section 50.34(b) requires FSARs to "present the design bases" for the facility. In the late 1980's, NRC design inspections found some licensees that were not adequately controlling their design bases and that did not have a good understanding of the design bases and their relationship to the licensing basis and design margins for technical specifications. By 1990, the staff recognized that licensing documents, including the safety analysis report, did not contain all the information needed by a licensee to engineer plant modifications, but were an important repository of design-related information that is necessary for developing design-basis documents.[32] The agency's deliberations on design-basis issues resulted in a policy statement that recognized the importance of licensees maintaining current and accessible design information. The policy statement was based on existing regulatory processes and requirements that addressed the accessibility of design bases and control of design information. The Commission believed that licensees should assess the accessibility and adequacy of their design-basis documents and that such assessments would provide licensees with "current design documents and adequate technical bases to demonstrate" that the plant configurations were within the design bases, intended safety functions can be performed, and plants were being operated consistent with the design bases.[33]

Changes to a facility and procedures as described in FSARs are regulated by 10 CFR 50.59, "Changes, tests, and experiments," and 10 CFR 50.71(e), "Maintenance of records, making of reports." Section 50.59 establishes the criteria for determining if a change requires prior NRC approval. Section 50.71(e) requires licensees to periodically update their FSARs to reflect information and analyses submitted to the Commission by the licensee or prepared by the licensee pursuant to Commission requirements. The revisions to the updated FSAR are to include the effects of changes made in the facility or procedures described in the FSAR, safety evaluations for requested license amendments and determinations of no unreviewed safety question, and safety analyses conducted at Commission request to address new safety issues.

The staff evaluated how licensees update their FSARs as part of its efforts in studying current licensing basis and reported its findings in SECY-92-314. The staff found that licensees' FSAR updates "included considerably less detail than was included in the analyses submitted to the NRC and usually did not include the new licensing basis." References in updates addressing Commission requests "were usually to the NRC's initiating document, such as a

generic letter or a new rule, and not to the licensee's correspondence containing the analyses or commitments." The staff also found that "at the time of licensing, [FSARs] contain most of the plant-specific design basis as defined by 10 CFR 50.2," but that "most of the new design bases and commitments made to the NRC after licensing to address generic letters, bulletins, enforcement actions, and licensee event reports (LERs) are not included in the FSARs."

In addition to requirements for determining which changes to nuclear power plants need NRC approval, Section 50.59 contains requirements for licensees to maintain records of changes to their facilities and to periodically report to the NRC a summary of the changes and the safety evaluations performed by the licensee. Other applicable reporting regulations are Section 50.72, "Immediate notification requirements," and Section 50.73, "Licensee event report system." Both of these regulations require licensees to report to the NRC conditions that place the plant in an unanalyzed condition that "significantly compromises plant safety" or that are outside of the plant's design bases.

1. NRC REGULATORY OVERSIGHT

The second part of the regulatory process, which provides assurance of continued safe operation of nuclear power plants through compliance with the licensing basis, is the NRC's oversight processes. These processes involve licensing, inspection, enforcement, performance assessment, and evaluation of safety issues. It is important to understand that the NRC's regulatory oversight is intended to and does provide reasonable assurance that licensee activities are conducted in accordance with its licensing basis and does not nearly approach 100 percent coverage of licensee activities. Rather, the NRC's regulatory oversight processes have a dominant focus in areas of safety significance and in areas in which event assessment or licensee performance suggest additional emphasis should be placed so that reasonable assurance of compliance with the CLB related to these areas is provided. The agency's oversight processes assure that plant-specific licensing bases provide reasonable assurance that operation of nuclear power plants will not be inimical to the public health and safety. The processes were described in this context as part of the rulemaking for Part 54.[34]

a. Licensing

The NRC reviews applications for construction permits and operating licenses, and requests for license amendments and exemptions from requirements. Licensees are responsible for submitting requests for licensing actions in accordance with the Commission's regulations and that contain complete and accurate information. In some cases, the NRC has promulgated regulatory guides that contain acceptable methods for preparing such applications. Licensees document their bases for these licensing actions in a safety analysis report for construction permits or operating license applications, or in safety analyses contained in their requests for license amendments or exemptions from requirements.

The Commission may require changes to a plant's licensing basis, or a licensee may seek changes to its licensing basis. These changes are subject to the Commission's regulatory controls with respect to changes, including 10 CFR 50.59, 50.90, 50.91, and 50.92. Under Section 50.59, licensees may make changes to their facilities without Commission approval if certain conditions are met, and documentation of these changes must be maintained for specified periods of time. A licensee may also request Commission approval to change its licensing basis or facility using the license amendment process in Sections 50.90 and 50.92. These regulatory controls ensure that a documented basis exists and that the Commission's review and approval is obtained prior to implementation of licensee-initiated changes to the licensing basis that raise unreviewed safety questions or involve changes to the technical specifications,

b. Inspection

The Commission's inspection program is its principal process for collecting information related to nuclear power plant operation and performance. Through direct observation and verification of licensee activities, the program helps the agency determine whether a facility is being operated safely and whether the licensee is in compliance with the NRC's regulatory requirements and the facility's CLB. The NRC's inspection program is a sampling program and does not examine every activity or item, but is intended to verify, through carefully selected samples, whether activities are being properly and safely conducted. Additionally, although the Commission's approach to inspection in the early 1970's stressed reviewing licensee program documents for compliance with regulations, the approach evolved in the 1980's to emphasize reviewing and directly observing operational activities.

The inspection program allocates NRC's inspection resources among three types of inspections: mandatory inspections, regional initiative and reactive inspections, and special-emphasis inspections. Requirements for the three types of inspections are specified in the NRC Inspection Manual. A minimum set of mandatory inspections, referred to as the core program, are performed at each operating unit to evaluate licensee performance and identify potentially significant safety concerns. The core program inspections are performed by resident inspectors located at each facility and by regional specialist inspectors. These inspections emphasize observations and evaluation of ongoing facility operations and supporting activities affecting the safety function of facility systems, structures, and components.

Initiative and reactive inspections are conducted by the staff in response to concerns with plant safety performance or in areas the NRC believes the greatest safety benefit can be gained. The initiative component of the inspection program is used to follow up on problems identified in licensee performance during mandatory inspections, including verifying licensee actions in response to known noncompliance with regulations. The reactive component of the program allows NRC to respond to allegations, unusual circumstances, and unforeseen operational events.

Special-emphasis inspections include team inspections of selected areas of plant operations, inspections to follow up on generic safety issues, and special headquarters team inspections that are intended to address a specific area of concern regarding safe operations.

c. Enforcement

NRC's regulatory oversight also involves taking action against licensees for not complying with their licenses or the Commission's regulations. The Commission issues notices of violation that require licensees to correct the condition and may impose civil penalties in the form of fines for certain serious violations. The Commission also may issue orders to ensure appropriate corrective actions are taken. The sanctions imposed through the enforcement process are based on the safety or regulatory significance of the issue being enforced. The NRC may choose to exercise discretion and either escalate or mitigate enforcement sanctions within the Commission's statutory authority to ensure that the resulting enforcement action

appropriately reflects the level of NRC concern regarding the violation at issue and conveys the appropriate message to the licensee. Consistent with the staff's emphasis on operational safety performance, the Commission also may exercise enforcement discretion in cases where a "licensee's compliance with a Technical Specification (TS) Limiting Condition for Operation or with other license conditions would involve an unnecessary plant transient or performance of testing, inspection, or system realignment that is inappropriate with the specific plant conditions, or unnecessary delays in plant startup without a corresponding health and safety benefit."[35] In these circumstances, the NRC staff may choose not to enforce the applicable technical specification or other license condition. However, the agency exercises such discretion only in rare cases.

Licensees are responsible for correcting the conditions that led to the enforcement action and to respond to the NRC in writing describing the corrective actions and steps to prevent recurrence. The licensees' actions described in written responses to enforcement actions are considered by the agency to be commitments. The NRC expects licensees to fully comply with requirements and to fulfill those commitments licensees make that bring them back into compliance. A licensee's failure to honor such a commitment may result in the agency issuing an order that requires adherence. Inaccurate statements made to the NRC may result in enforcement action through 10 CFR 50.9.

d. Performance Assessment

The performance data of each nuclear power plant are periodically reviewed on a short-term basis to provide NRC management with a current status of plant performance. These periodic assessments, called "plant performance reviews" (PPRs), are conducted at least every 6 months and assist NRC managers in determining the focus and planning for inspection over the next 6 months.

Senior management meetings (SMMs) are held about every 6 months to review the individual performance of all nuclear power plants nationwide and to bring to the attention of the highest levels of NRC management those plants whose operational safety performance is of most concern.

The Systematic Assessment of Licensee Performance (SALP) process is used by the NRC to evaluate each nuclear power plant's long-term performance and to provide an avenue for discussion of performance between the licensee and the NRC. SALPs are performed on each plant every 12 to 24 months by the NRC staff and a SALP Board of NRC managers. The Board evaluates information reviewed and summarized by the staff from inspections, enforcement actions, the latest PPR, performance indicators, licensee self-assessments, third-party assessments, site visits by the SALP board, and management meetings with the power plant staff. NRC uses the SALP process for long-term resource allocation and to identify areas for inspection emphasis.

The NRC's Integrated Performance Assessment Process (IPAP) was developed because the agency recognized the need for an independent, in-depth review of existing performance data. The IPAP was designed to verify the ongoing and short-term assessment activities of the NRC by independently reviewing nuclear power plant performance for the previous 2 years. The process also assesses the implementation of certain NRC regulatory programs and provides for the validation and correction of program-related concerns. Although originally planned to be conducted at all plants approximately every 4 years, other inspection priorities have reduced the reviews to only plants of specific concern. The need for an in-depth, integrated assessment of performance data still exists and should be accomplished without reducing the amount of inspection, which provides the majority of the data for assessing performance. The staff is evaluating the effectiveness of IPAP and will make recommendations to the Executive Director for Operations following the evaluation.

All the activities and processes described above provide information used at the SMMs. The results of PPRs, SALPS, and IPAPs (if recently conducted) are used as the primary inputs to the SMM screening meetings (held about 2 months before each SMM). At the screening meetings, nuclear power plant performance is reviewed for all plants. Generally, if the trend of a nuclear plant's performance appears to be declining significantly or if there is significant concern regarding its performance, the plant will be discussed at the upcoming SMM. After the screening meeting, NRC staff integrates information collected from inspections, enforcement data, and performance indicators, and other information that characterizes power plant operational performance. The senior NRC managers review the integrated plant information and plan actions for those plants whose performance is of concern. Those actions can include increased NRC management communication with licensee management over performance issues, increased inspections in areas of concern, sending a letter to those plants whose performance is significantly declining, and placing poorly performing plants on the "watch list." The SMM process also recognizes plants that are performing very well.

e. Evaluation of Safety Issues

The NRC has an integrated process for reviewing and analyzing operating experience to identify specific events and generic situations for which insights may lead to new safety concerns, including issues related to the design of the plants. For many safety-related operational events, NRC resident inspectors perform initial investigations under the regional office's inspection oversight. In addition, the technical aspects of potentially significant events may be studied by several NRC offices such as the AEOD, the NRR, and the Office of Nuclear Regulatory Research (RES).

The results of followup activities to operational events are presented to an NRC panel to determine if the issue (1) is generic, (2) is safety significant, and (3) requires a technical resolution or a regulatory response. For those issues requiring a regulatory response, the NRC may issue some form of generic communication, such as a bulletin or letter to all licensees, it may initiate rulemaking to issue new or modify existing regulatory requirements, or it may refer the issue to RES if its evaluation will be lengthy.

The agency requests that licensees take action when such actions or new regulatory requirements are judged to be appropriate to resolve the safety issue and when such actions are necessary to (1) bring the facility into compliance with its licensing basis, (2) ensure the facility provides adequate protection to public health and safety, or (3) satisfy newly defined levels of adequate protection to public health and safety. If the NRC finds these actions should be required for any other reason, the NRC must analyze the requirements in accordance with 10 CFR 50.109 to show that there is a substantial increase in the overall protection to public health and safety or the common defense and security, and that the costs of implementation are justified in view of this increased protection.

III. STATEMENTS OF PROBLEMS

The task group's evaluation of staff reviews and inspections found that the fundamental regulatory processes are generally effective. The experience at Millstone, Haddam Neck, and several other plants indicated the existence of some problems and weaknesses in the processes.

A. Rules and Regulations

As discussed in the previous sections, the regulations establish the framework for licensing reactors and for making necessary licensing changes throughout the life of the plants. The various reviews evaluated by the task group found that the existing regulations are currently sufficient for regulation of operating nuclear power plants. The task group found no regulations that require significant changes. However, changes may be warranted for some regulations to improve understanding and implementation in some areas.

The staff's review of how 10 CFR 50.59 is implemented found differences in interpretation between NRC staff and licensees and identified issues that need to be resolved in the use of 10 CFR 50.59. The staff's evaluation and positions are discussed in a separate paper, which also presents several related policy issues for the Commission's consideration.

In 1980, Section 50.71(e) was promulgated to periodically update FSARs to contain "all the changes necessary to reflect information and analyses submitted to the Commission by the licensee." The FSAR revisions are to include the effects of changes to the plant as described in the FSAR, license amendments and safety evaluations that support findings of no unreviewed safety question, and safety analyses done at the Commission's request to address new safety issues. As implemented, the agency and nuclear power industry did not interpret the rule to require adding to FSARs new design bases or commitments for new regulations, generic issues, or plant-specific events or enforcement.

The agency's survey of refueling practices identified several plants that had not updated their FSARs to reflect analyses submitted to the NRC for associated license amendments.[36] The emphasis placed on inspecting associated sections of FSARs over a 3-month period early in 1996 identified hundreds of discrepancies between plants and their FSAR descriptions. Several of the discrepancies were related to issues for which the agency took escalated enforcement actions; the majority of the discrepancies were of low safety significance.[37]

Both Sections 50.59 and 50.71(e) contain requirements for licensees to periodically submit reports to the agency on modifications made to the plant and changes to the FSAR, respectively. The Millstone lessons-learned task group concluded that the staff generally does not review the reports. The agency has a process for reviewing and inspecting licensees' implementation of Section 50.59 that is based on assuring plant changes are appropriately reviewed by licensees and that licensees are making the correct decision on those changes that require prior NRC approval. Therefore, the periodic reports submitted by the licensees typically have not been the focus of reviews by the NRC staff. Although the Project Manager's handbook contains guidance for project managers to review the periodic FSAR updates, it indicates that the updates should contain only information previously presented to the project manager.

B. Licenses, Technical Specifications, Orders, and Exemptions

Other requirements imposed on licensees are contained in the operating licenses, technical specifications, orders, and exemptions. The technical specifications form the basis for the majority of violations of requirements cited by the agency because of the close relationship of the technical specifications to daily plant operations. However, long-term noncompliance with other legally binding requirements, such as license conditions, also have been recently identified.

Operating licenses and technical specifications vary from plant to plant and can differ significantly between earlier licensed plants and later licensed plants, especially for those plants with customized technical specifications. In addition, the plant-specific nature of reviewing and approving license amendment requests has contributed to the variations in these documents. For example, following the accident at Three Mile Island, some licenses contained a condition that imposed maximum 8-hour shifts for control room operators. For some other plants, the restrictions were placed in the technical specifications. As operating shifts evolved to 12 hours in much of the industry, the restrictions at most plants were appropriately changed or deleted, but, for a few plants, the outdated license conditions were apparently overlooked, causing unintentional noncompliance with licenses, but without adverse safety consequences. After this problem was discovered at one plant, the staff reviewed all the license conditions of all plants and addressed the discrepancies and inconsistencies it identified.

Technical specifications are developed in accordance with agency regulations and are reviewed and approved by the agency; they generally do not include specifications or limiting conditions for operation (LCOs) associated with spent fuel pools. This absence of specifications reflects the relative significance of spent fuel pool systems to other plant systems. However, LCOs may be required for parameters associated with the spent fuel pool. For example, the standard technical specifications used at many plants contain an LCO for the minimum time between reactor shutdown and fuel movement. This LCO limits the consequences of an accidentally dropped fuel bundle. A similar parameter is one of many input assumptions in the design analysis of the spent fuel pool cooling systems discussed in FSARs, and does not necessarily pertain to any accident analysis. This can lead to the situation of a plant with an LCO time for moving fuel that is significantly less limiting than the time specified in the FSAR discussion of the spent fuel pool.

Section 50.36, "Technical specifications," describes the items required to be included in a facility's technical specifications, which are part of the facility license. The items required include LCOs, which are the lowest functional capability or performance levels of equipment required for safe operation of the facility. However, the primary focus of Section 50.36 is on requirements for power operations. As a result, there is usually limited information regarding plant "operation" while shut down and typically there is no LCO for the fuel pool cooling system. Had an LCO for the fuel pool cooling system existed, e.g., heat load added to the pool must be within the heat removal capacity of the cooling system with appropriate margins and single-failure assumptions, then the design-basis considerations would have been preserved.

Spent fuel pools were considered for inclusion in the current shutdown rulemaking. The staff determined that a new fuel storage regulation cannot be

supported by claiming a substantial increase in the overall protection of public health and safety. Design problems were identified through NRR's spent fuel pool action plan[38] and will be rectified at operating reactor plants through plant-specific backfits. The present approach in the current proposed shut down rule allows licensees to retain their present design bases or to voluntarily implement a performance-based option.

The agency has not been consistent in following up on or verifying aspects of plant-specific licensing actions. As discussed in the Part 1 report, verifying licensee commitments associated with generic licensing activities is controlled by a process and has been generally effective, although problems found at Haddam Neck and Millstone with the station blackout system and maintenance programs indicate a need for improvements in this area. However, the agency has no process in place expressly for verifying implementation of commitments made for plant-specific licensing actions or activities. Changes to technical specifications, which account for the majority of license amendments, are continually subject to verification through the inspection program because of the importance of the technical specifications to daily operations. However, new license conditions, assumptions used in the safety analysis or amendment requests, and information in the staff's safety evaluations are not expressly verified by the agency's inspection program.

C. FSARs and Approved Plans

Several factors have contributed to the varying degree of completeness of FSARs that currently exists. Recent inspection findings also revealed a number of discrepancies between the FSAR description and the facility, indicating weaknesses in licensees' implementation of change control processes, such as 10 CFR 50.59, in licensees' updating of their FSARs, in original design engineering or construction, and in NRC's oversight. Overall, the staff has found that some licensees have failed to appropriately maintain or adhere to plant design bases, and assure that updated FSARs properly reflect the facilities.

The licensee's analysis of its refueling practices at Millstone (ACR 7007) concluded that the plant's original FSAR contained errors and omissions, that the plant's administrative processes (if followed precisely) would not have maintained the FSAR accurately, and that plant personnel did not fully understand the relationships among various documents within the licensing and design bases of the plant. The NRC's special team inspection verified the licensee's findings and found indications of similar problems at Haddam Neck.[39,40] Other efforts by the staff, such as the survey of refueling practices and FSAR inspection focus, found other plants that were inconsistent with their FSARs, and noted that some FSARs contained hundreds of minor discrepancies.[41] The agency recognized that FSARs did not contain the complete CLB when it promulgated the license renewal rule, 10 CFR Part 54. In 1992, the staff acknowledged[42] that neither the NRC nor industry have interpreted the FSAR update rule (Section 50.71(e)) to require new commitments or design bases for new rules, generic letters, bulletins, enforcement actions, and event reports be included in the FSAR. In SECY-92-314, the staff concluded that revising the interpretation of the update rule to include all of the CLB was neither cost effective nor a substantial benefit to safety. The staff recommended to the Commission that it not require licensees to compile their CLB or revise Section 50.71(e) to include the entire CLB. The Commission approved the staff's recommendations on May 19, 1994.[43]

The agency's lack of emphasis on verifying FSARs contributed to the inadequate upkeep of FSARs by licensees. Although the update rule required periodic revisions to FSARs, the agency does not systematically review the updates or specifically include verification of FSAR updates in its inspection program for operating reactors. The program was recently strengthened, in response to the issues raised at Millstone, to emphasize the use of FSARs in preparing for inspections.

The staff's review of how Section 50.59 is implemented (discussed in more detail in Section , above) also raised issues relating to FSARs. In addition to the issues previously discussed, the staff's paper on Section 50.59 also addresses whether licensees may remove information from FSARs that is not directly associated with a change to the plant or procedures.

D. Commitments in SERs, Event Reports, and Responses to Generic Communications

The Millstone lessons learned task group noted from its evaluation of various staff reviews that the reviews had found that in some cases licensees have not fulfilled commitments recorded in documents other than the license, technical specifications, and FSAR, such as staff SERs, licensee event reports, responses to generic communications, and other communications with the agency. (Responses to notices of violations are discussed separately in Section , below.) Such commitments are not binding on licensees, although the agency may issue an order to enforce implementation of a commitment. The agency has no requirements that govern commitments found outside of the operating license or FSAR, other than Section 50.9, which requires the information to be complete and accurate at the time it is given to the NRC. Therefore, the agency may be unaware of the status of some commitments because the NRC does not consistently follow up on or inspect commitments associated with plant-specific licensing actions and because licensees do not consistently inform the NRC of changes to existing commitments. Further, the large amount of paperwork associated with determining the history of specific commitments compounds the NRC's difficulty in verifying commitments. Currently, commitments are defined only in an industry guideline that the agency endorsed in January 1996,[44] and the agency is still in the process of evaluating the effectiveness of the guideline.

Previous guidance[45] to the staff noted that commitments made by the licensee, either in writing or orally, are not legally binding on the licensee and the staff should not normally rely upon such commitments for granting staff approvals. Further, commitments that the staff determined are necessary elements for supporting its approval of a licensing action should be documented by the licensee and clearly spelled out in the staff's safety evaluation report and ultimately reflected in the plant's FSAR. The guidance also indicated that, if the commitment was of such importance that it should not be changed without NRC approval, it should be incorporated into the technical specifications or made a condition of the license. At issue at Maine Yankee was the licensee not fulfilling certain conditions that the staff relied upon in approving the use of a computer code and spelled out only in the staff's safety evaluation report.

The previous guidance to the staff reminded reviewers not to rely on such commitments in approving licensing actions. Licensee commitments that were fundamental to the staff's decisions should be in documents appropriate to their importance. Commitments that should not be changed without prior NRC approval had to be in the license or technical specifications, and commitments that licensees should review before changing had to be in the FSAR. However, the agency did not perpetuate the guidance when the set of documents containing the guidance was revised and reissued in 1989, and the

agency has not implemented Section 50.71(e) to add such commitments to FSARs.

As part of its response to the issues raised at Maine Yankee, the staff is currently developing new processes and guidance to explicitly identify, track, enforce, and verify implementation of commitments associated with licensing actions. The staff is pursuing an option of identifying in a license condition those commitments that the staff relies upon for its regulatory decision.

E. Responses to Notices of Violations

A subset of commitments that licensees make to the NRC are those in responses to cited violations. Such commitments are subject to followup and inspection through the agency's inspection program. The inspection program includes requirements for verifying that licensees implement their stated corrective actions and are again in compliance with agency requirements. The inspection program is a sampling process--some noncompliance will occur without being identified by the NRC. Once noncompliance is documented and enforcement action taken, informed decisions can be made regarding the appropriate extent of followup verification consistent with other inspection demands. The sampling nature of the program also extends to following up on licensee actions in response to violations and, therefore, some actions either are not verified or not followed to completion. The special inspection team at Millstone and Haddam Neck found examples of uncompleted actions taken by the licensee in response to enforcement, which had been reviewed at some point by NRC inspectors in accordance with the inspection program.

The agency's enforcement process acknowledges that some "violations of minor safety or environmental concern...are below the level of significance" of warranting formal enforcement action,[46] and does not require inspectors to discuss these minor violations in inspection reports. The current policy regarding minor violations needs to be reviewed in order to determine if all violations of NRC requirements, regardless of their safety significance, should be documented in agency records when they come to the agency's attention. Such a policy change would (1) help to eliminate the perception that the agency tolerates noncompliance, (2) make examples of minor violations available when the agency evaluates licensee performance, (3) would allow licensees the opportunity to know all the instances of noncompliance found by inspectors and to take appropriate actions, even though the agency may not follow up on the items, and (4) would allow the NRC to oversee the categorization of lower-level violations.

Any changes the agency may contemplate making in the inspection program for following up on violations and in the enforcement and inspection programs for documenting minor violations must consider the effects of such changes on agency resources. Increases in verifying enforcement corrective actions, or recording and documenting all minor violations, will require an increase in or redirection of inspection resources, which are necessary for ensuring the current level of operational safety.

IV. ACTIONS AND RECOMMENDATIONS

The actions presented below are categorized by three major topics, i.e., licensing basis, design bases, and FSARs. The actions also are separated by those directly affecting licensees and their operations and those that principally affect NRC processes. Although the actions within each topic are presented separately, they are closely interrelated because of the correlation of the major topics. The licensing basis for plants is found in numerous documents in the plant's docket file, including the license application, license amendment requests, other licensee safety analyses given to the NRC, and other reports and correspondence from licensees. A key part of the operating license application is the plant's FSAR, which is required to be periodically updated after the license is issued to ensure its information is accurate, current, and complete. By regulation, the FSAR contains the design bases for the plant, which makes the design bases (as defined in regulation) a part of the licensing basis.

The actions discussed in the following sections are also separated into short-term and long-term actions. The short-term actions are those the agency can take immediately and could be interim until other longer-term actions are implemented. The staff realizes that the long-term actions could have a significant impact on licensees, but also recognizes that they may not be subject to regulatory analyses pursuant to Section 50.109, "Backfitting." The actions recommended below do not, as described in Section 50.109, cause the "modification of or addition to systems, structures, components, or design of a facility; or the procedures...required to design, construct, or operate a facility." The staff also believes that, if subjected to such an analysis, the actions would not show "a substantial increase in the overall protection of the public health and safety or the common defense and security to be derived from the backfit and that the direct and indirect costs of implementation for that facility are justified in view of this increased protection." Therefore, should the Commission endorse the recommended long-term actions, it should be with the understanding that staff resources may be used in pursuing actions that may not be justifiable under 10 CFR 50.109 criteria. The staff also recognizes that the requirements of the Small Business Regulatory Fairness Act may apply to certain actions.

A. Licensing Basis

The licensing basis for each operating power reactor evolved over time and, for various reasons, is unique to each plant. The specific information in the bases is found in many types of documents, although the information is not expressly identified as such. The information contained in these documents also is subjected to varying degrees of control.

The Millstone lessons-learned review of the various staff activities found that major licensing-basis documents (primarily FSARs) for a number of plants contained many discrepancies, and some plants were not complying with certain license conditions or not incorporating pertinent information into associated plant procedures. The staff's survey of refueling practices at all reactor sites found pertinent licensing information in several key types of documents.

As previously recognized and considered during rulemaking for Part 54, the lessons-learned review also showed that both licensees and the NRC had difficulty in retrieving licensing-basis information from their record sources. For the NRC, the records contain a large volume of paper for each docket number, records older than 4 years are placed into storage, and the agency's automated document management system is difficult to use and contains errors and omissions. Although it is the licensee's responsibility to know and comply with its licensing basis, difficulty in retrieving it from agency records affects NRC's ability to independently verify compliance.

The following options and recommendations are focused on assuring licensees know and properly use their licensing-basis information and on improving NRC's ability to independently identify and retrieve such information.

INTENDED RESULT OF ACTION

Provide increased assurance that licensees know and are complying with their licensing basis without imposing undue regulatory burden on them. In addition, improve NRC's systems to independently identify and retrieve plants' licensing bases.

SHORT-TERM ACTIONS

The following actions can be implemented by the staff within the current regulatory framework and do not need Commission-level decisions.

Actions Affecting Licensees' Actions and Processes

Action 1: Have licensees explicitly identify their licensing-basis commitments in future written communications with the agency. This action would clearly identify new commitments made by licensees and is the forward looking action that is complementary to Action 5. Through several items on the process improvement plan[47] (PIP) for the Associate Director for Projects (ADPR), the staff is currently determining the feasibility of having licensees add to their FSARs, or NRC add a license condition for, certain commitments made during licensing actions and activities as a condition of NRC's approval.

Action 2: Encourage licensees to use NEI's guideline for managing commitments made to the NRC. The staff endorsed the guideline in January 1996 and began efforts to evaluate its effectiveness. Continuing these efforts will help the NRC determine if additional guidance or rulemaking is necessary.

Actions Affecting NRC's Internal Processes

Action 3: Continue to implement the ADPR PIP. In addition to the items related to Action 1, above, the plan contains additional actions to improve the agency's licensing process for nuclear power reactors. The actions include ones to (1) better communicate licensing commitments between NRC projects divisions and inspectors, (2) clarify guidance on documents to be reviewed when processing licensing actions, and (3) develop procedures for documenting verbal communications between NRC licensing and review staff and licensees. More than one-third of all the actions on the ADPR PIP have been completed.

Action 4: The ADPR PIP contains several items on developing a process to identify and track licensing commitments made to the NRC by individual licensees. Commitments made to the NRC following the process' implementation will be included. The staff will review selected past licensing issues to identify existing commitments and to verify their implementation, and take additional actions contingent on the results of the review.

LONG-TERM ACTIONS

The following actions involve establishing new regulations (and modifying existing ones) that change the directions or policies previously established by the agency. Therefore, Commission direction is needed for the staff to pursue these actions.

Action 5: Develop a rulemaking plan to explore the need to require licensees to compile their licensing bases into either the FSAR or some other document that has comparable controls. This action would be required to note all existing licensing-basis commitments and is the retrospective action that is complementary to Action 1 (having licensees identify licensing-basis commitments in future actions).

Action 6: Develop a rulemaking plan to reevaluate whether the NRC should adopt a definition of current licensing basis for 10 CFR Part 50, and whether the definition should be similar to that in 10 CFR Part 54 or some narrower definition.

Action 7: Develop a plan for establishing required controls for licensing-basis commitments not now covered by requirements.

RECOMMENDATION

The staff recommends continuing implementing Actions 1-4, which will improve the identification of new licensing-basis commitments and will establish processes for licensees and the NRC to manage them. The NRC then can inspect licensees' implementation of NEI's commitment management guidance, design control practices, and compliance with licensing-basis documents to determine if new controls need to be imposed on existing licensing-basis information and if long-term Actions 5-7 should be pursued.

IMPLICATIONS AND CONSIDERATIONS

Actions 1-4 should have minimal effect on licensees. Action 1 would result in licensees only highlighting in future submittals and correspondence that information considered to be commitments. Action 2 would help standardize criteria for processes most licensees already use.

Actions 3 and 4 would principally affect NRC processes and staff, and many of the associated action items have been completed or are in progress. Developing systems to identify, track, and follow up on commitments and licensing actions could have significant implications for agency resources. The staff needs time to assess the impacts on resources for proposed systems before fully implementing them.

Actions 5 through 7 could have a significant impact on licensees by imposing new requirements resulting in licensees developing new administrative processes or having to examine their complete set of documents previously submitted to the NRC.

B. Design Bases

The inspection findings at Millstone, Haddam Neck, and Maine Yankee and the survey of refueling practices indicated that design-basis information has not been appropriately maintained and implemented at these and several other facilities. On the basis of these recent findings, the staff sent 10 CFR 50.54(f) letters[48] to all power plant licensees to get information on design and configuration control processes, problem identification and correction processes, and rationales for ensuring that plants and procedures are consistent with design bases.

In its 1992 policy[49] on adequacy and availability of design bases, the Commission emphasized that licensees are responsible for ensuring that (1) their plants' physical and functional characteristics are maintained and are consistent with the design bases as required by NRC regulations; (2) systems, structures, and components can perform their intended functions; and (3) the plants are operated in a manner consistent with the design bases.

The Commission also recognized that the regulatory framework exists to address the need for accessible design bases and control of design information. The availability of current design and licensing bases will expedite regulatory processes.

The NRC and industry, however, did not implement the FSAR update rule, Section 50.71(e), to require that the updates contain new design bases developed as a result of rules, generic communications, or actions not directly associated with new requirements. As a result of the evolution of licensing, FSARs differ for each plant and can differ significantly between earlier licensed plants (before the accident at Three Mile Island) and later licensed plants.

INTENDED RESULT OF ACTION

Provide increased understanding of design bases and greater assurance that facilities are controlling and are in compliance with their design bases.

SHORT-TERM ACTIONS

The following actions can be implemented by the staff within the current regulatory framework and do not need Commission-level decisions.

Actions Affecting Licensees' Actions and Processes

Action 8: Encourage licensees to explicitly identify design bases in future written communications with the NRC. This action would clearly identify new or revised design bases developed by licensees to address new safety issues raised by the Commission and would facilitate their separation from other information in FSARs. This action would be part of Action 1, identifying licensing-basis commitments. It also is the forward-looking action that is complementary to Action 15.

Action 9: Provide guidance to licensees to implement Section 50.71(e) as explained in the rule's statement of consideration and to include in FSARs new design bases (as defined in Section 50.2) developed at the Commission's request. Design bases are defined in regulation (10 CFR 50.2), are required to be in the FSAR (10 CFR 50.36), and, therefore, changes to them are controlled by regulation (10 CFR 50.59 and 50.71(e)). Therefore, Actions 5 and 6, which may significantly affect FSARs and place controls on information not now controlled, would not greatly affect design bases, even though they are part of the licensing basis. This action may require an analysis pursuant to Section 50.109 as a new interpretation of the Commission's rule and also may be subject to the Small Business Regulatory Fairness Act.

Action 10: Use the information submitted by licensees on their programs in response to the 10 CFR 50.54(f) letters discussed above. The staff will use this information to assign priorities to, and to better focus, design-related inspections, and to help ensure that FSARs properly describe the associated facility.

Actions Affecting NRC's Internal Processes

Action 11: Provide increased attention to inspection and enforcement of licensee compliance with Section 50.71(e). The NRC recently issued a change[50] to its enforcement policy that contained examples of various severity level violations of Section 50.71(e). The ADPR PIP includes actions for project managers to verify FSAR updates. The inspection program has been enhanced to reemphasize using FSARs in preparing for all inspections.

Action 12: Reemphasize design inspections. The agency has begun a program of headquarters-led team inspections using contractor inspectors with current experience in nuclear plant design and is considering other design verification activities. These inspections will be in addition to the normal inspections conducted at nuclear power plants to maintain the inspection program's focus on operational safety.

Action 13: Publish guidance for staff on design bases (Section 50.2) and supporting information beyond the design bases (subject of NUREG-1397 and the 1992 policy statement on availability and adequacy of design bases) and their relationship to licensing and inspection.

LONG-TERM ACTIONS

The following actions involve establishing new regulations (and modifying existing ones) that change the directions or policies previously established by the agency. Therefore, Commission direction is needed for the staff to pursue these actions.

Action 14: Evaluate the need to establish requirements from the 1992 policy statement on availability and adequacy of design bases at nuclear power plants. As discussed previously, the Commission stated in its policy that licensees should assess the accessibility and adequacy of their design-basis documents and that such assessments would provide licensees with "current design documents and adequate technical bases to demonstrate" that the configuration of the plants was within the design basis, intended safety functions could be performed, and plants were being operated consistent with the

design bases. The responses to the recent 10 CFR 50.54(f) letters on the same topic will be used to help the NRC determine if additional inspections are needed and if voluntary licensee activities have achieved the Commission's expectations or new regulations concerning design-bases programs are needed.

Action 15: Evaluate the benefits of having licensees identify design bases that exist outside their facilities' FSARs and incorporate them into the FSARs. As discussed above, the FSAR update rule was not consistently implemented so that new design bases were incorporated into FSARs; therefore, some design bases exist in other docketed records. This is the historical, complementary action to Action 8.

RECOMMENDATIONS

The staff recommends that Actions 8-13 be implemented to better identify and control new design bases as they are developed, and to better gauge the understanding and use of design bases at individual plants.

The information gathered through the 10 CFR 50.54(f) letters and the design team inspections can be used to determine if additional controls are necessary or if long-term Actions 14 and 15 should be pursued. These results can also be used to determine if individual plants may need to backfit design-basis information into the FSAR or design documents.

IMPLICATIONS AND CONSIDERATIONS

Actions 8-13 will have minimal effect on licensees beyond the effects normally associated with team inspections. Actions 8 and 9 would result in licensees only highlighting in future submittals and correspondence certain information they already need to provide to the NRC and ensuring that new design bases are incorporated into updated FSARs. However, Actions 14 and 15 could have significant affect on licensees and their programs.

Actions 11 and 12 would effect agency resources. Increasing the requirements in the inspection program to inspect and follow up on FSAR updates could divert existing resources from their primary goal of operational safety.

C. FSARs

Decisions made on actions related to licensing basis and design bases will have an effect on FSARs because of that document's relationship and importance to licensing and design descriptions.

As part of the operating license application, the FSAR for each plant is a major part of the licensing basis for the plant, but is not the complete licensing basis. The FSAR contains the information required by regulation (10 CFR 50.34(b)), including the design bases, and is intended to be an accurate reference for certain information (Section 50.71(e)) submitted to the Commission after the operating license is issued. The ultimate authority for discrepancies still would be the original FSAR plus the plant's docket file.[51] As noted earlier, FSARs vary in level of detail and information contained therein.

10 CFR 50.71(e) requires periodic updates to FSARs that contain "all changes necessary to reflect information and analysis submitted to the Commission by the licensee." However, it has not been implemented to consistently add new design bases or commitments for new regulations, generic issues, or plant-specific actions. The variability in the content of FSARs also contributes to the inconsistent content of FSAR updates in two ways: (1) the updates are to be, as a minimum, at the same level of detail as the original FSAR, and (2) the updates are to include the effects of "all changes made in the facility or procedures as described in the FSAR."

Implementation of Section 50.59 also is affected by the variability in FSARs. Licensees may make changes to their facilities "as described in the safety analysis report" and may conduct tests not described in the safety analysis report without prior NRC approval if the change or test meets certain criteria. Therefore, more recently licensed plants with more detailed FSARs have plant information that is within the scope of 10 CFR 50.59 that earlier licensed plants with less detailed FSARs do not. The staff's evaluation of Section 50.59 and its positions and recommendations are discussed in a separate Commission paper.

INTENDED ACTION

Ensure licensees are updating their FSARs with the appropriate information; determine if it is necessary to establish a standard level of detail for FSAR updates; determine if additional information should be added to updated FSARs.

SHORT-TERM ACTIONS

The following actions can be implemented by the staff within the current regulatory framework and do not need Commission-level decisions.

Actions Affecting Licensees' Actions and Processes

Action 9, above, addresses implementing Section 50.71(e) as explained in the rule's statement of considerations and requiring that new design-basis information developed in response to Commission requests be included in periodic updates of FSARs.

Actions Affecting NRC's Internal Processes

Action 16: Continue to verify FSAR accuracy through inspections. The inspection program has been modified to reemphasize using FSARs in preparing for all inspections.

Action 17: Identify information to be added to FSARs. The staff could identify, in generic communications and in safety evaluations for licensing actions, information it finds should be included in FSARs. Establishing internal criteria for the level of change control necessary for information relied on for regulatory decisions would facilitate including that information in a document controlled by regulations. Also, encouraging licensees to specifically identify their commitments in correspondence and repeating in safety evaluations the commitments made by them in regard to the licensing issue would make such commitments easier to identify.

LONG-TERM ACTIONS

The following actions involve establishing new regulations (and modifying existing ones) that change the directions or policies previously established by the agency. Therefore, Commission direction is needed for the staff to pursue these actions.

Actions 5 and 6 address re-evaluating the need for licensees to compile their licensing basis and the need for adopting a definition for current licensing bases for 10 CFR Part 50. Adding licensing-basis information not now contained in FSARs needs to be part of those evaluations. Such evaluations will also affect decisions on the scope of Section 50.59.

Action 18: Revise RG 1.70 to include format, content, and level of detail for updates to FSARs. Standards for FSAR updates would provide greater consistency in the information added to FSARs. Such standards may require an analysis pursuant to Section 50.109 (and may be subject to the requirements of the Small Business Regulatory Fairness Act) as a new interpretation of the Commission's rule because Section 50.71(e) does not address level of detail for FSAR updates.

RECOMMENDATIONS

The staff recommends implementing Actions 16 and 17. These actions, along with Actions 9 and 11, will make implementation of the FSAR update rule more consistent and will improve the NRC's verification of FSAR information. The results of design-based inspections, inspection focus on FSARs, and the 10 CFR 50.54(f) letters on the adequacy of design-basis information can be used to determine if Action 18 or additional longer term actions are necessary.

IMPLICATIONS AND CONSIDERATIONS

The short-term actions that address licensing basis, design bases, and FSARs would have minimal impact on licensees. In general, these actions would not change the information licensees are already submitting to the NRC, they only highlight the information and ensure that the appropriate information is included in future periodic updates to FSARs.

Actions that identify information from licensing actions or FSAR updates for NRC verification or followup could affect the focus of existing inspection resources.

The long-term actions addressing licensing basis and design bases also could affect what information is in FSARs. In addition, decisions made on these issues, which can change the information in and management of FSARs, also could affect implementation of Section 50.59. (Issues concerning Section 50.59 are presented in a separate Commission paper.)

ATTACHMENT 2

ADP PROCESS IMPROVEMENT PLAN

Last Update: 01/22/97 Lead: Cindi Carpenter

Itm No.	Action Item	Concern	Assigned	Due Date	Status	Reference
32a	Clarify guidance for review of 50.71(e) and 50.59 for PMs	Clarify existing guidance on how PMs should review 50.59 SEs, annual reports and 50.71(e) submittals, how to select appropriate issues to review, and how to conduct and document. Which organization will be responsible for 50.59 reviews?	G. Marcus/ J. Hopkins/ A. Hansen	01/08/97 Latest: 01/15/97	Memo from Roy Z. to Projects. To ADP for signature. Contents in memo were discussed at 1/7/97 PM Workshop. With DRPM for comment - moving it along.	• Effort should follow Millstone lessons learned task group and 50.59 task group recommendations • Build on IMC 37001
33a	PM participation as Resident Inspector Backups	Develop expectations for the staff on when a PM can stand in for the resident inspector, and the process to follow.	E. Adensam	01/15/97	PM/PD Advisory Panel has reviewed and comments to originator to resolve.	
53.	Provide list of style changes for documents	Develop list of style changes for authors of ADP	G. Marcus/ P. Kleene	12/1/96 Latest:	To ADP for review and issuance.	

		documents to be cognizant of and issue by note to the PDs with recommended wording choices. Markups by SES managers in ADP to documents should be sent to P. Kleene.		12/30/96 1/15/97		
26g	Review existing office guidance on closeout and implementation of licensing activities	Review implementing office guidance on closeout and implementation of old, open licensing activities (TMI, USI, GSI).	D. Dorman	12/30/96 Latest: 1/21/97	Memo is in concurrence. Work itself is complete. D. Wigginton reviewed for completeness and comments back to D. Dorman. Will try to resolve and complete 1/22/97.	
38a	Handling of Informal Communications, including documentation of phone conversations.	Provide additional clarifying information on how to handle fax, phone discussions, e-mail. This action needs detailed guidance on what types of faxes, e-mail, phone conversations - include examples of each type, and categories, including casual, plant status, allegations, decisions, etc. Bin certain types of examples, put into PM Handbook.	J. Stolz C. Poslusny	12/15/96 Latest: 01/21/97	Memo to PM/PD Advisory Panel 12/13/96. Comments currently being incorporated. Memo in concurrence to Varga/Roe/RPZ 1/21/97. • Discussed in detail at PM Workshop on 5/20/96. • Revision to Office Letter 107 • Need PM handbook input. • Discussed entire guidance at 1/7/97 PM workshop by C. Poslusny.	• Memo from William T. Russell to NRR employees dated 5/26/94, "Staff Performance Expectations and Communication." • There is existing guidance in place in MD 3.53, "NRC Records Management Program." • IRM's "Inside Information" brochure to NRC staff dated Spring 1996. • Lessons Learned task group possible recommendation to record licensee commitments
38b	Documentation of verbal commitments	Provide additional clarification on the documentation of verbal agreements and other important conversations with licensees.	J. Stolz C. Poslusny	12/15/96 Latest: 01/21/97	PM Handbook guidance To PM/PD Advisory Panel 12/13/96. To ET 1/10/97. Memo in concurrence to Varga/Roe/RPZ 1/21/97. • Was discussed at 1/7/97 PM Workshop.	June 26, 1996 memo from OIG (Norton) to Commission re: "Comments on Maine Yankee Letter dated May 21, 1996." NRC verbal agreement for schedule change that was not adequately documented.
61.	Investigate the causes of a premature issuance of an exemption	Investigate the causes of our premature issuance of two exemption packages (DC Cook and Byron) and propose process changes. A formal process to prevent premature issuance of exemption packages needs to be inserted in PM handbook, LA handbook and all Projects staff need to be informed.	J. Hickman	12/18/96 Latest: 01/21/97	PM/PD Advisory Panel had few comments, to be resolved by originator. **To ET 1/10/97. Memo in concurrence to Varga/Roe/RPZ 1/21/97.**	
	Factor in Maine Yankee	Maine Yankee Lessons	C. Carpenter	12/15/96		Coordinate with MY

	lessons learned.	Learned task group report and Commission papers (2) response should be reviewed for action items and recommendations		Latest: 01/30/97		Lessons Learned task group
	Factor in Millstone Lessons Learned after report issuance	The Millstone Lessons Learned should be factored into this PIP once the report is issued	C. Carpenter	12/30/96 Latest: 2/15/97	Lessons Learned will be factored in once the Millstone Lessons Learned Report Part II is issued.	Coordinate with Millstone Lessons Learned task group
15b	Transmittal letter indicate enforcement to be addressed	Transmittal letter for amendments, reliefs and exemptions should indicate that enforcement will be addressed in separate cover when it is appropriate.	J. Hannon C. Jamerson	12/15/96 Latest: 1/30/97	PM Handbook guidance; separate paragraph that indicates that separate action may be taken that led to this L*. Forwarded to PM/PD Advisory panel 9/27. OGC and OE revised the language. Forwarded to ET on 11/27/96; **a comment needs resolved with OGC/OE**.	
16.	Review No Sig Hazards determinations for risk	Do we need to consider risk considerations when making a no sig hazards noticing consideration?	F. Hebdon/ R. Martin	12/18/96 Latest: 1/30/97	PM resolving ADT comments.	
42.	Process to inform Associate Director of Projects of enforcement actions	Provide guidance to PMs on the process to inform the Associate Director of enforcement actions	G. Marcus/ G. Kelly	12/20/96 Latest: 1/30/97	Revised Office Letter to DISP for issuance. Paragraph to be developed for PM Handbook.	
64.	Revise guidance for issuing amendment requests when a hearing is requested.	Revise the guidance for processing and issuing an amendment request when a hearing is requested. Existing guidance was out-of-date.	C. Jamerson	1/31/97	Guidance in concurrence to Roe/Varga at this time.	
51.	Develop guidance for handling of Formal Submittals	Develop guidance for formal submittals from licensees that are for information only. Response to licensee should be neutral at best (BRP case on decommissioning plan)	J. Hannon/ L. Tran	11/30/96 Latest: 1/31/97	To PM/PD Advisory Panel 12/20/96. Comments returned to originator to resolve. **PM/PD Advisory Panel meeting was held - they wanted a legal opinion reflected in last paragraph of writeup.**	
52.	Guidance on PM length of time on a plant	Develop guidance for PM Handbook on PM length of time on a plant and evaluate need for objectivity criteria. Review resident inspector objectivity criteria for possible guidance.	J. Zwolinski	01/31/97 Latest: 2/28/97		
54.	Clarify the divisions of responsibility between secretaries, LA, PM and PDs.	Clarify the divisions of responsibility between the secretaries, LA, PM and PD, and ensure these are reflected in the PM Handbook and Elements and Standards and position descriptions.	J. Zwolinski	4/30/97		

9c.	Revision to delegation of signature authority?	Review Office Letter on Delegation of Signature Authority to determine if clarifications are necessary.	RZimmerman/ CCarpenter	1/31/97 Latest: 2/28/97	NRR Office Letter 101 will be reviewed to determine if further clarifications are warranted. Recommendations to ET will be made. Issue being reviewed as part of Maine Yankee task group. **ADT member should participate.**	Policy Will follow the Millstone lessons learned task group and Maine Yankee task group efforts.
20b	License condition survey followup	Followup on the findings found during the survey on license conditions. Determine whether results of review require additional review.	J. Luehman	12/31/96 Latest: 1/31/97	Closeout memo in preparation. ADPR concurred in a proposed IN on 12/12/96 which was sent to DRPM for processing. TSB portion is complete. Residual pieces are outside ADP. One piece to OE for disposition. The IN was written and signed by ADP and forwarded to Generic Communications. Third piece is for DISP to send note to regions instructing them to followup issuance of IN with a review of license conditions.	
50.	Request for information from the PMs on SALP writeup coordination	Request information from the PMs on SALP writeup coordination concerns, and work with the regions to resolve these issues.	J. Roe/ S. Varga	01/31/97	Effort underway in DRPW.	
55.	Historical review of past staff practices for Millstone/MY lessons learned.	What are other reasonable historical reviews of past staff practices to deal with Millstone/Maine Yankee issues (e.g., Millstone TD AFW pump issue, CU-28/29 or MY RELAP).	J. Roe	2/15/97	Also underway: • MY lessons learned power uprate reviews • TS interpretations • Look back at commitments per action plan • Review of closeout of 3 TMI items per MY lessons learned.	
10b	Develop evaluation measures to determine effectiveness of coordination	Develop evaluation measures to determine the effectiveness of the guidance for closer integration between the residents and the regions. Consider adding a statement in PM elements and standards.	G. Marcus **TELL**	12/30/96 Latest: 2/15/97	Consider whether union/partnership needs to approve or be involved.	
13.	Tracking record for USI/GSI/TMI/MPA	Ensure that the tracking record for MPA/USI/GSI/TMIs is up-to-date. Hold point to verify accuracy. Review	M. Boyle	12/30/96 Latest: 2/15/97	Just received all the printouts. CCarpenter to call all regions prior to issuance of memo to let them	

		SIMS database, and all open USI/GSI/TMIs - verify open or if closed, where/how closed and complete the implementation column.			know of our actions and what actions we'll request of them.	
47.	Periodic Briefings on status of OI investigations	Develop protocol for periodic briefings of NRR management by OI on their status of investigations.	F. Hebdon/ L. Wiens	12/15/96 Latest: 2/28/97		
57.	Review elements and standards for all Projects staff.	Review elements and standards for all Projects staff (TSB, LA, secretaries) to determine whether they reflect current expectations, including attending mandatory training, emphasis on R* and de-emphasis on L*, etc.)	C. Carpenter	02/28/97		
6a	Revise Office Letter 803	Update procedures for processing license amendments to include specific provisions to evaluate license amendments for generic implications.	C. Grimes	2/28/97	A proposed scope of changes to OL 803 will be presented to the Advisory Panel, to address both the specific issue of identifying and processing amendments with generic implications, recommended changes based on usage, any related recommendations from the Millstone Lessons Learned task group beyond that covered under Item 6b, and reference to or incorporation of the procedures for relocated TS requirements under Item 29. No action -- this task may be delayed if the objective of item #25 isn't clarified soon.	
62.	Develop Guidance on licensee drop-in visits with Commission/EDO.	Guidance needs developed or clarified on who coordinates licensee drop-ins with the Commission and EDO - the PM or licensee.	R. Wharton	3/7/97		
25.	Overall Projects/TSB workload prioritization	Need to reconsider the prioritization of workload in NRR, including advanced reactors, CBLAs, etc.	RZimmerman/ CGrimes	3/1/97	On 12/11/96, TSB proposed a set of amendment categories, as Mr. Zimmerman requested, to focus the priorities issues. A meeting to discuss the categories will be held when all of the principals are available.	
5.	Clarify PM guidance on technical staff concurrence	Clarify guidance as to when technical staff concurrence, and the level	C. Grimes	12/30/96 Latest: 3/1/97	Depending on the resolution of 6b, a revision to the PM	

		of concurrence, is necessary on licensing tasks.			handbook will be developed to clarify technical staff concurrence practices. Resolution of this issue dependent on the outcome of item #25.	
17.	Review generic aspects of documents referenced in license/TS	Review the generic aspects of documents referenced in license/TS and where licensee may no longer be in verbatim compliance with all aspects of referenced document (Zion case) such as a topical report.	B. Capra/ C. Shiraki	3/1/97	Has been discussed with OGC.	
46.	Licensee TS interpretations	Review the NRC's policy position on licensee TS interpretation books	C. Grimes	3/1/97	TSB will coordinate item 4a with PIPB's development of related inspection guidance, which was issued for comment on 12/10/96.	See also Gillespie memo to J. Taylor dated 8/23/96 on Technical Specification Interpretations.
14.	Consider list of effective TS pages	Consider developing a model for a list of effective TS pages so that it is clear what revision each TS page is.	C. Jamerson/ Peyton/ CGrimes	3/30/97	Needs further discussion. TA will set up meeting to discuss.	
29.	Relocation of items from TS to FSAR	Need to review our processes and policies on relocation of items from the technical specifications to the FSAR.	C. Grimes/ E. Peyton	3/30/97	OGC provided, on October 22, 1996, the enforceability of commitments and conditions to NRR Director. The staff responded by memo dated November 12, 1996 that the staff had developed a method to capture commitments as a license condition. Further action includes putting out information to the Project staff. Copy of Nov 12 memo given to all PDs. **This action item is awaiting a test case, which is in progress at this time (Palo Verde). If OGC concurs in test case, guidance will be put out to all Projects staff. This is also a piece of commitment management, in that commitments will be enforceable due to a license condition, and will be resolved as part of that too.**	
22.	Review methods to amend license when USQ involved	Work with OGC on the question of amending the license when a USQ is involved.	E. Adensam/ E. Peyton/ OGC	3/30/97	Discussions by J. Donohew with OGC indicated their acceptance of	

					amending the license per NRR's response to L. Chandler dated November 12, 1996. **This action item is awaiting a test case, which is in progress. If OGC concurs in test case, guidance will be put out to all Projects staff. This one is tied to Item 29, and both have the same resolution. Format has been worked out; just needs the test case.**	
4a.	Revise Office Letter No. 1201 on TIAs	Existing Office Letter 1201, "Control of Task Interface Agreements," will be revised to clarify staff processing of TIAs. This will include clarification on how the Office controls requests for interpretations.	M. Weston, TSB	11/29/96 Latest: 3/31/97	Based on comments on the draft revision to OL 1201 and the most recent concerns regarding licensee "interpretations," TSB has prepared a new draft revision to the OL and re-issued it on 12/02/96 for comments with a clearer statement of purpose. As of 12/13/96, additional comments on the revised OL are continuing. Because of the variety of conflicting comments and policy issues, TSB will organize the comments into a proposed plan for NRR management approval.	
31a	Revision to IMC 9900 on degraded and non-conforming conditions	Revision to IMC 9900 on degraded and non-conforming conditions to (1) resolve comments received from the workshops, (2) achieve consistency with recent agency actions (e.g., maintenance rule and PRA policy statement), and (3) reflect "Millstone" lessons learned (e.g., whatever revisions are made to 50.59, CLB).	C. Grimes	12/31/96 Latest: 3/31/97	A proposed reply from ADPR to ADT is awaiting ADP signature; until issued, TSB cannot update the status.	Memo from CIGrimes to RPZimmerman and ACThadani dated 8/21/96.
60.	Develop process to inform PMs of process for 2.206 petitions	Develop a process - either add to PM handbook or develop/revise office letter describing the 2.206 process and the petition manager's role in that process.	J. Kennedy	4/30/97		
4b.	Instructions/guidance to Regions on handling of TIAs	Guidance will be provided to the regions on processing of TIAs.	C. Grimes, TSB	12/31/96 Latest: 4/30/97	Upon completion of 4a, forward OL 1201, Rev. 1 to the regions with whatever additional guidance is necessary, if any, for	

					the regions to adopt conforming changes to their procedures.	
31b	Evaluate the need to provide additional training on degraded equipment	Evaluate the need to provide additional training and/or guidance to the staff on actions to be taken when information on safety issues potentially impacting equipment operability is received by the staff.	C. Grimes	1/31/97 Latest: 4/30/97	Dependent upon the results of 31a.	Quad Cities DET item 10a.
3.	PM Handbook on NRR Internal Home page	PM Handbook will be completely updated to include previously issued, applicable staff guidance, current practices and expectations. On the Internal Home page, it will be word searchable and able to link to other documents.	G. Marcus/ R. Laufer	6/1/97	Several meetings have been held with contractor, Scientech, Inc. Work commenced week of 10/14/96. Contractor has developed a list of procedures and documents that should be included in the document. Contractor has provided an outline and sample writeup-PM/PD advisory panel met on 12/16/96 to decide on format. Contractor will now prepare handbook. Discussions ongoing as to resources to review entire revision.	
45a	Controlled correspondence on NRR internal home page	Initiate effort to consolidate controlled and other correspondence on NRR home page for central reference and retrieval.	M. Boyle	06/30/97	Beginning. Searching for Controlled Correspondence to place on system. All distribution lists have been changed so that electronic copies of all TIAs and controlled correspondence go to M. Boyle to place on home page.	
45b	Put TIAs into a word searchable database	Put TIAs, similar to TS interpretations, into a centralized database. Includes going backwards to capture issued TIAs. Consider putting on NRR internal home page so all NRC staff can access.	M. Boyle/ T. Harris	06/30/97	Beginning. Searching for TIAs. Just added. All distribution lists have been changed so that electronic copies of all TIAs and controlled correspondence go to T. Harris. **Toni needs taught how to place text on home page.**	
12d	Conduct Job Task and Functional Analyses for PM	To examine various aspects of the PM function in carrying out agency's mission.	Bob Pulsifer	06/30/97	LPM identified and effort in headquarters will commence in October. LPM is working on SOW contract with Los Alamos. Work is anticipated to run 01/01/97 - 10/31/97. Money has been identified.	

49.	Provide Chairman/Commission with December 1996 report	Provide the Chairman/Commission with a separate status report in December 1996 identifying the improvements made by the staff in responding to 2.206 petitions in a timely manner.	J. Kennedy	8/31/97	This item was superseded by new yellow ticket. Memo will be issued to the Commission upon completion of a 6 month pilot program describing improvements in the timeliness of 2.206 responses.	Commitment made in memo to Chairman from EDO (WITS 9600099) regarding tracking of 2.206 petitions.
12e	Determine general training requirements for PMs	To revise current guidance on what overall training should be required for the PM job. Should follow in series with JTA of item above.	C. Carpenter	10/30/97	This effort will follow the JTA so as to not get out ahead of it. Existing guidance exists in May 30, 1989, "Implementation of NRR Generic Technical Training Program" memo to staff from J. Sniezek.	Policy Existing training requirements delineated in May 30, 1989 memo from J. Sniezek to PDs/BCs
12f	Establish Performance appraisal criteria and performance plan	Performance appraisals and performance plans should be reviewed and revised as appropriate based on the JTA.	C. Carpenter	09/30/97	Effort needs to follow the JTA effort above.	
25b	Consider re-looking at NRR Office prioritization memo	Consider an Office wide re-look at the 1993 Dr. Murley Prioritization memo based on new directions in the office.	M. Reinhart G. Edison (Tell)			
26a	Develop Commitment Identification Form/Licensing Action Closeout Form	Form will identify commitments and requirements in licensing tasks, and identify those that need to be verified as implemented. Technical staff will concur on which commitments need to be verified.	J. Donohew	12/30/96 @ Latest: 1/31/97	Form has been prepared; however, it needs to be coordinated with Millstone lessons learned task group recommendations.	
26b	Review whether changes are needed to licensing action/activity forwarding letters	Review whether L*/R* forwarding letters to licensees should include a requirement that NRC approval is contingent on inclusion of certain commitments in FSAR	DISP/ J. Donohew	12/30/96 @ Latest: 1/31/97		
26c	Review need to develop Commitment Tracking System	Is another commitment tracking system to track which commitments will be verified, and which ones do not need to be verified needed? Will WISP/MIP2/IFS do?	J. Donohew	12/30/96 @ Latest: 2/28/97	WISP will be used until the AIRS system is operational and modified.	
26d	Evaluate whether there is adequate licensing action commitment followup for pending and completed items.	Evaluate whether commitments/requirements on Licensing Action Closeout Form are adequately evaluated for implementation (Inspection program - possibly develop inspection procedure or evaluate use of existing one)	J. Donohew	12/30/96 @ Latest: 3/30/97		
35.	Review whether commitments	Should certain commitments and decisions	J. Donohew	12/30/96 Latest:	• May need to revise OL 803	

	contained in licensee submittal should become part of FSAR licensing basis/FSAR? Closely coordinate with OGC. Also review 50.71(e).	in staff SER/licensee submittals for licensing actions/activities become part of FSAR? Needs close coordination with item 26.		3/30/97	guidance on how to do license amendments if this proceeds. • If certain commitments are to become part of FSAR, item 26 is the step to change the forwarding letter to licensees.	
26e	Review of closed licensing actions and activities to identify commitments and requirements	Review selected number of licensing actions and activities issued for each plant, identify significant commitments and requirements and verify implementation.	J. Roe/ S. Varga	03/30/97 @ Latest: 9/30/97	Recommendations on best way to proceed should be provided.	Policy/Implementation • Maine Yankee OIG Report Finding • Effort should follow Millstone lessons learned task group
26f	Verify significant licensing task commitments have been implemented.	On the one year (or other determined time) look back at closed licensing actions and activities from 26e, develop criteria to determine which commitments will be verified, and verify those commitments/requirements have been implemented.	J. Roe/ S. Varga	06/30/97 @ Latest: 9/30/97	This requires clarification of inspection program guidance. On hold pending recommendations from Millstone Lessons Learned task group	Policy/Implementation Effort should follow Millstone/HN lessons learned task group.
26h	Provide training sessions on managing commitments	Provide training sessions on managing commitments to project managers, resident inspectors, other inspectors and technical staff (SECY-95-300 and SECY-96-024). This is item 7(1) of the remaining RRG actions, memo dated November 14, 1996.	ADPR, DISP/PIPB J. Donohew for ADPR	12/30/97	Just added	
26i	Modify inspection procedures regarding inspection follow-up of licensee corrective actions	Modify inspection procedures regarding inspection follow-up of licensee corrective actions and implementation of commitments (SECY-95-300 and SECY-96-024). This is item 7(2) of the remaining RRG actions, memo dated November 14, 1996.	ADPR, DISP/PIPB J. Donohew/ C. Carpenter	12/31/97	Just added. Due date will allow implementation of new managing commitments guidance, and time to assess its effectiveness (one year). This appears to go along with 26j.	
26j	Evaluate the effectiveness of NEI's guideline	Evaluate the effectiveness of NEI's guideline (SECY-95-300 and SECY-96-024) and reassess the need to develop rulemaking after experience has been gained in the implementation of the guideline. This is item 9(3) of the remaining RRG actions, memo dated November 14, 1996.	ADPR J. Donohew/ C. Carpenter	3/31/97	This appears to be the inspection procedure developed by the CBLA group (Imbro/Reckley). This will allow time to implement PM guidance and inspection procedure, and assess licensees programs.	
56.	Develop an SRP chapter for power	Review existing staff guidance in area of power	F. Hebdon			

	uprate	uprate, and develop a SRP for power uprate. Are there other improvements that can be made in power uprate reviews?				
58.	Evaluate appropriateness of schedular exemptions	Evaluate the appropriateness of giving schedular exemptions in responding to violations of the regulations. Work with OGC/TSB/OE/Zimmerman. What guidance do we need as to when should we issue schedular exemptions when a regulation is not being met.	F. Hebdon		Work with OE, Grimes, OGC, Zimmerman.	
59.	Provide additional guidance and training on all types of licensing actions	Provide additional guidance and training on all types of L*, including the nuances in processing difference types of license amendments, exemptions, reliefs, etc. Revise Office Procedures and LA and PM Handbooks as appropriate.	H. Berkow K. Jabbour		Will this impact TSB's OL803 task (6a)?	Commitment to Commission in response to an SRM concerning the exemption process and the adequacy of 50.12.
62.	Contact SECY on negative consent papers	Add to PM handbook or some other NRR procedures that SECY needs to be contacted on negative consent Commission papers before the staff acts to ensure no responses were received.	C. Grimes		This action should be assigned to someone else. TSB confirmed that the dispatching delays were SECY/EDO errors, but TSB also recommended that the PM handbook should be updated to include a reference to the Correspondence procedure and confirmatory checks for negative consent actions. These aspects are beyond TSB responsibilities.	
63.	Develop goals for licensing activities and re-evaluate licensing action goals	Develop goals for licensing activities similar to those developed for L*. Re-evaluate goals for licensing actions, and ensure those documents were referenced are changed.	C. Carpenter		Just added.	
64.	Need to review and upgrade some licensing boilerplate documents.	Need to review and upgrade boilerplate documents such as exigent amendment conditions. This arose from an Oconee FR issue where 14 days is sufficient for a comment period, where 30 days exist for a hearing request and this appears to be confusing.	H. Berkow/ P. Tam		Needs an LA assigned.	
1.	Develop ADP Process Improvement Plan	Plan captures issues and commitments, and implementation of actions	C. Carpenter	Complete 10/4/96	Action items will continue to be added as they are identified. ADP PIP was transmitted to the Commission by memo dated October 28, 1996.	

2a.	Establish PM/PD Advisory Panel	To provide peer review of guidance and changes that are developed in order to ensure reasonableness and workability.	C. Carpenter	Complete 6/14/96	Panel of 4 PMs and 2 PDs from DRPW/DRPE established on 6/14/96. DRPM has one branch chief participating.	Members are: B. Capra, H. Berkow, D. Wigginton, J. Hopkins, G. Wunder, R. Croteau, C. Jamerson, S. Weiss
2b.	Establish charter for PM/PD Advisory Panel	Charter will establish function/purpose of PM/PD Advisory Panel, and what constitutes a quorum.	C. Carpenter	Complete 6/15/96	Charter developed for PM/PD Advisory Panel. Needs added to the PM Handbook. Charter amended to include term of membership and forwarded to panel.	
2c.	PM Handbook, Rev 1 on the LAN	To ensure central repository of information and clarifying information to the staff.	C. Carpenter/ T. Harris	Complete 6/24/96	PM Handbook available on Agency-Wide LAN 6/24/96.	Commitment per response to Chairman tracking item on public responsiveness.
2d.	Develop process to make changes to PM Handbook on LAN	Develop a controlled process to make changes to the PM handbook, and notify the staff of the changes.	C. Carpenter	Complete 7/3/96	Formal process was approved by PM/PD Advisory Panel and ADP, and was E-mail to staff on 7/3/96. Added to PM Handbook.	
2e.	Develop memo to disseminate purpose of ADP Process Improvement Plan	To disseminate to Executive Team the actions underway and being developed with respect to the PM Handbook and other ADP Process Improvement Plan actions	C. Carpenter	Complete 7/31/96	Letter to ET, with Division Directors on concurrence explaining ADP actions on ADP PIP issued 7/31/96	
6b	Guide for Processing License Amendments	Should the Guide for Processing License Amendments attached to OL 803 be included in PM Handbook or highlighted elsewhere?	F. Hebdon	Complete 10/17/96	PM/PD advisory panel agreed that guide should remain in OL 803. By memo to J. Zwolinski dated 10/17/96, this item was closed by the Lead PD with Deputy Director approval. PM Handbook will be revised to reference OL 803.	Possible recommendation from Millstone Lessons Learned task group
7.	Coordination of Exemptions with Chairman's Office	Incorporate into PM Handbook the recent EDO guidance on coordination of exemptions with Chairman's office.	G. Marcus/ R. Laufer	Complete 7/2/96	Notification with full text of change was sent via E-mail to all Projects Staff on 7/2/96. Incorporated into PM Handbook.	June 13, 1996 Blaha to Russell Memo
9a.	Revision to NRR Office Letter 101 on Delegation of Signature Authority	This effort is to revise NRR Office Letter 101 to reflect that ADPR PMs and ADT staff should not also concur for the supervisor on their own work when acting for the supervisor.	C. Carpenter	Complete 8/9/96	Office Letter revised on 8/9/96. Also incorporated into PM Handbook in Section 3.3.1.4.	
9b.	Revision to NRR Office Letter 101 on Delegation of Signature Authority	Revise NRR Office Letter 101 to reflect that delegated signature authority for exemptions (item 12 to OL) is to be Office Director.	C. Carpenter/ R. Ingram	Complete 8/9/96	Change approved. Included in 9.a. effort above. Office Letter revised on 8/9/96. PMs notified of change.	
10a	Coordination between regions and NRR/PM on	To ensure closer coupling between residents and	G. Imbro/ C. Carpenter	Complete 10/11/96	Change was inserted into PM Handbook,	

	issues in licensing tasks	project managers, and ensure residents and the regions are aware of issues and commitments in SERs. Clarify expectations			and full text e-mailed to all Projects staff and regions. • PM Workshops • ADP SES meetings • Consider regional counterpart meetings to convey message	
12a	Determine current technical training status of PMs	Determine the current technical training status of PMs with respect to the series courses.	J. Kennedy/ M. Boyle	Complete 9/19/96	Memo issued.	Memo from J. Kennedy to J. Roe dated September 19, 1996 detailing the plant type and type of training the PMs have taken. DRPE has also done this.
12b	Determine technical training needs of PMs	Determine technical training needs of PMs with respect to assigned plant (series courses)	J. Kennedy/ M. Boyle	Complete 10/29/96	Complete Technical training taken by PMs was reviewed against plant type assigned to, and additional training identified. All PDs were informed of current training status of each PM versus the plant type each PM is on. Action is now for PDs to get with PMs.	Memo from J. Kennedy to J. Roe dated October 29, 1996. Also, per M. Boyle
15a	Verify ongoing agency actions prior to issuance of L* and R*	Should PMs formally verify, perhaps on licensing routing sheets, that PMs have checked ongoing agency actions on a facility, such as hearing requests, enforcement actions or dialogue with owners groups prior to issuance of a licensing task? Notify stakeholders, including public as a courtesy before issuing licensing amendment.	H. Berkow/ K. Jabbour	Complete 11/8/96	Memo signed by R. Zimmerman to all PMs and PD dated 11/7/96 and forwarded to NRR staff. Inserted into PM Handbook 11/8/96 and disseminated to Projects staff 11/8/96.	• Discussed at PM Workshop on Sept. 3
18.	Priority Determination for NRR Review Efforts	Place the June 6, 1993, memo "Priority Determination for NRR Review Efforts" in the PM handbook to ensure its ready reference.	C. Carpenter	Complete 10/10/96	Inserted in PM Handbook as new section 5.25 and staff informed.	
19.	Use of Risk Insights for Plant-Specific Licensing Actions	Incorporate the recent memo, August 21, 1996, "The Use of Risk Insights for Plant-Specific Licensing Actions," from A. Thadani to ADT into the PM handbook.	C. Carpenter	Complete 10/2/96	Overwhelming consensus of the PM/PD Advisory Panel was that this was not appropriate for the PM Handbook. The memo was used to address a specific question that arose on a plant. Since our policy on use of PRA and risk insights is still evolving, it is premature to include this in the PM Handbook at this	

					time.	
20a	License condition survey	Request project managers to review their plant license conditions, and based on their personal knowledge of plant activities and practices, determine if there were any obvious license conditions for which the PM suspected there might be discrepancies between the conditions of the license and actual plant practices.	C. Carpenter	Complete 8/30/96	Results of review by the project managers of plant license conditions versus plant knowledge provided to RZimmerman 8/30/96 by memo.	
23a	Verify the PM's copy of the FSAR has been updated.	Verify that the project manager's copy of the FSARs has been updated with the exception of those changes received within the past 30 days.	B. Beckner/ T. Polich	Complete 10/4/96		
27.	Technical Specification Interpretations	Clarifying guidance to TSB staff necessary to ensure staff understands the need to document interpretations. Formal clarification will be handled as part of Office Letter on TIAs (see item 4a)	C. Grimes	Complete 6/13/96	Informal guidance provide to TSB staff and PDs. Formal guidance will be developed in conjunction with the Office Letter on TIAs.	
36a	NRR Staff Performance Expectations	To disseminate to NRR Staff Office Director's performance expectations for the NRR staff in areas such as safety, professionalism and promptness in dealing with licensees and the public, oversight of licensees, the need to ensure our regulation is transacted publically, and need for open and candid communications.	C. Carpenter	Complete 6/11/96	NRR Staff Performance Expectations issued 6/6/96 PM Workshop held on 5/20/96 where Associate Director discussed his expectations ADP SES meeting held on 6/11/96 to discuss expectations	
36b	PM Workshop	To ensure continuing dialogue with PMs and ensure dissemination of management's expectations.	M. Fields/ C. Carpenter	Complete 5/20/96 9/3/96	• Second workshop held September 3, 1996. First held May 20. • Next workshop scheduled for December 9.	
36c	ADP SES meeting	Need for periodic meetings between ADP and the SES managers to emphasize guidance and expectations.	RZimmerman/ C. Carpenter	Complete 6/11/96	• ADP SES meeting held on 6/11/96. • Periodic meetings will be scheduled	
37.	Staff actions upon receipt of phone call from licensees with potentially adverse information	To clarify the importance of following up on phone calls from licensees.	J. Stolz/ C. Poslusny	Complete 8/30/96 *	• Discussed at PM Workshop on 5/20/96 and 9/3/96 • Discussed at ADP SES meeting held on 6/11/96 • Office Letter 107 revised to	* Needs to be included in PM handbook when Office Letter revised.

					reflect guidance in this area.	
39.	Allegations	Sensitivity Issue. This was covered by the NRR expectations memo issued on June 6, 1996. Also, Allegations training was conducted for the NRR staff in April 1996.	E. Baker/ J. Lee/ B. Grimes	Complete 9/1/96	• NRR Staff Performance Expectations memo dated 6/6/96 discussed this area • Allegations refresher training conducted for all staff April/96. • ADP SES meeting conducted 6/11/96 • PM Workshop on 5/20/96 • Allegation trng for management staff planned	• MD 8.8, "Management of Allegations" revised 5/1/96 • Office Letter 1003 and Regional instructions revised to be consistent with MD 8.8
40.	Drop In Visits	Guidance to staff on how to schedule drop-in visits.	V. Nerses/ H. Berkow/ C. Carpenter	Complete 7/19/96	• Memorandum from W. Russell to NRR staff issued on July 19, 1996 on Licensee Drop-in Visits • Incorporated into PM Handbook on 8/22/96 and disseminated to staff 8/22/96 • Discussed at ADP staff meetings • Division Directors discussed with their staff	
44.	Clarify the need to maintain copies of draft material for record purposes	MD 3.53, "NRC Records Management Program" requires the preservation of working files, such as preliminary drafts and rough notes, etc. for purposes of adequate and proper documentation. Additional clarification is necessary.	B. Bateman/ K. Thomas	Complete 10/4/96	Approved through the process and inserted into PM Handbook on 10/4/96. E-mail sent to all ADP staff and regions informing them of change 10/4/96.	
8.	Continuing dialogue with licensees on NRR policies	To ensure staff continues to dialogue with licensees with respect to ongoing issues.	B. Capra	Complete 11/30/96	By memo from S. Varga and J. Roe dated November 8, 1996 to all PDs. Also memo from J. Roe to R. Zimmerman dated November 26, 1996.	
33b	Guidance for Participating in Regional Inspections	Develop guidance for the PMs on how to handle requests for participation in	E. Adensam	Complete 11/25/96	Guidance approved by R. Zimmerman, and disseminated to	

		inspections			the staff on 11/25/96 by E-mail. Provides guidance on requests by regions for PMs to participate in regional inspections, as to what training and process to follow for PM to be allowed to participate.	
24.	Develop report for trending of incoming license amendments for plants that convert to ISTS	Develop a report, to be issued every 6 months, to determine if licensing actions are trending down as a result of ISTS conversions. This completes feedback loop for lessons learned. This item can be closed when first report is issued, but report is to be issued every 6 months.	D. Johnson/ TSB	Complete 11/26/96	First report issued 11/26/96 providing Post-Conversion Amendment Trends.	
12c	Identify when training will be done	Based on technical training needs of the PMs identified in 12b, identify when the training will be taken.	J. Hickman/ J. Kennedy/ DRPE	Complete 11/26/96	Memos were prepared in DRPW and DRPE with list of plant type and training needs of each of the PMs. These training needs were identified to the PDs for their review and action. For DRPW, memo issued from JRoe to RZimmerman delineating training needs.	
43.	Review NRR guidance available on transitioning from rulemaking to implementation plan	Office Letter 116, "Procedures for Implementation of New Regulations," provides that staff responsible for implementing new rule will develop implementation plan. How is lead PM assigned, and who develops implementation plan? Do we need additional NRR guidance to adequately transition from rulemaking to implementation?	H. Berkow	Complete 12/4/96	Revised Office Letter issued 12/4/96.	
23b	Provide PM expectation that FSAR be updated within 30 days of receipt of the FSAR	Provide PM guidance that FSAR should be updated within 30 days of receipt by the PM of new updated pages from licensee. Also need to revise PM elements and standards to reflect new expectation.	B. Beckner/ T. Polich	Complete 11/30/96	Being folded into A. Hansen effort on 50.71(e). Is included in the letter of expectations to the PMs. E-mail sent to all project staff on 11/27/96.	
21.	Develop a process on administrative errors	With OGC, develop a process to handle administrative errors made by licensees and NRC staff on licensing amendments.	S. Bloom/ OGC	Complete 11/15/96 Complete 01/16/97	Memo from ADP to ADP divisions issued 1/16/97 to provide guidance for determining what action is necessary to correct administrative errors in TSs.	SECY-96-238 dated November 19, 1996 forwarded to inform the Commission of the staff's intent to issue administrative memo to provide guidance to staff members to determine actions necessary to correct

						administrative errors in TSs.
48.	Develop procedure for PMs to conduct surveys	Develop a procedure/process on handling of surveys by the PMs to control the process	E. Adensam/ J. Kennedy	Complete 12/30/96	Office Letter 505	
32b	Training on conduct of 50.59 inspections and reviews of annual reports	This issue identified in PM survey on 50.71(e).	G. Marcus/ J. Hopkins/ A. Hansen	Complete 01/08/97	Training was conducted at PM workshop on 1/7/97.	• This effort needs to ensure coordination with Millstone lessons learned task group, and follow the final report in this area. • This effort should also review the 50.59 task group efforts.
41.	Guidance on Meeting Attendance	Provide written guidance on what meetings ongoing in regions, such as meetings on 50.59, 50.71(e) should PMs attend?	B. Bateman/ S. Bloom	Complete 1/13/97	To ET 11/26/96. Approved by PM/PD Advisory Committee.	
11.	Provide clarification on what documents should be reviewed when performing licensing review.	Enhance existing guidance in this area. Examples would include FSAR, SRP	B. Beckner/ D. Wigginton	Complete 1/13/97	General existing guidance is in place in OL 803 and PM Handbook. Approved by PM/PD Advisory Panel, no comments received from ET.	• OL 803 • PM Handbook
30.	Guidance on addition of individuals/organization to service lists	Need to develop guidance on the protocol/position of adding individuals and organizations to the cc: and service lists.	B. Bateman E. Peyton J. Stone	Complete 1/16/97	Memo titled "Mail Distribution Lists" dated 1/16/97 issued to all PMs/PDs and regional DRP division directors.	
34.	Followup training for Inspection Staff/PMs	The staff needs to be trained on procedure changes that contain the guidance now incorporated in IMC 2515 on the 1994 Oconee Steam Generator Dryout event.	C. Carpenter/ M. Boyle/ TSB	Complete for DRPW 11/19/96 Complete for DRPE 01/14/97	Training will be done at the next scheduled division meetings. B. Haag will discuss IMC 2515 changes. Complete for DRPW - 11/19/96	By memo dated Sept 12, 1996, "Followup Training for the Inspection Staff," the Oconee SG dryout event review group recommended staff be trained on the revision to IMC 2515 regarding NRC conduct in the control room during an event.
28.	Review IMC 37001, "10 CFR 50.59 Safety Evaluation Program"	Review IMC 37001 for further clarifications in light of recent developments on 50.59 and 50.71(e).	G. Marcus/ J. Hopkins A. Hansen	Complete 12/3/96	PM has reviewed IMC 37001 and determined no changes are needed at this time to the Inspection Manual Chapter. Memo dated 12/3/96 from JWR to RPZ closing out this item.	• Comment from survey on 50.71(e) by lessons learned task group.

@ These dates are pending resolution of policy issues associated with the Millstone Lessons Learned Task Group Report, Parts 1 and 2 associated with identification, tracking and verification of commitments associated with plant-specific licensing actions.

APPENDIX

MILLSTONE LESSONS LEARNED TASK GROUP RECOMMENDATIONS

Introduction

The Millstone lessons-learned task group made recommendations in the four major areas of its review: licensing, inspection, enforcement, and licensee reporting. It also made recommendations for management oversight for those agency programs and for the impact on license renewal. The task group's recommendations primarily involve implementation of the major NRC programs for power reactors. Although several of the recommendations have some connection with the policy issues discussed in the Part 2 report, they are not directly affected by decisions on those policy issues.

This appendix includes the recommendations from the "Millstone Lessons-Learned Task Group Report, Part 1: Review and Findings," synopses of management remarks from a review by senior agency managers, and staff actions that can address the recommendations. The majority of the actions listed are from the Associate Director for Projects (ADPR) Process Improvement Plan (PIP).[52] The ADPR PIP was developed to address the concerns and issues raised at Millstone and Maine Yankee that affected NRR's licensing process and project manager organization for power reactors.

RECOMMENDATION:[53]

1. The planned improvements discussed in the memorandum on FSAR inspection results from the EDO to the Commission should be implemented. New inspection guidance developed as a result of the improvements should consider the variations in the level of detail found in updated FSARs. The guidance also must be consistent with the legal and regulatory standing and enforceability of the updated FSARs. [4.1.1]

MANAGEMENT REMARKS:

The agency's position on the standing of FSARs within the regulatory environment has been consistent. Inspection and enforcement of FSAR issues must consider the variation in FSARs on the basis of the date of licensing.

STAFF ACTIVITIES:

Ongoing:

Revising core inspection procedures to include a new requirement and associated guidance for incorporating UFSAR reviews into inspections. Focus is on inspection procedures (IPs) with emphasis on plant systems.

ADPR PIP #28: Review IP 37001 (Section 50.59 programs) for further clarifications in light of recent developments with Sections 50.59 and 50.71(e).

ADPR PIP #31a: Clarify guidance for PM's review of licensee reports under Sections 50.71(e) and 50.59.

ADPR PIP #31b: Train PMs on Section 50.59 inspections and reviews of annual reports.

Incorporate FSAR inspection guidance into regional initiative procedures as the procedures come up for revision.

Completed:

Interim inspection and enforcement guidance was issued to the regions in January and March 1996.

RECOMMENDATION:

2. The agency should establish a process for identifying and verifying those aspects of plant-specific licensing actions and activities whose implementation requires agency verification. [4.1.1]

MANAGEMENT REMARKS:

The effects on inspection resources need to be carefully considered in making program changes that place additional requirements on inspectors. The focus of the inspection program needs to remain on those activities with the highest safety benefit and on performance-based field observations.

STAFF ACTIVITIES:

Ongoing:

Compilation of licensing basis for Millstone

ADPR PIP #10b: Develop measures to evaluate the effectiveness of coordination between the regions and NRR PMs.

ADPR PIP #26 a-g: Develop and implement process for identifying, tracking, and verifying implementation of licensee commitments made during licensing actions and activities; including a docket review and verification of requirements and commitments for selected issues.

ADPR PIP #35: Review whether commitments contained in licensee submittals should become part of FSAR or licensing basis.

Completed:

ADPR PIP #10a: Coordination between the regions and NRR PMs on issues in licensing tasks

RECOMMENDATION:

3. Inspectors should be given more guidance in the area of performance-based inspection and in the proper nexus between strict compliance with regulations and safety. Emphasis should remain on developing performance-based approaches for new regulations and should continue on performance-based changes to existing regulations. [4.1.2]

MANAGEMENT REMARKS:

The agency needs to (1) determine if it should change its policy on not documenting minor violations, (2) determine the appropriate balance between its focus on operational safety and regulatory issues, (3) promulgate that balance through its programs, and (4) monitor inspection reports for compliance and regulatory issues as well as safety issues to assure that balance is maintained.

STAFF ACTIVITIES:

Ongoing:

Maintenance Rule implementation

Inspector job task analysis

ADPR PIP #12b: PM job task analysis

Completed:

None

RECOMMENDATION:

4. The inspection program should clearly state management's expectations for identifying, following up, and closing open items. The Inspection Program Branch should assess the regions' use of the open items tracking system and the effectiveness of quality assurance-related inspections in identifying serious problems in licensees' quality assurance programs. [4.1.3]

MANAGEMENT REMARKS:

Management needs to determine consistent expectations for treating noncited violations within the inspection program.

The effects on inspection resources and program focus need to be carefully considered in making changes to the program that increase the inspection workload.

STAFF ACTIVITIES:

Ongoing:

None

Completed:

Implementation of associated recommendations from the South Texas Project Task Force

Audit of IP 40500 (resolution of and preventing problems) by NRR's Inspection Program Branch (PIPB)

RECOMMENDATION:

5. More focused, design-based inspection teams should be sent to plants of concern. In addition, the NRC's inspection program for engineering should be evaluated for its effectiveness in identifying deep-seated, design-based engineering issues. [4.1.4]

STAFF ACTIVITIES:

Ongoing:

Design aspect added to IPAP

Increased use of SSFIs with A/E-level contractor support

Completed:

Audit of engineering inspections and IP 40500 (resolving and preventing problems) by PIPB.

RECOMMENDATION:

6. The staff should develop processes for identifying important aspects of plant-specific licensing actions and activities and for assigning priorities for verifying implementation of those aspects. [Similar to recommendation 2.] [4.2.1]

MANAGEMENT REMARKS:

The effects on inspection resources need to be carefully considered in making program changes that place additional requirements on inspectors. The focus of the inspection program needs to remain on those activities with the highest safety benefit and on performance-based field observations.

STAFF ACTIVITIES:

Ongoing:

Compilation of licensing basis for Millstone

ADPR PIP #10b: Develop measures to evaluate the effectiveness of coordination between the regions and NRR PMs.

ADPR PIP #26 a-g: Develop and implement process for identifying, tracking, and verifying implementation of licensee commitments made during licensing actions and activities; including a docket review and verification of requirements and commitments for selected issues.

ADPR PIP #35: Review whether commitments contained in licensee submittals should become part of FSAR or licensing basis.

Completed:

ADPR PIP #10a: Coordination between the regions and NRR PMs on issues in licensing tasks

ADPR PIP #41: Review of existing NRR guidance on implementing new regulations.

identify, track, and verify commitments that are important to licensing.

RECOMMENDATION:

7. The agency should reissue existing guidance on commitments and emphasize their enforceability. Also, if the NRC does not want the licensee to change the commitments without first informing the agency, the NRC should re-inform licensees where the commitments must be written down (in which documents). [4.2.1]

MANAGEMENT REMARKS:

Section VI.D. of the enforcement policy describes the enforceability of commitments and the Enforcement Manual contains guidance on enforcing commitments within FSARs and those within other correspondence on plant dockets.

STAFF ACTIVITIES:

Ongoing:

ADPR PIP #26 a-g: Develop and implement process for identifying, tracking, and verifying implementation of licensee commitments made during licensing actions and activities; including a docket review and verification of requirements and commitments for selected issues.

ADPR PIP #35: Review whether commitments contained in licensee submittals should become part of FSAR or licensing basis.

Completed:

NRR Office Letter 34 proposed as Office Letter 900.

RECOMMENDATION:

8. The interpretation and implementation of Section 50.71(e) should be reevaluated. Notwithstanding related policy issues, the update rule as written would encompass most information the agency relies upon with minor changes to internal processes. However, decisions on policy issues related to licensing basis, design basis, and what information should be in FSARs and what can be removed from FSARs could affect the update rule or its application. [4.2.2]

STAFF ACTIVITIES:

Ongoing:

Section 50.59 work group and position paper

Revision of Regulatory Guide 1.70 (format and content of safety analysis reports)

ADPR PIP #35: Review whether commitments contained in licensee submittals should become part of FSAR or licensing basis.

Completed:

Reviews and analyses related to issuing the license renewal rule, Part 54

RECOMMENDATION:

9. The latest OGC position papers should be reviewed and understood and used to revise enforcement guidance and practices that are consistent with the positions. Should the reference to FSARs in the operating license prove to have significance, consideration should then be given to changing those licenses that do not make direct reference to the FSAR. [4.3.1]

MANAGEMENT REMARKS:

The agency's position on the standing of FSARs within the regulatory environment has been consistent and is reflected in the current enforcement policy and manual.

STAFF ACTIVITIES:

Ongoing:

Enforcement Guidance Memorandum (EGM) 96-005, "Enforcement Issues Associated With FSARs, Section 8.1.3, 'Enforcement of FSAR Commitments'," issued October 21, 1996, and associated revision to the Enforcement Manual

ADPR PIP #17: Review generic aspects of documents referenced in licenses and technical specifications.

ADPR PIP #29: Review processes and policies on relocating information from the technical specifications to the FSAR.

Completed:

None

RECOMMENDATION:

10. Policy issues related to what information should be in FSARs and what information may be removed from FSARs should be resolved. [4.3.2]

MANAGEMENT REMARKS:

Resolution of such issues could eliminate much information that has little significance and could reduce FSAR-related violations that have no safety significance.

STAFF ACTIVITIES:

Ongoing:

ADPR PIP #29: Review processes and policies on relocating information from the technical specifications to the FSAR.

ADPR PIP #35: Review whether commitments contained in licensees' submittals of information should become part of FSAR or licensing basis.

Completed:

None

RECOMMENDATION:

11. The agency should determine the relevance of Section 50.59 and evaluations for unreviewed safety questions to existing or as-found conditions in plants. After determining relevancy, new guidance should be developed or existing guidance modified to clearly establish actions the agency expects licensees to take in resolving degraded or nonconforming conditions, including the role of Section 50.59. [4.4.1]

STAFF ACTIVITIES:

Ongoing:

Section 50.59 working group and position paper

EGM 96-005, "Enforcement Issues Associated With FSARs, Section 8.1.3, 'Enforcement of FSAR Commitments'," issued October 21, 1996, and associated revision to the Enforcement Manual

ADPR PIP #22: Review how to amend a license when a USQ is involved.

ADPR PIP #31a: Revise IMC 9900 on degraded and nonconforming conditions.

ADPR PIP #31b: Evaluate the need to provide additional training on expected actions for degraded and nonconforming equipment.

Completed:

Technical guidance for Inspection Manual and associated Generic Letter 91-18

RECOMMENDATION:

12. The agency should consider if it needs to do more to ensure that licensees understand the design bases and use them appropriately. The agency should place a priority on adding guidance to and issuing the latest draft of NUREG-1022. [4.4.2]

STAFF ACTIVITIES:

Ongoing:

SECY-96-189 on design-basis 50.54(f) letters

Increased use of SSFIs with A/E-level contractor support

Design aspect added to IPAP

Completed:

None

RECOMMENDATION:

13. NRC management should ensure that its objectives and expectations are clearly stated, understood, and complied with. Management should have systems in place that measure compliance with agency objectives. The responsibilities for staff positions should be clearly established and the guidance for meeting the responsibilities should be clear, consistently documented and perpetuated, and periodically reviewed for relevance. [4.5.1]

MANAGEMENT REMARKS:

Agency downsizing will reduce the number of managers and supervisors who will be available to oversee staff activities and will place greater reliance on the staff to make its own decisions. In light of downsizing, management needs to critically assess agency goals against available resources to accomplish those goals. The following staff activities should be expanded beyond project manager.

STAFF ACTIVITIES:

Ongoing:

ADPR PIP #3: Place PM's Handbook on NRR internal Web site for wider and easier distribution.

ADPR PIP #4: Revise guidance on technical interface assistance (TIA) process.

ADPR PIP #5: Clarify guidance to PMs on concurrence from technical staff.

ADPR PIP #10b: Develop measures to evaluate the effectiveness of coordination between residents and regional staff and NRR PMs.

ADPR PIP #31b: Evaluate the need to provide additional training on expected actions for degraded and nonconforming equipment.

ADPR PIP #32a: Clarify guidance for PMs on their responsibilities for reviewing Section 50.59 reports and Section 50.71(e) updates; provide necessary training.

ADPR PIP #33: Develop expectations and processes for PM's standing in for resident inspectors.

ADPR PIP #38: Clarify expectations for handling and documenting informal communications, including phone conversations and verbal agreements.

ADPR PIP #52: Develop guidance for handling formal submittals.

ADPR PIP #53: Develop guidance on length of assignment of PMs to a plant.

ADPR PIP #55: Clarify the division of responsibilities between licensing assistants and PMs.

Completed:

ADPR PIP #1: Develop the ADPR Process Improvement Plan.

ADPR PIP #2: Place existing PM's Handbook agency local area network and develop process for changing handbook.

ADPR PIP #6: Revise NRR office letter on processing technical specification license amendments and guidance procedure for processing license amendments.

ADPR PIP #9: Revise NRR Office Letter 101 on delegating signature authority.

ADPR PIP #11: Clarify which documents should be reviewed during licensing actions and activities.

ADPR PIP #21: Develop a process to handle "honest mistakes" made by licensees and NRC staff.

ADPR PIP #23b: Provide expectation that PM's copy of FSAR be updated within a certain number of days after the licensee submits the update.

ADPR PIP #27: Clarify guidance to staff on technical specification interpretations.

ADPR PIP #32b: Train PMs on their responsibilities for reviewing Section 50.59 reports and Section 50.71(e) updates.

ADPR PIP #34: Conduct followup training for inspection staff and PMs on new guidance in IMC 2515 based on a steam generator drying out.

ADPR PIP #36: Disseminate Office Director's staff expectations and conduct periodic workshops for ADPR staff.

ADPR PIP #37: Establish guidance on staff actions for adverse information received via phone conversations with licensees.

ADPR PIP #39: Train staff on expectations in dealing with allegations.

ADPR PIP #48: Develop a process and a procedure to control surveying PMs about their plants.

RECOMMENDATION:

14. The agency should determine if its employees with inspection and review responsibilities have all the necessary knowledge and skills to independently verify the acceptability of design-related actions, and whether that knowledge and skills base needs to be developed further. The training requirements for such personnel should be evaluated to ensure it includes the appropriate mix of formal training and on-the-job training commensurate with employees' past experience, and that mechanisms are in place to ensure perpetuation of training requirements. The formal qualification process for inspectors should sufficiently address on-the-job training. [4.5.2]

MANAGEMENT REMARKS:

The activities on training should be expanded beyond project managers.

STAFF ACTIVITIES:

Ongoing:

Job task analysis of inspectors concurrent with analysis of PMs

Revise Inspection Manual Chapter (IMC) 1245 (inspector training and qualification).

ADPR PIP #47: Develop guidance on expectations for PMs' participation on inspections.

ADPR PIP #31b: Evaluate the need to provide additional training on expected actions for degraded and nonconforming equipment.

Completed:

ADPR PIP #12: Determine status of training for PMs, examine PM functions (job task analysis), determine training requirements, establish appraisal criteria and performance plan.

ADPR PIP #32b: Train PMs on their responsibilities for reviewing Section 50.59 reports and Section 50.71(e) updates.

ADPR PIP #34: Conduct followup training for inspection staff and PMs on new guidance in IMC 2515 based on a steam generator drying out.

RECOMMENDATION:

15. Implementation of recent changes to the senior management and plant performance review processes, and determination of their effectiveness in identifying plants of concern and focusing agency attention on them, should continue. [4.5.3]

Any review of the use of the Inspection Followup System (IFS) by the Inspection Program Branch should include its use as a management tool. See the recommendation in Section 4.1.3, [recommendation 4] above.

MANAGEMENT REMARKS:

Recent changes to the senior management meeting and plant performance review processes have added structure and more objective criteria to those processes.

STAFF ACTIVITIES:

Ongoing:

Implementation of revised SMM process

Management analysis of SMM process

Completed:

None

RECOMMENDATION:

16. The agency should continue its efforts to produce better information databases to allow the staff to locate pertinent documents and information. [4.5.4]

MANAGEMENT REMARKS:

The Automated Inspection Reporting System currently being developed, will create a database for all inspection findings; and the agency is pursuing a system to upgrade the agency's overall document management database. These efforts need to meet the agency's basic need for easily retrieving accurate information in light of an environment of reduced funding, fewer managers for oversight, and fewer positions to administer the systems and assure data accuracy.

STAFF ACTIVITIES:

Ongoing:

Contracted efforts to improve quality of data in IFS and 766 System

NRR working with IRM on ADAMS

ADPR PIP #13: Ensure data in the Safety Issues Management System (SIMS) is up to date.

ADPR PIP #26c: Review the need to develop a new system to track verification of licensee commitments.

ADPR PIP #45: Consolidate controlled and other correspondence on NRR internal web site.

Completed:

None

RECOMMENDATION:

17. The agency should assess the potential impact on license renewal of the apparent deficiencies in current regulatory processes and their implementation, as identified in the Part 1 report. This evaluation should include whether additional assurance by licensees or the NRC is needed prior to license renewal with respect to the adequacy of implementation of current or future regulatory processes to assure an acceptable level of safety in those areas not subject to review under 10 CFR Part 54. [4.7]

STAFF ACTIVITIES:

Ongoing:

None

Completed:

None

Notes:
1. Memorandum, "Lessons Learned From Millstone Unit 1," Shirley Ann Jackson, Chairman, to James M. Taylor, Executive Director for Operations, and Karen D. Cyr, General Counsel, November 30, 1995.

2. Memorandum, "Report on Survey of Refueling Practices," EDO to the Commission, May 21, 1996.

3. NRC inspection report 50-336,423/96-201, "Special Inspection of Engineering and Licensing Activities at Millstone Nuclear Power Station," September 1996.

4. NRC inspection report 50-213/96-201, "Special Inspection of Engineering and Licensing Activities at Haddam Neck--Connecticut Yankee," July 1996.

5. Memorandum, "Final Safety Analysis Report Inspection Results and Planned Improvements," EDO to the Commission, September 17, 1996.

6. Memorandum, "Action Plan for Improvements to 10 CFR 50.59 Implementation and Oversight," EDO to Chairman Jackson, April 15, 1996.

7. NRC letter, "Request for Information to 10 CFR 50.54(f) Regarding Adequacy and Availability of Design Basis Information," from EDO to individual operating power reactor licensees, October 9, 1996.

8. The ADPR PIP was initially given to the Commission by memorandum from the EDO to the Commission, "NRR Associate Director for Projects Process Improvement Plan," dated October 28, 1996. The current ADPR PIP is attached to this Commission paper.

9. See footnote ? on page 1. Over a 3-month period, the NRC documented over 200 discrepancies between plants and their associated FSARs. Of these discrepancies, the NRC took enforcement action for 30; 3 escalated actions and 27 severity level IV notices of violation.

10. See footnote ? on page 1, 20. The survey resulted in enforcement actions taken at several plants. The significance of the issues that were enforced will be discussed in a future Commission paper.

11. 57 *Federal Register* 35455, "Availability and Adequacy of Design Bases at Nuclear Power Plants; Policy Statement," August 10, 1992.

12. 61 *Federal Register* 54461, "Policy and Procedure for Enforcement Actions; Departures From FSAR," October 18, 1996.

13. NUREG-1397, "An Assessment of Design Control Practices and Design Reconstitution Programs in the Nuclear Power Industry," Office of Nuclear Reactor Regulation, February 1991.

14. See footnote ? on page 4.

15. Generic Letter 80-110, "Periodic Updating of Final Safety Analysis Reports," December 15, 1980.

16. Regulatory Guide 1.70, "Standard Format and Content of Safety Analysis Reports for Nuclear Power Reactors, LWR Edition," Revision 3, November 1978.

17. NRC Information Notice 96-17, "Reactor Operation Inconsistent With the Updated Final Safety Analysis Report," March 18, 1996.

18. The agency took a number of actions to address the issues raised in the OIG reports. These actions included a task group to evaluate the agency's technical review process and development of the Associate Director for Projects Process Improvement Plan, which includes numerous items to strengthen and augment the agency's process for regulating nuclear power reactors.

19. *Current licensing basis* (CLB) is defined in Section 54.3 as "the set of NRC requirements applicable to a specific plant and a licensee's written commitments for ensuring compliance with and operation within applicable NRC requirements and the plant-specific design basis (including all modification and additions to such commitments over the life of the license) that are docketed and in effect. The CLB includes the NRC regulations contained in 10 CFR Parts 2, 19, 20, 21, 30, 40, 50, 51, 54, 55, 70, 72, 73, and 100 and appendices thereto; orders; license conditions; exemptions; and technical specifications. It also includes the plant-specific design basis information defined in 10 CFR 50.2 as documented in the most recent final safety analysis report (FSAR) as required by 10 CFR 50.71 and the licensee's commitments remaining in effect that were made in docketed licensing correspondence such as licensee responses to NRC bulletins, generic letters, and enforcement actions, as well as licensee commitments documented in NRC safety evaluations or licensee event reports."

20. *Design bases* are defined in Section 50.2 as "that information which identifies the specific functions to be performed by a structure, system, or component of a facility, and the specific values or ranges of values chosen for controlling parameters as reference bounds for design." The definition states the values may be derived from "state of the art" practices or analyses based on calculations or experiments.

21. The staff informed the Commission in SECY-95-300, "Nuclear Energy Institute's Guidance Document, 'Guideline for Managing NRC Commitments'," December 20, 1995, that it would presently notify NEI of the staff's conclusion that the guidance document was "an acceptable guide for licensees to follow for managing and changing their commitments to the NRC." NEI was notified of the staff's endorsement by letter dated January 24, 1996. The staff trained affected personnel and plans to evaluate the need for further workshops after licensees and staff gain experience with the guideline.

22. 55 *Federal Register* 29060, "Nuclear Power Plant License Renewal", July 17, 1990.

23. For affirmation, "SECY-91-138--Final Rule on Nuclear Power License Renewal," Secretary of the Commission, June 28, 1991.

24. 56 *Federal Register* 64943, "Nuclear Power Plant License Renewal," December 13, 1991.

25. 56 *Federal Register* 64951, "Nuclear Power Plant License Renewal," December 13, 1991.

26. NRC memorandum, "COMJC-91-003--Current Licensing Basis for Operating Plants," from the Secretary of the Commission to the EDO, November

29, 1991.

27. SECY-92-314, "Current Licensing Basis for Operating Plants," September 10, 1992. The Commission returned the paper to the staff on October 15, 1993, for further consideration. Following additional reports to the Commission from the staff (OPP-92-02, SECY-94-003, SECY-94-066), the Commission voted to approve the recommendations in SECY-92-314.

28. SECY-94-003, "Plan for Implementing Regulatory Review Group Recommendations," January 7, 1994.

29. SECY-94-066, "Evaluation of Issues Discussed in SECY-92-314, 'Current Licensing Basis for Operating Plants'," March 15, 1994.

30. See footnote ? on page 14.

31. SECY-96-024, "Semiannual Status Report on the Implementation of Regulatory Review Group Recommendations," February 2, 1996.

32. NUREG-1397, "An Assessment of Design Control Practices and Design Reconstitution Programs in the Nuclear Power Industry," February 1991.

33. 57 *Federal Register* 35455, "Availability and Adequacy of Design Bases at Nuclear Power Plants; Policy Statement," August 10, 1992.

34. NUREG-1412, "Foundation for the Adequacy of the Licensing Bases, A Supplement to the Statement of Considerations for the Rule on Nuclear Power Plant License Renewal (10 CFR Part 54)," December 1991.

35. NUREG-1600, "General Statement of Policy and Procedure for NRC Enforcement Actions (Enforcement Policy)," Section C, "Exercise of Discretion for an Operating Facility."

36. NRC memorandum, "Report on Survey of Refueling Practices," from EDO to the Commission, May 21, 1996.

37. NRC memorandum, "Final Safety Analysis Report Inspection Results and Planned Improvements," from EDO to the Commission, September 17, 1996.

38. The staff's resolution of issues from the spent fuel pool action plan was described in NRC memorandum, "Resolution of Spent Fuel Storage Pool Action Plan Issues," EDO to the Commission, July 26, 1996. The completion of the action plan was documented in the NRR "Director's Monthly Status Report," dated October 11, 1996. Additional information and schedule regarding plant-specific actions, which remain to be completed, is contained in NRC memorandum, "Response to Staff Requirements Memorandum Dated August 27, 1996,--Briefing on Spent Fuel Pool Cooling Issues," EDO to the Commission, October 2, 1996.

39. NRC inspection report 50-213/96-201, "Special Inspection of Engineering and Licensing Activities at Haddam Neck--Connecticut Yankee," July 1996.

40. NRC inspection report 50-336,423/96-201, "Special Inspection of Engineering and Licensing Activities at Millstone Nuclear Power Station," September 1996.

41. See footnotes ? and ? on page 1, 20.

42. NRC memorandum, "Current Licensing Basis," from EDO to Commissioner Curtiss, December 4, 1992.

43. See footnote ? on page 15.

44. See footnote ? on page 14.

45. NRR Office Letter No. 34, "Utility Commitments," from Harold R. Denton, Director of NRR, to all NRR employees, July 31, 1981; Revision 1, May 20, 1985.

46. NUREG-1600, "General Statement of Policy and Procedure for NRC Enforcement Actions (Enforcement Policy)," section IV, "Severity of Violations."

47. The ADPR PIP was initially given to the Commission by memorandum from EDO to Commission, "NRR Associate Director for Projects Process Improvement Plan," October 28, 1996. The current PIP, with status for the items, is forwarded to the Commission with the Commission paper that presents this report.

48. NRC letter, "Request for Information to 10 CFR 50.54(f) Regarding Adequacy and Availability of Design Basis Information," from EDO to individual operating power reactor licensees, October 9, 1996.

49. 57 *Federal Register* 35455, "Availability and Adequacy of Design Bases at Nuclear Power Plants; Policy Statement," August 10, 1992.

50. 61 *Federal Register* 54461, "Policy and Procedure for Enforcement Actions; Departures From FSAR," October 18, 1996.

51. Generic Letter 80-110, "Periodic Updating of Final Safety Analysis Reports," December 15, 1980.

52. See memorandum from EDO to Commission, "NRR Associate Director for Projects Process Improvement Plan," October 28, 1996, for specifics on ADPR PIP items.

53. The recommendations are numbered sequentially as they appeared in the Millstone Lessons Learned Task Group Report Part 1: Review and Findings. The number in brackets is the report section in which the recommendation was made. Some of the recommendations were slightly reworded for this appendix to clearly distinguish between recommendations and management comment.