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RD-8
Generic Items
X-Dgn-8 Reports
X-08146

DIRECTOR'S STATUS REPORT

on

GENERIC ACTIVITIES

Action Plans

Generic Communication and Compliance Activities

APRIL 1997

Office of Nuclear Reactor Regulation

INTRODUCTION

The purpose of this report is to provide information about generic activities, including generic communications, under the cognizance of the Office of Nuclear Reactor Regulation. This report, which focuses on compliance activities, complements NUREG-0933, "A Prioritization of Generic Safety Issues."

This report includes two attachments: 1) action plans and 2) generic communications under development and other generic compliance activities. Generic communications and compliance activities (GCCAs) are potential generic issues that are safety significant, require technical resolution, and possibly require generic communication or action.

Attachment 1, "NRR Action Plans," includes generic or potentially generic issues of sufficient complexity or scope that require substantial NRC staff resources. The issues covered by action plans include concerns identified through review of operating experience (e.g. Boiling Water Reactor Internals Cracking and Thermolag), and issues related to regulatory flexibility and improvements (e.g. New Source Term and Probabilistic Risk Assessment (PRA) Implementation Plan). For each action plan, the report includes a description of the issue, key milestones, discussion of its regulatory significance, current status, and names of cognizant staff.

Attachment 2, "Generic Communications and Compliance Activities," consists of three monthly status reports. 1) open GCCAs, 2) GCCAs added since the previous report, and 3) GCCAs closed since the previous report. The generic communications listed in the attachment includes bulletins, generic letters, and information notices. Compliance activities listed in the attachment do not rise to the level of complexity that require an action plan, and a generic communication is not currently scheduled. For each GCCA, there is a short description of the issue, scheduled completion date, and name of cognizant staff.

Attachment 1

NRR ACTION PLANS

Attachment 1

NRR ACTION PLANS

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BOILING WATER REACTOR INTERNALS

TAC Nos. M91898, M93925, M93926, M93627,M94959, M94975, M95369, M96219, M96539,M97802, M97803, M97815, M98266
GSI: Not Available

Last Update: 04/30/97
Lead NRR Division: DE
Supporting Division: DSSA

MILESTONES	DATE (T/C)
PART I: REVIEW OF GENERIC INSPECTION AND EVALUATION CRITERIA	
1. Issue summary NUREG-1544 ○ Update NUREG-1544	03/96 C 12/97 T
2. Review BWRVIP Re-inspection and Evaluation Criteria ○ Reactor Pressure Vessel and Internals Examination Guidelines (BWRVIP-03) ○ BWRVIP-03, Section 6A, Standards for Visual Inspection of Core Spray Piping, Spargers, and Associated Components ○ BWR Vessel Shell Weld Inspection Recommendations (BWRVIP-05)[1] ○ Guidelines for Reinspection of BWR Core Shrouds (BWRVIP-07)	 06/97 T 06/97 T 06/97 T 06/97 T
3. Review of generic repair technology, criteria and guidance	TBD
4. Review generic mitigation guidelines and criteria	TBD
5. Review of generic NDE technologies developed for examinations of BWR internal components and attachments	TBD

[1] By letter dated September 20, 1996, the BWRVIP informed the staff of its intention to Petition for Rulemaking to change the augmented inspection requirements contained in 10 CFR 50.55a(g)(6)(ii)(A), in accordance with the recommendations of BWRVIP-05. RES would have the lead for review of the rulemaking petition.

6. Other Internals reviews (safety assessments, evaluations, mitigation measures, inspections and repairs)	
○ Safety Assessment of BWR Reactor Internals (BWRVIP-06)	06/97 T
○ Evaluation of Crack Growth in BWR Stainless Steel RPV Internals (BWRVIP-14)	09/97 T
○ Roll/Expansion of Control Rod Drive and In-Core Instrument Penetrations in BWR Vessels (BWRVIP-17)	09/97 T
○ BWR Core Spray Internals Inspection and Flaw Evaluation Guidelines (BWRVIP-18)	09/97 T
○ BWRVIP-18, Appendix C, BWR Core Spray Internals Demonstration of Compliance With Technical Information Requirements of License Renewal Rule (10 CFR 54.21)	09/97 T
○ Internal Core Spray Piping and Sparger Repair Design Criteria (BWRVIP-19)	09/97 T
○ Core Plate Inspection and Flaw Evaluation Guideline (BWRVIP-25)	09/97 T
○ Top Guide Inspection and Flaw Evaluation Guideline (BWRVIP-26)	09/97 T
○ Assessment of BWR Jet Pump Riser Elbow to Thermal Sleeve Weld Cracking (BWRVIP-28)	09/97 T
○ Internal Core Spray Piping and Sparger Replacement Design Criteria (BWRVIP-16)	12/97 T

Description: Many components inside boiling water reactor (BWR) vessels (i.e., internals) are made of materials such as stainless steel and various alloys that are susceptible to corrosion and cracking. This degradation can be accelerated by stresses from temperature and pressure changes, chemical interactions, irradiation, and other corrosive environments. This action plan is intended to encompass the evaluation and resolution of issues associated with intergranular stress corrosion cracking (IGSCC) in BWR internals. This includes plant specific reviews and the assessment of the generic criteria that have been proposed by the BWR Owners Group and the BWRVIP technical subcommittees to address IGSCC in core shrouds and other BWR internals.

Historical Background: Significant cracking of the core shroud was first observed at Brunswick, Unit 1 nuclear power plant in September 1993. The NRC notified licensees of Brunswick's discovery of significant circumferential cracking of the core shroud welds. In 1994, core shroud cracking continued to be the most significant of reported internals cracking. In July 1994, the NRC issued Generic Letter 94-03 which requires licensees to inspect their shrouds and provide an analysis justifying continued operation until inspections can be completed.

A special industry review group (Boiling Water Reactor Vessels and Internals Project--BWRVIP) was formed to focus on resolution of reactor vessel and internals degradation. This group was instrumental in facilitating licensee responses to NRC's Generic Letter. The NRC evaluated the review group's reports, submitted in 1994 and early 1995, and all plant responses.

All of the plants evaluated have been able to demonstrate continued safe operation until inspection or repair on the basis of: 1) no 360° through-wall cracking observed to date, 2) low frequency of pipe breaks, and 3) short period of operation (2-6 months) before all of the highly susceptible plants complete repairs of or inspections to their core shrouds.

In late 1994, extensive cracking was discovered in the top guide and core plate rings of a foreign reactor. The design is similar to General Electric (GE) reactors in the U.S., however, there have been no observations of such cracking in U.S. plants. GE concluded that it was reasonable to expect that the ring cracking could occur in GE BWRs with operating time greater than 13 years. In the special industry review group's report, that was issued in January 1995, ring cracking was

evaluated. The NRC concluded that the BWRVIP's assessment was acceptable and that top guide ring and core plate ring cracking is not a short term safety issue.

Proposed Actions: The staff will continue to assess the scopes that have yet to be submitted by licensees concerning inspections or re-inspections of their core shrouds. The staff will also continue to assess core shroud reinspection results and any appropriate core shroud repair designs on a case-by-case basis. The staff will issue separate safety evaluations regarding the acceptability of core shroud reinspection results and core shroud repair designs. The staff has been interacting with the BWRVIP and individual licensees. In an effort to lower the number of industry and staff resources that will be needed in the future, it is important for the staff to continue interacting with the industry on a generic basis in order to encourage them to continue their proactive efforts to resolve IGSCC of BWR internals. The BWRVIP has submitted 13 generic documents, supporting plant-specific submittals, for staff review. The staff is ensuring that the generic reviews are incorporating recent operating experience on all BWR internals.

Originating Document: Generic Letter 94-03, issued July 25, 1994, which requested BWR licensees to inspect their core shrouds by the next outage and to justify continued safe operation until inspections can be completed.

Regulatory Assessment: In July 1994, the NRC issued Generic Letter 94-03 which required licensees to inspect their shrouds and provide an analysis justifying continued operation until inspections could be performed. The staff has concluded in all cases that licensees have provided sufficient evidence to support continued operation of their BWR units to the refueling outages in which shroud inspections or repairs have been scheduled. In addition, in October 1995, industry's special review group submitted a safety assessment of postulated cracking in all BWR reactor internals and attachments to assure continuing safe operation.

Current Status: Almost all BWRs completed inspections or repairs of core shrouds during refueling outages in the fall of 1995. Various repair methods have been used to provide alternate load carrying capability, including preemptive repairs, installation of a series of clamps and use of a series of tie-rod assemblies. The NRC has reviewed and approved all shroud modification proposals that have been submitted by BWR licensees. Review by NRC continues on individual plant reinspection results and plant-specific assessments.

In October 1995, industry's special review group issued a report (BWRVIP-06) which the NRC staff's preliminary review indicates was not comprehensive. The NRC staff has sent a request for additional information. The BWRVIP provided its response to the RAIs in a letter dated December 20, 1996. The staff plans to meet with the BWRVIP to discuss its expanded basis for prioritization as part of its continuing review of BWRVIP-06. In addition, the industry group submitted a report on reinspection of repaired and non-repaired core shrouds (BWRVIP-07) in February 1996. The staff is currently reviewing both this report and the supplemental information provided in the BWRVIP's response to the NRC staff's request for additional information. The NRC is also reviewing information submitted by GE on the safety significance of and recommended inspections for top guide and core plate ring cracking. Review of the "Reactor Pressure Vessel and Internals Examination Guidelines (BWRVIP-03)" is continuing with RAIs to be sent by February 28, 1997. By letter dated September 20, 1996, the BWRVIP informed the staff of its intention to Petition for Rulemaking to change the augmented inspection requirements contained in 10 CFR 50.55a(g)(6)(ii)(A), in accordance with the recommendations of BWRVIP-05, which would change the inspection requirements from "Essentially 100%" of all RPV shell welds to 100% of circumferencial welds and zero% of longitudinal welds. The staff is developing its position in a Commission paper on this issue. The BWRVIP has requested, by letter dated April 18, 1997, a meeting with the Commission on BWRVIP-05. The NRC staff will complete its evaluation of the BWRVIP-05 report by June 1997.

The staff's review of BWRVIP-14 is continuing, and RAIs were issued on December 9, 1996. The staff is awaiting a response from the BWRVIP. The staff's review of BWRVIP-18 and -19 on internal core spray piping inspection and repair design criteria is continuing. RAIs on these two documents were issued on January 16, 1997.

By letter dated December 20, 1996, the BWRVIP submitted, "Appendix C to BWRVIP-18. This appendix addresses the use of BWRVIP generic internal core spray inspection guidelines for compliance with requirements of the license renewal rule (10 CFR Part 54). The staff is reviewing this appendix in conjunction with its review of BWRVIP-18 guidelines.

The BWRVIP submitted a report BWRVIP-28 to address the safety implications of recent cracking found in BWR jet pump riser elbows. The staff is reviewing the BWRVIP-28 report and is developing RAIs. The staff issued NRC Information Report IN 97-02, "Cracks Found in Jet Pump Riser Assembly Elbows at Boiling Water Reactors," on February 6, 1997 and is developing a generic letter on the same subject.

Information Notice 97-17, "Cracking of Vertical Welds in the Core Shroud and Degraded Repair," was issued April 4, 1997, to inform the industry of vertical weld cracks and a degraded core shroud repairs found at Nine Mile Point, Unit 1. The BWRVIP has informed the staff that it plans to revise BWRVIP-07 to ensure that the vertical core shroud welds, and the core shroud repair, is adequately inspected.

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Frank Grubelich, EMEB 415-2784

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References:

Generic Letter 94-03, "Intergranular Stress Corrosion Cracking of Core Shrouds in Boiling Water Reactors," July 25, 1994

Action Plan dated April 1995

MOTOR-OPERATED VALVES ACTION PLAN

TAC Nos. M80330, M82072, M75089, M88398 **Last Update: 4/30/97** **Lead NRR Division: DE**

MILESTONES	DATE (T/C)
Regulatory Improvements: (1) Staff is working with ASME to improve the inservice testing requirements in the ASME Code and (2) Staff is working with OM to develop guidelines for periodic verification of MOV design-basis capability to replace stroke-time testing.	1/96-9/96 (C)
New Generic Letter on MOV Periodic Verification: Staff preparing generic letter to provide recommendations on the periodic verification of MOV design-basis capability.	
Issue for public comment	2/96 (C)
Final issuance	9/96 (C)
MOV Inspection Module: the staff will prepare an inspection module for inspecting MOV programs over the long-term and provide appropriate training for inspectors.	10/97 (T)
Review of EPRI MOV Performance Prediction Program: NRR and RES are currently reviewing a topical report submitted by NEI on the EPRI MOV Performance Prediction Program.	
SER	2/96 (C)
SER SUPPLEMENT	2/97 (C)

Description: Appendices A and B to 10 CFR Part 50 and 10CFR50.55(a) require nuclear power plant licensees to establish programs to ensure that structures, systems, and components important to the safe operation of the plant are designed, installed, tested, operated, and maintained in a manner that provides assurance of their ability to perform their safety functions. GL 89-10 and its supplements, asked licensees to help ensure the capability of MOVs in safety-related systems by reviewing MOV design bases, verifying MOV switch settings initially and periodically, testing MOVs under design-basis conditions where practicable, improving evaluations of MOV failures and necessary corrective action, and looking for trends in MOV problems. EMEB has programmatic oversight responsibility of regional inspection activities conducted to verify that licensee MOV programs are being implemented. EMEB provides support to the regions, either by staff or contractor expertise, for the conduct of inspections in this area and closure of licensee actions pursuant to GL 89-10.

Historical Background: In 1985, the Davis-Besse nuclear power plant experienced a total loss of feedwater when, following a loss of main feedwater, safety-related MOVs in the auxiliary feedwater system could not be reopened after their inadvertent closure. As a result of this and other information, the NRC staff issued Bulletin 85-03 (November 15, 1985) requesting that licensees verify the design-basis capability of safety-related MOVs used in high pressure systems. The information from the implementation of Bulletin 85-03, additional operating events, and NRC-

sponsored research indicated the need to expand the scope of Bulletin 85-03 to all safety-related systems.

In Generic Letter (GL) 89-10 (June 28, 1989) and its supplements, the NRC staff asked licensees to help ensure the capability of MOVs in safety-related systems by reviewing MOV design bases, verifying MOV switch settings initially and periodically, testing MOVs under design-basis conditions where practicable, improving evaluations of MOV failures and implementing necessary corrective action, and looking for trends in MOV problems. The NRC staff requested that licensees complete the verification of the design-basis capability of MOVs included in the scope of GL 89-10 within three refueling outages or five years from the date of issuance of the generic letter, whichever was later. The NRC staff has issued seven supplements to GL 89-10 that provide additional guidance and information on GL 89-10 program scope, design-basis reviews, switch settings, testing, periodic verification, trending, and schedule extensions.

In June 1990, the NRC staff issued NUREG-1352, "Action Plans for Motor-Operated Valves and Check Valves," describing actions to organize the activities aimed at resolving the concerns about the performance of MOVs and check valves. These actions included evaluating the current regulatory requirements and guidance for MOVs, preparing guidance for and coordinating NRC inspections, completing NRC MOV research programs and implementing the research results, and providing the nuclear industry with information on MOVs.

Proposed Actions: Specific activities included in the generic action plan to improve MOV performance are:

(1) Regulatory Improvements - The staff is working with ASME to improve the inservice testing requirements in the ASME Code and the staff is working with OM to develop guidelines for periodic verification of MOV design-basis capability to replace stroke-time testing. Recently, ASME issued Code Case OMN-1, "Alternative Rules for Preservice and Inservice Testing of Certain Electric Motor Operated Valve Assemblies in LWR Power Plants OM - Code - 1995 Edition; Subsection ISTC," which is contained in OMa-1996 Addenda to the 1995 O&M Code. The staff references the code case in recently issued Generic Letter 96-05. ASME will consider incorporating the code case into the ASME Code in the future. This milestone is considered to be complete.

(2) EPRI MOV Performance Prediction Program - On March 15, 1996, the staff issued the Safety Evaluation on the topical report on EPRI MOV Performance Prediction Program. The staff has completed its review of the hand-calculation models for two unique gate valve designs and a supplement (dated February 20, 1997) to the SE was sent to NEI for a 30-day review to identify any proprietary material. In a letter dated March 19, 1997, NEI notified the NRC that no material in the SE supplement is considered proprietary.

(3) MOV Periodic Verification Generic Letter - The staff prepared a generic letter to provide recommendations on the periodic verification of MOV design-basis capability. On September 18, 1996, the staff issued GL 96-05, "Periodic Verification of Design-Basis Capability of Safety-Related Motor-Operated Valves."

(4) MOV Inspection Module - The staff plans to prepare an inspection module for inspecting MOV programs over the long-term and provide appropriate training for inspectors.

Originating Document: NRC Bulletin 85-03 issued November 15, 1985.

Regulatory Assessment: While it is important for the licensee to take steps to ensure that MOVs will operate reliably under design-basis conditions, the probability of any individual MOV failure is small and safety systems are robust enough to provide reasonable assurance of public health and safety.

Current Status: Coordination with industry and support to NRC regional staff, efforts on codes and standards, and MOV research and analysis are ongoing activities. On September 18, 1996, the staff issued GL 96-05, "Periodic Verification of Design-Basis Capability of Safety-Related Motor-Operated Valves."

On March 15, 1996, the staff issued a non-proprietary Safety Evaluation on the EPRI MOV Performance Prediction Program. The staff has reviewed the remaining EPRI models for two unique gate valve designs and is issuing a supplement to the SE addressing these two models. The staff has been alerting licensees, NEI and EPRI to the staff's findings from the EPRI program review, and has been communicating staff views with industry regarding periodic verification. On August 21, 1996, the staff issued Information Notice 96-48 to alert licensees to lessons learned from the EPRI MOV program. In addition, the staff has been factoring the overall findings from the EPRI program into staff activities.

The staff has completed the supplement (dated February 20, 1997) to the SE on the EPRI MOV Topical Report and is preparing documentation proposing closure of the MOV Action Plan. The staff will complete the remaining tasks as part of the implementation phase of GL 96-05.

Contacts:
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NRR Lead PM: Allen G. Hansen, DRPW, 415-1390

References:
Bulletin 85-03, November 15, 1985
Generic Letter 89-10, June 28, 1989, and 7 supplements
NUREG-1352, "Action Plans for Motor-Operated Valves and Check Valves," June 1990
Generic Letter 96-05, September 18, 1996.

STRUCTURE ACTION PLAN

TAC No. M94164

Last Update: 4/30/97
Lead NRR Division: DE
Supporting Divisions: DRCH/DRPM

	MILESTONES	DATE (T/C)
1.	Develop action plan	09/96 (C)
2.	Interface with NEI	
	a. NEI develop general industry guidance document for monitoring the condition of structures and submit the draft Guidance Document (NEI 96-03) to staff	7/96 (C)
	b. Review and comment on NEI draft document (NEI 96-03, Rev D)	10/96 (C)
	c. Submit final document to staff	4/97 (T)[1]
	d. Complete staff review and issue staff evaluation report (ECGB)	6/97 (T)
	e. Endorse NEI 96-03 through a revision of Regulatory Guide 1.160	1/98 (T)
	f. Endorse NEI 96-03 through a new Regulatory Guide (for the License Renewal Rule, see Milestone 3.a)	3/98 (T)
3.	Maintenance Rule Guidance (HQMB)	
	c. If necessary, revise IP 62706 (baseline inspections) and IP 62707 (monthly core maintenance inspection.)	
3.	License Renewal Guidance (PDLR)	
	a. If acceptable, endorse NEI 96-03 for License Renewal through a new Regulatory Guide. (The endorsement could be collectively or separately by maintenance and license renewal.)	11/97 (T)
	b. Issue inspection procedure for inspection of structures as related to the license renewal rule.	
	(1). Develop draft IP	11/97 (T)[2]
	(2). Issue draft IP for regional comment	12/97 (T)
	(3). Resolution of regional comments	2/98 (T)
	(4). Issue final inspection procedure	5/98 (T)
	(Moved from Section 4.c.)	

4.	Issues Associated with Operating Plants (ECGB)	
	a. Issue Inspection Procedure 62002, "Inspection of Structures, Passive Components, and Civil Engineering Features at Nuclear Power Plants" as related to the maintenance rule.	
	(1). Develop draft IP 62002	7/96 (C)
	(2). Issue draft IP for regional comment	10/96 (C)
	(3). Resolution of regional comments	12/96 (C)
	(4). Issue final inspection procedure	12/96 (C)
	b. Issue inspection procedure for inspection of containments in accordance with 10 CFR 50.55a which reference ASME Section XI, Subsections IWE and IWL.	
	(1). Develop draft IP	2/97(C)
	(2). Issue draft IP for regional comment	5/97(C)
	(3). Resolution of regional comments	8/97 (T)
	(4). Issue final inspection procedure	12/97 (T)
	(Moved to Section 3. b.)	

[1] The schedule of NEI interaction items has been altered to reflect NEI's intent to submit Revision D of NEI 96-03 as industry guidance for monitoring structures for the Maintenance Rule in March 1997. Previously, the NEI 96-03 document was an attempt to provide structural monitoring guidance for both the Maintenance and License Renewal Rules.

[2] PDLR staff will develop and issue and inspection procedure on structures related to license renewal. The timeline of issuance of the procedure depends on the NEI 96-03, Revision D, submittal for staff review.

Description: This action plan was developed to identify and resolve major issues and problems in monitoring the condition of structures at nuclear power plants as these issues and problems related to the maintenance rule, the license renewal rule, and plant operations.

Historical Background: On July 10, 1991, the NRC published the maintenance rule (10 CFR 50.65), which became effective July 10, 1996. Before regulatory implementation of the maintenance rule, the NRC staff conducted pilot site visits from September 1994 through March 1995 to review early implementation of the maintenance rule. Through these visits, the staff determined that most licensees had not established adequate monitoring of structures under the maintenance rule and considered it a low priority. Some licensees incorrectly assumed that structures were inherently reliable and did not require monitoring or preventive maintenance. The lessons learned from the pilot site visits were documented in NUREG-1526, "Lessons Learned from Early Implementation of The Maintenance Rule at Nine Nuclear Power Plants."

Separately and concurrently, the staff of the Civil Engineering and Geosciences Branch (ECGB) of the Office of Nuclear Reactor Regulation (NRR) developed and published NUREG-1522, "Assessment of Inservice Conditions of Safety-Related Nuclear Plant Structures," in June 1995, based on information obtained from six plant visits and numerous reported incidents. The ECGB staff concluded that safety-related structures need to be periodically inspected and maintained to ensure that they can adequately perform their intended safety functions.

In 1991, at the same time the maintenance rule was issued, NRC also promulgated the license renewal rule (10 CFR Part 54). This rule delineates the requirements for extending a license. Although the two rules are similar in scope, and aspects of the maintenance rule may satisfy some requirements of the license renewal rule, the requirements of the license renewal rule go above and beyond the requirements of the maintenance rule. For example, the license renewal rule requires that licensees identify relevant aging effects and demonstrate that they will be adequately managed to maintain the current licensing basis throughout the extended life of the plant. On March 4, 1996, NRC received Revision 0 to NEI 95-10, "Industry Guideline for Implementing the Requirements of 10 CFR Part 54 - the License Renewal Rule." However, NEI 95-10 did not specifically address the issue of monitoring the condition of structures.

The NRC staff conveyed these findings regarding the inadequate monitoring of the condition of structures to the nuclear industry through NUREGs, public workshops, and interaction with NEI. NEI has since issued draft versions of NEI 96-03, "Guideline for Monitoring the Condition of Structures at Nuclear Power Plants." NEI intends to provide guidance to the industry by using this document in conjunction with NUMARC 93-01, "Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," for complying with the maintenance rule, and in conjunction with NEI 95-10 for complying with the license renewal rule.

Proposed Actions: Actions included in the plan are to (1) review and interact with NEI on the issue of monitoring the condition of structures to comply with both the maintenance rule and the license renewal rule, (2) revise and issue regulatory guides to endorse NEI developed guidance documents, if they are found acceptable, and (3) issue inspection procedures for structures at operating plants.

Originating Documents: NUREG-1526 and NUREG-1522.

Regulatory Assessment: Completion of the activities in this action plan will result in guidance documentation that will provide a uniform and consistent method by which the industry and the staff can monitor the condition of structures and ensure that unacceptable degradation is not occurring. For license renewals issued under Part 54, this activity is intended to develop guidance to ensure that structural margins are not compromised due to age related effects including the consideration of changes in the dynamic response characteristics of structures and component supports. These actions will provide guidance but impose no new requirements on licensees. At present, the NRC staff is monitoring the safety-related maintenance issues on a case by case basis. There is no immediate safety issue. Accordingly, nonurgent regulatory action and continued facility operation are justified.

Current Status: NEI has formed a task force to develop a general industry guidance document on monitoring the condition of structures at nuclear power plants. NEI 96-03, "Guideline for Monitoring the Condition of Structures at Nuclear Power Plants," Revision C, was sent to NRC for review on May 16, 1996. NEI intends to use NEI 96-03 to meet the regulatory requirements for monitoring the condition of structures for both the maintenance rule and the license renewal rule. The staff met with NEI representatives to discuss and provide comments on NEI 96-03 on June 17, 1996. NEI subsequently revised NEI 96-03 in response to the staff's comments and submitted Revision D for NRC's review on July 16, 1996. The staff has completed the review and sent its comments to NEI on October 1, 1996.

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UPDATE OF SRP CHAPTER 7 TO INCORPORATE DIGITAL INSTRUMENTATION AND CONTROLS (I&C) GUIDANCE

TAC Nos. M86387, M86392, M86423, M86769, M86997, and M87680 Last Update: 04/24/97 Lead NRR Division: DRCH

MILESTONES		DATE (T/C)
1.	Develop Update of SRP Chapter 7	10/95C
2.	ACRS Subcommittee Briefings	3/96C, 5/96C, 10/96C
3.	Incorporate new Regulatory Guides (provided by RES) in SRP Chapter 7 Update	8/96C
4.	Draft SRP to Chairman	9/19/96C
5.	Publish Draft SRP Chapter 7 for Public Comment	12/03/96C
6.	Incorporate Public Comments and National Academy of Sciences study recommendations	5/97T
7.	Final ACRS/CRGR Review of SRP Chapter 7	6/97T
8.	Final SRP to Chairman	7/31/97T
9.	Publish Final SRP Chapter 7	8/97T

Description: This task action plan is used to track and manage the final phase of codifying the digital I&C regulatory approach and criteria by updating the existing Standard Review Plan (SRP) Chapter 7.

Historical Background: By a staff requirements memorandum (SRM) dated November 30, 1995, from the Chairman, Shirley Ann Jackson, to the Executive Director of Operations, James M. Taylor, the Chairman requested that the staff develop an action plan in the area of digital instrumentation and controls. The action plan is for the expeditious development of a Standard Review Plan (SRP) to ensure that safety margins are addressed and that NRC regulatory requirements are available and ready for use when reviewing licensee proposed installation of digital instrumentation and control systems in nuclear power plants. The staff has an ongoing effort for updating Chapter 7 of the SRP that deals with instrumentation and control systems to accomplish the requested action and this task action plan was initiated to track and manage the final phase of that effort in response to the SRM.

Proposed Actions: Specific actions included in this task action plan are: (1) to develop the update of SRP Chapter 7, (2) to periodically brief the ACRS as sections of the SRP update are completed, (3) to incorporate new regulatory guides on digital I&C that will be provided by the Office of Nuclear Regulatory Research (RES), (4) to incorporate results from the National Academy of Sciences (NAS) study of digital I&C at nuclear plants, (5) to publish the draft SRP Chapter 7 for public comments, (6) to incorporate the public comments, (7) to have final ACRS and CRGR review of the SRP Chapter 7 update, and (8) to publish the final revised SRP Chapter 7.

Originating Document: The memorandum from the EDO to Chairman Jackson dated January 3, 1996, "Improvements Associated with Managing the Utilization of Probabilistic Risk assessment (PRA) and Digital Instrumentation and Control Technology."

Regulatory Assessment: The approach and criteria that form the current regulatory framework for review and acceptance of digital I&C systems in nuclear power plants is being codified in the update to SRP Chapter 7. This framework has been communicated to the industry and public in safety evaluations for digital modifications to operating plants and design certification of the advanced reactor designs, and in Generic Letter 95-02, "Use of NUMARC/EPRI Report TR-102348, 'Guideline on Licensing Digital Upgrades,' in Determining the Acceptability of Performing Analog-to-Digital Replacements Under 10 CFR 50.59 dated" dated April 26, 1995. This action plan tracks and manages the codification of the existing framework by updating SRP Chapter 7. Consequently, this is not an urgent regulatory action, and continued plant operation is justified.

Current Status: The staff and its contractor, Lawrence Livermore National Laboratories (LLNL), are currently revising the seven existing sections of SRP Chapter 7 and developing two new sections and several new branch technical positions (BTPs) to incorporate criteria and guidance related to digital I&C systems. In parallel, the Office of Nuclear Regulatory Research (RES) has developed several regulatory guides that endorse national standards related to digital I&C.

By the letter dated June 6, 1996, the ACRS stated their agreement with the staff approach to the update of SRP Chapter 7, and their plan to continue to interact with the staff on the remaining changes to SRP Chapter 7. By memorandum dated September 16, 1996, NRR requested CRGR review of the complete draft SRP Chapter 7. In the minutes of CRGR Meeting Number 292 dated October 17, 1996, CRGR endorsed the draft document for issuance for public comments. The complete SRP Chapter 7 update was presented to the ACRS in October 1996. By the letter dated October 23, 1996, the ACRS stated that it had no objection to the staff's proposal for issuing the draft SRP Chapter 7 for public comment. The updated draft SRP Chapter 7 was issued for public comment and the notice of availability was published in the *Federal Register* on December 3, 1996. It was also posted on the NRC Homepage on the World Wide Web in December 1996 .

The public comment period closed on January 31, 1997 and all public comments received in February 1997 are being addressed in the revision of SRP Chapter 7. The National Research Council/National Academy of Sciences' (NAS) final report on Digital Instrumentation and Control Systems in Nuclear Power Plants, Safety and Reliability Issues was received by the staff in late January 1997. The recommendations in the report are being reviewed and, where applicable, considered in the revision to SRP Chapter 7.

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PRA IMPLEMENTATION ACTION PLAN 1.2(d)
Graded Quality Assurance Action Plan

TAC Nos. M91429, M91431, M92420,
M92450, M92451, M92447, M92448,
M92449, M88650, M91431, M91432,
M91433, M91434, M91435, M91436, M91437
GSI: Not Available

Last Update: 5/9/97
Lead NRR Division: DRCH
Support Division: DSSA

MILESTONES	DATE (T/C)
1. Issued SECY 95-059	03/95C
2. Begin interactions with volunteer licensees - Palo Verde letter dated 4/6/95 - Grand Gulf meeting 5/4/95 - South Texas meetings on 4/19/95 and 5/8/95	05/95C
3. NRC Steering Group meetings to guide working level staff activities - Meetings on: 8/25/95, 10/10/95, 10/25/95	As Needed
4. Staff interactions with Palo Verde - Site visit on 5/23/95 on ranking and QA controls - NRC letter dated 7/24/95 on proposed QA controls - Site visit on 8/29-30/95 on risk ranking - Site visit on 9/6-7/95 on procurement QA controls - NRC letter conveying trip reports issued on 12/4/95 - Meeting on 4/11/96 to discuss the staff evaluation guide - Letter from licensee on 4/24/96 providing comments on staff evaluation guidance - Site visit on 6/5-6/96 to observe expert panel and review revised procurement QA controls, trip report sent to licensee on 8/6/96 - Letter from licensee on 9/12/96 transmitting responses to procurement issues raised in earlier staff trip reports - letter from licensee dated 11/13/96 responding to PRA issues raised in 12/4/95 trip report - Overview of GQA initiative provided by PVNGS at 2/27/97 meeting with staff	Ongoing through 12/97

5. Staff interactions with South Texas - Meeting on 7/17/95 on project status - Site meeting on 10/3-4/95 on risk ranking and QA controls - Meeting on 12/7-8/95 to discuss risk ranking and QA controls - South Texas Submittal of QA Plan for implementation of graded QA, dated 3/28/96 is currently under staff review - Meetings on 4/11/96 and 4/25/96 to discuss the staff evaluation guide and future interaction milestones and schedules - Letter from licensee on 4/17/96 providing comments on staff evaluation guidance - Meeting on 6/19/96 to discuss staff comments on the QA plan submittal for graded QA, review questions transmitted to STP on 8/16/96 - Site visit on August 21-22 to observe working group and expert panel meetings, and to discuss staff review items, trip report in preparation - Management meeting on 10/15/96 to discuss PRA initiatives and staff activities - Letter from licensee dated 10/30/96 responding to PRA questions - Revised QA plan submitted on 1/21/97 - Overview of STP initiative provided at 2/27/97 meeting with the staff - Staff Request for Additional Information issued on 4/14/97 for both PRA and QA controls - Meeting on 4/21/97 to discuss STP responses to RAI - Site visit on 5/5-8 to evaluate: PRA quality, graded QA controls, QA controls for the PRA, corrective action and performance monitoring feedback processes, audit scheduling, and responses to the RAI concerns. Trip report in preparation. - Negative consent SECY paper to be prepared prior to staff approval of QA program change.	Ongoing through 12/97
6. Staff interactions with Grand Gulf - Site meeting on 7/11-14/95 to observe expert panel - Meeting at hdqt. on 10/24/95 on QA controls - Meeting at RIV on 11/16/95 on graded QA effort - Site meeting on 11/17/95 to observe expert panel - GGNS system and component ranking criteria under staff evaluation, the comments are scheduled to be provided to GGNS by the end of June - Meeting on 4/11/96 to discuss the staff evaluation guide - Letter to GGNS dated 5/29/96 regarding implementation of QAP commitments - Staff review comments on GGNS safety significance determination process transmitted to licensee on July 15 - Meeting on August 27 to discuss staff comments on safety significance process and to discuss GGNS implementation of QAP commitments for low-safety significant items, meeting summary issued on 12/17/96 - Site visit on 11/21/96 to review procurement activities, trip report in preparation	Ongoing through 12/97
7. Revision 3 of Draft Evaluation Guide for Volunteer Plants issued for staff comment	07/95C

8. Revision 4 of Draft Evaluation Guide for Volunteer Plants Issued for Steering Group Review	10/95C
9. Issue letter to 3 volunteer plants outlining program objectives and review expectations. Distributed staff evaluation guide to licensees.	1/96C
10. Evaluation Guide Issued for use by staff in evaluating volunteer plants - Meeting held with volunteer plants to receive feedback on staff evaluation guide on 4/11/96. - Industry comments on staff evaluation guide provided by letter dated 5/24/96 - The staff will review the industry comments with respect to the need to revise, and finalize, the evaluation guide . - Meeting of GQA steering group will be scheduled, if needed, to discuss finalization of staff evaluation guide for volunteer implementation phase	1/96C 4/96C
11. Regulatory Guide development milestones per PRA Action Plan - Draft RG for Branch/division review and comment - Draft RG for inter-office review and concurrence - Draft RG for ACRS/CRGR review - Draft RG for public comment - Draft RG public comment period ends - Final draft RG for ACRS/CRGR review - Final draft RG for inter-office concurrence - Publish final RG	 7/31/96C 8/1/96C 11/22/96C 3/31/97T 6/3/97T 9/1/97T 12/1/97T 12/31/97T
12. ACRS Briefings - Expert Panel and deterministic considerations - graded QA - PRA Implementation Plan and pilot projects - Risk Informed Pilots - Graded QA Regulatory Guide - Graded QA Regulatory Guide - ACRS Concerns on GQA Regulatory Guide - ACRS memo to Commission expressing concerns with GQA approach	 2/27-28/96C 4/11/96C 7/18/96C 8/7/96C 11/22/96C 2/21/97C 3/6/97C 3/17/97C
13. CRGR Briefings - Graded QA Regulatory Guide - Graded QA Regulatory Guide	 11/26/96C 3/11/97C
14. Issue Lessons Learned NUREG report regarding Graded QA Programs at volunteer plants	9/97T
15. Public Workshop on Graded QA	2/98T
16. Issue Staff Inspection Guidance (Baseline + Reactive IP) for public comment	9/97T
17. Conduct NRC Staff Training	1/98T
18. Issue SECY Update (close-out of action plan)	4/98T

Description: Prepare staff evaluation guidance and regulatory guidance for industry implementation for the grading of quality assurance (QA) practices commensurate with the safety significance of the plant equipment. The development of this guidance will be based on staff reviews of regulatory requirements, proposed changes to existing practices, staff development of a draft regulatory guide with input from a national laboratory, and assessment of the actual programs developed by the three volunteer utilities implementing graded quality assurance programs.

Historical Background: The NRC's regulations (10 CFR Part 50, Appendices A & B) require QA programs that are commensurate (or consistent) with the importance to safety of the functions to be performed. However, the QA implementation practices that have evolved have often not been graded. In the development of implementation guidance for the maintenance rule, a methodology to determine the risk
significance of plant equipment was proposed by the industry (NUMARC 93-01). During a public meeting on December 16, 1993 the staff suggested that the industry could build on the experience gained from the maintenance rule to develop implementation methodologies for graded QA. The staff had numerous interactions with the Nuclear Energy Institute (NEI) during calendar year 1994 as the graded QA concepts were discussed and the initial industry guidelines were developed and commented on. In early 1995, three licensees (Grand Gulf, South Texas, and Palo Verde) volunteered to work with the staff. The staff has reviewed the licensee developmental graded QA efforts.

Proposed Actions: The goal of the action plan is to utilize the lessons learned from the 3 volunteer licensees to modify staff-developed draft guidance to formulate regulatory guidance on acceptable methods for implementing graded QA. The staff will develop a regulatory guide based in part on input from Brookhaven National Laboratory, and will also prepare a baseline and reactive inspection procedure (IP) for graded QA. An inter-office team has been established to prepare the regulatory guidance documents and test their implementation during the evaluation of volunteer plant activities.

Originating Document: Letter from J. Sniezek, NRC to J. Colvin (NUMARC) dated January 6, 1994, describing the establishment of NRC steering group for the graded QA initiative.

Regulatory Assessment: Existing regulations provide the necessary flexibility for the development and implementation of graded quality assurance programs. The staff will issue a NUREG report regarding the lessons learned from the volunteer plant implementations. Additional regulatory guidance will be issued to either disseminate staff guidance or endorse an industry approach. Planned guidance for the staff will involve an evaluation guide for application to the volunteer plants, the lessons learned report, training sessions and public workshops, and inspection guidance in the form of a baseline and a reactive IP. The staff is evaluating the appropriate mechanism for inspections of the risk significance determination aspects of graded QA programs.

The safety benefits to be gained from a graded QA program could be significant since both NRC reviews and inspections and the industry's quality controls resources would be focused on the more safety significant plant equipment and activities. Secondarily, cost savings to the industry could be realized by avoiding the dilution of resources expended on less safety significant issues. The time frame to complete this action plan is directly related to the overall PRA implementation plan schedules.

Current Status: A draft evaluation guide for NRC staff use has been prepared for application to the volunteer plants implementing graded quality assurance programs. The staff will utilize the guide for the review of the volunteer plant graded QA programs. The guide and the staff's proposed interaction framework has been transmitted in a letter to the three volunteer licensees. The letter sought licensee comments. A draft regulatory guide for both risk ranking and grading of QA controls have been prepared and circulated for review by both the ACRS and CRGR. SECY 97-077

(dated April 8, 1997) transmitted the draft regulatory guides, including the GQA guide, to the Commission. Commission approval is being sought to issue the documents for public comment. Senior management briefings were provided to the Director, NRR (on April 22, 1997) and to the Deputy, EDO (on April 24, 1997).

A meeting was held with the three volunteer licensees on April 11, 1996 to receive their feedback on the staff developed evaluation guide. The licensees expressed concerns about the level of detail contained in the guide, particularly that related to PRA and commercial grade item dedication. The licensees contend that exiting industry guidance (PSA Application Guide and EPRI-5652) are sufficient for those topics. The staff received written comments from NEI on the evaluation guide by letter dated May 24, 1996. The NEI letter questions the need for additional regulatory guidance for the graded QA application. NEI contends that existing industry guidance is sufficient. STP and PVNGS letters providing comments on the evaluation guide were dated April 17, 1996 and April 24, 1996 respectively. The staff will compile suggested changes to the evaluation guide in response to the industry comments and a meeting will be held to brief the graded QA steering group on the proposed changes.

A presentation on graded QA was made to the full ACRS on April 11th. During the ACRS meeting some questions arose with respect to the staff expectations for the conduct of expert panel activities. The ACRS was further briefed on the development of the GQA Regulatory Guide on November 22, 1996 and February 21, 1997, and March 6, 1997. The ACRS issued a letter to the Chairman on March 17, 1997 regarding their review of the risk informed guidance documents. The ACRS expressed some concerns with the staff focus on simply proposing to reduce quality controls for low safety significant items. However, in recognition of industry interest in the guide, the ACRS recommended that it be issued for public comment.

South Texas submitted their QA program revision for their graded QA effort on March 28, 1996. The change has been reviewed by the staff (HQMB, SPSB, RES, RIV, and NRC contractors). A meeting was held with STP on June 19 to discuss the staff's comments and concerns. STP indicated their willingness to re-examine the content of the QA plan with respect to the proposed QA controls for the low safety significant items. The staff visited the site on August 21-22 to receive information from STP in response to earlier staff questions about the STP approach towards determining safety significance categorization and adjustment of QA controls. The staff also observed both a Working Group and Expert Panel meeting at which time licensee safety significance evaluations for 2 systems (Radiation Monitoring and Essential Service Water) were discussed. Staff review of the updated QA program submittal was completed and a second RAI was issued on April 14, 1997 for both PRA and QA controls aspects. A meeting was held on April 21, 997 during which the licensee provided some responses to the issues raised in the RAI. Staff (from both HQMB and SPSB) performed a site evaluation during the week of May 5 - 8 to review aspects associated with: PRA quality, QA controls for the PRA, corrective action and performance monitoring feedback processes, QA controls for low safety significant items, detailed information presented to address issues raised in the RAI, and the audit scheduling process.

Also, NEI submitted 96-02, "Guideline for Implementing a Graded Approach to Quality" dated March 21, 1996. The staff has performed a cursory review of the document and concluded that it does not reflect the progress and level of detail that has been achieved through the volunteer plant effort. The staff informed NEI by letter dated May 2, 1996 that the guide is not adequate (as a stand alone document) to implement graded QA but that it will be considered as the staff develops the graded QA regulatory guide and standard review plan. By letter dated June 8, NEI indicated that their 96-02 guide will be revised. Further NEI requested a meeting with the staff (in the August time frame) to discuss the changes and to discuss more objective means to assess the adequacy of QA program implementation. NEI has proposed that the amended 96-02 guidelines will be submitted to the staff for endorsement by a regulatory guide. A subsequent letter was received from NEI on July 16 that provided an updated version of NEI 96-02 based on comments

they received from the volunteer plants and industry sources. The staff will review the modified document and then brief the steering group on the results. On October 10, 1996 NEI submitted a letter expressing their concern with the graded QA initiative. NEI stated their concerns regarded the questions raised by the staff in the area of QA controls for items determined to be low safety significant and in the area of safety significance determination. A meeting with NEI and staff from the volunteer plants (STP and PVNGS) was held on February 27, 1997. NEI stated that 50.54(a) needs to be revised to offer licensees greater flexibility to manage their QA programs. The volunteer plant staff stated their firm desire to obtain copies of the draft GQA Regulatory Guide in a timely manner. NEI additionally outlined a conceptual approach to integrate a performance monitoring methodology into the GQA efforts.

NRR Contact: S. Black 415-1017, R. Gramm 415-1010
RES Contact: R. Woods 415-6622

References:

1) Letter from J. Sniezek (NRC) to J. Colvin (NEI) dated 1/6/94
2) Regulatory Guide 1.160
3) NUMARC 93-01, "Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants"
4) SECY-95-059, "Development of Graded Quality Assurance Methodology", 3/10/95
5) Letter from B. Holian (NRC) to W. Stewart (APSCo) dated 7/24/95
6) Letter from C. Thomas (NRC) to W. Stewart (APSCo) dated 12/4/95
7) Memorandum from S. Black to W. Beckner and W. Bateman dated 1/24/96, Draft Staff Evaluation Guidance
8) NEI 96-02, "Guideline for Implementing a Graded Approach to Quality"

NEW SOURCE TERM FOR OPERATING REACTORS

TAC No. M89586
GSI No. 155.1

Last Update: 05/01/97
Lead NRR Division: DRPM
Supporting Division: DSSA & DE

MILESTONES		DATE (T/C)
1.	NEI Letter	07/94C
2.	Commission Memo	09/94C
3.	NEI Response	09/94C
4.	NEI/NRC Meeting	10/94C
5.	Publication of NUREG-1465	02/95C
6.	NEI/NRC Meetings	10/94C, 06/95C, 10/95C, 01/96C, 02/96C, 05/96C, 08/96C, 10/96C, 04/97C
7.	Submittal of Generic Framework Document (from NEI)	11/95C
8.	First Pilot Plant Submittal	12/95C
9.	Issue Memo to Commission, Updating Status	08/96C
10.	Present Commission Paper in E-Team Briefing	09/96C
11.	Brief CRGR on Commission Paper	10/96C
12.	Send Commission Paper to EDO/Commission	11/96C
13.	Brief ACRS on Commission Paper	11/96C
14.	Response to NEI Framework Document	02/97C
15.	Begin Pilot Plant Reviews	02/97C
16.	Begin Rebaselining	02/97C
17.	Finish Rebaselining	08/97T
18.	Finish Pilot Plant Reviews	TBD

Description: More than a decade of research has led to an enhanced understanding of the timing, magnitude and chemical form of fission product releases following nuclear accidents. The results of this work has been summarized in NUREG-1465 and in a number of related research reports. Application of this new knowledge to operating reactors could result in cost savings without sacrificing real safety margin. In addition, safety enhancements may also be achieved.

Historical Background: In 1962, the U. S. Atomic Energy Commission published TID-14844, "Calculation of Distance Factors for Power and Test Reactors." Since then licensees and the NRC have used the accident source term presented in TID-14844 in the evaluation of the dose consequences of design basis accidents (DBA).

After examining years of additional research and operating reactor experience, NRC published NUREG-1465, "Accident Source Terms for Light-Water Nuclear Power Plants," in February 1995. The NUREG describes the accident source term as a series of five release phases. The first three phases (coolant, gap, and early in-vessel) are applicable to DBA evaluations, and all five phases are applicable to severe accident evaluations. The DBA source term from the NUREG is comparable to the TID source term; however, it includes a more realistic description of release timing and composition. Since the NUREG source term results in lower calculated DBA dose consequences, NRC decided not to require current plants to revise their DBA analyses using the new source term. However, many licensees want to use the new source term to perform DBA dose evaluations in support of plant, technical specification, and procedure modifications.

NRC and NEI met several times to discuss the industry's plans to use the new source term. To make efficient use of NRC's review resources, NRC encouraged the industry to approach the issue on a generic basis. The Nuclear Energy Institute (NEI) unveiled its plans for the use of the new source term at operating plants at the Regulatory Information Conference in May 1995. NEI, Polestar (EPRI's consultant), and pilot plant (Grand Gulf, Beaver Valley, Browns Ferry, Perry, and Indian Point) representatives met with NRC staff in June and October 1995 to discuss more detailed plans.

Proposed Actions: The staff has reviewed the framework document has prepared a Commission paper and decision letter that describes a generic implementation approach. The staff presented the Commission paper and decision letter to the NRR Executive Team in September, briefed CRGR in October, and briefed the ACRS full committee in November. The staff sent the Commission paper and decision letter to the Commission in November 1996 (SECY-96-242). As described in the Commission paper, the current plan is to rebaseline 2 NUREG-1150 plants; one a PWR and one a BWR. The staff will also review each pilot plant application and prepare an exemption package addressing the use of each feature of the NUREG-1465 source term while pursuing rulemaking. The plan for issuing each remaining generic exemption is to brief the CRGR, issue for public comment, and then issue the exemption.

Originating Document: EPRI Technical Report TR-105909, "Generic Framework Document for Application of Revised Accident Source Term to Operating Plants," transmitted by letter dated November 15, 1995.

Regulatory Assessment: There will be no mandatory backfit of the new source term for operating reactors. The design-basis accident analyses for current reactors based on the TID-14844 source term are still valid. Therefore, non-urgent regulatory action and continued facility operation are justified.

Current Status: NEI submitted its generic framework document in November 1995 for NRC review and approval. TVA submitted part of its pilot plant application for Browns Ferry in December 1995. The staff met with NEI on January 23, 1996, to discuss the generic framework document and separate meetings were held on February 7, May 30, and August 29, 1996 to discuss the pilot plant submittals. The staff met again with NEI and the industry on October 2, 1996, to discuss the staff's plan to issue exemptions while pursuing rulemaking, and on April 2, 1997, to provide a status report on the staff's actions regarding rebaselining and rulemaking subsequent to the Commission's SRM. The pilot plant applications for Browns Ferry, Perry, Indian Point, and Oyster Creek have been circulated to the task force members to help shape rebaselining.

The staff briefed the NRR Executive Team on SECY-96-242 in September, the CRGR in October, and the ACRS full committee in November. A limited number of pilot plants submittals and exemptions are expected - three submittals have been received so far (Browns Ferry, Perry and Indian Point-2). Applications are also expected from Grand Gulf and Oyster Creek. In addition,

the staff and Virginia Power met on November 26, 1996 to discuss the rebaselining of Surry. In a February 12, 1997, SRM, the Commission approved the Option 2 approach of SECY 96-242 and a modification to the letter response to NEI. On February 26, 1997, the EDO issued the letter response to NEI. The staff is initiating the rebaselining effort.

NRR Technical Contacts: R. Emch, PERB, 415-1068
A. Huffert, PERB, 415-1081

NRR Lead PM: B. Zalcman, PGEB, 415-3467

References:

NUREG-1465, "Accident Source Term for Light Water Nuclear Power Plants," February, 1995.

July 27, 1994, letter to A. Marion, NEI, from D. Crutchfield, NRC, "Application of New Source Term to Operating Reactors".

September 6, 1994, letter to the Commission from NRC staff, "Use of NUREG-1465 Source Term at Operating Reactors".

July 21, 1995, letter to the Commission from NRC staff, "Use of NUREG-1465 Source Term at Operating Reactors".

December 22, 1995, pilot plant submittal, letter to Document Control Desk from Tennessee Valley Authority, "Brown's Ferry Nuclear Plant (BFN) - Units 1, 2, and 3 - Technical Specifications (TS) No. 356 and Cost Beneficial Licensing Action (CBLA) 08 - Increase in Allowable Main Steam Isolation Valve (MSIV) Leakage Rate and Request for Exemption from 10 CFR 50, Appendix J... and 10 CFR 100, Appendix A...".

August 9, 1996, memorandum to the Commission from NRC staff, "Use of NUREG-1465 Source Term at Operating Reactors".

November 25, 1996, SECY-96-242, "Use of the NUREG-1465 Source Term at Operating Reactors."

February 12, 1997, Staff Requirements Memorandum to SECY-96-242.

February 26, 1997, letter to T. Tipton, NEI, from J. Callan, NRC, responding to the NEI Framework Document.

Summaries of public meetings:

- dated November 10, 1994 for public meeting with NEI held on October 6, 1994;
- dated July 26, 1995 for public meeting with NEI held on June 1, 1995;
- dated November 17, 1995 for public meeting with NEI held on October 12, 1995.
- dated February 1, 1996 for public meeting with NEI held on January 23, 1996.
- dated February 27, 1996 for public meeting with Browns Ferry held on February 7, 1996
- dated September 27, 1996 for public meeting with Grand Gulf held on August 29, 1996
- dated October 11, 1996 for public meeting with NEI on October 2, 1996
- dated January 24, 1997 for public meeting with Surry held on November 26, 1996
- dated April 24, 1997 for public meeting with PWR (Surry) held on March 25, 1997
- dated April 24, 1997 for public meeting with BWR (Grand Gulf) held on March 27, 1997

ENDANGERED SPECIES ACTION PLAN
(FINAL REPORT)

TAC No. M88282
GSI: EI-184

Last Update: 5/1/97
Lead NRR Division: DRPM

	MILESTONE	DATE
1.	Development of action plan.	06/95C
2.	Develop list of currently listed protected species in the vicinity of each nuclear power plant site	11/95C
3.	Identify individual licensee programs and activities being conducted to further the conservation of protected species.	05/96C
4.	Determine priority for sites warranting follow-up actions.	01/97C
5.	Recommend site-specific follow-up actions to Projects.	02/97C
6.	Development and implementation of process for maintaining status and compliance with the ESA at each site.	04/97C

Description: Develop a list of currently listed protected species in the vicinity of each nuclear power plant site, identify individual licensee programs and activities being conducted to further the conservation of protected species, and conduct informal or formal consultation with either the National Marine Fisheries Service or the Fish and Wildlife Service, as warranted for any specific site.

Historical Background: In 1973, Congress passed the Endangered Species Act for the protection of endangered or threatened species. In responding to a Commission memorandum of July 30, 1991, concerning efforts of the Commission, applicants, and licensees for protection of endangered species in the vicinity of nuclear power facilities, it was identified that the NRC may not have completed all the necessary activities required by the Endangered Species Act for some of the facilities that have identified endangered species. This action plan will determine the additional actions, if any, that need to be taken at individual sites so that the NRC can meet its obligations under the act.

Proposed Actions: Conduct evaluations of plant-specific lists of endangered species and existing licensee commitments to further the conservation of the protected species and determine if informal or formal consultation with either the National Marine Fisheries Service or the Fish and Wildlife Service is warranted.

Originating Document: Commission Memorandum of July 30, 1991.

Regulatory Assessment: Continued facility operation is appropriate because this action plan does not involve a health and safety issue.

Current Status: This project has been completed. A list of currently listed protected species in the vicinity of each nuclear power plant site was developed by a contractor and a final report was transmitted to the NRC by letter dated March 14, 1997. This final report, PNNL- 11524, "Threatened and Endangered Species Evaluation for 75 Licensed Commercial Nuclear Power Generating Plants," prioritizes sites and makes recommendations for site-specific follow-up actions.

Contacts:

NRR Technical Contacts:	Mike Masnik, PDND, 415-1191
	Jim Wilson, PGEB, 415-1108
NRR Lead PM:	Jim Wilson, PGEB, 415-1108

References: Commission Memorandum of July 30, 1991.

Note: The Endangered Species Act requires Federal agencies to take appropriate actions to ensure protection of endangered or threatened species.

ENVIRONMENTAL SRP REVISION ACTION PLAN

TAC No. M80177 Last Update: 05/01/97
GSI: Not Available Lead NRR Division: DRPM

MILESTONES		DATE (T/C)
1.	Reflect Potential Impacts and Integrated Impacts in Options for Resolution	
	a. Identification of potential impacts	03/96C
	b. Identification of integrated impacts	06/96C
	c. Proposed options for resolution and develop initial draft of revised ESRP	10/96C
	d. Staff/contractor meeting to resolve format and content of revised ESRP	11/96C
2.	Prepare Final Draft of ESRP Sections for Public Comment	
	a. Draft updated ESRP for staff review	01/97C
	b. ACRS and/or CRGR review, if necessary	06/97T
	c. Publish (electronic) for public comment	08/97T
3.	Disposition Public Comments	01/98T
4.	Publish Final NUREG-1555	08/98T
5.	Maintenance of program data	Ongoing

Description: The Environmental Standard Review Plan (ESRP) Revision Action Plan deals with the revision to NUREG-0555 to reflect changes in the statutory and regulatory arena, to incorporate emerging environmental protection issues (e.g., SAMDA and environmental justice) since originally published in 1979, and to support the review of license renewal applications. The ESRP will take the form of the SRP (including acceptance criteria) and follows the same update criteria outlined under the SRP-UDP project (with the exception of maintaining the MDB at this time). The objective of the tasks outlined in the action plan is to complete the identification of potential impacts by April 1996 (completed in March 1996), the integrated impacts by June 1996 (completed), and the options for resolution beginning in August 1996 with levelizing across-ologies occurring earlier at the options stage rather than later at the draft stage. Initial interactions on options stage indicate that, at a minimum, the existing ESRP sections will need restructuring to conform to NUREG-0800 format; contractor is combining resolution options and format restructuring to accelerate schedule. After submittal of the draft by February 1997 for staff and CRGR review, if necessary, the sections will be published for public comment in August 1997. Disposition of public comments and staff review of the update (NUREG-1555) leads to a publication date of August 1998.

Regulatory Assessment: NRR has established the ESRP Update Program for use in the life cycle review of environmental protection issues for nuclear power plants, especially license renewal applications, but also operating reactors, and future reactor site approval applications. The ESRP will reflect current NRC requirements and guidance, consider other statutory and regulatory requirements (e.g., the National Environmental Policy Act, Presidential Executive Orders), and incorporate the generic environmental impact work and plant-specific requirements developed during amending of Part 51 for license renewal reviews.

Current Status: The PNNL/NRC staff workshop on the restructured and revised ESRP was held during Novembe 13-14, 1996. Now that the Part 51 rule for license renewal is final, particular emphasis is be ng placed on assuring that license renewal needs are being addressed in a schedule cons tent with the RES regulatory guide and pilot plant application. The results of the November work shop were provided by PNNL in January 1997; followup discussions were held with the contrac or through April 1997 and a draft of NUREG-1555 is now available to be shared with ACRS to determine whether it wants to review the document prior to release for public comment.

NRR Technical Contact: B. Zalcman, PGEB, 415-3467

10 CFR 50.59 ACTION PLAN

TAC No. M94269

Last Update: 05/07/97
Lead NRR Division: DRPM
Supporting Divisions: all

	MILESTONES	DATE (T/C)
1.	Action plan approval/copy to Commission	(04/15/96)(C)
2.	Identify work group members	05/24/96(C)
3.	Brief D/NRR on issues	N/A
4.	Conduct workshop	06/18/96(C)
5.	Brief D/NRR on proposed positions	07/24/96(C)
6.	Draft position papers	08/29/96(C)
7.	Obtain regional comments	09/30/96(C)
8.	Policy issues and position paper to Commission with Lessons Learned Report	(02/12/97(C)
9.	Issue document for public comments	05/07/97(C)
10.	Obtain comments	07/97(T)
11.	Recommendations and rulemaking plan issued to NRC management	(08/97)(T)
12.	Commission Paper	(09/07/97)(T)
13.	Follow-up Actions	TBD

Description: This action plan defines measures to improve licensee implementation and NRC staff oversight of the 10 CFR 50.59 process.

Historical Background: 10 CFR 50.59 was promulgated in 1962 to describe the circumstances under which licensees may make changes to their facility (or to make changes to procedures, or to conduct tests and experiments) without prior NRC approval when the change does not involve the Technical Specifications or an unreviewed safety question. Licensees are required to submit periodically information related to changes made pursuant to 50.59. The NRC has programs for monitoring licensee processes for implementing 50.59. In a memorandum dated October 27, 1995, Chairman Jackson raised a number of questions concerning 50.59 implementation and NRC oversight, and proposed a systematic reconsideration and reevaluation of the process. The staff developed an action plan to identify actions to be undertaken to improve both the licensee's implementation and the NRC staff's oversight of the 50.59.

Proposed Actions: In accordance with the action plan, the staff's approach to development of regulatory guidance would proceed in phases. Over the last several months, the staff has developed specific positions (guidance) in particular areas related to 50.59 implementation and has considered the feasibility of implementing such guidance within the existing regulatory framework. Public comments on the position paper(s) will be obtained. The ACRS was asked requested to provide its comments on these positions. At the end of the first phase, the staff will take stock of its progress and make recommendations on issuing guidance, undertaking

rulemaking or other actions. Actions, milestones and schedules for further phases of this effort will be developed after the results of the first phase are assessed. Other related efforts are being tracked under other programs.

Originating Document: April 15, 1996 memorandum from the EDO to Chairman Jackson, Subject: Action Plan for Improvements to 10 CFR 50.59 Implementation and Oversight.

Regulatory Assessment: The action plan was developed to identify actions to improve implementation of the 50.59 process. A number of improvements have been implemented , such as directing inspectors conducting all routine inspections to specifically address FSAR compliance, and reviewing spent fuel pool/core offload procedures and practices at all facilities. As stated in the December 15, 1995, memorandum, "The staff concludes that there is currently no indication that implementation of 10 CFR 50.59, as it is carried out today, has led to decreased safety, based on inspection experience. While improvements can be made to achieve a higher degree of uniformity of review, the current process as it is being implemented provides reasonable assurance that plant safety has not been decreased." The above conclusion is confirmed by the additional analysis of inspection experience presented in the staff review document. Therefore, non-urgent regulatory action and continued facility operation are justified.

Current Status: A revision to the action plan was issued on August 20, 1996, which revised the scheduled milestones such that the Commission will have the opportunity to consider the policy issues associated with 50.59 along with other policy issues from the Millstone lessons learned review.

A Commission paper, SECY-97-035, was sent to the Commission on February 12, 1997, that forwards the results of the staff's review to the Commission. In the paper, the staff identifies areas where implementation would benefit from clarification. The staff proposes to issue regulatory guidance to provide these clarifications, and the paper requests Commission approval to publish the staff paper for public comment. A Commission briefing was conducted on March 10, 1997. In a Staff Requirements Memorandum dated April 25, 1997, the Commission approved the staff recommendation for a 60-day comment period on the staff's proposed guidance. The *Federal Register* notice of availability for comment of draft NUREG-1606 was published on May 7, 1997. The Commission also directed the staff to provide a paper by September 7, 1997, that would provide staff recommendations including consideration of the public comments and Commission guidance on SECY-97-036 (Millstone Lessons-Learned Part 2 report), and a rulemaking plan for a risk-informed approach for 50.59 determinations.

The staff briefed the ACRS on April 2, 1997, on SECY-97-035. In a letter dated April 8, 1997, the ACRS recommended that the staff positions not be issued for public comment but instead that the NRC and industry continue efforts to revise industry guidance (draft NEI 96-07). The staff met with NEI on April 28, 1997, to discuss possible revisions to NEI 96-07.

NRR Technical Contact: E. McKenna, PGEB, 415-2189

References:
October 27, 1995 memorandum from Chairman Jackson to EDO
November 30, 1995 memorandum from Chairman Jackson to EDO
December 15, 1995 memorandum from EDO to Chairman Jackson
December 28, 1995 memorandum from EDO to Chairman Jackson
April 15, 1996 memorandum from EDO to Chairman Jackson
August 20, 1996 memorandum from EDO to Commission
February 12, 1997, SECY-97-035, Proposed Regulatory Guidance Related to Implementation of 10 CFR 50.59 (Changes, Tests, or Experiments)
April 25, 1997, Commission SRM on SECY 97-035.

INDUSTRY DEREGULATION AND UTILITY RESTRUCTURING ACTION PLAN

TAC Nos. M78003 Last Update: 4/30/97 GSI: Not Available
Lead NRR Division: DRPM

MILESTONES	DATE (T/P/C)
Task 1 - Develop NRC Policy Statement and SRP	06/97T
Draft Policy Statement	05/96C
Office Concurrences	06/96C
EDO Concurrence	06/96C
Commission Paper	07/96C
Draft SRP	07/96C
Publish Draft Policy Statement	09/96C
Office Concurrences on SRP	09/96C
EDO Concurrence on SRP	09/96C
Commission Paper on SRP	09/96C
Publish Draft SRP	1/97C
Public Comment Policy Statement	2/97C
Public Comment SRP	03/97C
Final Policy Statement	05/97T
Office Concurrences	05/97T
ACRS	05/97T
CRGR	05/97T
EDO Concurrence	05/97T
Commission Approval	06/97T
Publish Final Policy Statement	06/97T
Final SRPs	09/97T
Publish Final SRPs	09/97T
Task 2 - Issue Administrative Letter to Licensees on Financial Reporting Requirements	06/96C
Draft Administrative Letter	05/96C
Office Concurrences	05/96C
Commission Information Paper	06/96C
Issue Admin Ltr to Licensees w/WTR Letter to CEOs	06/96C
Task 3 - Develop Non-Rulemaking Option for Periodic Reporting Requirements as Necessary	05/97T
Determine Necessity for Action	09/96C
Draft Option	01/97C
Office Concurrence	01/97C
	N/A
EDO Concurrence	05/97T
Publish Draft	05/97T

Task 4 - Update prior NUREG documents on owners and antitrust license conditions	02/97C
Issue Task Order Contract	05/96C
Draft NUREG Updated	09/96C
Publish NUREGs	12/96C
	N/A
	N/A
Task 5 - Institutionalize Staff Level Contact with NARUC,SEC,FERC. Develop MOUs as necessary.	ONGOING
Letter to agencies	06/96C
Staff level meetings	11/96C
Draft MOUs to Commission (as required)	TBD
Sign MOUs	TBD
Task 6 - Develop and implement rulemaking to clarify 10 CFR 50.80 if necessary	TBD
Commission determination of need	TBD
Proposed ANPR or rulemaking package	TBD
Office Concurrences	TBD
ACRS Comments	TBD
CRGR Concurrence	TBD
EDO Concurrence	TBD
Commission Approval	TBD
Publish ANPR or Proposed rule	TBD
Public Comment	TBD
Revise Rulemaking Package	TBD
Office Concurrences	TBD
ACRS Comments	TBD
CRGR Concurrence	TBD
EDO Concurrence	TBD
Commission Approval	TBD
Publish Final Rule	TBD
Task 7 - Assist Office of Research (RES) on Decommissioning Funding Assurance Rule.	ONGOING
Milestones for this task provided by RES under rulemaking action, "Decommissioning Costs and Funding Evaluations"	

Description: The action pla n is intended to address the Commission's concerns regarding the impact of utility deregulation and resulting reorganizations and restructuring on licensee's financial qualifications and their ultimate ability to safely operate and decommission their facilities.

Historical Background: In recent years, several restructurings and reorganizations have occurred with the electric utility industry. In addition, State public utility commissions (PUCs) have increased pressure for improvements in economic performance of electric utilities they regulate in order to reduce the rates paid by wholesale and retail consumers. The accelerated pace of this restructuring may affect the ability of power reactor licensees to pay for safe plant operations and decommissioning. Specifically, the restructuring may affect the factual underpinnings of the

NRC's previous conclusion that power reactor licensees can reliably accumulate adequate funds for operations and decommissioning over the operating lives of their facilities.

Proposed Actions: Specific actions included in the action plan are: 1) issuing a policy statement delineating NRC's expectations with respect to future financial and anti-trust reviews and developing a standard review plan regarding NRC's current financial review requirements; 2) issuing an administrative letter to all licensees delineating their current responsibilities with respect to getting prior NRC approval for changes that may affect their previous financial qualification determinations or ownership; 3) formulating non-rulemaking periodic reporting requirements, 4) updating NUREG documents containing financial information; 5)establishing staff level contacts with the Securities and Exchange Commission (SEC), the Federal Energy Regulatory Commission (FERC), and the National Association of Utility Regulatory Commissions (NARUC); 6) implementing rulemaking if necessary; and 7) assisting the Office of RES in their decommissioning funding assurance rulemaking.

Current Status: PGEB has developed a draft policy statement, administrative letter, and has conducted meetings with FERC and SEC. Staff level contacts with NARUC have been identified and implemented. The administrative letter was issued with a letter to the CEOs of all licensees on June 21, 1996. A Commission Information Paper informed the Commission of our intentions for sending the Admin letter and CEO letter. A Commission Paper forwarding the draft policy statement was submitted on July 2, 1996, as SECY-96-148. The Commission approved publication of the draft policy statement by SRM dated August 16, 1996. The draft policy statement was published in the *Federal Register* on September 23, 1996.

NRR Technical Contacts: R. Wood, PGEB, 415-1255
M. Davis, PGEB, 415-1016

EXTENDED POWER UPRATE ACTION PLAN

TAC No. M91571

Last Update: 04/30/97
Lead NRR Division: DRPW

GSI: RI-182

Supporting Division: DSSA

MILESTONES	DATE (T/C)
1: Receive GE Topical ELTR1 (Generic Review Methodology).	3/95 C
2: Issue Staff Position Paper on ELTR1	
- Meeting with GE/NSP.	4/95 C
- Identify differences between LTR1 and ELTR1.	8/95 C
- Issue RAIs as appropriate.	9/95 C
- Incorporate information on foreign experience obtained from SRXB.	10/95 C
- Develop power uprate database for all U.S. plants.	10/95 C
- Issue Staff Position Paper.	2/96 C
3: Receive GE Topical ELTR2 (Generic Bounding Analyses).	
GE plans to submit ELTR2 in two parts: the first part in March 96	3/96 C
and the second part in July 1996.	7/96 C
4: Issue Staff SE on GE ELTR2.	
- Meeting with GE/Industry.	2/96 C
- Issue RAIs as appropriate.	3/97 C
- Input to the SE from technical branches.	10/97 T
- Issue SE.	11/97 T
5: Receive Lead Plant Application (Monticello).	7/96 C
6: Issue Staff SE for Lead Plant.	
- Meeting with Monticello.	10/96 C
- RAIs input from tech branches.	1/97 C
- Issue RAIs as appropriate.	4/97 C
- Issue additional RAIs as appropriate.	10/97 T
- Input to the SE from tech branches.	3/98 T
- ACRS Presentation	4/98 T
- Issue Secy Information Paper	5/98 T
- Issue SE.	6/98 T
7: Support the ongoing staff effort in developing a Standard Review Procedure for power uprates. Incorporate lessons learned from Lead Plant activity.	TBD

Description: This action plan describes the strategy for completing both the generic and plant-specific reviews for extended power uprate submittals for boiling water reactors (BWRs). General Electric Company (GE) submitted a licensing topical report (ELTR1), which outlines the methodology for implementation of an extended power uprate program. ELTR1 encompasses power uprates of up to 120 percent of the original licensed thermal power. Individual plant

submittals for uprates will likely contain requests for an optimum power level specific for that plant which is something less than the full 120 percent.

Each technical branch will review the applicable portions of both the ELTR2 (GE topical report containing generic analyses) and the lead plant application, and will provide input into the staff's safety evaluation reports. The experience gained from these reviews will be incorporated into the ongoing staff effort in developing a standard review procedure for power uprates.

Historical Background: The generic BWR power uprate program was created to provide a consistent means for individual licensees to recover additional generating capacity beyond their current licensed limit. In 1990, GE submitted licensing topical reports to initiate this program by proposing to increase the rated thermal power levels of the BWR/4, BWR/5, and BWR/6 product lines by approximately 5 percent. Since 1990, the staff has reviewed and approved at least 10 such power uprate requests under this generic BWR power uprate program. As a follow-on to this program, GE submitted ELTR1 in March 1995 to propose "extended" power uprates of up to 120 percent of the original licensed thermal power.

Proposed Actions: Specific actions included in the generic action plan are: (1) review ELTR1 and issue a staff position paper, (2) review ELTR2 and issue a safety evaluation report, (3) review the lead plant application and issue a safety evaluation report, and (4) develop a standard review procedure based on ELTR1, ELTR2, and the lead plant review.

Originating Document: GE Licensing Topical Report (NEDC-32424), "Generic Guidelines for General Electric Boiling Water Reactor Extended Power Uprate," dated February 1995.

Regulatory Assessment: Not applicable. (A safety assessment is not needed for this action plan because a justification for continued operation of a plant is not required.) This program is an industry initiative that is strictly voluntary.

Current Status: As requested by the licensee, the overall schedule for staff review of the lead plant submittal has been delayed for approximately 8 months. The licensee is conducting a third party review of its power uprate program to incorporate the "lessons learned" from recent power uprate efforts at other facilities. The staff issued RAIs on both the ELTR2 and the lead plant submittal during this period. Experience gained from this action plan will be incorporated into the ongoing staff effort in developing a Standard Review Procedure for power uprates.

NRR Lead PM: T. J. Kim, DRPW, 415-1392

DRY CASK STORAGE ACTION PLAN

TAC Nos. M93821 (issue 2.a)
M93927 (issue 3.b)
M94107 (issue 4.c.)
M94108

Last Update: 04/30/97
Lead NRR Division: DRPW

GSI: Not Available

MILESTONES	DATE (T/C)
1. Develop action plan	07/95C
2. Near-term technical issues	
a. Heavy Loads/Cranes	
- develop working group plan	11/95C
- prepare & issue Bulletin 96-02	4/96C
- issue Heavy Loads Action Plan	5/97C
- complete Heavy Loads Action Plan	4/98T
a.(i) Movement of Casks Prior to Securing Lid	
- Issue RAI for BL96-02 responses	12/96C
- Review site specific responses	9/97T
- identify and resolve generic issue	12/97T
b. Cask Trunnions[2]	
- develop staff position	09/95C
- modify standards/guidance	No changes required (C)
c. Hydrostatic Testing[1]	12/95C
d. Seismic Requirements for Pads	
- issue Information Notice	06/95C

[2] NMSS has the lead for this issue.

MILESTONES	DATE (T/C)
3. Long-term technical issues	
a. Cask weeping[1]	08/95C
- meet with NEI	As Necessary
- determine NRC actions to resolve	
b. Cask loading/unloading procedures	08/95C
- contact NEI about industry efforts	09/95C
- resolve high priority issues	10/95C
- form working group	04/96C
- complete working group determination on further issues	
c. Off Loading after fuel pool is decommissioned[1]	As required in response to submittals
- develop guidance and modifications to inspection procedures	
d. Failed Fuel Storage[1]	Closed with issuance of SRP (NR1536) 2/97C
- review proposed solutions	
e. Safeguards Concerns[1]	
- complete analysis of designs	12/95C
4. Procedural issues	
a. Change processes	
- issue SRP and 50.59 guidance	03/96C
- training for staff	05/96C
- Prepare 72.48 Inspection Procedure (NMSS)	09/97T
- Evaluate Adequacy of 50.59 Guidance (NRR)	09/97T
b. Reporting Requirements[1]	
- develop position, communicate to licensees	09/95C
c. Inspection of site activities	
- issue revised procedures	02/96C
- develop resource estimates and inspection schedule	02/96C
- Revise MC2515 Inspection Procedures for ISFSI support activities	12/97T
d. Vendor Inspections[1]	02/96C
- issue revised procedures	10/95C
- develop resource estimates and inspection schedule	
e. Cask and SAR differences[1]	09/95C
- contact vendors	
5. Communications	
a. Interface meetings	Ongoing
b. Staff training[1]	10/95C
c. Industry workshop	07/95 & 5/96C

Description: The Plan was developed to identify and resolve major issues and problems in the area of dry cask storage of spent reactor fuel in independent spent fuel storage installations (ISFSIs). Specific issues encompassed by the plan include heavy load control, procedures for cask loading and unloading, failed fuel storage, change processes, inspection activities, and communications (internal and external). Issues have been divided into the following categories: near-term technical, long-term technical, communications, and process issues.

Historical Background: Since 1986, several U.S. nuclear power plant licensees have installed independent spent fuel storage installations (ISFSIs), that is, licensee-owned dry cask storage facilities. Other licensees are also planning such installations. In recent years, licensees have encountered a number of problems during the fabrication, installation and licensing of some of these ISFSIs and there has been an inconsistent level of performance by involved licensees and cask fabricators with respect to the use of dry cask storage of spent reactor fuel. Because of the anticipated increased industry effort in this area, the staff needed to fully understand the problems that occurred and take appropriate measures to reduce such problems in the future. Therefore, NMSS and NRR reviewed the lessons learned from past experience with ISFSIs, both our experience and the experience of other headquarters and regional offices, and developed a plan to resolve major issues and problems.

Proposed Actions: Actions included in the plan are: (1) review each general issue and identify the specific problems to be addressed, (2) develop corrective actions for each problem, and (3) implement the corrective actions.

Originating Document: Memorandum from Carl J. Paperiello and William T. Russell to James M. Taylor, July 28, 1995, "Dry Cask Storage Action Plan".

Regulatory Assessment: The plan addresses dry storage of fuel that is several years old. Technical issues have been addressed on a site-specific basis for existing facilities. The action plan will improve guidance, enhance communications with industry and the public, and aid future applicants.

Current Status: The following action plan issues have been completed or closed following a determination that staff action was not required: cask trunnions, hydrostatic testing, pad seismic requirements, cask weeping, cask loading/unloading procedures, safeguards concerns, Part 72 reporting requirements, vendor inspections, and communications. The inspection procedures for dry cask activities (site and vendor) were issued in February, 1996 and revisions were issued in May 1996. These procedures included resource estimates for inspection activities. The staff has incorporated additional guidance on seismic issues into Inspection Procedure (IP) 60851 and additional guidance concerning consideration of failed fuel in unloading procedures into IP 60854. Enhancement of the procedures to address issues identified during recent inspections is an ongoing process and has been incorporated into the normal responsibilities of the program offices. The schedule for heavy load control has been extended to allow resolution of issues related to NRC Bulletin 96-02, issued April 11, 1996. The issue of potential cask drop events prior to securing the lids will be resolved as part of closure of Bulletin 96-02. Licensees have responded to staff questions on this issue and the staff has completed assessments of several responses. In general, the staff is finding that licensee assessments are acceptable and that the loss of confinement of spent fuel in a cask due to a tip over is not a credible scenario. The variety of issues related to heavy loads and impact on staff resources have been determined to justify a separate action plan. The heavy loads action plan has been prepared and it is expected that it will be issued in May 1997. The closure of the issue on storage of damaged fuel was accomplished through the publication of the dry cask SRP which included a definition of gross cladding defect. Any application for the actual storage of damaged fuel will be accomplished as normal case work within NMSS/SFPO. In response to decisions made during an interface meeting between NRR and

NMSS office directors, the staff is preparing the next major update of this action plan and will include recent issues such as potential weld cracking on VSC-24 casks.

Contact: NRR Contact: William Reckley, DRPW, 415-1314
NMSS Contact: Patricia Eng, SFPO, 415-8577

References:

Memorandum from Robert M. Bernero and William T. Russell to James M. Taylor, March 15, 1995, "Realignment of Reactor Decommissioning Program"

Memorandum from Carl J. Paperiello and William T. Russell to James M. Taylor, July 28, 1995, "Dry Cask Storage Action Plan"

Memorandum from Carl J. Paperiello and William T. Russell to James M. Taylor, January 25, 1996, "Update to the Dry Cask Storage Action Plan"

Memorandum from Carl J. Paperiello and Frank J. Miraglia to Hugh L. Thompson, January 30, 1997, "Dry Cask Storage Action Plan Update"

ACCIDENT MANAGEMENT IMPLEMENTATION

TAC #: M91966 - Overall
M91641 - BWROG SAMG Review

Last Update: 04/28/97
Lead NRR Division: DSSA

	MILESTONES	DATE (T/C)
1.	Review BWROG Severe Accident Management Guidance (SAMG) documents	7/97T
2.	Review severe accident training materials and BWROG prioritization methodologies	06/95C
3.	Develop TI for pilot inspections	
	Initial draft (for internal use)	11/95C
	Industry-sponsored A/M demonstrations	TBD
	Revised draft (to NEI and public)	TBD
	Final TI	TBD
4.	Complete pilot inspections and follow-up	12/97T
5.	Revise inspection procedures (IP) and hold public workshop	
	Draft IP	03/98T
	Public meeting/workshop	05/98T
	Final IP	07/98T
6.	Review remaining plants	TBD

Description: This action plan is intended to guide staff efforts to assess the quality of utility implementation of accident management (A/M), and the manner in which insights from the IPE program have been incorporated into the licensees' A/M programs. Specific review areas will include: development and implementation of plant-specific severe accident management guidelines (SAMG), integration of SAMG with emergency operating procedures and emergency plans, and incorporation of severe accident information into training programs.

Historical Background: The issue of A/M and the potential reduction in risk which could result from developing procedures and training operators to manage accidents beyond the design basis was first identified in 1985 [1]. A/M was evaluated as Generic Issue 116 and subsumed by A/M-related research activities in late 1989. Completion of A/M is a major remaining element of the Integration Plan for Closure of Severe Accident Issues [2]. The development of generic and plant-specific risk insights to support staff inspections of utility A/M programs is also identified in the Implementation Plan for Probabilistic Risk Assessment [3]. NRC's goals and objectives regarding A/M were established at the inception of this program [4]. Generic A/M strategies were issued in 1990 for utility consideration in the IPE process [5]. The staff has continued to work with industry to define the scope and content of utility A/M programs and these efforts have culminated in industry-developed A/M guidance for utility implementation. Industry has committed to implement an accident management program at each NPP [6]. NRC has accepted the industry commitment and developed tentative plans for staff inspection of utility implementation [7].

Proposed Actions: Specific actions included in the A/M action plan are: (1) complete the review of BWROG SAMG documents, (2) conduct site visits to observe how the elements of the formal industry position are being implemented, (3) complete the draft Temporary

Instruction (TI) using the information and perspectives obtained through the site visits, (4) complete pilot inspections and follow-up, and (5) develop an inspection procedure for use at remaining plants and hold a public workshop. Based on feedback from the workshop, the staff will finalize the inspection procedure, and the approach and schedule for evaluating A/M implementation for the remaining plants.

Originating Document: SECY-88-147, Integration Plan for Closure of Severe Accident Issues, May 25, 1988.

Regulatory Assessment: Accident management programs are being implemented by licensees as part of an initiative to further reduce severe accident risk below its current, and acceptable, level. Consequently, this is a non-urgent regulatory action and continued facility operation is justified.

Current Status: Severe accident management guideline documents have been submitted by each of the PWR owners groups, and reviewed by the staff [8]. The BWROG submitted Rev. 0 of the Emergency Procedure and Severe Accident Guidelines (EP/SAG) and associated technical basis documents to NRC for information on August 29, 1996 [9]. The staff and Oak Ridge National Laboratory have completed a high level review of the EP/SAG documents. Areas where additional information and discussion with the BWROG is considered necessary were identified in an April 2, 1997 letter to the owners group [10]. The BWROG agreed to illustrate the EP/SAG implementation process and time-line by applying the guidelines to a limited number of BWR sequences identified by NRC. A submittal from the BWROG was anticipated in January 1997 but has not yet been received. A meeting to discuss specific questions/concerns regarding the BWROG products, previously planned for February 1997, will be delayed until the submittal is received and the BWROG is prepared to address staff concerns.

Licensee target dates for completing A/M implementation have been submitted to NRC, and a draft TI for use in the pilot inspections has been completed. Comments on the draft TI have been received from the NRC Region offices. The staff met with industry on February 22, 1996, and ACRS on March 1, 1996, to discuss plans for inspecting utility implementation of the formal industry position on severe accident management and major elements of the draft TI. These plans included staff visits to approximately 2 to 4 sites for the purpose of obtaining an early understanding of how the various elements of the formal industry position are being implemented. The information and perspectives obtained through these visits, as well as comments from the Region offices, would be used to update the draft TI. The draft TI would be made available to NEI and the public after the information-gathering visits.

A meeting with NEI to discuss the scope and schedules of the information gathering visits was held on December 19, 1996. At that time, NEI proposed to take the lead in organizing "demonstrations" of completed A/M implementation at four to six plants. These demonstrations would be in lieu of the information gathering visits and follow-on pilot inspections envisioned by the staff, and would occur in the June/July 1997 timeframe. NEI also informed the staff of an industry-sponsored workshop concerning severe accident management implementation planned for March 11-13, 1997, and proposed that NRC staff attend in order to better understand implementation approach and status.
In a follow-up meeting with NEI on January 24, 1997, the staff indicated that attendance at the A/M workshop, together with participation in the A/M demonstrations, should serve the role of the information gathering visits, but that the staff is not in a position at this time to alter the plans outlined in SECY-96-088 concerning the need for pilot inspections and the nature of the inspections that would be performed at the balance of plants in the longer term. This aspect of the program will be reassessed and refocussed after the A/M demonstrations.

NRR staff attended the NEI-sponsored workshop on accident management implementation on March 11-13, 1997, and is currently awaiting confirmation from NEI regarding the schedule and locations of the A/M demonstrations.

References:

1. Memorandum from F. Rowsome to W. Minners, "A New Generic Safety Issue: Accident Management," April 16, 1985
2. SECY-88-147, Integration Plan for Closure of Severe Accident Issues
3. SECY-95-079, Implementation Plan for Probabilistic Risk Assessment
4. SECY-89-012, Staff Plans for A/M Regulatory and Research Programs
5. Generic Letter 88-20, Supplement 2, April 4, 1990
6. Letter from W. Rasin to W. Russell, November 21, 1994
7. Letter from W. Russell to W. Rasin, January 9, 1995
8. Letter from W. Russell to W. Rasin, February 16, 1994
9. Letter from K. Donovan to Document Control Desk, Attn: J. Wilson, August 29, 1996
10. Letter from D. Matthews to K. Donovan, April 2, 1997

NRR Technical Contact: R. Palla SCSB, 415-1095
NRR Lead PM: Ramin Assa, DRPW, 415-1391

FIRE PROTECTION TASK ACTION PLAN

TAC Nos. M86652, M82809, M84592, M85142, and M89509 | Last Update: 04/28/97 | Lead NRR Division: DSSA

GSI: LI-181

	MILESTONES	DATE (T/C)
1.	Semiannual Commission status reports	Last: 10/31/96C Next: 05/20/97T
2.	Recommendations for action (Part i)	09/97T
3.	Recommendations for future study (Part II)	10/96C
4.	Confirmation issues (Part III)	10/96C
5.	Other issues (Part IV)	08/95C

Description: The Fire Protection Task Action Plan (FP-TAP) is used to track and manage implementation of the recommendations made in the "Report on the Reassessment of the NRC Fire Protection Program," of February 27, 1993.

Historical Background: In February 1993, the Office of Nuclear Reactor Regulation (NRR) completed a reassessment of the reactor fire protection review and inspection programs in response to programmatic concerns raised during the review of Thermo-Lag fire barriers. The results of the reassessment were documented in the "Report on the Reassessment of the NRC Fire Protection Program," of February 27, 1993. The staff prepared the FP-TAP to implement the recommendations made as a result of the reassessment report.

Proposed Actions: The FP-TAP tracks the implementation of a wide range of technical and programmatic fire protection issues. It includes recommendations for action (Part I), recommendations for further study (Part II), confirmation issues (Part III), and lessons learned (Part IV). The staff is implementing the recommendations, in priority order, as resources allow. The staff focus is now on implementing its plan for future direction of the NRC fire protection program with emphasis on the fire protection functional inspection (FPFI) program and centralizing the management, by NRR, of the FPFI program and all other reactor fire protection work. The principal objective of these efforts is to ensure that the NRC has a strong, broad-based and coherent fire protection program which is commensurate with the safety significance of the subject.

Originating Document: "Report on the Reassessment of the NRC Fire Protection Program," February 27, 1993.

Regulatory Assessment: Each operating reactor has an NRC-approved fire protection plan that, if properly implemented and maintained, satisfies 10 CFR 50.48, "Fire protection," and General Design Criterion 3, "Fire protection." Therefore, each plant has an adequate level of fire safety and the individual action plan items are receiving appropriate priority.

Current Status: The staff issued a semiannual report to the Commission on the status of the FP-TAP on October 31, 1996. The next status report is due to the Commission on May 20, 1997.

The staff completed additional small-scale fire tests of fire barrier materials other than Thermo-Lag at NIST. The test results were provided by NIST in its Report of Test FR 4008, "Pilot-Scale Fire-Endurance Tests of Fire-Barrier Panels and Panel/Blanket Combinations," dated August 20, 1996. The staff's review of the Report of Test FR 4008 and fire barrier materials other than Thermo-Lag is ongoing. The staff plans to complete its review by September 1997.

The Plant Systems Branch (SPLB) continued to work with Probabilistic Risk Assessment (PRA) Branch staff and Brookhaven National Laboratory (BNL), its technical assistance contractor, to evaluate the risk associated with the post-fire safe-shutdown methodology that imposes a self-induced station blackout. The staff plans to apply the PRA model for assessing the risk significance of the self-induced station blackout methodology to two plant-specific cases during FY 97. The staff is working on an issue recommended for further study regarding fire barrier reliability, under Generic Safety Issue (GSI) 149, "Adequacy of Fire Barriers." The staff and BNL have performed scoping analyses, using fault trees and event trees, to assess the effectiveness of a degraded fire barrier in mitigating the consequences of a fully developed fire in a plant area that is important to post-fire safe shutdown. The staff and BNL discussed the preliminary results of these two studies and future plans with the Advisory Committee on Reactor Safeguards (ACRS) on February 29, 1996. By letter of March 15, 1996, the ACRS submitted its comments to the Commission. The staff responded to the ACRS by letter of April 25, 1996. The staff is assessing the recommendations made by the ACRS . NRR and RES are evaluating the transfer of this project to RES in the framework of the fire protection rulemaking.

In SECY-96-134, the staff stated that as part of the new fire protection rulemaking, it would review operating experience and would address a variety of fire safety issues. Consistent with this commitment, and to eliminate duplication of effort, the staff has included its review of some of the FP-TAP issues in its plan for the fire protection rulemaking. These include, for example, a review of the adequacy of operability requirements for safe shutdown equipment and of fire barrier surveillance requirements, adequacy of manual firefighting, and the remaining confirmation issues. The staff will track these issues in the fire protection rulemaking plan rather than in the FP-TAP. This action, which completes Part II and Part III of the FP-TAP, is documented in a memorandum of October 31, 1996, from J. Taylor to the Commission.

Scientech and BNL have provided technical assistance for developing the Fire Protection Functional Inspection (FPFI) procedures. A first draft of the Fire Protection Functional Inspection (FPFI) Procedure has been issued to NRR and the regional offices for comment. The procedure will be issued as a Temporary Instruction (TI) in early June prior to the first FPFI pilot inspection.

The Commission has agreed with the FPFI pilot inspection program as described in SECY-96-267. River Bend will be inspected in June 1997, Clinton in August 1997, Susquehanna in October 1997, and St. Lucie in March, 1998.

The staff will provide the Commission with a post-pilot inspection program report describing inspection results and discussing strategies which would expand the benefits of the pilot inspections to all licensees (e.g. licensee self-assessments with followup NRC reviews). Post-pilot inspection program activities will include a public workshop to discuss inspection results and request comments.

The development of a staff fire protection training program will remain on hold until the FPFI program is implemented.

Note 1: TAC M85142 is assigned to the performance-based fire protection rulemaking. Detailed status and resource information for this effort can be found in the "Fire Protection" rulemaking status summary.

Note 2: The hours estimated for completion are based on FP-TAP items that are currently planned and scheduled in WISP. Some items, such as developing a fire protection training program, have not been scheduled. As discussed above, the tracking of some of the issues has been transferred to the rulemaking plan. Therefore, less resources will be needed to complete the action plan than estimated originally.

Contact: D. Oudinot, DSSA, 301-415-3731

References:

"Report on the Reassessment of the NRC Fire Protection Program," of February 27, 1993.

SECY-95-034, "Status of Recommendations Resulting From the Reassessment of the NRC Fire Protection Program," February 13, 1995.

Memorandum of October 31, 1996, from J. M. Taylor, EDO, to the Commission, "Semiannual Report on the Status of the Thermo-Lag Action Plan and Fire Protection Task Action Plan."

PRA IMPLEMENTATION ACTION PLAN

TAC Nos. M90370, M90371, M90227, M90977, M91787, M91802 Last Update: 04/25/97
Lead NRR Division: DSSA

GSI: Not Available

MILESTONES		DATE(T/C)
1.	ACRS Meeting	07/94C 08/96C 11/96C 12/96C 02/97C 03/97C
2.	Commission Briefing	08/94C 04/95C 04/96C 10/96C 05/97T
3.	Publish PRA Policy Statement for 60-day comment period	12/94C
4.	ACRS Subcommittee Meeting	09/94C 07/96C 11/96C 02/97C 03/97C 06/97T
5.	Conduct Public Workshop on PRA Implementation Plan	12/94C
6.	Publish final PRA policy statement	08/95C
7.	Detailed Implementation	NA
1.1(a)	Develop draft Standard Review Plans for risk-informed regulation for ACRS review	02/97C
1.1(b)	Forward draft Standard Review Plans to the Commission	04/97C
1.1(c)	Final draft Standard Review plans for ACRS review	9/97T
1.1(d)	Publish final Standard Review Plans ISI All Others	 02/98T 12/97T
1.2	Pilot Applications to Specific Regulatory Initiatives: (a) MOVs (b) IST (c) ISI (d) Graded QA (e) Maintenance Rule (f) Technical Specifications (g) Other applications to be identified later	 (a) 02/96C (b) 06/97T (c) 04/98/T (d) 12/97T (e) 09/95C (f) 05/97T

	MILESTONES	DATE(T/C)
1.3(a)	Develop Inspection Guidance to Use IPEs and Plant-Specific PRAs	06/97T
1.3(b)	Develop training course for inspectors	10/97T
1.3(c)	Support regional inspection activities	Ongoing
1.4	Operator Licensing - Revise Examiner's Handbook to Reflect Revised Knowledge & Abilities Based on Risk Insights	03/97C
1.5	Event Assessment - (a) Conduct event assessment of reactor events (b) Assess desirability of risk assessment on non-power reactors	(a) Ongoing (b) TBD
1.6	Review Adequacy of Licensee Analysis in IPEs/IPEEEs	TBD
1.7	Apply Guidance to Assess Effectiveness of SBO and ATWS Rules	TBD
1.8(a)	Staff review of PRAs for design certification applications	Ongoing
1.8(b)	Develop SRP for Review of PRAs for Evolutionary Reactor Designs	12/99T
1.8(c)	Develop Guidance for Use of Risk in Simplification of Emergency Planning Requirements	12/96C
1.9	Accident Management - Develop Risk Insights to Review and Inspect Industry Accident Management Programs	TBD
1.10	Evaluate IPE insights to determine followup activities	12/97

Description: This action plan is intended to describe the process for the staff to use PRA method and technology in the agency's effort toward risk-informed regulatory approaches. The plan encompasses methods development, pilot applications, and staff training. The plan will be used to ensure timely and integrated agency-wide effort that is consistent with the PRA Policy Statement.

Historical Background: The NRC has been making use of PRA technology to varying degrees in its regulatory activities since WASH-1400. Prior to 1991, this had been an ad hoc application, depending on the availability of expertise in various technical groups. Since 1991, there have been a number of high-level studies within NRC that have focused on the status of PRA use and its role in the regulatory process. Collectively, the findings and recommendations from these studies support the view that there is a need for increased emphasis on PRA technology applications. For the full value of our investment in risk assessment methodology to be achieved, it is important that consistent high-level agency guidance be provided on the appropriate use of PRA. To this end, in November 1993, the Office Directors of NRR, AEOD, NMSS, and RES proposed to take the initiative in providing guidance on coordination and expectations for PRA efforts. Specifically, they proposed to develop an integrated plan for the staff's risk assessment and risk management practices. In August 1994, the staff submitted SECY-94-219, "Proposed

Agency-Wide Implementation Plan For Probabilistic Risk Assessment," for the Commission's information. On March 30, 1995, The staff submitted SECY-95-079, "Status Update of the Agency-Wide Implementation Plan for PRA," and briefed the Commission on the subject on April 5, 1995. On May 18, 1995, the staff forwarded SECY-95-126, "Final Policy Statement on the Use of Probabilistic Risk Assessment Methods in Nuclear Regulatory Activities," for Commission vote. On June 8, 1995, the staff briefed the ACRS on the PRA policy statement. The final PRA policy statement was published in the *Federal Register* on August 16, 1995.

Proposed Actions: The PRA Implementation Plan includes activities for NRR, RES, AEOD, and NMSS staff to increase the use of PRA methods in all regulatory matters. NRR focuses on the PRA applications in reactor regulations, the development of standard review plans, the pilot programs to use PRA technology in specific regulatory initiatives, events assessment, and working with Regions on risk-informed inspections. RES focuses on the IPE/IPEEE reviews, PRA method and quality, and the development of PRA regulatory guides for the industry. AEOD focuses on risk-informed trends and patterns analysis, reliability data for PRA applications, and staff training. NMSS focuses on using PRA in high and low level waste issues. The detailed actions are described in the PRA Implementation Plan.

Originating Document: Memorandum dated November 2, 1993, T. Murley et al. to J. Taylor, "Agency Directions For Current and Future Uses of Probabilistic Risk Assessment".

Regulatory Assessment: This action plan is meant to improve the regulatory process by developing state-of-the-art PRA tools that will expand the use of PRA technologies in making regulatory decisions. The plan is not intended to correct safety problems at licensed facilities. Therefore, continued facility operation is justified.

Current Status:

The staff has updated the status of activities in the agency's PRA Implementation Plan in SECY-97-076 dated April 3, 1997.

On January 22, 1997, the Commission issued its Staff Requirements Memorandum on SECY-96-218. This SRM provided Commission guidance on the four emerging policy issues associated with moving toward risk-informed, performance-based regulation.
The staff has incorporated proposed resolutions of the policy, technical, and process issues in new drafts of the broad-scope general regulatory guide (RG) and standard review plan (SRP) and the application-specific RG and SRP for Inservice Testing (IST), Graded Quality Assurance (GQA) and Technical Specifications (TS) and has discussed the new drafts with the Advisory Committee on Reactor Safeguards (ACRS) and the Committee to Review Generic Requirements (CRGR). Both the ACRS and the CRGR have completed their reviews of the guidance and concurred in the staff's proposal to issue the guidance for comment by the public. On April 8, 1997, the staff forwarded the draft guidance documents to the Commission (SECY-97-077) and requested their approval for issuing the documents for comment by the public. The staff plans to hold a public workshop in July 1997 to discuss the guidance and provide any needed clarification.

In April 1997, the staff held a public workshop to discuss draft NUREG-1560 (report on insights from IPE program). The staff expects to issue the final version of NUREG-1560 by the end of June 1997.

There is some schedule slippage of milestone dates including a two month delay in completing the draft and final SRP for ISI and a six month delay in completing the GQA pilot applications for Grand Gulf and Palo Verde. The next quarterly update of the PRA Implementation Plan is scheduled to be forwarded to the Commission in June 1997.

NRR Technical Contact: Tom Hiltz, SPSB, 415-1105

References:

SECY-94-219, "Proposed Agency-Wide Implementation Plan for Probabilistic Risk Assessment"

SECY-95-079, "Status Update of The Agency-Wide Implementation Plan for Probabilistic Risk Assessment"

SECY-95-126, "Final Policy Statement on The Use of Probabilistic Risk Assessment Methods In Nuclear Regulatory Activities"

SECY-95-280, "Framework For Applying Probabilistic Risk Analysis In Reactor Regulation"

Memorandum from James M. Taylor to Chairman Jackson, "Improvements Associated with Managing The Utilization of Probabilistic Risk Assessment (PRA) and Digital Instrumentation and Control Technology," January 3, 1996.

Memorandum from James M. Taylor to the Commission, "Status Update of the Agency-Wide Implementation Plan for Probabilistic Risk Assessment (PRA) (From March 30, 1995 to February 29, 1996)," March 26, 1996.

Staff Requirements - Briefing on PRA Implementation Plan, 10:00 a.m., Thursday, April 4, 1996, Commissioners' Conference Room, One White Flint North, Rockville, Maryland (Open to Public Attendance), May 15, 1996.

Memorandum from James M. Taylor to the Commission, "Status Update of the Agency-Wide Implementation Plan for Probabilistic Risk Assessment (PRA) (From March 1, 1996 to May 31, 1996)," June 20, 1996.

Letter from T. S. Cress, ACRS Chairman to Chairman Jackson, NRC, "Risk-informed, performance-based regulation and related matters" dated August 15, 1996.

SECY-96-218, "Quarterly Status Update for the Probabilistic Risk Assessment (PRA) Plan, Including a Discussion of Four Emerging Policy Issues Associated With Risk-informed Performance-based Regulation," October 11, 1996.

Memorandum from James M. Taylor to Chairman Jackson, "Status of the Development of Risk-Informed Regulatory Guides and Standard Review Plans," December 10, 1996.

SECY-97-009, "Quarterly Status Update for the Probabilistic Risk Assessment (PRA) Implementation Plan," January 13, 1997.

Staff Requirements Memorandum - SECY-96-218 - Quarterly Status Update for the Probabilistic Risk Assessment (PRA) Implementation Plan, Including a Discussion of Four Emerging Policy Issues Associated with Risk-Informed Performance-Based Regulation, January 22, 1997.

SECY-97-076, "Quarterly Status Update for the Probabilistic Risk Assessment (PRA) Implementation Plan," April 3, 1997.

SECY-97-077, "Draft Regulatory guides, Standard Review Plans and NUREG Document in support of Risk Informed Regulation for Power Reactors", April 8, 1997.

ENVIRONMENTAL QUALIFICATION TASK ACTION PLAN

TAC No. M85648
GSI: 168

Last Update: 04/28/97
Lead NRR Division: DSSA

MILESTONES	DATE (T/C)
1. Inform Commission	05/93C
2. Meet With Industry	Ongoing
3. Programmatic Review	5/97T
4. Risk Assessment	5/97T
5. Data Collection and Analysis	4/96C
6. Review and Evaluation of the Status	12/96T
7. Technical Issues	10/98T
8. Options for Resolution	TBD
9. Implementation	TBD

Description: This action plan will evaluate environmental qualification (EQ) issues, including operating experience, testing methodology, and adequacy of current rule and guidance for operating reactors. It will resolve EQ issues for aging operating reactors and license renewal.

Historical Background: A review of environmental qualification requirements for license renewal and failures of qualified cables during research tests led to the development of the EQ Task Action Plan (TAP), which was issued in July 1993. The EQ TAP was developed to address: (1) staff concerns regarding the differences in EQ requirements for older and newer plants; (2) concerns raised by some research tests which indicate that qualification of some electric cables may have been non-conservative; and (3) concerns that programmatic problems identified in the staff Fire Protection Reassessment Report might also exist in the NRC EQ Program.

Proposed Actions: The EQ TAP includes meetings with industry, a program review of EQ, data collection and analysis, a risk assessment, and research on aging and condition monitoring. Annual Commission papers are written to update the status of the EQ TAP. The staff will develop options for resolving EQ concerns, which may include issuing a generic letter, changing the rule, or documenting the acceptability of the current EQ rule and standards. The basis for the appropriate regulatory action will be documented.

Originating Document: June 28, 1993, memorandum from Samuel J. Chilk to James M. Taylor (SECY 93-049); May 27, 1993, letter to the Commission from J. Taylor on Environmental Qualification of Electric Equipment.

Regulatory Assessment: Depending on the application, failure of these cables during or following design-basis events could affect the performance of safety functions in nuclear power plants. There is no immediate safety issue because of the degree of conservatism already included in the EQ qualification test margins.

Current Status: The draft reports on the programmatic review and risk issues regarding EQ are currently under management review (Milestones 3 and 4).

BNL is continuing with the cable testing program, which includes investigating condition monitoring methodologies (Milestone 7). The cable test program includes thermal aging, radiation aging and exposure of cable samples to LOCA environments.

Results (interim) from the first set of cable tests are expected by the end of fiscal year 1997. Overall results from the test program are expected in fiscal years 1998 and 1999.

Contacts:	NRR Technical Contact:	G. Hubbard, SPLB, 415-2870
	RES Contact:	S. Aggarwal, EMEB, 415-5849
	NRR Lead PM:	L. Olshan, DRPE, 415-3018

References:

Letter to the Commission from J. Taylor on Environmental Qualification of Electric Equipment dated May 27, 1993 (Accession No. 9308180153).

Staff requirements memorandum (SECY 93-049) dated June 28, 1993 (Accession No. 9409010107).

Task Action Plan for Environmental Qualification and updates, July 1, 1993, April 8, 1994, November 16, 1994, June 27, 1995, August 22, 1996, and November 15, 1996.

RES Program Plan for Environmental Qualification, July 7, 1994 (Accession No. 9407250066).

CORE PERFORMANCE ACTION PLAN

TAC Nos. M91257 - DSSA
M91602 - DISP
GSI: LI-179

Last Update: 04/25/97
Lead NRR Division: DSSA
Supporting Division: DISP

MILESTONES	DATE (T/P/C)
Task 1 - Inspection of Nuclear Fuel Vendors (DISP)	ongoing*
Siemens Power Corporation [PWR AIT followup]	06/94C
ABB/Combustion Engineering [PWR reloads]	11/94C
Teledyne-Wah Chang (TWC)	12/94C
Sandvik Specialty Metals (SSM)	12/94C
Westinghouse CNFD	07/95C
General Electric NEP	10/95C
Framatome/Cogema Fuels (B&W Fuels)	09/96C
GE (SLMCPR & low density pellets)*	09/96C
SPC (comprehensive re-inspection of open items and new issues)*	04/97T
GE (new issues and followup)*	04/97T
ABB/CE [BWR] (WNP-2 transition core)*	06/97T
Task 2 - Inspection of Licensee Reload Analyses (DSSA)	ongoing*
RI - 3 licensees (PSE&G, PP&L, tbd);	12/97T
RII - 2 licensees (CP&L, TVA);	12/97T
RIII - 3 licensees (ComEd, Detroit Edison, tbd);	12/97T
RIV - 2 licensees (WPPS, Entergy)	12/97T
Task 3 - Core Performance Data Gathering/Evaluation (DSSA)	12/97T
Regions - Morning Reports & Event Notification	ongoing*
Other - Data Acquisition and Collation	ongoing
PNNL - Core Performance Evaluation Analysis (CY96)	12/97T
Task 4 - Participation of Regions in Action Plan (DSSA)	ongoing
Identification of Vendor Issues	
Feedback from Licensee Inspections	
Counterparts Meetings (RI-RIV)	
Task 5 - Evaluate Inspection Guidance (DSSA/DISP)	5/97T
Evaluate Results of Licensee Inspections	
Incorporate Feedback from Region Inspectors	
Draft Guidance for Resident and Region Inspectors	
Issue Inspection Criteria and Action Plan Update	
Task 6 - Evaluate Licensee/Vendor Lead Test Programs for Identification of Core Performance Problems (DSSA/DISP)	12/97T*

Task 7 -	Workshop on Core Performance Issues (TAC No. M95674)	
	Identify issues	07/96C
	Conduct workshop	10/96C
	Followup on Comments and Questions (RIC session)	04/97C

* Issue Driven

Description: The action plan is intended to assess the impact of reload core design activities on plant safety through inspections of fuel vendors, evaluation of licensees' reload analyses, and independent evaluation of core performance information, with regional training and interaction.

Historical Background: The action plan addresses the review of fuel fabrication, core design, and reload analysis issues that were discussed during 1994 and 1996 briefings given to the Executive Director for Operations. The briefings presented by the Reactor Systems Branch (SRXB), Division of Systems Safety and Analysis (DSSA), covered generic fuel and core performance issues and related evaluations of fuel failures. The Special Inspection Branch (PSIB), Division of Inspection and Support Programs (DISP), supported the briefings. As a result of these briefings, the Office of Nuclear Reactor Regulation (NRR) was requested to expand the action plan to monitor and improve core performance in operating reactors to include focus on licensee activities and the licensee/vendor interfaces.

Proposed Actions: Specific actions included in the action plan are: (1) evaluate fuel vendors' performance through performance-based inspections that evaluate the reload core design, safety analysis, licensing process, fuel assembly mechanical design, and fuel fabrication activities; (2) evaluate the performance of licensees that perform core reload analysis functions; (3) identify, document, and categorize core performance problems and root cause evaluations that will be further evaluated during these inspections and provide input to SALP evaluations as well as regional enforcement actions, as appropriate; (4) train and coordinate regional support staff participating in these activities; and (5) evaluate the results of these activities for use in formulating generic communications, revisions of regulatory guidance and guidance for regional inspectors, and other appropriate regulatory actions. In addition, as a result of recent generic concerns, including the failure of control rods to fully insert, the action plan is being expanded to review the adequacy of vendor lead testing programs for new fuel designs (Task 6); and to conduct a workshop on core performance issues (Task 7) in the fall of 1996. The status of core performance inspection evaluations and emerging issues was covered at the recent Regulatory Information Conference.

DSSA — The action plan identifies that licensee inspections in each region shall be performed, in coordination with the regional inspectors, to assess licensee performance in reload core analysis oversight and participation. Licensee inspections will normally be issue-driven. The data acquired through licensee/vendor inspections will be integrated with information supplied by the regions and other sources and will be evaluated for generic core performance indicators and industry conformance to current regulatory requirements. The end product of the initial assessment will include guidance for resident inspectors and regional staff. The ongoing activities to capture and address early warning of emerging issues will continue into FY97, and the action plan will reflect the planned inspection of 10 licensee/plants, 5 vendor LTA program inspections, and four anticipated event-reactive inspections.

DISP — The action plan currently identifies 8 completed and two planned vendor inspections that shall be performed by multi-disciplined inspection teams led by the Special Inspection Branch (PSIB) with contracted technical assistance. These inspections are currently scheduled to be

completed in 1997. In addition, DISP will support the FY97 vendor LTA and licensee inspections, as required.

Originating Document: Memorandum from Gary M. Holahan and R. Lee Spessard to Ashok C. Thadani, dated October 7, 1994, "Action Plan to Monitor, Review, and Improve Fuel and Core Components Operating Performance" and the enhanced focus on licensee participation.

Regulatory Assessment: Core design is a fundamental component of plant safety because maintaining fuel integrity is the first principal safety barrier (i.e., fuel cladding, reactor coolant system boundary, or the containment) against serious radioactive releases. Likewise, the safety analyses must be properly performed in order to verify, in conjunction with startup tests and normal plant parameter monitoring, that the core reload design is adequate and provide assurance that the reactor can safely be operated. Evaluation of activities that affect the quality of fuel and core components are important to ensure that safety and quality are not degraded and that the core performs as designed.

Current Status:

DSSA — The data acquired from the ongoing vendor inspections are being evaluated for generic impact and identification of emerging issues. The issue-driven inspections at GE and Siemens, were supported by SRXB/DSSA staff and contract specialists in reload design. Interaction with the regions is ongoing to participate in region-led licensee inspections. SRXB has participated in two Region I and one Region II inspector counterparts meetings. DSSA is re-evaluating the action plan to better integrate and prioritize its activities, consistent with the available FY97 TA funding. Options and recommendations for management review are being prepared to support new emphasis on licensee inspection.

DISP — The remaining issue-driven inspections include ABB Combustion Engineering's supply of a BWR transition core reload for WNP-2 (unscheduled), and a comprehensive (4 team weeks) follow-up inspection of Siemens Power Corporation issues, which began 2/10/97, and ended on 4/4/97.

NRR Technical Contacts: E. Kendrick, SRXB, 415-2891
S. Matthews, PS.B, 415-3191

* time spent on-site at vendor inspections (Task 1) is allocated to appropriate fuel vendor docket #

HIGH BURNUP FUEL ACTION PLAN

TAC NO. M91256 Last update: 4/28/97
Lead NRR Division: DSSA
GSI: 170 Supporting office: RES

	MILESTONES	DATE (T/C)
1.	Issue user need letter to RES	10/93C
2.	Contracts issued by RES	03/94C
3.	Schedule and coordinate meetings with foreign experimenters and regulatory authorities	09/95C
4.	Issue Information Notice (IN 94-64) Announcing new RIA data	08/94C
5.	Present high burnup data at water reactor safety meeting	10/94C
6.	Schedule/coordinate industry meetings to discuss actions	10/94C
7.	Determine need for further generic communications	11/94C
8.	Issue letter to vendors	11/94C
9.	Issue IN 94-64, Suppl. 1, Providing Data and Vendor Letter	03/95C
10.	RES Update NUREG-0933 on Generic Issue* and Plan of Action	03/95C* 01/96C
11.	Review industry (NEI) Response	09/95C
12.	Assess effects on design basis accidents of reduced failure threshold for high burnup fuel	09/95C
13.	Committee on the safety of nuclear installations specialists meeting on the transient behavior of high burnup fuel	09/95C
14.	CNRA (OECD) Committee on nuclear regulatory activities and CSNI annual meetings.	11/95C
15.	Issue ltr to NEI assessing industry actions (vendor/EPRI response to IN)	6/97T
16.	Water reactor safety information meetings (high burnup session) core performance issues workshop	10/95C 10/96C
17.	RES briefs ACRS and completes response to NRR user need letters	04/96C 9/97T
18.	Complete review of available fuel transient data relevant to design basis event	4/97C
19.	Develop interim acceptance criteria (e.g., Based on cladding oxide)	4/97C
20.	Issue GL to define interim criteria and request post-LOCA evaluation	8/97T
21.	Establish schedule for LOCA resolution and final assessment Determine need for further regulatory action	9/97T

*RES HAS PRIORITIZED AS GENERIC ISSUE #170 NUREG-0933.

Description: The action plan covers assessment of fuel performance for high burnup fuel and evaluation of the adequacy of SRP licensing acceptance criteria.

Historical Background: Recent experimental data on performance of high burnup (>50 GWD/MTU) under reactivity insertion conditions became available in mid-1993. The unexpectedly low energy deposition (30 CAL/GM) to initiation of fuel failure in the first test rod (at 62 GWD/MTU) led to a re-evaluation of the licensing basis assumptions in the SRP. As a result, the office of nuclear reactor regulation (NRR) was requested to prepare an action plan, in coordination with the Office of Nuclear Regulatory Research (RES).

Proposed actions: After a preliminary safety assessment was performed, an action plan was developed, to include a user need letter to RES and the issuance of contracts to assess all aspects of the high burnup fuel issue. Concurrently, meetings would be scheduled with the non-domestic experimenters and regulatory authorities to discuss the experimental data and to assess potential consequences and regulatory actions. Meetings with industry would be scheduled to discuss their planned actions and to solicit cooperation with the safety evaluations. Based on a complete review of all available fuel transient data, relevant to design basis events, NRR/RES would define acceptance criteria, establish a schedule for final assessment, and state need for further regulatory action.

Originating Documents: Commission Memorandum from James M. Taylor (EDO), "Reactivity Transients and High Burnup Fuel," dated September 13, 1994, including IN 94-64, 'Reactivity Insertion Transient and Accident Limits for High Burnup Fuel,' dated August 31, 1994. Commission Memorandum from James M. Taylor, "Reactivity Transients and Fuel Damage Criteria for High Burnup Fuel," dated November 9, 1994, including an NRR safety assessment and the joint NRR/RES action plan.

Regulatory Assessment: There is no immediate safety issue, because of the low to medium burnup in currently operating cores. Since the fuel failure threshold declines with increasing burnup, the licensing basis design acceptance criteria may need to be redefined as a function of burnup. The end product of the plan will determine the need for regulatory action and will establish and define the need for further action on extended burnup cycles and high burnup fuel issues.

Current Status: An ACRS Subcommittee Meeting on the status of RES contractor programs was held in 4/96. An NEI letter summarizing the industry position was received in April, and the EPRI report supporting this position was sent by NEI on 9/20/96. Currently, NRR has reviewed the documents, and is drafting a response. A commission paper on the status of the high burnup issue and planned actions was prepared by NRR, has been reviewed by RES, and was issued on November 25, 1996. A Commission briefing was completed on March 25, 1997.

NRR Technical Contacts: Laurence Phillips, NRR/DSSA/SRXB, 415-3232
Shih-Liang Wu, NRR/DSSA/SRXB, 415-3284
Edward Kendrick, NRR/DSSA/SRXB, 415-2891

RES Contact: Ralph Meyer, RES/DST/RPSB, 415-6789

WOLF CREEK DRAINDOWN EVENT: ACTION PLAN

TAC Nos.: M92635

Last Update: 4/28/97
Lead NRR Division:DSSA

MILESTONES	DATE (T/C)
1. Draft Generic Letter	11/95(C)
2. Issue Supplement to IN 95-03	03/96(C)
3. Complete Draft TI/ Issue to the Regions for Comments	8/97(T)
4. Generic Letter to be Concurred by CRGR / Letter Issued	9/96(C) / 8/97(T)
5. Receive Regional Comments on TI	10/97(T)
6. Complete Evaluation of the Responses to the Generic Letter	01/98(T)
7. Issue TI	01/98(T)
8. Complete Inspections (As necessary)	04/98(T)

Description: The objective of this action plan is to collect and evaluate information from the licensees regarding plant system configurations and vulnerabilities to draindown events. A 10 CFR 50.54(f) letter will be used to gather the information, and the licensees are expected to take corrective actions, as appropriate.

Historical Background: On September 17, 1994, the Wolf Creek plant experienced loss of reactor coolant system (RCS) inventory, while transitioning to a refueling shutdown. The event occurred when operators cycled a valve in the train A side of the RHR system cross-connect line following maintenance on the valve, while at the same time establishing a flow path from the RHR system, train B, to the refueling water storage tank for reborating train B. The failure of the reactor operating staff to adequately control two incompatible activities resulted in transferring 9200 gallons of hot RCS water to the RWST in 66 seconds.

The Wolf Creek event represents a LOCA with the potential to consequentially fail all the ECCS pumps and bypass the containment. Another important feature of this event is the short time available for corrective action. Based upon calculations by the licensee and the staff, it is estimated that if the draindown had not been isolated within 3-5 minutes, net positive suction head would have been lost for all ECCS pumps, and core uncovery would follow in about 25-30 minutes. This event represents a PWR vulnerability which was not previously recognized.

Proposed Actions: Specific actions of this generic action plan are: (1) issue IN 95-03 (issued January 18, 1995) and supplement to IN 95-03 (issued March 25, 1996), (2) Request all PWR licensees, via an information gathering (10 CFR 50.54(f)) Generic Letter (GL), to provide information on draindown vulnerabilities and the measures they implemented to diminish the probability of a draindown. The staff considers the proposed action as a compliance backfit issue.

Originating Document: AEOD/S95-01, "Reactor Coolant System Blowdown at Wolf Creek on September 17, 1994".

Regulatory Assessment: The staff performed an evaluation of the probability for event initiation and of the conditional core damage probability. The value of this probability for core damage, along with licensee awareness for this scenario, makes the risk for continued PWR operation acceptably small.

Current Status: Information Notice IN 95-03 has been issued. Information Notice Supplement has also been issued.

NRR Technical Contact: M. M. Razzaque, SRXB, 415-2882
NRR Lead PM: J. C. Stone, DRPW, 415-3063

References:

* AEOD/S95-01, "Reactor Coolant System Blowdown at Wolf Creek on September 17, 1994"

* IN 95-03, issued January 18, 1995.

* Supplement to IN 95-03, issued March 25, 1996.

Attachment 2

GENERIC COMMUNICATION AND COMPLIANCE ACTIVITIES

PUBLIC MAY 1997 DIRECTOR'S MONTHLY STATUS REPORT
Open Generic Communication and Compliance Activities
Sorted by Lead Technical Division and Branch

TAC	Type	Contact	LA Comp	Title	Description
** LTD = Associate Director for Projects					
* LTB = Technical Specifications Branch					
M98238	IN	JRTappert	5/30/97 T	IN: License Condition Compliance	Many licensees had license conditions added at the time of initial licensing. Licensees are reminded that these conditions are legal commitments, and that if the conditions are no longer appropriate they need to be changed via licensing actions.
** LTD = Division of Engineering					
* LTB = Civil Engineering and Geosciences Branch					
M94293	GL	JWShapaker	5/30/97 T	GL: NRC Preliminary Findings Related To The Use Of Reduced Seismic Criteria For Temporary Conditions.	Develop a GL to advise licensees that the use of reduced seismic criteria for temporary conditions may involve unreviewed safety questions and staff review may be needed.
M95688	LT	TAGreene	9/30/97 T	Study of The Adequacy of Enveloped Response Spectrum Method	After completion of contract JCN J-2354, an IN might be issued to caution operating plant licensees that under certain conditions ERS analysys method may not provide adequate estimates of seismic response of piping systems.

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TAC	Type	Contact	LA Comp	Title	Description
M97920	GL	JWShapaker	6/30/97 T	GL: Seismic Capability of Thermal-Lag Panels	Informs addressees about reduced seismic capability of Thermo-Lag panels in high temperature areas of plants, and need for corrective actions.
M97981	GL	JWShapaker	6/30/97 T	GL: Monitoring of Containment Structure Settlement due to Degradation of Porous Concrete Sub-foundations	Informs addressees of need to review subfoundation designs and, as appropriate, describe plans for foundation settlement monitoring.
M98379	IN	TAGreene	5/30/97 T	Implementation of Containment Inspection Rule	Develops a generic communication to clarify the implementation of containment inspection rule, 10CFR50.55a which essentially endorses Subsections IWE and IWL of ASME Code (1992 ed.).
* LTB = Electrical Engineering Branch					
M95215	LT	DLSkeen	8/1/97 T	Charging/Discharging of Safety-Related AT&T Round Cell Batteries	Study and interact with the industry group on the AT&T round cell battery degradation problems.
M96616	GL	JWShapaker	6/20/97 T	G[illegible]edium-Voltage Circuit Breaker [illegible]ures	GL to address continued breaker problems because of refurbishment practices, licensee maintenance, and inadequate review of industry operating experience.

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TAC	Type	Contact	LA Comp	Title	Description
M97147	LT	DLSkeen	5/30/97 T	LT: Failure of Westinghouse Type DS-206 Circuit Breakers	Evaluate failure of breakers due to degraded lubricant.
M97328	IN	DLSkeen	5/30/97 T	IN 95-22,Sup 1, Hardened or Contaminated Lubricants Cause Metal-Clad Circuit Breaker Failures	Supplement to IN to discuss additional area of operating mechanism where hardened lubricant can cause breaker failure.
M97397	IN	JRTappert	7/31/97 T	IN: Potential Deficiency of Electric Cable Connections	Notifies licensees about information obtained from aging and LOCA testing of electrical cable connections as contained in the Sandia National Laboratory draft report NUREG/CR-6412.
M98126	IN	TAGreene	6/15/97 T	IN: Circuit Breakers Left Racked Out in Non-seismically Qualified Position	Alerts licensees to issues related to circuit breaker left racked out in a non-seismically qualified position. The Class 1E switchgear might not function as required for a DBA, and therefore, put the plant in a condition outside of its design basis.
M98234	IN	TJCarter	8/1/97 T	IN: Environmental Qualification Deficiency for Cables and Containment Penetration Pigtail	Informs licensees of the cause for a particular type of cable failure.
M98443	IN	EJBenner	6/27/97 T	IN 96-44, Sup 1, Failure of RTB from Cracking of Phenolic Material in Secondary Contact Assembly	Informs licensees of results of Westinghouse Owners Group survey and Westinghouse-recommended RTB maintenance practices.

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TAC	Type	Contact	LA Comp	Title	Description
M98643	IN	DLSkeen	7/31/97 T	IN: Reversed Current Transformer Leads Resulted in Loss of Multiple Safety Functions	

* LTB = Materials and Chemical Engineering Branch

M95279	GL	JWShapaker	7/30/97 T	GL: Modification of the Requirements for Post-Accident Sampling System	Extending to operating reactor licensees, on voluntary basis, relaxations in PASS program requirements.
M95290	GL	JWShapaker	6/30/97 T	GL: Degradation of Steam Generator Internals	Identification of steam generator internals degradation mechanisms based on foreign reactor operating experience.
M95373	GL	JWShapaker	6/30/97 T	GL: Implementation of App. VIII of Sec XI of The 1995 Edition of The ASME Boiler And Pressure Vessel Code	Discusses the need for lecensees to adopt the Appendix VIII to improve the quality and confidence level of inservice inspections.
M95444	LT	TAGreene	6/15/97 T	Lead Technical Review - Induction Heat Stress Improvement for Stainless Steel Piping	Cracking has been found in several utilities' austentic stainless steel piping which had been subjected to IHSI in the 1980's . Staff concerns include that IHSI may not have been properly applied.
M96401	GL	JWShapaker	6/30/97 T	GL: Steam Generator Tube Inspection Techniques	Informs licensees of the importance of performing s/g tube inservice inspections using qualified techniques and requests that licensees implement described actions.

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TAC	Type	Contact	LA Comp	Title	Description
M97329	IN	EJBenner	5/23/97 T	IN: Degradation in U-Bend Regions of Steam Generator Tubes	Informs licensees of performing S/G tube inspections for detection of degradation in U-bend region.
M97743	LT	EJBenner	7/31/97 T	LT: Weld Toughness of Moment Connection	Evaluate need for further generic action related to weld failures during Northridge earthquake.
M98182	IN	EJBenner	5/30/97 T	IN: Steam Generator Tube Degradation in B&W Plants	Discusses recent examples of tube degradation found in B&W once-through steam generators.
* LTB = Mechanical Engineering Branch					
M96073	IN	EJBenner	6/20/97 T	IN: Concerns with Dry Cask Loading and Unloading Procedures	Alerts licensees to several identified problems with procedures for the loading and unloading of spent fuel storage casks.
M96354	LT	TAGreene	12/31/97 T	Containment Recirculation Spray and Quench Spray Piping Outside Design Basis	Millstone 3 determined that the containment recirculation spray and quench spray piping and supports could be subjected to higher accident temperatures than those previously assumed in the design basis.
M96614	LT	TKoshy	5/20/97 T	LPSI Pump Mission Time	When the RCS pressure remains higher than LPSI injection head, the pumps may be required to run for long durations with minimum flow. It appears that there is no demonstrated evidence to ensure LPSI pump capability for the require mission time.

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TAC	Type	Contact	LA Comp	Title	Description
M96714	IN	TKoshy	6/14/97 T	IN: Steam Line Rupture at Oconee Unit 2	Informs licensees the event that occurred at Oconee Unit 2 on 9/24/96. In this event, a heater drain line ruptured due to waterhammer, and caused significant injury to members of plant staff.
M97327	LT	CDPetrone	9/30/97 T	LT: Target Rock Two-Stage SRV Setpoint Drift	Consider Issuing an information notice when BWR owners group comes to a conclusion regarding the cause of the Target Rock two-stage SRV setpoint drift.
M97667	IN	JRTappert	6/10/97 T	IN: Undersized Oil Heat Exchangers	Research in the 1980s revealed that heat transfer coefficients for water/oil heat exchangers were considerably different than previously thought. Therefore, some HXs may not have the heat transfer capacity they were designed to.
M98233	IN	EJBenner	5/28/97 T	IN: Reactor Coolant Pump Degradation Experience in Foreign Plants	Informs licensees of cracks found in foreign reactor coolant pump thermal barrier heat exchangers.

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TAC	Type	Contact	LA Comp	Title	Description
** LTD = Division of Inspection and Support Programs					
* LTB = Special Inspections Branch					
M97801	IN	DLSkeen	5/30/97 T	IN: Setpoint Drift in ITT Barton Model 753 Gage Pressure Transmitters	Sulfur-induced corrosion may cause excessive setpoint drift in Model 753 transmitters.
M98235	IN	DLSkeen	6/1/97 T	IN: Defective Critical Component in Limitorque Actuator	A defective non-OEM worm shaft clutch gear was found in a Limitorque SMB motor-operated valve actuator at Oyster Creek.
** LTD = Division of Reactor Controls and Human Factors					
* LTB = Instrumentation and Controls Branch					
M98323	IN	CVHodge		Elimination of Instrument Response Time Testing Under The Requirement of 10 CFR 50.59	Alerts licensees that TS for response time testing cannot be removed by 50.59 modification of supporting information. TS amendment must be submitted.
* LTB = Quality Assurance and Maintenance Branch					
M98441	GL	JWShapaker		GL: Quality Assurance of Electronic Records	In view of technological advancements, changes in NRC regulations, a request was made to update the guidance provided in GL 88-18.

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TAC	Type	Contact	LA Comp	Title	Description
** LTD = Division of Reactor Program Management					
* LTB = Emergency Preparedness and Radiation Protection Branch					
M98029	IN	CDPetrone	5/30/97 T	IN: Unplanned Worker Intakes of Transuranics and External Exposure due to Inadequate Control of Work	Unplanned worker intakes of transuranics and external contamination indicates a potentially serious breakdown of radiation controls, processes and procedures at the Haddam Neck plant.
M98237	IN	TAGreene	9/30/97 T	IN: Removal of FTS Lines from Service	Alerts licensees that NRC is removing from service some direct access telephone lines located at their facilities.
M98242	IN	TJCarter		IN: Unplanned Personnel Exposure in Spent Fuel Pool	Unanticipated activities and the resultant personnel exposure in the spent fuel storage pool are indicative of the potential for even more serious consequences.
* LTB = Events Assessment and Generic Communications Branch					
M91544	GL	JWShapaker	5/25/97 T	GL: Defining Info in Monthly Operating Report Required by Tech Specs	Reducing reporting requirements to the minimum needed by the staff (part of RRG).
M98030	IN	CVHodge	5/1/97 L	IN: Inadequate Safety Evaluation at Licensed Independent Spent Fuel Storage Installations	The results of NRC inspections at 3 independent spent fuel storage installations indicat repetitive problems and violations in licensee safety evaluation programs required by 10 CFR 72.48.

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TAC	Type	Contact	LA Comp	Title	Description
* LTB = Non-Power Reactors and Decommissioning Project Directorate					
M98183	IN	CVHodge	5/18/97 T	IN: Potential Undetectable Failure in Linear Neutron Flux Monitor at Non-Power Reactor Facilities	Gamma Metrics Wide Range flux monitor at North Carolina State University failed to up-range in auto mode and to down-range in manual mode.
M98644	IN	TKoshy		IN: Expiration of Non-Power Reactor Operator Licenses	
** LTD = Division of Systems Safety and Analysis					
* LTB = Analytical Support Group					
M96947	LT	TAGreene	12/31/97 T	LT : Possible Computer Code Platform Dependency	Identical computer models launched from different personal computer platforms can result in different calculations.
M97799	LT	ENFields	8/15/97 T	LT: Loop Seal Clearing Investigation - Westinghouse	To reconcile concerns regarding loop seal clearing behavior during small break LOCA for Westinghouse SBLOCA Evaluation Model.
M97800	LT	ENFields	7/30/97 T	LT: Loop Seal Clearing Investigation - CE	To reconcile concerns regarding loop seal clearing behavior during small break LOCA for CE SBLOCA Evaluation Model.

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TAC	Type	Contact	LA Comp	Title	Description
* LTB = Containment Systems and Severe Accident Branch					
M96537	GL	JWShapaker	6/30/97 T	GL: Assurance of Sufficient NPSH for ECCS and Containment Heat Removal System Pumps	Notifies licensees about a safety-significant issue that could affect the ability for long-term core cooling and containment heat removal under accident conditions and which has generic implications.
M97146	BL	JWShapaker	8/15/97 T	BL: Degradation of ECC Recirculation Following a LOCA due to Foreign Material in the Containment	Notifies addressees about the potential safety impact of foreign material in sumps and suppression pools, which could render safety-related equipment inoperable.
M97297	LT	EJBenner	11/30/97 T	LT: Errors in Containment Code Analysis	Identify generic actions necessary as a result of potential errors in Oconee's Bulletin 80-04 response.
M98125	LT	TJCarter		LT: BWR Containment Bypass Flow During Purging	A plant configuration during routine operation could potentially result in containment bypass following an accident
* LTB = Plant Systems Branch					
M80296	LT	TAGreene	9/30/97 T	Generic Communications - Assessment of Turbine Failure at Vandellos 1	Development of staff NUREG or other publication to document turbine building fire issues for U.S. plants in light of Vandellos fire.

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TAC	Type	Contact	LA Comp	Title	Description
M91323	LT	CVHodge	5/30/97 T	Reactor Water Cleanup (RWCU) Study in Response to ACRS Concern	Review of the effects of an unisolated RWCU break at several BWR's. Result of ACRS concerns during the review of the ABWR
M93335	LT	WFBurton	8/31/97 T	Main Control Room Envelope Unfiltered Inleakage	Use improved methodology to verify the effects of potential inleakage rates on compliance with radiation and toxic gas exposure limits inside the main control room.
M95871	IN	TAGreene	6/19/97 T	IN: Emergency Lighting Issues	Develop IN to alert licensees to potential problems regarding emergency lighting for plant areas needed for operation of post-fire safe shutdown equipment and in the access and egress routes.
M96912	LT	WFBurton	5/31/97 T	LT: Potential Generic Concern with regard to Fire Protection Actuation System	Farley - Failure of numerous pre-action sprinklers in fire protection systems providing fire protection service to safety-related system components.
M96913	BL	JWShapaker	6/13/97 T	BL: Potential for Loss of Remote Shutdown Capability during a Control Room Fire	To alert licensees to recent noncompliances and associated civil penalties regarding licensee's lack of demonstrable protection from a control room hot short condition.
M97151	IN	TAGreene	7/30/97 T	IN: Inadequate or Inappropriate Fire Protection Compensatory Measures	To provide examples of the fire watches used as compensatory measures for Appendix R deficiencies.

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TAC	Type	Contact	LA Comp	Title	Description
M97299	GL	JWShapaker	6/30/97 T	GL: Spent Fuel Pool Compliance Activities	Requests licensees to describe their spent fuel pool offload practices, temperature limits and bases, and decay heat removal redundancy and include the information in the FSAR.
M97978	GL	JWShapaker	6/30/97 T	GL: Laboratory Testing of Nuclear-Grade Activated Charcoal	Informs addressees about NRC staff views on charcoal testing practices and offers model technical specifications for voluntary adoption by the addressees in preparation for future testing obligations.
M98065	IN	ENFields	4/30/97 L	IN: Inadvertent Loss of ECCS Motor Cooling Capability	Alerts licensees to an inadvertent loss of ECCS motor cooling capability due to motor cooler plenum configuration.
M98066	IN	EJBenner	7/11/97 T	IN: Misunderstanding of the Ultimate Heat Sink Licensing Basis	Develop IN to inform licensees of several instances of errors in licensee's understanding of Ultimate Heat Sink licensing basis.

* LTB = Reactor Systems Branch

M92635	GL	JWShapaker	6/30/97 T	GL: Reactor Coolant Inventory Loss and Potential Loss of Emergency Mitigation Functions While Shutdown	Loss of ECCS function due to steam voiding in RWST line to suction of ECCS pumps due to loss of RCS inventory in Mode 4 (Wolf Creek).

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TAC	Type	Contact	LA Comp	Title	Description
M94565	LT	DLSkeen	7/31/97 T	Slow Scram Solenoid Pilot Valves Caused by Viton Diaphragms	Scram solenoid pilot valves with viton diaphragms showing degraded scram times within 6-8 months. Currently tracking licensee response to RRG recommendations.
M95278	GL	JWShapaker	6/27/97 T	GL: Use of Thermal-Hydraulic Codes for Licensing Applications	Discusses the fact that a computer code has been developed and assessed primarily with NRC funds does not per se mean that it is acceptable as a licensing code.
M96192	IN	WFBurton	5/31/97 T	IN: ECCS Throttle Valves May Degrade Due To Cavitation Induced Erosion During LOCA	High differential pressure across ECCS throttle valves during LOCA could cause pump runout flow and subsequent ECCS pump damage
M96615	LT	TKoshy	4/25/97 L	Boron Precipitation in B&W Reactors	Design bases concern on active means of preventing boron precipitation following a LOCA.
M96961	IN	CDPetrone	4/30/97 L	IN: Extended Operation in Suppression Pool Cooling Mode	Extended use of the suppression pool cooling mode of RHR may be outside the design basis analysis assumptions and may require 50.59 review.
M97150	LT	TJCarter	6/30/97 T	LT: Evaluate Postulated Concern During Cool Down of Reactor Following a Reactor Shutdown after ATWS Event	A potential scenario not adequately addressed by EOPs was discovered during an inspection at Cooper.

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TAC	Type	Contact	LA Comp	Title	Description
M97331	BL	JWShapaker	6/30/97 T	BL: Inadequate Procedural Guidance during S/D and Site Specific Vulnerabilities due to Gas Accumulation	Requests PWR licensees to take action to assure that there is adequate procedural guidance during shutdown operation and that gas accumulation vulnerabilities are identified, and actions are taken to limit or preclude adverse system performance.
M97396	BL	JWShapaker	6/30/97 T	BL 96-01, Sup 1, Control Rod Insertion Problems	Informs addressees of issues concerning incomplete control rod insertion due to distortion of thimble tubes.
M98064	IN	JRTappert	5/15/97 T	IN: Nitrogen Intrusion into ECCS Piping	Nitrogen saturated water from safety injection tanks can leak back to ECCS systems. Ther nitrogen then comes out of solution forming voids and jeopardizing the operability of the system.

PUBLIC MAY 1997 DIRECTOR'S MONTHLY STATUS REPORT
Generic Communication and Compliance Activities Added
Since the Last Public Report (January 1997)

TAC	Type	Contact	Tech Branch	LA Comp	Title	Reason Added
M97667	IN	JRTappert	Mechanical Engineering Branch	6/10/97 T	IN: Undersized Oil Heat Exchangers	The EAP authorized development of IN at its 1/7/97 meeting.
M97743	LT	EJBenner	Materials and Chemical Engineering Branch	7/31/97 T	LT: Weld Toughness of Moment Connection	The EAP authorized long-term follow up of this issue at its 1/21/97 meeting.
M97799	LT	ENFields	Analytical Support Group	8/15/97 T	LT: Loop Seal Clearing Investigation - Westinghouse	The EAP authorized review of this issue at its 1/28/97 meeting.
M97800	LT	ENFields	Analytical Support Group	7/30/97 T	LT: Loop Seal Clearing Investigation - CE	The EAP authorized review of this issue at its 1/28/97 meeting.
M97801	IN	DLSkeen	Special Inspections Branch	5/30/97 T	IN: Setpoint Drift in ITT Barton Model 753 Gage Pressure Transmitters	The EAP authorized development of IN at its 1/28/97 meeting.
M97920	GL	JWShapaker	Civil Engineering and Geosciences Branch	6/30/97 T	GL: Seismic Capability of Thermal-Lag Panels	The EAP authorized development of GL at its 2/11/97 meeting.
M97978	GL	JWShapaker	Plant Systems Branch	6/30/97 T	GL: Laboratory Testing of Nuclear-Grade Activated Charcoal	The EAP authorized development of GL at its 2/18/97 meeting.

PUBLIC MAY 1997 DIRECTOR'S MONTHLY STATUS REPORT
Generic Communication and Compliance Activities Added
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TAC	Type	Contact	Tech Branch	LA Comp	Title	Reason Added
M97981	GL	JWShapaker	Civil Engineering and Geosciences Branch	6/30/97 T	GL: Monitoring of Containment Structure Settlement due to Degradation of Porous Concrete Sub-foundations	The EAP authorized development of GL at its 2/11/97 meeting.
M98029	IN	CDPetrone	Emergency Preparedness and Radiation Protection Branch	5/30/97 T	IN: Unplanned Worker Intakes of Transuranics and External Exposure due to Inadequate Control of Work	The EAP authorized development of IN at its 2/25/97 meeting.
M98030	IN	CVHodge	Events Assessment and Generic Communications Branch	5/1/97 L	IN: Inadequate Safety Evaluation at Licensed Independent Spent Fuel Storage Installations	The EAP authorized development of IN at its 2/25/97 meeting.
M98064	IN	JRTappert	Reactor Systems Branch	5/15/97 T	IN: Nitrogen Intrusion into ECCS Piping	The EAP authorized development of IN at its 3/4/97 meeting.
M98065	IN	ENFields	Plant Systems Branch	4/30/97 L	IN: Inadvertent Loss of ECCS Motor Cooling Capability	The EAP authorized development of IN at its 3/4/97 meeting.
M98066	IN	EJBenner	Plant Systems Branch	7/11/97 T	IN: Misunderstanding of the Ultimate Heat Sink Licensing Basis	The EAP authorized development of IN at its 3/4/97 meeting.

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TAC	Type	Contact	Tech Branch	LA Comp	Title	Reason Added
M98125	LT	TJCarter	Containment Systems and Severe Accident Branch		LT: BWR Containment Bypass Flow During Purging	The EAP authorized long term followup of this issue at its 3/11/97 meeting..
M98126	IN	TAGreene	Electrical Engineering Branch	6/15/97 T	IN: Circuit Breakers Left Racked Out in Non-seismically Qualified Position	The EAP authorized development of IN at its 3/11/97 meeting..
M98182	IN	EJBenner	Materials and Chemical Engineering Branch	5/30/97 T	IN: Steam Generator Tube Degradation in B&W Plants	The EAP authorized development of IN at its 3/18/97 meeting.
M98183	IN	CVHodge	Non-Power Reactors and Decommissioning Project Directorate	5/18/97 T	IN: Potential Undetectable Failure in Linear Neutron Flux Monitor at Non-Power Reactor Facilities	The EAP authorized development of IN at its 3/18/97 meeting.
M98233	IN	EJBenner	Mechanical Engineering Branch	5/28/97 T	IN: Reactor Coolant Pump Degradation Experience in Foreign Plants	The EAP authorized development of IN at its 3/25/97 meeting.
M98234	IN	TJCarter	Electrical Engineering Branch	8/1/97 T	IN: EQ Deficiency for Cables and Containment Penetration Pigtail	The EAP authorized development of IN at its 3/25/97 meeting.

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TAC	Type	Contact	Tech Branch	LA Comp	Title	Reason Added
M98235	IN	DLSkeen	Special Inspections Branch	6/1/97 T	IN: Defec ve Critical Component in Limitorque Actuator	The EAP authorized development of IN at its 3/25/97 meeting.
M98237	IN	TAGreene	Emergency Preparedness and Radiation Protection Branch	9/30/97 T	IN: Removal of FTS Lines from Service	The EAP authorized development of IN at its 3/25/97 meeting.
M98238	IN	JRTappert	Technical Specifications Branch	5/30/97 T	IN: License Condition Compliance	The EAP authorized development of IN at its 3/25/97 meeting.
M98323	IN	CVHodge	Instrumentation and Controls Branch		Elimination of Instrument Response Time Testing Under The Requirement of 10 CFR 50.59	The EAP authorized development of IN at its 4/8/97 meeting.
M98379	IN	TAGreene	Civil Engineering and Geosciences Branch	5/30/97 T	Implementation of Containment Inspection Rule	The EAP authorized development of GC at its 4/22/97 meeting. The type of GC remains tol be determined.
M98441	GL	JWShapaker	Quality Assurance and Maintenance Branch		GL: Quality Assurance of Electronic Records	The EAP authorized development of GL at its 4/22/97 meeting.

PUBLIC MAY 1997 DIRECTOR'S MONTHLY STATUS REPORT
Generic Communication and Compliance Activities Added
Since the Last Public Report (January 1997)

TAC	Type	Contact	Tech Branch	LA Comp	Title	Reason Added
M98442	IN	TJCarter	Emergency Preparedness and Radiation Protection Branch		IN: Unplanned Personnel Exposure in Spent Fuel Pool	The EAP authorized development of IN at its 4/22/97 meeting.
M98443	IN	EJBenner	Electrical Engineering Branch	6/27/97 T	IN 96-44, Sup 1, Failure of RTB from Cracking of Phenolic Material in Secondary Contact Assembly	The EAP authorized development of IN at its 4/22/97 meeting.
M98643	IN	DLSkeen	Electrical Engineering Branch	7/31/97 T	IN: Reversed Current Transformer Leads Resulted in Loss of Multiple Safety Functions	The EAP authorized development of IN at its 5/6/97 meeting.
M98644	IN	TKoshy	Non-Power Reactors and Decommissioning Project Directorate		IN: Expiration of Non-Power Reactor Operator Licenses	The EAP authorized development of IN at its 5/6/97 meeting.

PUBLIC MAY 1997 DIRECTOR'S MONTHLY STATUS REPORT
Generic Communication and Compliance Activities Closed
Since the Last Public Report (January 1997)

TAC	Type	Contact	Tech Branch	LA Comp	Title	Reason Closed
M80326	LT	SSKoenick	Reactor Systems Branch	3/3/97 C	Accumulation of Volume Control Tank Cover Gass in ECCS Piping Connected to the Charging System.	This activity was incorporated into M97331, the generic communication about gas accumulation.
M91404	GL	JWShapaker	Technical Specifications Branch	1/21/97 C	GL: Administrative Controls Section	11/07/96 TSB decision to cancel GL.
M92544	GL	JWShapaker	Technical Specifications Branch	2/27/97 C	GL: Design Features Technical Specifications	The proposed GL was canceled per memo from CIGrimes to AEChaffee, 2/21/97.
M92553	LT	RABenedict	Civil Engineering and Geosciences Branch	1/22/97 C	Investigate Impact of Failure of SMRFs (During Northridge EQ) to NPP Steel Structures	Per EAP meeting of 1/21/97, the work on this issue is being fold into M97743 and M97744.
M94840	GL	JWShapaker	Operator Licensing Branch	1/31/97 C	GL 95-06, Sup 1: Changes in the Operator Licensing Program	GL95-06, Sup 1, issued 1/31/97.
M94861	IN	RABenedict	Civil Engineering and Geosciences Branch	3/13/97 C	IN: Liner Plate Corrosion in Concrete Containment	IN 97-10 issued 3/13/97.

PUBLIC MAY 1997 DIRECTOR'S MONTHLY STATUS REPORT
Generic Communication and Compliance Activities Closed
Since the Last Public Report (January 1997)

TAC	Type	Contact	Tech Branch	LA Comp	Title	Reason Closed
M95280	GL	JWShapaker	Materials and Chemical Engineering Branch	4/1/97 C	GL: Degradation of Control Rod Drive Mechanism Nozzle and Other Vessel Closure Head Penetrations	GL 97-01 issued 4/1/97.
M95443	IN	WFBurton	Mechanical Engineering Branch	4/18/97 C	IN: Safety Injection System Weld Flaw at Sequoyah Nuclear Power Plant, Unit 2	IN 97-19 issued 4/18/97.
M95791	IN	TJCarter	Civil Engineering and Geosciences Branch	3/24/97 C	IN: Cement Erosic from Containment Subfoundations at Nuclear Power Plants	IN 97-11 issued 3/21/97.
M96055	LT	CVHodge	Electrical Engineering Branch	4/29/97 C	GE Magne-Blast Breaker Failure	This TAC is closed per e-mail from CVHodge to PCWen 3/25/97. The results of SPSB's risk insight study was transimitted to EELB (APal) on 10/3/96. Further work on Medium-Voltage Circuit Breaker is tracked under M96616.
M96076	LT	EJBenner	Electrical Engineering Branch	4/23/97 C	Cracking of Phenolics in Reactor Trip Breakers	Based on the result of WOG survey, the EELB determined that a generic communication is needed. The EAP authorized development of IN at its 4/22/97 meeting. The IN development activity is tracked under M98443.

PUBLIC MAY 1997 DIRECTOR'S MONTHLY STATUS REPORT
Generic Communication and Compliance Activities Closed
Since the Last Public Report (January 1997)

TAC	Type	Contact	Tech Branch	LA Comp	Title	Reason Closed
M96191	IN	RABenedict	Reactor Systems Branch	3/4/97 C	IN: Plant Specific EOPs Contain Inadequate Technical Info to Accomplish Timely and Effectively Feeding of OTSG	IN 97-06 issued 3/4/97.
M96355	LT	SSKoenick	Reactor Systems Branch	3/3/97 C	Concerns Regarding Siemens Large Break LOCA ECCS Evaluation Model	This activity was incorporated into M96948.
M96502	LT	CDPetrone	Plant Systems Branch	12/30/96 C	Potential for Air Regulator Failures to Overpressurized Safety-Related SOVs	The EAP decided that a new GL is not needed because the issue was already addressed by IN 88-24 and GL 91-15.
M96611	IN	JRTappert	Electrical Engineering Branch	1/8/97 C	IN: Improper Grounding Results in Fire at Palo Verde	IN 97-01 issued 1/8/97.
M96914	IN	EJBenner	Reactor Systems Branch	3/19/97 C	IN: Inadequate MSSV Setpoints due to Neglecting the Dynamic Pressure Loss between the SG and the MSSVs	IN 97-09 issued 3/12/97.

PUBLIC MAY 1997 DIRECTOR'S MONTHLY STATUS REPORT
Generic Communication and Compliance Activities Closed
Since the Last Public Report (January 1997)

TAC	Type	Contact	Tech Branch	LA Comp	Title	Reason Closed
M96915	IN	EJBenner	Events Assessment and Generic Communications Branch	3/31/97 C	IN: Distribution of AEOD Study "Assessment of Spent Fuel Cooling"	IN 97-14 issued 3/28/97.
M96916	IN	MKotzalas	Emergency Preparedness and Radiation Protection Branch	2/27/97 C	IN: Licensee Offsite Communication Capabilities	IN 97-05 issued 2/27/97.
M96917	IN	WFBurton	Mechanical Engineering Branch	3/7/97 C	IN: NRC Inspection of Completion of Generic Letter 89-10 MOV Programs	IN 97-07 issued 3/6/97.
M96948	IN	EJBenner	Reactor Systems Branch	4/4/97 C	IN: Reporting of Changes in the Large Break LOCA ECCS Evaluation Models	IN 97-15 issued 4/4/97.
M97149	IN	ENFields	Electrical Engineering Branch	3/24/97 C	IN 92-27, Sup 1, Thermal Induced Accelerated Aging and Failure of ITE/Gould Relays Used in Safety-Related Applications	IN 92-27, Sup 1, issued 3/21/97.

PUBLIC MAY 1997 DIRECTOR'S MONTHLY STATUS REPORT
Generic Communication and Compliance Activities Closed
Since the Last Public Report (January 1997)

TAC	Type	Contact	Tech Branch	LA Comp	Title	Reason Closed
M97207	IN	TAGreene	Plant Systems Branch	2/27/97 C	IN 91-85, Rev 1, "Potential Failures of Thermostatic Control Valves for DG Jacket Cooling Water"	IN 91-85, Rev 1, issued 2/27/97.
M97230		JWShapaker	Materials and Chemical Engineering Branch	4/1/97 C	GL: Quality Assurance Programs for Safety-Related Coatings	This activity will be included in M97146.
M97253	IN	TJCarter	Plant Systems Branch	3/24/97 C	IN: Misapplication of Internal Pipe Coating	IN 97-13 issued 3/24/97.
M97298	IN	DLSkeen	Special Inspections Branch	3/19/97 C	IN: Failures of GE Magne Blast Breakers	IN 97-08 issued 3/12/97.
M97395	IN	TJCarter	Materials and Chemical Engineering Branch	2/6/97 C	IN: Cracking of BWR Jet Pump Riser Elbow	IN 97-02 issued 2/6/97.
M97436	IN	DLSkeen	Electrical Engineering Branch	3/24/97 C	IN: Potential Armature Binding in GE Type HGA Relays	IN 97-12 issued 3/24/97.

PUBLIC MAY 1997 DIRECTOR'S MONTHLY STATUS REPORT
Generic Communication and Compliance Activities Closed
Since the Last Public Report (January 1997)

TAC	Type	Contact	Tech Branch	LA Comp	Title	Reason Closed
M97744	IN	EJBenner	Civil Engineering and Geosciences Branch	4/25/97 C	IN: Failure of Welded-Steel Moment-Resisting Frames During The Northridge Earthquake	IN 97-22 issued 4/25/97.
M97918		JTMunday	Emergency Preparedness and Radiation Protection Branch	3/11/97 C	IN: Non-power Reactor Submitting Emergency plan Revision with Incorrect Terminology	Based on the discussion between PERB and PECB, the proposed IN was canceled on 3/11/97.
M97919	IN	TKoshy	Electrical Engineering Branch	4/18/97 C	IN: Availability of Alternate AC Power Source Designed for Station Blackout Event	IN 97-21 issued 4/18/97.
M97979	IN	CDPetrone	Mechanical Engineering Branch	4/4/97 C	LT: Preconditioning of Equipment prior to Surveillance Testing	IN 97-16 issued 4/4/97.
M98028	IN	CDPetrone	Quality Assurance and Maintenance Branch	4/15/97 C	IN: Problems identified during 10 CFR 50.65 Baseline Inspections	IN 97-18 issued 4/14/97.

PUBLIC MAY 1997 DIRECTOR'S MONTHLY STATUS REPORT
Generic Communication and Compliance Activities Closed
Since the Last Public Report (January 1997)

TAC	Type	Contact	Tech Branch	LA Comp	Title	Reason Closed
M98181	IN	WFBurton	Operator Licensing Branch	4/15/97 C	IN 94-14, Sup 1, Failure to Implement Requirements for Biennial Medical Exam and Notification to the NRC	IN 94-14, Sup 1, issued 4/14/97.
M98236	IN	TAGreene	Materials and Chemical Engineering Branch	4/4/97 C	IN: Cracking Found in Vertical Welds of BWR Core Shroud	IN 97-17 issued 4/4/97.
M98239	IN	TKoshy	Instrumentation and Controls Branch	5/9/97 C	IN: Dynamic Range Uncertainties of Reactor Vessel Level Instrumentation System	IN 97-25 issued 5/9/97.

DIRECTOR'S STATUS REPORT

on

GENERIC ACTIVITIES

Action Plans

Generic Communication and Compliance Activities

APRIL 1997

Office of Nuclear Reactor Regulation

INTRODUCTION

The purpose of this report is to provide information about generic activities, including generic communications, under the cognizance of the Office of Nuclear Reactor Regulation. This report, which focuses on compliance activities, complements NUREG-0933, "A Prioritization of Generic Safety Issues."

This report includes two attachments: 1) action plans and 2) generic communications under development and other generic compliance activities. Generic communications and compliance activities (GCCAs) are potential generic issues that are safety significant, require technical resolution, and possibly require generic communication or action.

Attachment 1, "NRR Action Plans," includes generic or potentially generic issues of sufficient complexity or scope that require substantial NRC staff resources. The issues covered by action plans include concerns identified through review of operating experience (e.g. Boiling Water Reactor Internals Cracking and Thermolag), and issues related to regulatory flexibility and improvements (e.g. New Source Term and Probabilistic Risk Assessment (PRA) Implementation Plan). For each action plan, the report includes a description of the issue, key milestones, discussion of its regulatory significance, current status, and names of cognizant staff.

Attachment 2, "Generic Communications and Compliance Activities," consists of three monthly status reports. 1) open GCCAs, 2) GCCAs added since the previous report, and 3) GCCAs closed since the previous report. The generic communications listed in the attachment includes bulletins, generic letters, and information notices. Compliance activities listed in the attachment do not rise to the level of complexity that require an action plan, and a generic communication is not currently scheduled. For each GCCA, there is a short description of the issue, scheduled completion date, and name of cognizant staff.

Attachment 1

NRR ACTION PLANS

TABLE OF CONTENTS

BOILING WATER REACTOR INTERNALS

TAC Nos. M91898, M93925, M93926, M93627,M94959, M94975, M95369, M96219, M96539,M97802, M97803, M97815, M98266
GSI: Not Available

Last Update: 04/30/97
Lead NRR Division: DE
Supporting Division: DSSA

MILESTONES	DATE (T/C)
PART I: REVIEW OF GENERIC INSPECTION AND EVALUATION CRITERIA	
1. Issue summary NUREG-1544 ○ Update NUREG-1544	03/96 C 12/97 T
2. Review BWRVIP Re-inspection and Evaluation Criteria ○ Reactor Pressure Vessel and Internals Examination Guidelines (BWRVIP-03) ○ BWRVIP-03, Section 6A, Standards for Visual Inspection of Core Spray Piping, Spargers, and Associated Components ○ BWR Vessel Shell Weld Inspection Recommendations (BWRVIP-05)[1] ○ Guidelines for Reinspection of BWR Core Shrouds (BWRVIP-07)	06/97 T 06/97 T 06/97 T 06/97 T
3. Review of generic repair technology, criteria and guidance	TBD
4. Review generic mitigation guidelines and criteria	TBD
5. Review of generic NDE technologies developed for examinations of BWR internal components and attachments	TBD

[1] By letter dated September 20, 1996, the BWRVIP informed the staff of its intention to Petition for Rulemaking to change the augmented inspection requirements contained in 10 CFR 50.55a(g)(6)(ii)(A), in accordance with the recommendations of BWRVIP-05. RES would have the lead for review of the rulemaking petition.

6. Other Internals reviews (safety assessments, evaluations, mitigation measures, inspections and repairs)	
○ Safety Assessment of BWR Reactor Internals (BWRVIP-06)	06/97 T
○ Evaluation of Crack Growth in BWR Stainless Steel RPV Internals (BWRVIP-14)	09/97 T
○ Roll/Expansion of Control Rod Drive and In-Core Instrument Penetrations in BWR Vessels (BWRVIP-17)	09/97 T
○ BWR Core Spray Internals Inspection and Flaw Evaluation Guidelines (BWRVIP-18)	09/97 T
○ BWRVIP-18, Appendix C, BWR Core Spray Internals Demonstration of Compliance With Technical Information Requirements of License Renewal Rule (10 CFR 54.21)	09/97 T
○ Internal Core Spray Piping and Sparger Repair Design Criteria (BWRVIP-19)	09/97 T
○ Core Plate Inspection and Flaw Evaluation Guideline (BWRVIP-25)	09/97 T
○ Top Guide Inspection and Flaw Evaluation Guideline (BWRVIP-26)	09/97 T
○ Assessment of BWR Jet Pump Riser Elbow to Thermal Sleeve Weld Cracking (BWRVIP-28)	09/97 T
○ Internal Core Spray Piping and Sparger Replacement Design Criteria (BWRVIP-16)	12/97 T

Description: Many components inside boiling water reactor (BWR) vessels (i.e., internals) are made of materials such as stainless steel and various alloys that are susceptible to corrosion and cracking. This degradation can be accelerated by stresses from temperature and pressure changes, chemical interactions, irradiation, and other corrosive environments. This action plan is intended to encompass the evaluation and resolution of issues associated with intergranular stress corrosion cracking (IGSCC) in BWR internals. This includes plant specific reviews and the assessment of the generic criteria that have been proposed by the BWR Owners Group and the BWRVIP technical subcommittees to address IGSCC in core shrouds and other BWR internals.

Historical Background: Significant cracking of the core shroud was first observed at Brunswick, Unit 1 nuclear power plant in September 1993. The NRC notified licensees of Brunswick's discovery of significant circumferential cracking of the core shroud welds. In 1994, core shroud cracking continued to be the most significant of reported internals cracking. In July 1994, the NRC issued Generic Letter 94-03 which requires licensees to inspect their shrouds and provide an analysis justifying continued operation until inspections can be completed.

A special industry review group (Boiling Water Reactor Vessels and Internals Project--BWRVIP) was formed to focus on resolution of reactor vessel and internals degradation. This group was instrumental in facilitating licensee responses to NRC's Generic Letter. The NRC evaluated the review group's reports, submitted in 1994 and early 1995, and all plant responses.

All of the plants evaluated have been able to demonstrate continued safe operation until inspection or repair on the basis of: 1) no 360° through-wall cracking observed to date, 2) low frequency of pipe breaks, and 3) short period of operation (2-6 months) before all of the highly susceptible plants complete repairs of or inspections to their core shrouds.

In late 1994, extensive cracking was discovered in the top guide and core plate rings of a foreign reactor. The design is similar to General Electric (GE) reactors in the U.S., however, there have been no observations of such cracking in U.S. plants. GE concluded that it was reasonable to expect that the ring cracking could occur in GE BWRs with operating time greater than 13 years. In the special industry review group's report, that was issued in January 1995, ring cracking was

evaluated. The NRC concluded that the BWRVIP's assessment was acceptable and that top guide ring and core plate ring cracking is not a short term safety issue.

Proposed Actions: The staff will continue to assess the scopes that have yet to be submitted by licensees concerning inspections or re-inspections of their core shrouds. The staff will also continue to assess core shroud reinspection results and any appropriate core shroud repair designs on a case-by-case basis. The staff will issue separate safety evaluations regarding the acceptability of core shroud reinspection results and core shroud repair designs. The staff has been interacting with the BWRVIP and individual licensees. In an effort to lower the number of industry and staff resources that will be needed in the future, it is important for the staff to continue interacting with the industry on a generic basis in order to encourage them to continue their proactive efforts to resolve IGSCC of BWR internals. The BWRVIP has submitted 13 generic documents, supporting plant-specific submittals, for staff review. The staff is ensuring that the generic reviews are incorporating recent operating experience on all BWR internals.

Originating Document: Generic Letter 94-03, issued July 25, 1994, which requested BWR licensees to inspect their core shrouds by the next outage and to justify continued safe operation until inspections can be completed.

Regulatory Assessment: In July 1994, the NRC issued Generic Letter 94-03 which required licensees to inspect their shrouds and provide an analysis justifying continued operation until inspections could be performed. The staff has concluded in all cases that licensees have provided sufficient evidence to support continued operation of their BWR units to the refueling outages in which shroud inspections or repairs have been scheduled. In addition, in October 1995, industry's special review group submitted a safety assessment of postulated cracking in all BWR reactor internals and attachments to assure continuing safe operation.

Current Status: Almost all BWRs completed inspections or repairs of core shrouds during refueling outages in the fall of 1995. Various repair methods have been used to provide alternate load carrying capability, including preemptive repairs, installation of a series of clamps and use of a series of tie-rod assemblies. The NRC has reviewed and approved all shroud modification proposals that have been submitted by BWR licensees. Review by NRC continues on individual plant reinspection results and plant-specific assessments.

In October 1995, industry's special review group issued a report (BWRVIP-06) which the NRC staff's preliminary review indicates was not comprehensive. The NRC staff has sent a request for additional information. The BWRVIP provided its response to the RAIs in a letter dated December 20, 1996. The staff plans to meet with the BWRVIP to discuss its expanded basis for prioritization as part of its continuing review of BWRVIP-06. In addition, the industry group submitted a report on reinspection of repaired and non-repaired core shrouds (BWRVIP-07) in February 1996. The staff is currently reviewing both this report and the supplemental information provided in the BWRVIP's response to the NRC staff's request for additional information. The NRC is also reviewing information submitted by GE on the safety significance of and recommended inspections for top guide and core plate ring cracking. Review of the "Reactor Pressure Vessel and Internals Examination Guidelines (BWRVIP-03)" is continuing with RAIs to be sent by February 28, 1997. By letter dated September 20, 1996, the BWRVIP informed the staff of its intention to Petition for Rulemaking to change the augmented inspection requirements contained in 10 CFR 50.55a(g)(6)(ii)(A), in accordance with the recommendations of BWRVIP-05, which would change the inspection requirements from "Essentially 100%" of all RPV shell welds to 100% of circumferencial welds and zero% of longitudinal welds. The staff is developing its position in a Commission paper on this issue. The BWRVIP has requested, by letter dated April 18, 1997, a meeting with the Commission on BWRVIP-05. The NRC staff will complete its evaluation of the BWRVIP-05 report by June 1997.

The staff's review of BWRVIP-14 is continuing, and RAIs were issued on December 9, 1996. The staff is awaiting a response from the BWRVIP. The staff's review of BWRVIP-18 and -19 on internal core spray piping inspection and repair design criteria is continuing. RAIs on these two documents were issued on January 16, 1997.

By letter dated December 20, 1996, the BWRVIP submitted, "Appendix C to BWRVIP-18. This appendix addresses the use of BWRVIP generic internal core spray inspection guidelines for compliance with requirements of the license renewal rule (10 CFR Part 54). The staff is reviewing this appendix in conjunction with its review of BWRVIP-18 guidelines.

The BWRVIP submitted a report BWRVIP-28 to address the safety implications of recent cracking found in BWR jet pump riser elbows. The staff is reviewing the BWRVIP-28 report and is developing RAIs. The staff issued NRC Information Report IN 97-02, "Cracks Found in Jet Pump Riser Assembly Elbows at Boiling Water Reactors," on February 6, 1997 and is developing a generic letter on the same subject.

Information Notice 97-17, "Cracking of Vertical Welds in the Core Shroud and Degraded Repair," was issued April 4, 1997, to inform the industry of vertical weld cracks and a degraded core shroud repairs found at Nine Mile Point, Unit 1. The BWRVIP has informed the staff that it plans to revise BWRVIP-07 to ensure that the vertical core shroud welds, and the core shroud repair, is adequately inspected.

NRR Technical Contacts: Keith Wichman, EMCB, 415-2757
Merrilee Banic, EMCB, 415-2771
Kerri Kavanagh, SRXB, 415-3743
Frank Grubelich, EMEB 415-2784

NRR Lead PM: C. E. Carpenter, EMCB, 415-2169

References:

Generic Letter 94-03, "Intergranular Stress Corrosion Cracking of Core Shrouds in Boiling Water Reactors," July 25, 1994

Action Plan dated April 1995

MOTOR-OPERATED VALVES ACTION PLAN

TAC Nos. M80330, M82072, M75089, M88898 | **Last Update:** 4/30/97 | **Lead NRR Division:** DE

MILESTONES	DATE (T/C)
Regulatory Improvements: (1) Staff is working with ASME to improve the inservice testing requirements in the ASME Code and (2) Staff is working with OM to develop guidelines for periodic verification of MOV design-basis capability to replace stroke-time testing.	1/96-9/96 (C)
New Generic Letter on MOV Periodic Verification: Staff preparing generic letter to provide recommendations on the periodic verification of MOV design-basis capability.	
Issue for public comment	2/96 (C)
Final issuance	9/96 (C)
MOV Inspection Module: the staff will prepare an inspection module for inspecting MOV programs over the long-term and provide appropriate training for inspectors.	10/97 (T)
Review of EPRI MOV Performance Prediction Program: NRR and RES are currently reviewing a topical report submitted by NEI on the EPRI MOV Performance Prediction Program.	
SER	2/96 (C)
SER SUPPLEMENT	2/97 (C)

Description: Appendices A and B to 10 CFR Part 50 and 10CFR50.55(a) require nuclear power plant licensees to establish programs to ensure that structures, systems, and components important to the safe operation of the plant are designed, installed, tested, operated, and maintained in a manner that provides assurance of their ability to perform their safety functions. GL 89-10 and its supplements, asked licensees to help ensure the capability of MOVs in safety-related systems by reviewing MOV design bases, verifying MOV switch settings initially and periodically, testing MOVs under design-basis conditions where practicable, improving evaluations of MOV failures and necessary corrective action, and looking for trends in MOV problems. EMEB has programmatic oversight responsibility of regional inspection activities conducted to verify that licensee MOV programs are being implemented. EMEB provides support to the regions, either by staff or contractor expertise, for the conduct of inspections in this area and closure of licensee actions pursuant to GL 89-10.

Historical Background: In 1985, the Davis-Besse nuclear power plant experienced a total loss of feedwater when, following a loss of main feedwater, safety-related MOVs in the auxiliary feedwater system could not be reopened after their inadvertent closure. As a result of this and other information, the NRC staff issued Bulletin 85-03 (November 15, 1985) requesting that licensees verify the design-basis capability of safety-related MOVs used in high pressure systems. The information from the implementation of Bulletin 85-03, additional operating events, and NRC-

sponsored research indicated the need to expand the scope of Bulletin 85-03 to all safety-related systems.

In Generic Letter (GL) 89-10 (June 28, 1989) and its supplements, the NRC staff asked licensees to help ensure the capability of MOVs in safety-related systems by reviewing MOV design bases, verifying MOV switch settings initially and periodically, testing MOVs under design-basis conditions where practicable, improving evaluations of MOV failures and implementing necessary corrective action, and looking for trends in MOV problems. The NRC staff requested that licensees complete the verification of the design-basis capability of MOVs included in the scope of GL 89-10 within three refueling outages or five years from the date of issuance of the generic letter, whichever was later. The NRC staff has issued seven supplements to GL 89-10 that provide additional guidance and information on GL 89-10 program scope, design-basis reviews, switch settings, testing, periodic verification, trending, and schedule extensions.

In June 1990, the NRC staff issued NUREG-1352, "Action Plans for Motor-Operated Valves and Check Valves," describing actions to organize the activities aimed at resolving the concerns about the performance of MOVs and check valves. These actions included evaluating the current regulatory requirements and guidance for MOVs, preparing guidance for and coordinating NRC inspections, completing NRC MOV research programs and implementing the research results, and providing the nuclear industry with information on MOVs.

Proposed Actions: Specific activities included in the generic action plan to improve MOV performance are:

(1) Regulatory Improvements - The staff is working with ASME to improve the inservice testing requirements in the ASME Code and the staff is working with OM to develop guidelines for periodic verification of MOV design-basis capability to replace stroke-time testing. Recently, ASME issued Code Case OMN-1, "Alternative Rules for Preservice and Inservice Testing of Certain Electric Motor Operated Valve Assemblies in LWR Power Plants OM - Code - 1995 Edition; Subsection ISTC," which is contained in OMa-1996 Addenda to the 1995 O&M Code. The staff references the code case in recently issued Generic Letter 96-05. ASME will consider incorporating the code case into the ASME Code in the future. This milestone is considered to be complete.

(2) EPRI MOV Performance Prediction Program - On March 15, 1996, the staff issued the Safety Evaluation on the topical report on EPRI MOV Performance Prediction Program. The staff has completed its review of the hand-calculation models for two unique gate valve designs and a supplement (dated February 20, 1997) to the SE was sent to NEI for a 30-day review to identify any proprietary material. In a letter dated March 19, 1997, NEI notified the NRC that no material in the SE supplement is considered proprietary.

(3) MOV Periodic Verification Generic Letter - The staff prepared a generic letter to provide recommendations on the periodic verification of MOV design-basis capability. On September 18, 1996, the staff issued GL 96-05, "Periodic Verification of Design-Basis Capability of Safety-Related Motor-Operated Valves."

(4) MOV Inspection Module - The staff plans to prepare an inspection module for inspecting MOV programs over the long-term and provide appropriate training for inspectors.

Originating Document: NRC Bulletin 85-03 issued November 15, 1985.

Regulatory Assessment: While it is important for the licensee to take steps to ensure that MOVs will operate reliably under design-basis conditions, the probability of any individual MOV failure is small and safety systems are robust enough to provide reasonable assurance of public health and safety.

Current Status: Coordination with industry and support to NRC regional staff, efforts on codes and standards, and MOV research and analysis are ongoing activities. On September 18, 1996, the staff issued GL 96-05, "Periodic Verification of Design-Basis Capability of Safety-Related Motor-Operated Valves."

On March 15, 1996, the staff issued a non-proprietary Safety Evaluation on the EPRI MOV Performance Prediction Program. The staff has reviewed the remaining EPRI models for two unique gate valve designs and is issuing a supplement to the SE addressing these two models. The staff has been alerting licensees, NEI and EPRI to the staff's findings from the EPRI program review, and has been communicating staff views with industry regarding periodic verification. On August 21, 1996, the staff issued Information Notice 96-48 to alert licensees to lessons learned from the EPRI MOV program. In addition, the staff has been factoring the overall findings from the EPRI program into staff activities.

The staff has completed the supplement (dated February 20, 1997) to the SE on the EPRI MOV Topical Report and is preparing documentation proposing closure of the MOV Action Plan. The staff will complete the remaining tasks as part of the implementation phase of GL 96-05.

Contacts:
NRR Technical Contact: Thomas G. Scarbrough, EMEB, 415-2794
NRR Lead PM: Allen G. Hansen, DRPW, 415-1390

References:
Bulletin 85-03, November 15, 1985
Generic Letter 89-10, June 28, 1989, and 7 supplements
NUREG-1352, "Action Plans for Motor-Operated Valves and Check Valves," June 1990
Generic Letter 96-05, September 18, 1996.

STRUCTURE ACTION PLAN

TAC No. M94164

Last Update: 4/30/97
Lead NRR Division: DE
Supporting Divisions: DRCH/DRPM

	MILESTONES	DATE (T/C)
1.	Develop action plan	09/96 (C)
2.	Interface with NEI	
	a. NEI develop general industry guidance document for monitoring the condition of structures and submit the draft Guidance Document (NEI 96-03) to staff	7/96 (C)
	b. Review and comment on NEI draft document (NEI 96-03, Rev D)	10/96 (C)
	c. Submit final document to staff	4/97 (T)[1]
	d. Complete staff review and issue staff evaluation report (ECGB)	6/97 (T)
	e. Endorse NEI 96-03 through a revision of Regulatory Guide 1.160	1/98 (T)
	f. Endorse NEI 96-03 through a new Regulatory Guide (for the License Renewal Rule, see Milestone 3.a)	3/98 (T)
3.	Maintenance Rule Guidance (HQMB)	
	c. If necessary, revise IP 62706 (baseline inspections) and IP 62707 (monthly core maintenance inspection.)	
3.	License Renewal Guidance (PDLR)	
	a. If acceptable, endorse NEI 96-03 for License Renewal through a new Regulatory Guide. (The endorsement could be collectively or separately by maintenance and license renewal.)	11/97 (T)
	b. Issue inspection procedure for inspection of structures as related to the license renewal rule.	
	(1). Develop draft IP	11/97 (T)[2]
	(2). Issue draft IP for regional comment	12/97 (T)
	(3). Resolution of regional comments	2/98 (T)
	(4). Issue final inspection procedure	5/98 (T)
	(Moved from Section 4.c.)	

4.	Issues Associated with Operating Plants (ECGB)	
	a. Issue Inspection Procedure 62002, "Inspection of Structures, Passive Components, and Civil Engineering Features at Nuclear Power Plants" as related to the maintenance rule.	
	(1). Develop draft IP 62002	7/96 (C)
	(2). Issue draft IP for regional comment	10/96 (C)
	(3). Resolution of regional comments	12/96 (C)
	(4). Issue final inspection procedure	12/96 (C)
	b. Issue inspection procedure fr inspection of containments in accordance with 10 CFR 50.55a which reference ASME Section XI, Subsections IWE and IWL.	
	(1). Develop draft IP	2/97(C)
	(2). Issue draft IP for regional comment	5/97(C)
	(3). Resolution of regional comments	8/97 (T)
	(4). Issue final inspection procedure	12/97 (T)
	(Moved to Section 3. b.)	

[1] The schedule of NEI interaction items has been altered to reflect NEI's intent to submit Revision D of NEI 96-03 as industry guidance for monitoring structures for the Maintenance Rule in March 1997. Previously, the NEI 96-03 document was an attempt to provide structural monitoring guidance for both the Maintenance and License Renewal Rules.

[2] PDLR staff will develop and issue and inspection procedure on structures related to license renewal. The timeline of issuance of the procedure depends on the NEI 96-03, Revision D, submittal for staff review.

Description: This action plan was developed to identify and resolve major issues and problems in monitoring the condition of structures at nuclear power plants as these issues and problems related to the maintenance rule, the license renewal rule, and plant operations.

Historical Background: On July 10, 1991, the NRC published the maintenance rule (10 CFR 50.65), which became effective July 10, 1996. Before regulatory implementation of the maintenance rule, the NRC staff conducted pilot site visits from September 1994 through March 1995 to review early implementation of the maintenance rule. Through these visits, the staff determined that most licensees had not established adequate monitoring of structures under the maintenance rule and considered it a low priority. Some licensees incorrectly assumed that structures were inherently reliable and did not require monitoring or preventive maintenance. The lessons learned from the pilot site visits were documented in NUREG-1526, "Lessons Learned from Early Implementation of The Maintenance Rule at Nine Nuclear Power Plants."

Separately and concurrentiy, the staff of the Civil Engineering and Geosciences Branch (ECGB) of the Office of Nuclear Reactor Regulation (NRR) developed and published NUREG-1522, "Assessment of Inservice Conditions of Safety-Related Nuclear Plant Structures," in June 1995, based on information obtained from six plant visits and numerous reported incidents. The ECGB staff concluded that safety-related structures need to be periodically inspected and maintained to ensure that they can adequately perform their intended safety functions.

In 1991, at the same time the maintenance rule was issued, NRC also promulgated the license renewal rule (10 CFR Part 54). This rule delineates the requirements for extending a license. Although the two rules are similar in scope, and aspects of the maintenance rule may satisfy some requirements of the license renewal rule, the requirements of the license renewal rule go above and beyond the requirements of the maintenance rule. For example, the license renewal rule requires that licensees identify relevant aging effects and demonstrate that they will be adequately managed to maintain the current licensing basis throughout the extended life of the plant. On March 4, 1996, NRC received Revision 0 to NEI 95-10, "Industry Guideline for Implementing the Requirements of 10 CFR Part 54 - the License Renewal Rule." However, NEI 95-10 did not specifically address the issue of monitoring the condition of structures.

The NRC staff conveyed these findings regarding the inadequate monitoring of the condition of structures to the nuclear industry through NUREGs, public workshops, and interaction with NEI. NEI has since issued draft versions of NEI 96-03, "Guideline for Monitoring the Condition of Structures at Nuclear Power Plants." NEI intends to provide guidance to the industry by using this document in conjunction with NUMARC 93-01, "Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," for complying with the maintenance rule, and in conjunction with NEI 95-10 for complying with the license renewal rule.

Proposed Actions: Actions included in the plan are to (1) review and interact with NEI on the issue of monitoring the condition of structures to comply with both the maintenance rule and the license renewal rule, (2) revise and issue regulatory guides to endorse NEI developed guidance documents, if they are found acceptable, and (3) issue inspection procedures for structures at operating plants.

Originating Documents: NUREG-1526 and NUREG-1522.

Regulatory Assessment: Completion of the activities in this action plan will result in guidance documentation that will provide a uniform and consistent method by which the industry and the staff can monitor the condition of structures and ensure that unacceptable degradation is not occurring. For license renewals issued under Part 54, this activity is intended to develop guidance to ensure that structural margins are not compromised due to age related effects including the consideration of changes in the dynamic response characteristics of structures and component supports. These actions will provide guidance but impose no new requirements on licensees. At present, the NRC staff is monitoring the safety-related maintenance issues on a case by case basis. There is no immediate safety issue. Accordingly, nonurgent regulatory action and continued facility operation are justified.

Current Status: NEI has formed a task force to develop a general industry guidance document on monitoring the condition of structures at nuclear power plants. NEI 96-03, "Guideline for Monitoring the Condition of Structures at Nuclear Power Plants," Revision C, was sent to NRC for review on May 16, 1996. NEI intends to use NEI 96-03 to meet the regulatory requirements for monitoring the condition of structures for both the maintenance rule and the license renewal rule. The staff met with NEI representatives to discuss and provide comments on NEI 96-03 on June 17, 1996. NEI subsequently revised NEI 96-03 in response to the staff's comments and submitted Revision D for NRC's review on July 16, 1996. The staff has completed the review and sent its comments to NEI on October 1, 1996.

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UPDATE OF SRP CHAPTER 7 TO INCORPORATE DIGITAL INSTRUMENTATION AND CONTROLS (I&C) GUIDANCE

TAC Nos. M86387, M86392, M86423, M86769, M86997, and M87680 Last Update: 04/24/97 Lead NRR Division: DRCH

MILESTONES		DATE (T/C)
1.	Develop Update of SRP Chapter 7	10/95C
2.	ACRS Subcommittee Briefings	3/96C, 5/96C, 10/96C
3.	Incorporate new Regulatory Guides (provided by RES) in SRP Chapter 7 Update	8/96C
4.	Draft SRP to Chairman	9/19/96C
5.	Publish Draft SRP Chapter 7 for Public Comment	12/03/96C
6.	Incorporate Public Comments and National Academy of Sciences study recommendations	5/97T
7.	Final ACRS/CRGR Review of SRP Chapter 7	6/97T
8.	Final SRP to Chairman	7/31/97T
9.	Publish Final SRP Chapter 7	8/97T

Description: This task action plan is used to track and manage the final phase of codifying the digital I&C regulatory approach and criteria by updating the existing Standard Review Plan (SRP) Chapter 7.

Historical Background: By a staff requirements memorandum (SRM) dated November 30, 1995, from the Chairman, Shirley Ann Jackson, to the Executive Director of Operations, James M. Taylor, the Chairman requested that the staff develop an action plan in the area of digital instrumentation and controls. The action plan is for the expeditious development of a Standard Review Plan (SRP) to ensure that safety margins are addressed and that NRC regulatory requirements are available and ready for use when reviewing licensee proposed installation of digital instrumentation and control systems in nuclear power plants. The staff has an ongoing effort for updating Chapter 7 of the SRP that deals with instrumentation and control systems to accomplish the requested action and this task action plan was initiated to track and manage the final phase of that effort in response to the SRM.

Proposed Actions: Specific actions included in this task action plan are: (1) to develop the update of SRP Chapter 7, (2) to periodically brief the ACRS as sections of the SRP update are completed, (3) to incorporate new regulatory guides on digital I&C that will be provided by the Office of Nuclear Regulatory Research (RES), (4) to incorporate results from the National Academy of Sciences (NAS) study of digital I&C at nuclear plants, (5) to publish the draft SRP Chapter 7 for public comments, (6) to incorporate the public comments, (7) to have final ACRS and CRGR review of the SRP Chapter 7 update, and (8) to publish the final revised SRP Chapter 7.

Originating Document: The memorandum from the EDO to Chairman Jackson dated January 3, 1996, "Improvements Associated with Managing the Utilization of Probabilistic Risk assessment (PRA) and Digital Instrumentation and Control Technology."

Regulatory Assessment: The approach and criteria that form the current regulatory framework for review and acceptance of digital I&C systems in nuclear power plants is being codified in the update to SRP Chapter 7. This framework has been communicated to the industry and public in safety evaluations for digital modifications to operating plants and design certification of the advanced reactor designs, and in Generic Letter 95-02, "Use of NUMARC/EPRI Report TR-102348, 'Guideline on Licensing Digital Upgrades,' in Determining the Acceptability of Performing Analog-to-Digital Replacements Under 10 CFR 50.59 dated" dated April 26, 1995. This action plan tracks and manages the codification of the existing framework by updating SRP Chapter 7. Consequently, this is not an urgent regulatory action, and continued plant operation is justified.

Current Status: The staff and its contractor, Lawrence Livermore National Laboratories (LLNL), are currently revising the seven existing sections of SRP Chapter 7 and developing two new sections and several new branch technical positions (BTPs) to incorporate criteria and guidance related to digital I&C systems. In parallel, the Office of Nuclear Regulatory Research (RES) has developed several regulatory guides that endorse national standards related to digital I&C.

By the letter dated June 6, 1996, the ACRS stated their agreement with the staff approach to the update of SRP Chapter 7, and their plan to continue to interact with the staff on the remaining changes to SRP Chapter 7. By memorandum dated September 16, 1996, NRR requested CRGR review of the complete draft SRP Chapter 7. In the minutes of CRGR Meeting Number 292 dated October 17, 1996, CRGR endorsed the draft document for issuance for public comments. The complete SRP Chapter 7 update was presented to the ACRS in October 1996. By the letter dated October 23, 1996, the ACRS stated that it had no objection to the staff's proposal for issuing the draft SRP Chapter 7 for public comment. The updated draft SRP Chapter 7 was issued for public comment and the notice of availability was published in the *Federal Register* on December 3, 1996. It was also posted on the NRC Homepage on the World Wide Web in December 1996 .

The public comment period closed on January 31, 1997 and all public comments received in February 1997 are being addressed in the revision of SRP Chapter 7. The National Research Council/National Academy of Sciences' (NAS) final report on Digital Instrumentation and Control Systems in Nuclear Power Plants, Safety and Reliability Issues was received by the staff in late January 1997. The recommendations in the report are being reviewed and, where applicable, considered in the revision to SRP Chapter 7.

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PRA IMPLEMENTATION ACTION PLAN 1.2(d)
Graded Quality Assurance Action Plan

TAC Nos. M91429, M91431, M92420,
M92450, M92451, M92447, M92448,
M92449, M88650, M91431, M91432,
M91433, M91434, M91435, M91436, M91437
GSI: Not Available

Last Update: 5/9/97
Lead NRR Division: DRCH
Support Division: DSSA

MILESTONES	DATE (T/C)
1. Issued SECY 95-059	03/95C
2. Begin interactions with volunteer licensees - Palo Verde letter dated 4/6/95 - Grand Gulf meeting 5/4/95 - South Texas meetings on 4/19/95 and 5/8/95	05/95C
3. NRC Steering Group meetings to guide working level staff activities - Meetings on: 8/25/95, 10/10/95, 10/25/95	As Needed
4. Staff interactions with Palo Verde - Site visit on 5/23/95 on ranking and QA controls - NRC letter dated 7/24/95 on proposed QA controls - Site visit on 8/29-30/95 on risk ranking - Site visit on 9/6-7/95 on procurement QA controls - NRC letter conveying trip reports issued on 12/4/95 - Meeting on 4/11/96 to discuss the staff evaluation guide - Letter from licensee on 4/24/96 providing comments on staff evaluation guidance - Site visit on 6/5-6/96 to observe expert panel and review revised procurement QA controls, trip report sent to licensee on 8/6/96 - Letter from licensee on 9/12/96 transmitting responses to procurement issues raised in earlier staff trip reports - letter from licensee dated 11/13/96 responding to PRA issues raised in 12/4/95 trip report - Overview of GQA initiative provided by PVNGS at 2/27/97 meeting with staff	Ongoing through 12/97

5. Staff interactions with South Texas - Meeting on 7/17/95 on project status - Site meeting on 10/3-4/95 on risk ranking and QA controls - Meeting on 12/7-8/95 to discuss risk ranking and QA controls - South Texas Submittal of QA Plan for implementation of graded QA, dated 3/28/96 is currently under staff review - Meetings on 4/11/96 and 4/25/96 to discuss the staff evaluation guide and future interaction milestones and schedules - Letter from licensee on 4/17/96 providing comments on staff evaluation guidance - Meeting on 6/19/96 to discuss staff comments on the QA plan submittal for graded QA, review questions transmitted to STP on 8/16/96 - Site visit on August 21-22 to observe working group and expert panel meetings, and to discuss staff review items, trip report in preparation - Management meeting on 10/15/96 to discuss PRA initiatives and staff activities - Letter from licensee dated 10/30/96 responding to PRA questions - Revised QA plan submitted on 1/21/97 - Overview of STP initiative provided at 2/27/97 meeting with the staff - Staff Request for Additional Information issued on 4/14/97 for both PRA and QA controls - Meeting on 4/21/97 to discuss STP responses to RAI - Site visit on 5/5-8 to evaluate: PRA quality, graded QA controls, QA controls for the PRA, corrective action and performance monitoring feedback processes, audit scheduling, and responses to the RAI concerns. Trip report in preparation. - Negative consent SECY paper to be prepared prior to staff approval of QA program change.	Ongoing through 12/97
6. Staff interactions with Grand Gulf - Site meeting on 7/11-14/95 to observe expert panel - Meeting at hdqt on 10/24/95 on QA controls - Meeting at RIV on 11/16/95 on graded QA effort - Site meeting on 11/17/95 to observe expert panel - GGNS system and component ranking criteria under staff evaluation, the comments are scheduled to be provided to GGNS by the end of June - Meeting on 4/11/96 to discuss the staff evaluation guide - Letter to GGNS dated 5/29/96 regarding implementation of QAP commitments - Staff review comments on GGNS safety significance determination process transmitted to licensee on July 15 - Meeting on August 27 to discuss staff comments on safety significance process and to discuss GGNS implementation of QAP commitments for low-safety significant items, meeting summary issued on 12/17/96 - Site visit on 11/21/96 to review procurement activities, trip report in preparation	Ongoing through 12/97
7. Revision 3 of Draft Evaluation Guide for Volunteer Plants issued for staff comment	07/95C

8. Revision 4 of Draft Evaluation Guide for Volunteer Plants Issued for Steering Group Review	10/95C
9. Issue letter to 3 volunteer plants outlining program objectives and review expectations. Distributed staff evaluation guide to licensees.	1/96C
10. Evaluation Guide Issued for use by staff in evaluating volunteer plants - Meeting held with volunteer plants to receive feedback on staff evaluation guide on 4/11/96. - Industry comments on staff evaluation guide provided by letter dated 5/24/96 - The staff will review the industry comments with respect to the need to revise, and finalize, the evaluation guide . - Meeting of GQA steering group will be scheduled, if needed, to discuss finalization of staff evaluation guide for volunteer implementation phase	1/96C 4/96C
11. Regulatory Guide development milestones per PRA Action Plan - Draft RG for Branch/division review and comment - Draft RG for inter-office review and concurrence - Draft RG for ACRS/CRGR review - Draft RG for public comment - Draft RG public comment period ends - Final draft RG for ACRS/CRGR review - Final draft RG for inter-office concurrence - Publish final RG	 7/31/96C 8/1/96C 11/22/96C 3/31/97T 6/3/97T 9/1/97T 12/1/97T 12/31/97T
12. ACRS Briefings - Expert Panel and deterministic considerations - graded QA - PRA Implementation Plan and pilot projects - Risk Informed Pilots - Graded QA Regulatory Guide - Graded QA Regulatory Guide - ACRS Concerns on GQA Regulatory Guide - ACRS memo to Commission expressing concerns with GQA approach	 2/27-28/96C 4/11/96C 7/18/96C 8/7/96C 11/22/96C 2/21/97C 3/6/97C 3/17/97C
13. CRGR Briefings - Graded QA Regulatory Guide - Graded QA Regulatory Guide	 11/26/96C 3/11/97C
14. Issue Lessons Learned NUREG report regarding Graded QA Programs at volunteer plants	9/97T
15. Public Workshop on Graded QA	2/98T
16. Issue Staff Inspection Guidance (Baseline + Reactive IP) for public comment	9/97T
17. Conduct NRC Staff Training	1/98T
18. Issue SECY Update (close-out of action plan)	4/98T

Description: Prepare staff evaluation guidance and regulatory guidance for industry implementation for the grading of quality assurance (QA) practices commensurate with the safety significance of the plant equipment. The development of this guidance will be based on staff reviews of regulatory requirements, proposed changes to existing practices, staff development of a draft regulatory guide with input from a national laboratory, and assessment of the actual programs developed by the three volunteer utilities implementing graded quality assurance programs.

Historical Background: The NRC's regulations (10 CFR Part 50, Appendices A & B) require QA programs that are commensurate (or consistent) with the importance to safety of the functions to be performed. However, the QA implementation practices that have evolved have often not been graded. In the development of implementation guidance for the maintenance rule, a methodology to determine the risk
significance of plant equipment was proposed by the industry (NUMARC 93-01). During a public meeting on December 16, 1993 the staff suggested that the industry could build on the experience gained from the maintenance rule to develop implementation methodologies for graded QA. The staff had numerous interactions with the Nuclear Energy Institute (NEI) during calendar year 1994 as the graded QA concepts were discussed and the initial industry guidelines were developed and commented on. In early 1995, three licensees (Grand Gulf, South Texas, and Palo Verde) volunteered to work with the staff. The staff has reviewed the licensee developmental graded QA efforts.

Proposed Actions: The goal of the action plan is to utilize the lessons learned from the 3 volunteer licensees to modify staff-developed draft guidance to formulate regulatory guidance on acceptable methods for implementing graded QA. The staff will develop a regulatory guide based in part on input from Brookhaven National Laboratory, and will also prepare a baseline and reactive inspection procedure (IP) for graded QA. An inter-office team has been established to prepare the regulatory guidance documents and test their implementation during the evaluation of volunteer plant activities.

Originating Document: Letter from J. Sniezek, NRC to J. Colvin (NUMARC) dated January 6, 1994, describing the establishment of NRC steering group for the graded QA initiative.

Regulatory Assessment: Existing regulations provide the necessary flexibility for the development and implementation of graded quality assurance programs. The staff will issue a NUREG report regarding the lessons learned from the volunteer plant implementations. Additional regulatory guidance will be issued to either disseminate staff guidance or endorse an industry approach. Planned guidance for the staff will involve an evaluation guide for application to the volunteer plants, the lessons learned report, training sessions and public workshops, and inspection guidance in the form of a baseline and a reactive IP. The staff is evaluating the appropriate mechanism for inspections of the risk significance determination aspects of graded QA programs.

The safety benefits to be gained from a graded QA program could be significant since both NRC reviews and inspections and the industry's quality controls resources would be focused on the more safety significant plant equipment and activities. Secondarily, cost savings to the industry could be realized by avoiding the dilution of resources expended on less safety significant issues. The time frame to complete this action plan is directly related to the overall PRA implementation plan schedules.

Current Status: A draft evaluation guide for NRC staff use has been prepared for application to the volunteer plants implementing graded quality assurance programs. The staff will utilize the guide for the review of the volunteer plant graded QA programs. The guide and the staff's proposed interaction framework has been transmitted in a letter to the three volunteer licensees. The letter sought licensee comments. A draft regulatory guide for both risk ranking and grading of QA controls have been prepared and circulated for review by both the ACRS and CRGR. SECY 97-077

(dated April 8, 1997) transmitted the draft regulatory guides, including the GQA guide, to the Commission. Commission approval is being sought to issue the documents for public comment. Senior management briefings were provided to the Director, NRR (on April 22, 1997) and to the Deputy, EDO (on April 24, 1997).

A meeting was held with the three volunteer licensees on April 11, 1996 to receive their feedback on the staff developed evaluation guide. The licensees expressed concerns about the level of detail contained in the guide, particularly that related to PRA and commercial grade item dedication. The licensees contend that exiting industry guidance (PSA Application Guide and EPRI-5652) are sufficient for those topics. The staff received written comments from NEI on the evaluation guide by letter dated May 24, 1996. The NEI letter questions the need for additional regulatory guidance for the graded QA application. NEI contends that existing industry guidance is sufficient. STP and PVNGS letters providing comments on the evaluation guide were dated April 17, 1996 and April 24, 1996 respectively. The staff will compile suggested changes to the evaluation guide in response to the industry comments and a meeting will be held to brief the graded QA steering group on the proposed changes.

A presentation on graded QA was made to the full ACRS on April 11th. During the ACRS meeting some questions arose with respect to the staff expectations for the conduct of expert panel activities. The ACRS was further briefed on the development of the GQA Regulatory Guide on November 22, 1996 and February 21, 1997, and March 6, 1997. The ACRS issued a letter to the Chairman on March 17, 1997 regarding their review of the risk informed guidance documents. The ACRS expressed some concerns with the staff focus on simply proposing to reduce quality controls for low safety significant items. However, in recognition of industry interest in the guide, the ACRS recommended that it be issued for public comment.

South Texas submitted their QA program revision for their graded QA effort on March 28, 1996. The change has been reviewed by the staff (HQMB, SPSB, RES, RIV, and NRC contractors). A meeting was held with STP on June 19 to discuss the staff's comments and concerns. STP indicated their willingness to re-examine the content of the QA plan with respect to the proposed QA controls for the low safety significant items. The staff visited the site on August 21-22 to receive information from STP in response to earlier staff questions about the STP approach towards determining safety significance categorization and adjustment of QA controls. The staff also observed both a Working Group and Expert Panel meeting at which time licensee safety significance evaluations for 2 systems (Radiation Monitoring and Essential Service Water) were discussed. Staff review of the updated QA program submittal was completed and a second RAI was issued on April 14, 1997 for both PRA and QA controls aspects. A meeting was held on April 21, 997 during which the licensee provided some responses to the issues raised in the RAI. Staff (from both HQMB and SPSB) performed a site evaluation during the week of May 5 - 8 to review aspects associated with: PRA quality, QA controls for the PRA, corrective action and performance monitoring feedback processes, QA controls for low safety significant items, detailed information presented to address issues raised in the RAI, and the audit scheduling process.

Also, NEI submitted 96-02, "Guideline for Implementing a Graded Approach to Quality" dated March 21, 1996. The staff has performed a cursory review of the document and concluded that it does not reflect the progress and level of detail that has been achieved through the volunteer plant effort. The staff informed NEI by letter dated May 2, 1996 that the guide is not adequate (as a stand alone document) to implement graded QA but that it will be considered as the staff develops the graded QA regulatory guide and standard review plan. By letter dated June 8, NEI indicated that their 96-02 guide will be revised. Further NEI requested a meeting with the staff (in the August time frame) to discuss the changes and to discuss more objective means to assess the adequacy of QA program implementation. NEI has proposed that the amended 96-02 guidelines will be submitted to the staff for endorsement by a regulatory guide. A subsequent letter was received from NEI on July 16 that provided an updated version of NEI 96-02 based on comments

they received from the volunteer plants and industry sources. The staff will review the modified document and then brief the steering group on the results. On October 10, 1996 NEI submitted a letter expressing their concern with the graded QA initiative. NEI stated their concerns regarded the questions raised by the staff in the area of QA controls for items determined to be low safety significant and in the area of safety significance determination. A meeting with NEI and staff from the volunteer plants (STP and PVNGS) was held on February 27, 1997. NEI stated that 50.54(a) needs to be revised to offer licensees greater flexibility to manage their QA programs. The volunteer plant staff stated their firm desire to obtain copies of the draft GQA Regulatory Guide in a timely manner. NEI additionally outlined a conceptual approach to integrate a performance monitoring methodology into the GQA efforts.

NRR Contact: S. Black 415-1017, R. Gramm 415-1010
RES Contact: R. Woods 415-6622

References:

1) Letter from J. Sniezek (NRC) to J. Colvin (NEI) dated 1/6/94
2) Regulatory Guide 1.160
3) NUMARC 93-01, "Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants"
4) SECY-95-059, "Development of Graded Quality Assurance Methodology", 3/10/95
5) Letter from B. Holian (NRC) to W. Stewart (APSCo) dated 7/24/95
6) Letter from C. Thomas (NRC) to W. Stewart (APSCo) dated 12/4/95
7) Memorandum from S. Black to W. Beckner and W. Bateman dated 1/24/96, Draft Staff Evaluation Guidance
8) NEI 96-02, "Guideline for Implementing a Graded Approach to Quality"

NEW SOURCE TERM FOR OPERATING REACTORS

TAC No. M89586
GSI No. 155.1

Last Update: 05/01/97
Lead NRR Division: DRPM
Supporting Division: DSSA & DE

MILESTONES		DATE (T/C)
1.	NEI Letter	07/94C
2.	Commission Memo	09/94C
3.	NEI Response	09/94C
4.	NEI/NRC Meeting	10/94C
5.	Publication of NUREG-1465	02/95C
6.	NEI/NRC Meetings	10/94C, 06/95C, 10/95C, 01/96C, 02/96C, 05/96C, 08/96C, 10/96C, 04/97C
7.	Submittal of Generic Framework Document (from NEI)	11/95C
8.	First Pilot Plant Submittal	12/95C
9.	Issue Memo to Commission, Updating Status	08/96C
10.	Present Commission Paper in E-Team Briefing	09/96C
11.	Brief CRGR on Commission Paper	10/96C
12.	Send Commission Paper to EDO/Commission	11/96C
13.	Brief ACRS on Commission Paper	11/96C
14.	Response to NEI Framework Document	02/97C
15.	Begin Pilot Plant Reviews	02/97C
16.	Begin Rebaselining	02/97C
17.	Finish Rebaselining	08/97T
18.	Finish Pilot Plant Reviews	TBD

Description: More than a decade of research has led to an enhanced understanding of the timing, magnitude and chemical form of fission product releases following nuclear accidents. The results of this work has been summarized in NUREG-1465 and in a number of related research reports. Application of this new knowledge to operating reactors could result in cost savings without sacrificing real safety margin. In addition, safety enhancements may also be achieved.

Historical Background: In 1962, the U. S. Atomic Energy Commission published TID-14844, "Calculation of Distance Factors for Power and Test Reactors." Since then licensees and the NRC have used the accident source term presented in TID-14844 in the evaluation of the dose consequences of design basis accidents (DBA).

After examining years of additional research and operating reactor experience, NRC published NUREG-1465, "Accident Source Terms for Light-Water Nuclear Power Plants," in February 1995. The NUREG describes the accident source term as a series of five release phases. The first three phases (coolant, gap, and early in-vessel) are applicable to DBA evaluations, and all five phases are applicable to severe accident evaluations. The DBA source term from the NUREG is comparable to the TID source term; however, it includes a more realistic description of release timing and composition. Since the NUREG source term results in lower calculated DBA dose consequences, NRC decided not to require current plants to revise their DBA analyses using the new source term. However, many licensees want to use the new source term to perform DBA dose evaluations in support of plant, technical specification, and procedure modifications.

NRC and NEI met several times to discuss the industry's plans to use the new source term. To make efficient use of NRC's review resources, NRC encouraged the industry to approach the issue on a generic basis. The Nuclear Energy Institute (NEI) unveiled its plans for the use of the new source term at operating plants at the Regulatory Information Conference in May 1995. NEI, Polestar (EPRI's consultant), and pilot plant (Grand Gulf, Beaver Valley, Browns Ferry, Perry, and Indian Point) representatives met with NRC staff in June and October 1995 to discuss more detailed plans.

Proposed Actions: The staff has reviewed the framework document has prepared a Commission paper and decision letter that describes a generic impiementation approach. The staff presented the Commission paper and decision letter to the NRR Executive Team in September, briefed CRGR in October, and briefed the ACRS full committee in November. The staff sent the Commission paper and decision letter to the Commission in November 1996 (SECY-96-242). As described in the Commission paper, the current plan is to rebaseline 2 NUREG-1150 plants; one a PWR and one a BWR. The staff will also review each pilot plant application and prepare an exemption package addressing the use of each feature of the NUREG-1465 source term while pursuing rulemaking. The plan for issuing each remaining generic exemption is to brief the CRGR, issue for public comment, and then issue the exemption.

Originating Document: EPRI Technical Report TR-105909, "Generic Framework Document for Application of Revised Accident Source Term to Operating Plants," transmitted by letter dated November 15, 1995.

Regulatory Assessment: There will be no mandatory backfit of the new source term for operating reactors. The design-basis accident analyses for current reactors based on the TID-14844 source term are still valid. Therefore, non-urgent regulatory action and continued facility operation are justified.

Current Status: NEI submitted its generic framework document in November 1995 for NRC review and approval. TVA submitted part of its pilot plant application for Browns Ferry in December 1995. The staff met with NEI on January 23, 1996, to discuss the generic framework document and separate meetings were held on February 7, May 30, and August 29, 1996 to discuss the pilot plant submittals. The staff met again with NEI and the industry on October 2, 1996, to discuss the staff's plan to issue exemptions while pursuing rulemaking, and on April 2, 1997, to provide a status report on the staff's actions regarding rebaselining and rulemaking subsequent to the Commission's SRM. The pilot plant applications for Browns Ferry, Perry, Indian Point, and Oyster Creek have been circulated to the task force members to help shape rebaselining.

The staff briefed the NRR Executive Team on SECY-96-242 in September, the CRGR in October, and the ACRS full committee in November. A limited number of pilot plants submittals and exemptions are expected - three submittals have been received so far (Browns Ferry, Perry and Indian Point-2). Applications are also expected from Grand Gulf and Oyster Creek. In addition,

the staff and Virginia Power met on November 26, 1996 to discuss the rebaselining of Surry. In a February 12, 1997, SRM, the Commission approved the Option 2 approach of SECY 96-242 and a modification to the letter response to NEI. On February 26, 1997, the EDO issued the letter response to NEI. The staff is initiating the rebaselining effort.

NRR Technical Contacts: R. Emch, PERB, 415-1068
A. Huffert, PERB, 415-1081

NRR Lead PM: B. Zalcman, PGEB, 415-3467

References:

NUREG-1465, "Accident Source Term for Light Water Nuclear Power Plants," February, 1995.

July 27, 1994, letter to A. Marion, NEI, from D. Crutchfield, NRC, "Application of New Source Term to Operating Reactors".

September 6, 1994, letter to the Commission from NRC staff, "Use of NUREG-1465 Source Term at Operating Reactors".

July 21, 1995, letter to the Commission from NRC staff, "Use of NUREG-1465 Source Term at Operating Reactors".

December 22, 1995, pilot plant submittal, letter to Document Control Desk from Tennessee Valley Authority, "Brown's Ferry Nuclear Plant (BFN) - Units 1, 2, and 3 - Technical Specifications (TS) No. 356 and Cost Beneficial Licensing Action (CBLA) 08 - Increase in Allowable Main Steam Isolation Valve (MSIV) Leakage Rate and Request for Exemption from 10 CFR 50, Appendix J... and 10 CFR 100, Appendix A...".

August 9, 1996, memorandum to the Commission from NRC staff, "Use of NUREG-1465 Source Term at Operating Reactors".

November 25, 1996, SECY-96-242, "Use of the NUREG-1465 Source Term at Operating Reactors."

February 12, 1997, Staff Requirements Memorandum to SECY-96-242.

February 26, 1997, letter to T. Tipton, NEI, from J. Callan, NRC, responding to the NEI Framework Document.

Summaries of public meetings:

- dated November 10, 1994 for public meeting with NEI held on October 6, 1994;
- dated July 26, 1995 for public meeting with NEI held on June 1, 1995;
- dated November 17, 1995 for public meeting with NEI held on October 12, 1995.
- dated February 1, 1996 for public meeting with NEI held on January 23, 1996.
- dated February 27, 1996 for public meeting with Browns Ferry held on February 7, 1996
- dated September 27, 1996 for public meeting with Grand Gulf held on August 29, 1996
- dated October 11, 1996 for public meeting with NEI on October 2, 1996
- dated January 24, 1997 for public meeting with Surry held on November 26, 1996
- dated April 24, 1997 for public meeting with PWR (Surry) held on March 25, 1997
- dated April 24, 1997 for public meeting with BWR (Grand Gulf) held on March 27, 1997

ENDANGERED SPECIES ACTION PLAN
(FINAL REPORT)

TAC No. M88282
GSI: EI-184

Last Update: 5/1/97
Lead NRR Division: DRPM

	MILESTONE	DATE
1.	Development of action plan.	06/95C
2.	Develop list of currently listed protected species in the vicinity of each nuclear power plant site	11/95C
3.	Identify individual licensee programs and activities being conducted to further the conservation of protected species.	05/96C
4.	Determine priority for sites warranting follow-up actions.	01/97C
5.	Recommend site-specific follow-up actions to Projects.	02/97C
6.	Development and implementation of process for maintaining status and compliance with the ESA at each site.	04/97C

Description: Develop a list of currently listed protected species in the vicinity of each nuclear power plant site, identify individual licensee programs and activities being conducted to further the conservation of protected species, and conduct informal or formal consultation with either the National Marine Fisheries Service or the Fish and Wildlife Service, as warranted for any specific site.

Historical Background: In 1973, Congress passed the Endangered Species Act for the protection of endangered or threatened species. In responding to a Commission memorandum of July 30, 1991, concerning efforts of the Commission, applicants, and licensees for protection of endangered species in the vicinity of nuclear power facilities, it was identified that the NRC may not have completed all the necessary activities required by the Endangered Species Act for some of the facilities that have identified endangered species. This action plan will determine the additional actions, if any, that need to be taken at individual sites so that the NRC can meet its obligations under the act.

Proposed Actions: Conduct evaluations of plant-specific lists of endangered species and existing licensee commitments to further the conservation of the protected species and determine if informal or formal consultation with either the National Marine Fisheries Service or the Fish and Wildlife Service is warranted.

Originating Document: Commission Memorandum of July 30, 1991.

Regulatory Assessment: Continued facility operation is appropriate because this action plan does not involve a health and safety issue.

Current Status: This project has been completed. A list of currently listed protected species in the vicinity of each nuclear power plant site was developed by a contractor and a final report was transmitted to the NRC by letter dated March 14, 1997. This final report, PNNL- 11524, "Threatened and Endangered Species Evaluation for 75 Licensed Commercial Nuclear Power Generating Plants," prioritizes sites and makes recommendations for site-specific follow-up actions.

Contacts:

NRR Technical Contacts:	Mike Masnik, PDND, 415-1191
	Jim Wilson, PGEB, 415-1108
NRR Lead PM:	Jim Wilson, PGEB, 415-1108

References: Commission Memorandum of July 30, 1991.

Note: The Endangered Species Act requires Federal agencies to take appropriate actions to ensure protection of endangered or threatened species.

ENVIRONMENTAL SRP REVISION ACTION PLAN

TAC No. M80177
GSI: Not Available

Last Update: 05/01/97
Lead NRR Division: DRPM

MILESTONES		DATE (T/C)
1.	Reflect Potential Impacts and Integrated Impacts in Options for Resolution	
	a. Identification of potential impacts	03/96C
	b. Identification of integrated impacts	06/96C
	c. Proposed options for resolution and develop initial draft of revised ESRP	10/96C
	d. Staff/contractor meeting to resolve format and content of revised ESRP	11/96C
2.	Prepare Final Draft of ESRP Sections for Public Comment	
	a. Draft updated ESRP for staff review	01/97C
	b. ACRS and/or CRGR review, if necessary	06/97T
	c. Publish (electronic) for public comment	08/97T
3.	Disposition Public Comments	01/98T
4.	Publish Final NUREG-1555	08/98T
5.	Maintenance of program data	Ongoing

Description: The Environmental Standard Review Plan (ESRP) Revision Action Plan deals with the revision to NUREG-0555 to reflect changes in the statutory and regulatory arena, to incorporate emerging environmental protection issues (e.g., SAMDA and environmental justice) since originally published in 1979, and to support the review of license renewal applications. The ESRP will take the form of the SRP (including acceptance criteria) and follows the same update criteria outlined under the SRP-UDP project (with the exception of maintaining the MDB at this time). The objective of the tasks outlined in the action plan is to complete the identification of potential impacts by April 1996 (completed in March 1996), the integrated impacts by June 1996 (completed), and the options for resolution beginning in August 1996 with levelizing across-ologies occurring earlier at the options stage rather than later at the draft stage. Initial interactions on options stage indicate that, at a minimum, the existing ESRP sections will need restructuring to conform to NUREG-0800 format; contractor is combining resolution options and format restructuring to accelerate schedule. After submittal of the draft by February 1997 for staff and CRGR review, if necessary, the sections will be published for public comment in August 1997. Disposition of public comments and staff review of the update (NUREG-1555) leads to a publication date of August 1998.

Regulatory Assessment: NRR has established the ESRP Update Program for use in the life cycle review of environmental protection issues for nuclear power plants, especially license renewal applications, but also operating reactors, and future reactor site approval applications. The ESRP will reflect current NRC requirements and guidance, consider other statutory and regulatory requirements (e.g., the National Environmental Policy Act, Presidential Executive Orders), and incorporate the generic environmental impact work and plant-specific requirements developed during amending of Part 51 for license renewal reviews.

Current Status: The PNNL/NRC staff workshop on the restructured and revised ESRP was held during November 13-14, 1996. Now that the Part 51 rule for license renewal is final, particular emphasis is being placed on assuring that license renewal needs are being addressed in a schedule consistent with the RES regulatory guide and pilot plant application. The results of the November workshop were provided by PNNL in January 1997; followup discussions were held with the contractor through April 1997 and a draft of NUREG-1555 is now available to be shared with ACRS to determine whether it wants to review the document prior to release for public comment.

NRR Technical Contact: B. Zalcman, PGEB, 415-3467

10 CFR 50.59 ACTION PLAN

TAC No. M94269

Last Update: 05/07/97
Lead NRR Division: DRPM
Supporting Divisions: all

MILESTONES		DATE (T/C)
1.	Action plan approval/copy to Commission	(04/15/96)(C)
2.	Identify work group members	05/24/96(C)
3.	Brief D/NRR on issues	N/A
4.	Conduct workshop	06/18/96(C)
5.	Brief D/NRR on proposed positions	07/24/96(C)
6.	Draft position papers	08/29/96(C)
7.	Obtain regional comments	09/30/96(C)
8.	Policy issues and position paper to Commission with Lessons Learned Report	(02/12/97(C)
9.	Issue document for public comments	05/07/97(C)
10.	Obtain comments	07/97(T)
11.	Recommendations and rulemaking plan issued to NRC management	(08/97)(T)
12.	Commission Paper	(09/07/97)(T)
13.	Follow-up Actions	TBD

Description: This action plan defines measures to improve licensee implementation and NRC staff oversight of the 10 CFR 50.59 process.

Historical Background: 10 CFR 50.59 was promulgated in 1962 to describe the circumstances under which licensees may make changes to their facility (or to make changes to procedures, or to conduct tests and experiments) without prior NRC approval when the change does not involve the Technical Specifications or an unreviewed safety question. Licensees are required to submit periodically information related to changes made pursuant to 50.59. The NRC has programs for monitoring licensee processes for implementing 50.59. In a memorandum dated October 27, 1995, Chairman Jackson raised a number of questions concerning 50.59 implementation and NRC oversight, and proposed a systematic reconsideration and reevaluation of the process. The staff developed an action plan to identify actions to be undertaken to improve both the licensee's implementation and the NRC staff's oversight of the 50.59.

Proposed Actions: In accordance with the action plan, the staff's approach to development of regulatory guidance would proceed in phases. Over the last several months, the staff has developed specific positions (guidance) in particular areas related to 50.59 implementation and has considered the feasibility of implementing such guidance within the existing regulatory framework. Public comments on the position paper(s) will be obtained. The ACRS was asked requested to provide its comments on these positions. At the end of the first phase, the staff will take stock of its progress and make recommendations on issuing guidance, undertaking

rulemaking or other actions. Actions, milestones and schedules for further phases of this effort will be developed after the results of the first phase are assessed. Other related efforts are being tracked under other programs.

Originating Document: April 15, 1996 memorandum from the EDO to Chairman Jackson, Subject: Action Plan for Improvements to 10 CFR 50.59 Implementation and Oversight.

Regulatory Assessment: The action plan was developed to identify actions to improve implementation of the 50.59 process. A number of improvements have been implemented , such as directing inspectors conducting all routine inspections to specifically address FSAR compliance, and reviewing spent fuel pool/core offload procedures and practices at all facilities. As stated in the December 15, 1995, memorandum, "The staff concludes that there is currently no indication that implementation of 10 CFR 50.59, as it is carried out today, has led to decreased safety, based on inspection experience. While improvements can be made to achieve a higher degree of uniformity of review, the current process as it is being implemented provides reasonable assurance that plant safety has not been decreased." The above conclusion is confirmed by the additional analysis of inspection experience presented in the staff review document. Therefore, non-urgent regulatory action and continued facility operation are justified.

Current Status: A revision to the action plan was issued on August 20, 1996, which revised the scheduled milestones such that the Commission will have the opportunity to consider the policy issues associated with 50.59 along with other policy issues from the Millstone lessons learned review.

A Commission paper, SECY-97-035, was sent to the Commission on February 12, 1997, that forwards the results of the staff's review to the Commission. In the paper, the staff identifies areas where implementation would benefit from clarification. The staff proposes to issue regulatory guidance to provide these clarifications, and the paper requests Commission approval to publish the staff paper for public comment. A Commission briefing was conducted on March 10, 1997. In a Staff Requirements Memorandum dated April 25, 1997, the Commission approved the staff recommendation for a 60-day comment period on the staff's proposed guidance. The *Federal Register* notice of availability for comment of draft NUREG-1606 was published on May 7, 1997. The Commission also directed the staff to provide a paper by September 7, 1997, that would provide staff recommendations including consideration of the public comments and Commission guidance on SECY-97-036 (Millstone Lessons-Learned Part 2 report), and a rulemaking plan for a risk-informed approach for 50.59 determinations.

The staff briefed the ACRS on April 2, 1997, on SECY-97-035. In a letter dated April 8, 1997, the ACRS recommended that the staff positions not be issued for public comment but instead that the NRC and industry continue efforts to revise industry guidance (draft NEI 96-07). The staff met with NEI on April 28, 1997, to discuss possible revisions to NEI 96-07.

NRR Technical Contact: E. McKenna, PGEB, 415-2189

References:
October 27, 1995 memorandum from Chairman Jackson to EDO
November 30, 1995 memorandum from Chairman Jackson to EDO
December 15, 1995 memorandum from EDO to Chairman Jackson
December 28, 1995 memorandum from EDO to Chairman Jackson
April 15, 1996 memorandum from EDO to Chairman Jackson
August 20, 1996 memorandum from EDO to Commission
February 12, 1997, SECY-97-035, Proposed Regulatory Guidance Related to Implementation of 10 CFR 50.59 (Changes, Tests, or Experiments)
April 25, 1997, Commission SRM on SECY 97-035.

INDUSTRY DEREGULATION AND UTILITY RESTRUCTURING ACTION PLAN

TAC Nos. M78003
Available

Last Update: 4/30/97 GSI: Not
Lead NRR Division: DRPM

MILESTONES	DATE (T/P/C)
Task 1 - Develop NRC Policy Statement and SRP	06/97T
Draft Policy Statement	05/96C
Office Concurrences	06/96C
EDO Concurrence	06/96C
Commission Paper	07/96C
Draft SRP	07/96C
Publish Draft Policy Statement	09/96C
Office Concurrences on SRP	09/96C
EDO Concurrence on SRP	09/96C
Commission Paper on SRP	09/96C
Publish Draft SRP	1/97C
Public Comment Policy Statement	2/97C
Public Comment SRP	03/97C
Final Policy Statement	05/97T
Office Concurrences	05/97T
ACRS	05/97T
CRGR	05/97T
EDO Concurrence	05/97T
Commission Approval	06/97T
Publish Final Policy Statement	06/97T
Final SRPs	09/97T
Publish Final SRPs	09/97T
Task 2 - Issue Administrative Letter to Licensees on Financial Reporting Requirements	06/96C
Draft Administrative Letter	05/96C
Office Concurrences	05/96C
Commission Information Paper	06/96C
Issue Admin Ltr to Licensees w/WTR Letter to CEOs	06/96C
Task 3 - Develop Non-Rulemaking Option for Periodic Reporting Requirements as Necessary	05/97T
Determine Necessity for Action	09/96C
Draft Option	01/97C
Office Concurrence	01/97C
	N/A
EDO Concurrence	05/97T
Publish Draft	05/97T

Task 4 - Update prior NUREG documents on owners and antitrust license conditions	02/97C
Issue Task Order Contract	05/96C
Draft NUREG Updated	09/96C
Publish NUREGs	12/96C
	N/A
	N/A
Task 5 - Institutionalize Staff Level Contact with NARUC,SEC,FERC. Develop MOUs as necessary.	ONGOING
Letter to agencies	06/96C
Staff level meetings	11/96C
Draft MOUs to Commission (as required)	TBD
Sign MOUs	TBD
Task 6 - Develop and implement rulemaking to clarify 10 CFR 50.80 if necessary	TBD
Commission determination of need	TBD
Proposed ANPR or rulemaking package	TBD
Office Concurrences	TBD
ACRS Comments	TBD
CRGR Concurrence	TBD
EDO Concurrence	TBD
Commission Approval	TBD
Publish ANPR or Proposed rule	TBD
Public Comment	TBD
Revise Rulemaking Package	TBD
Office Concurrences	TBD
ACRS Comments	TBD
CRGR Concurrence	TBD
EDO Concurrence	TBD
Commission Approval	TBD
Publish Final Rule	TBD
Task 7 - Assist Office of Research (RES) on Decommissioning Funding Assurance Rule.	ONGOING
Milestones for this task provided by RES under rulemaking action, "Decommissioning Costs and Funding Evaluations"	

Description: The action pla n is intended to address the Commission's concerns regarding the impact of utility deregulation and resulting reorganizations and restructuring on licensee's financial qualifications and their ultimate ability to safely operate and decommission their facilities.

Historical Background: In recent years, several restructurings and reorganizations have occurred with the electric utility industry. In addition, State public utility commissions (PUCs) have increased pressure for improvements in economic performance of electric utilities they regulate in order to reduce the rates paid by wholesale and retail consumers. The accelerated pace of this restructuring may affect the ability of power reactor licensees to pay for safe plant operations and decommissioning. Specifically, the restructuring may affect the factual underpinnings of the

NRC's previous conclusion that power reactor licensees can reliably accumulate adequate funds for operations and decommissioning over the operating lives of their facilities.

Proposed Actions: Specific actions included in the action plan are: 1) issuing a policy statement delineating NRC's expectations with respect to future financial and anti-trust reviews and developing a standard review plan regarding NRC's current financial review requirements; 2) issuing an administrative letter to all licensees delineating their current responsibilities with respect to getting prior NRC approval for changes that may affect their previous financial qualification determinations or ownership; 3) formulating non-rulemaking periodic reporting requirements, 4) updating NUREG documents containing financial information; 5)establishing staff level contacts with the Securities and Exchange Commission (SEC), the Federal Energy Regulatory Commission (FERC), and the National Association of Utility Regulatory Commissions (NARUC); 6) implementing rulemaking if necessary; and 7) assisting the Office of RES in their decommissioning funding assurance rulemaking.

Current Status: PGEB has developed a draft policy statement, administrative letter, and has conducted meetings with FERC and SEC. Staff level contacts with NARUC have been identified and implemented. The administrative letter was issued with a letter to the CEOs of all licensees on June 21, 1996. A Commission Information Paper informed the Commission of our intentions for sending the Admin letter and CEO letter. A Commission Paper forwarding the draft policy statement was submitted on July 2, 1996, as SECY-96-148. The Commission approved publication of the draft policy statement by SRM dated August 16, 1996. The draft policy statement was published in the *Federal Register* on September 23, 1996.

NRR Technical Contacts: R. Wood, PGEB, 415-1255
M. Davis, PGEB, 415-1016

EXTENDED POWER UPRATE ACTION PLAN

TAC No. M91571

Last Update: 04/30/97
Lead NRR Division: DRPW

GSI: RI-182

Supporting Division: DSSA

MILESTONES	DATE (T/C)
1: Receive GE Topical ELTR1 (Generic Review Methodology).	3/95 C
2: Issue Staff Position Paper on ELTR1	
- Meeting with GE/NSP.	4/95 C
- Identify differences between LTR1 and ELTR1.	8/95 C
- Issue RAIs as appropriate.	9/95 C
- Incorporate information on foreign experience obtained from SRXB.	10/95 C
- Develop power uprate database for all U.S. plants.	10/95 C
- Issue Staff Position Paper.	2/96 C
3: Receive GE Topical ELTR2 (Generic Bounding Analyses).	
GE plans to submit ELTR2 in two parts: the first part in March 96	3/96 C
and the second part in July 1996.	7/96 C
4: Issue Staff SE on GE ELTR2.	
- Meeting with GE/Industry.	2/96 C
- Issue RAIs as appropriate.	3/97 C
- Input to the SE from technical branches.	10/97 T
- Issue SE.	11/97 T
5: Receive Lead Plant Application (Monticello).	7/96 C
6: Issue Staff SE for Lead Plant.	
- Meeting with Monticello.	10/96 C
- RAIs input from tech branches.	1/97 C
- Issue RAIs as appropriate.	4/97 C
- Issue additional RAIs as appropriate.	10/97 T
- Input to the SE from tech branches.	3/98 T
- ACRS Presentation	4/98 T
- Issue Secy Information Paper	5/98 T
- Issue SE.	6/98 T
7: Support the ongoing staff effort in developing a Standard Review Procedure for power uprates. Incorporate lessons learned from Lead Plant activity.	TBD

Description: This action plan describes the strategy for completing both the generic and plant-specific reviews for extended power uprate submittals for boiling water reactors (BWRs). General Electric Company (GE) submitted a licensing topical report (ELTR1), which outlines the methodology for implementation of an extended power uprate program. ELTR1 encompasses power uprates of up to 120 percent of the original licensed thermal power. Individual plant

submittals for uprates will likely contain requests for an optimum power level specific for that plant which is something less than the full 120 percent.

Each technical branch will review the applicable portions of both the ELTR2 (GE topical report containing generic analyses) and the lead plant application, and will provide input into the staff's safety evaluation reports. The experience gained from these reviews will be incorporated into the ongoing staff effort in developing a standard review procedure for power uprates.

Historical Background: The generic BWR power uprate program was created to provide a consistent means for individual licensees to recover additional generating capacity beyond their current licensed limit. In 1990, GE submitted licensing topical reports to initiate this program by proposing to increase the rated thermal power levels of the BWR/4, BWR/5, and BWR/6 product lines by approximately 5 percent. Since 1990, the staff has reviewed and approved at least 10 such power uprate requests under this generic BWR power uprate program. As a follow-on to this program, GE submitted ELTR1 in March 1995 to propose "extended" power uprates of up to 120 percent of the original licensed thermal power.

Proposed Actions: Specific actions included in the generic action plan are: (1) review ELTR1 and issue a staff position paper, (2) review ELTR2 and issue a safety evaluation report, (3) review the lead plant application and issue a safety evaluation report, and (4) develop a standard review procedure based on ELTR1, ELTR2, and the lead plant review.

Originating Document: GE Licensing Topical Report (NEDC-32424), "Generic Guidelines for General Electric Boiling Water Reactor Extended Power Uprate," dated February 1995.

Regulatory Assessment: Not applicable. (A safety assessment is not needed for this action plan because a justification for continued operation of a plant is not required.) This program is an industry initiative that is strictly voluntary.

Current Status: As requested by the licensee, the overall schedule for staff review of the lead plant submittal has been delayed for approximately 8 months. The licensee is conducting a third party review of its power uprate program to incorporate the "lessons learned" from recent power uprate efforts at other facilities. The staff issued RAIs on both the ELTR2 and the lead plant submittal during this period. Experience gained from this action plan will be incorporated into the ongoing staff effort in developing a Standard Review Procedure for power uprates.

NRR Lead PM: T. J. Kim, DRPW, 415-1392

DRY CASK STORAGE ACTION PLAN

TAC Nos. M93821 (issue 2.a)
M93927 (issue 3.b)
M94107 (issue 4.c.)
M94108

Last Update: 04/30/97
Lead NRR Division: DRPW

GSI: Not Available

MILESTONES	DATE (T/C)
1. Develop action plan	07/95C
2. Near-term technical issues	
a. Heavy Loads/Cranes	
- develop working group plan	11/95C
- prepare & issue Bulletin 96-02	4/96C
- issue Heavy Loads Action Plan	5/97C
- complete Heavy Loads Action Plan	4/98T
a.(i) Movement of Casks Prior to Securing Lid	
- Issue RAI for BL96-02 responses	12/96C
- Review site specific responses	9/97T
- identify and resolve generic issue	12/97T
b. Cask Trunnions[2]	
- develop staff position	09/95C
- modify standards/guidance	No changes required (C)
c. Hydrostatic Testing[1]	12/95C
d. Seismic Requirements for Pads	
- issue Information Notice	06/95C

[2] NMSS has the lead for this issue.

MILESTONES	DATE (T/C)
3. Long-term technical issues	
a. Cask weeping[1]	08/95C
- meet with NEI	As Necessary
- determine NRC actions to resolve	
b. Cask loading/unloading procedures	08/95C
- contact NEI about industry efforts	09/95C
- resolve high priority issues	10/95C
- form working group	04/96C
- complete working group determination on further issues	
c. Off Loading after fuel pool is decommissioned[1]	As required in response to submittals
- develop guidance and modifications to inspection procedures	
d. Failed Fuel Storage[1]	Closed with issuance of SRP (NR1536) 2/97C
- review proposed solutions	
e. Safeguards Concerns[1]	
- complete analysis of designs	12/95C
4. Procedural issues	
a. Change processes	
- issue SRP and 50.59 guidance	03/96C
- training for staff	05/96C
- Prepare 72.48 Inspection Procedure (NMSS)	09/97T
- Evaluate Adequacy of 50.59 Guidance (NRR)	09/97T
b. Reporting Requirements[1]	
- develop position, communicate to licensees	09/95C
c. Inspection of site activities	
- issue revised procedures	02/96C
- develop resource estimates and inspection schedule	02/96C
- Revise MC2515 Inspection Procedures for ISFSI support activities	12/97T
d. Vendor Inspections[1]	02/96C
- issue revised procedures	10/95C
- develop resource estimates and inspection schedule	
e. Cask and SAR differences[1]	09/95C
- contact vendors	
5. Communications	
a. Interface meetings	Ongoing
b. Staff training[1]	10/95C
c. Industry workshop	07/95 & 5/96C

Description: The Plan was developed to identify and resolve major issues and problems in the area of dry cask storage of spent reactor fuel in independent spent fuel storage installations (ISFSIs). Specific issues encompassed by the plan include heavy load control, procedures for cask loading and unloading, failed fuel storage, change processes, inspection activities, and communications (internal and external). Issues have been divided into the following categories: near-term technical, long-term technical, communications, and process issues.

Historical Background: Since 1986, several U.S. nuclear power plant licensees have installed independent spent fuel storage installations (ISFSIs), that is, licensee-owned dry cask storage facilities. Other licensees are also planning such installations. In recent years, licensees have encountered a number of problems during the fabrication, installation and licensing of some of these ISFSIs and there has been an inconsistent level of performance by involved licensees and cask fabricators with respect to the use of dry cask storage of spent reactor fuel. Because of the anticipated increased industry effort in this area, the staff needed to fully understand the problems that occurred and take appropriate measures to reduce such problems in the future. Therefore, NMSS and NRR reviewed the lessons learned from past experience with ISFSIs, both our experience and the experience of other headquarters and regional offices, and developed a plan to resolve major issues and problems.

Proposed Actions: Actions included in the plan are: (1) review each general issue and identify the specific problems to be addressed, (2) develop corrective actions for each problem, and (3) implement the corrective actions.

Originating Document: Memorandum from Carl J. Paperiello and William T. Russell to James M. Taylor, July 28, 1995, "Dry Cask Storage Action Plan".

Regulatory Assessment: The plan addresses dry storage of fuel that is several years old. Technical issues have been addressed on a site-specific basis for existing facilities. The action plan will improve guidance, enhance communications with industry and the public, and aid future applicants.

Current Status: The following action plan issues have been completed or closed following a determination that staff action was not required: cask trunnions, hydrostatic testing, pad seismic requirements, cask weeping, cask loading/unloading procedures, safeguards concerns, Part 72 reporting requirements, vendor inspections, and communications. The inspection procedures for dry cask activities (site and vendor) were issued in February, 1996 and revisions were issued in May 1996. These procedures included resource estimates for inspection activities. The staff has incorporated additional guidance on seismic issues into Inspection Procedure (IP) 60851 and additional guidance concerning consideration of failed fuel in unloading procedures into IP 60854. Enhancement of the procedures to address issues identified during recent inspections is an ongoing process and has been incorporated into the normal responsibilities of the program offices. The schedule for heavy load control has been extended to allow resolution of issues related to NRC Bulletin 96-02, issued April 11, 1996. The issue of potential cask drop events prior to securing the lids will be resolved as part of closure of Bulletin 96-02. Licensees have responded to staff questions on this issue and the staff has completed assessments of several responses. In general, the staff is finding that licensee assessments are acceptable and that the loss of confinement of spent fuel in a cask due to a tip over is not a credible scenario. The variety of issues related to heavy loads and impact on staff resources have been determined to justify a separate action plan. The heavy loads action plan has been prepared and it is expected that it will be issued in May 1997. The closure of the issue on storage of damaged fuel was accomplished through the publication of the dry cask SRP which included a definition of gross cladding defect. Any application for the actual storage of damaged fuel will be accomplished as normal case work within NMSS/SFPO. In response to decisions made during an interface meeting between NRR and

NMSS office directors, the staff is preparing the next major update of this action plan and will include recent issues such as potential weld cracking on VSC-24 casks.

Contact: NRR Contact: William Reckley, DRPW, 415-1314
NMSS Contact: Patricia Eng, SFPO, 415-8577

References:

Memorandum from Robert M. Bernero and William T. Russell to James M. Taylor, March 15, 1995, "Realignment of Reactor Decommissioning Program"

Memorandum from Carl J. Paperiello and William T. Russell to James M. Taylor, July 28, 1995, "Dry Cask Storage Action Plan"

Memorandum from Carl J. Paperiello and William T. Russell to James M. Taylor, January 25, 1996, "Update to the Dry Cask Storage Action Plan"

Memorandum from Carl J. Paperiello and Frank J. Miraglia to Hugh L. Thompson, January 30, 1997, "Dry Cask Storage Action Plan Update"

ACCIDENT MANAGEMENT IMPLEMENTATION

TAC #: M91966 - Overall
M91641 - BWROG SAMG Review

Last Update: 04/28/97
Lead NRR Division: DSSA

	MILESTONES	DATE (T/C)
1.	Review BWROG Severe Accident Management Guidance (SAMG) documents	7/97T
2.	Review severe accident training materials and BWROG prioritization methodologies	06/95C
3.	Develop TI for pilot inspections	
	Initial draft (for internal use)	11/95C
	Industry-sponsored A/M demonstrations	TBD
	Revised draft (to NEI and public)	TBD
	Final TI	TBD
4.	Complete pilot inspections and follow-up	12/97T
5.	Revise inspection procedures (IP) and hold public workshop	
	Draft IP	03/98T
	Public meeting/workshop	05/98T
	Final IP	07/98T
6.	Review remaining plants	TBD

Description: This action plan is intended to guide staff efforts to assess the quality of utility implementation of accident management (A/M), and the manner in which insights from the IPE program have been incorporated into the licensees' A/M programs. Specific review areas will include: development and implementation of plant-specific severe accident management guidelines (SAMG), integration of SAMG with emergency operating procedures and emergency plans, and incorporation of severe accident information into training programs.

Historical Background: The issue of A/M and the potential reduction in risk which could result from developing procedures and training operators to manage accidents beyond the design basis was first identified in 1985 [1]. A/M was evaluated as Generic Issue 116 and subsumed by A/M-related research activities in late 1989. Completion of A/M is a major remaining element of the Integration Plan for Closure of Severe Accident Issues [2]. The development of generic and plant-specific risk insights to support staff inspections of utility A/M programs is also identified in the Implementation Plan for Probabilistic Risk Assessment [3]. NRC's goals and objectives regarding A/M were established at the inception of this program [4]. Generic A/M strategies were issued in 1990 for utility consideration in the IPE process [5]. The staff has continued to work with industry to define the scope and content of utility A/M programs and these efforts have culminated in industry-developed A/M guidance for utility implementation. Industry has committed to implement an accident management program at each NPP [6]. NRC has accepted the industry commitment and developed tentative plans for staff inspection of utility implementation [7].

Proposed Actions: Specific actions included in the A/M action plan are: (1) complete the review of BWROG SAMG documents, (2) conduct site visits to observe how the elements of the formal industry position are being implemented, (3) complete the draft Temporary

Instruction (TI) using the information and perspectives obtained through the site visits, (4) complete pilot inspections and follow-up, and (5) develop an inspection procedure for use at remaining plants and hold a public workshop. Based on feedback from the workshop, the staff will finalize the inspection procedure, and the approach and schedule for evaluating A/M implementation for the remaining plants.

Originating Document: SECY-88-147, Integration Plan for Closure of Severe Accident Issues, May 25, 1988.

Regulatory Assessment: Accident management programs are being implemented by licensees as part of an initiative to further reduce severe accident risk below its current, and acceptable, level. Consequently, this is a non-urgent regulatory action and continued facility operation is justified.

Current Status: Severe accident management guideline documents have been submitted by each of the PWR owners groups, and reviewed by the staff [8]. The BWROG submitted Rev. 0 of the Emergency Procedure and Severe Accident Guidelines (EP/SAG) and associated technical basis documents to NRC for information on August 29, 1996 [9]. The staff and Oak Ridge National Laboratory have completed a high level review of the EP/SAG documents. Areas where additional information and discussion with the BWROG is considered necessary were identified in an April 2, 1997 letter to the owners group [10]. The BWROG agreed to illustrate the EP/SAG implementation process and time-line by applying the guidelines to a limited number of BWR sequences identified by NRC. A submittal from the BWROG was anticipated in January 1997 but has not yet been received. A meeting to discuss specific questions/concerns regarding the BWROG products, previously planned for February 1997, will be delayed until the submittal is received and the BWROG is prepared to address staff concerns.

Licensee target dates for completing A/M implementation have been submitted to NRC, and a draft TI for use in the pilot inspections has been completed. Comments on the draft TI have been received from the NRC Region offices. The staff met with industry on February 22, 1996, and ACRS on March 1, 1996, to discuss plans for inspecting utility implementation of the formal industry position on severe accident management and major elements of the draft TI. These plans included staff visits to approximately 2 to 4 sites for the purpose of obtaining an early understanding of how the various elements of the formal industry position are being implemented. The information and perspectives obtained through these visits, as well as comments from the Region offices, would be used to update the draft TI. The draft TI would be made available to NEI and the public after the information-gathering visits.

A meeting with NEI to discuss the scope and schedules of the information gathering visits was held on December 19, 1996. At that time, NEI proposed to take the lead in organizing "demonstrations" of completed A/M implementation at four to six plants. These demonstrations would be in lieu of the information gathering visits and follow-on pilot inspections envisioned by the staff, and would occur in the June/July 1997 timeframe. NEI also informed the staff of an industry-sponsored workshop concerning severe accident management implementation planned for March 11-13, 1997, and proposed that NRC staff attend in order to better understand implementation approach and status.
In a follow-up meeting with NEI on January 24, 1997, the staff indicated that attendance at the A/M workshop, together with participation in the A/M demonstrations, should serve the role of the information gathering visits, but that the staff is not in a position at this time to alter the plans outlined in SECY-96-088 concerning the need for pilot inspections and the nature of the inspections that would be performed at the balance of plants in the longer term. This aspect of the program will be reassessed and refocussed after the A/M demonstrations.

NRR staff attended the NEI-sponsored workshop on accident management implementation on March 11-13, 1997, and is currently awaiting confirmation from NEI regarding the schedule and locations of the A/M demonstrations.

References:

1. Memorandum from F. Rowsome to W. Minners, "A New Generic Safety Issue: Accident Management," April 16, 1985
2. SECY-88-147, Integration Plan for Closure of Severe Accident Issues
3. SECY-95-079, Implementation Plan for Probabilistic Risk Assessment
4. SECY-89-012, Staff Plans for A/M Regulatory and Research Programs
5. Generic Letter 88-20, Supplement 2, April 4, 1990
6. Letter from W. Rasin to W. Russell, November 21, 1994
7. Letter from W. Russell to W. Rasin, January 9, 1995
8. Letter from W. Russell to W. Rasin, February 16, 1994
9. Letter from K. Donovan to Document Control Desk, Attn: J. Wilson, August 29, 1996
10. Letter from D. Matthews to K. Donovan, April 2, 1997

NRR Technical Contact: R. Palla, SCSB, 415-1095
NRR Lead PM: Ramin Assa, DRPW, 415-1391

FIRE PROTECTION TASK ACTION PLAN

TAC Nos. M86652, M82809, M84592, M85142, and M89509 | Last Update: 04/28/97 | Lead NRR Division: DSSA

GSI: LI-181

MILESTONES		DATE (T/C)
1.	Semiannual Commission status reports	Last: 10/31/96C Next: 05/20/97T
2.	Recommendations for action (Part I)	09/97T
3.	Recommendations for future study (Part II)	10/96C
4.	Confirmation issues (Part III)	10/96C
5.	Other issues (Part IV)	08/95C

Description: The Fire Protection Task Action Plan (FP-TAP) is used to track and manage implementation of the recommendations made in the "Report on the Reassessment of the NRC Fire Protection Program," of February 27, 1993.

Historical Background: In February 1993, the Office of Nuclear Reactor Regulation (NRR) completed a reassessment of the reactor fire protection review and inspection programs in response to programmatic concerns raised during the review of Thermo-Lag fire barriers. The results of the reassessment were documented in the "Report on the Reassessment of the NRC Fire Protection Program," of February 27, 1993. The staff prepared the FP-TAP to implement the recommendations made as a result of the reassessment report.

Proposed Actions: The FP-TAP tracks the implementation of a wide range of technical and programmatic fire protection issues. It includes recommendations for action (Part I), recommendations for further study (Part II), confirmation issues (Part III), and lessons learned (Part IV). The staff is implementing the recommendations, in priority order, as resources allow. The staff focus is now on implementing its plan for future direction of the NRC fire protection program with emphasis on the fire protection functional inspection (FPFI) program and centralizing the management, by NRR, of the FPFI program and all other reactor fire protection work. The principal objective of these efforts is to ensure that the NRC has a strong, broad-based and coherent fire protection program which is commensurate with the safety significance of the subject.

Originating Document: "Report on the Reassessment of the NRC Fire Protection Program," February 27, 1993.

Regulatory Assessment: Each operating reactor has an NRC-approved fire protection plan that, if properly implemented and maintained, satisfies 10 CFR 50.48, "Fire protection," and General Design Criterion 3, "Fire protection." Therefore, each plant has an adequate level of fire safety and the individual action plan items are receiving appropriate priority.

Current Status: The staff issued a semiannual report to the Commission on the status of the FP-TAP on October 31, 1996. The next status report is due to the Commission on May 20, 1997.

The staff completed additional small-scale fire tests of fire barrier materials other than Thermo-Lag at NIST. The test results were provided by NIST in its Report of Test FR 4008, "Pilot-Scale Fire-Endurance Tests of Fire-Barrier Panels and Panel/Blanket Combinations," dated August 20, 1996. The staff's review of the Report of Test FR 4008 and fire barrier materials other than Thermo-Lag is ongoing. The staff plans to complete its review by September 1997.

The Plant Systems Branch (SPLB) continued to work with Probabilistic Risk Assessment (PRA) Branch staff and Brookhaven National Laboratory (BNL), its technical assistance contractor, to evaluate the risk associated with the post-fire safe-shutdown methodology that imposes a self-induced station blackout. The staff plans to apply the PRA model for assessing the risk significance of the self-induced station blackout methodology to two plant-specific cases during FY 97. The staff is working on an issue recommended for further study regarding fire barrier reliability, under Generic Safety Issue (GSI) 149, "Adequacy of Fire Barriers." The staff and BNL have performed scoping analyses, using fault trees and event trees, to assess the effectiveness of a degraded fire barrier in mitigating the consequences of a fully developed fire in a plant area that is important to post-fire safe shutdown. The staff and BNL discussed the preliminary results of these two studies and future plans with the Advisory Committee on Reactor Safeguards (ACRS) on February 29, 1996. By letter of March 15, 1996, the ACRS submitted its comments to the Commission. The staff responded to the ACRS by letter of April 25, 1996. The staff is assessing the recommendations made by the ACRS . NRR and RES are evaluating the transfer of this project to RES in the framework of the fire protection rulemaking.

In SECY-96-134, the staff stated that as part of the new fire protection rulemaking, it would review operating experience and would address a variety of fire safety issues. Consistent with this commitment, and to eliminate duplication of effort, the staff has included its review of some of the FP-TAP issues in its plan for the fire protection rulemaking. These include, for example, a review of the adequacy of operability requirements for safe shutdown equipment and of fire barrier surveillance requirements, adequacy of manual firefighting, and the remaining confirmation issues. The staff will track these issues in the fire protection rulemaking plan rather than in the FP-TAP. This action, which completes Part II and Part III of the FP-TAP, is documented in a memorandum of October 31, 1996, from J. Taylor to the Commission.

Scientech and BNL have provided technical assistance for developing the Fire Protection Functional Inspection (FPFI) procedures. A first draft of the Fire Protection Functional Inspection (FPFI) Procedure has been issued to NRR and the regional offices for comment. The procedure will be issued as a Temporary Instruction (TI) in early June prior to the first FPFI pilot inspection.

The Commission has agreed with the FPFI pilot inspection program as described in SECY-96-267. River Bend will be inspected in June 1997, Clinton in August 1997, Susquehanna in October 1997, and St. Lucie in March, 1998.

The staff will provide the Commission with a post-pilot inspection program report describing inspection results and discussing strategies which would expand the benefits of the pilot inspections to all licensees (e.g. licensee self-assessments with followup NRC reviews). Post-pilot inspection program activities will include a public workshop to discuss inspection results and request comments.

The development of a staff fire protection training program will remain on hold until the FPFI program is implemented.

Note 1: TAC M85142 is assigned to the performance-based fire protection rulemaking. Detailed status and resource information for this effort can be found in the "Fire Protection" rulemaking status summary.

Note 2: The hours estimated for completion are based on FP-TAP items that are currently planned and scheduled in WISP. Some items, such as developing a fire protection training program, have not been scheduled. As discussed above, the tracking of some of the issues has been transferred to the rulemaking plan. Therefore, less resources will be needed to complete the action plan than estimated originally.

Contact: D. Oudinot, DSSA, 301-415-3731

References:

"Report on the Reassessment of the NRC Fire Protection Program," of February 27, 1993.

SECY-95-034, "Status of Recommendations Resulting From the Reassessment of the NRC Fire Protection Program," February 13, 1995.

Memorandum of October 31, 1996, from J. M. Taylor, EDO, to the Commission, "Semiannual Report on the Status of the Thermo-Lag Action Plan and Fire Protection Task Action Plan."

PRA IMPLEMENTATION ACTION PLAN

TAC Nos. M90370, M90371, M90227, M90977, M91787, M91802 Last Update: 04/25/97
Lead NRR Division: DSSA

GSI: Not Available

MILESTONES	DATE(T/C)
1. ACRS Meeting	07/94C 08/96C 11/96C 12/96C 02/97C 03/97C
2. Commission Briefing	08/94C 04/95C 04/96C 10/96C 05/97T
3. Publish PRA Policy Statement for 60-day comment period	12/94C
4. ACRS Subcommittee Meeting	09/94C 07/96C 11/96C 02/97C 03/97C 06/97T
5. Conduct Public Workshop on PRA Implementation Plan	12/94C
6. Publish final PRA policy statement	08/95C
7. Detailed Implementation	NA
1.1(a) Develop draft Standard Review Plans for risk-informed regulation for ACRS review	02/97C
1.1(b) Forward draft Standard Review Plans to the Commission	04/97C
1.1(c) Final draft Standard Review plans for ACRS review	9/97T
1.1(d) Publish final Standard Review Plans ISI All Others	 02/98T 12/97T
1.2 Pilot Applications to Specific Regulatory Initiatives: (a) MOVs (b) IST (c) ISI (d) Graded QA (e) Maintenance Rule (f) Technical Specifications (g) Other applications to be identified later	 (a) 02/96C (b) 06/97T (c) 04/98/T (d) 12/97T (e) 09/95C (f) 05/97T

	MILESTONES	DATE(T/C)
1.3(a)	Develop Inspection Guidance to Use IPEs and Plant-Specific PRAs	06/97T
1.3(b)	Develop training course for inspectors	10/97T
1.3(c)	Support regional inspection activities	Ongoing
1.4	Operator Licensing - Revise Examiner's Handbook to Reflect Revised Knowledge & Abilities Based on Risk Insights	03/97C
1.5	Event Assessment - (a) Conduct event assessment of reactor events (b) Assess desirability of risk assessment on non-power reactors	(a) Ongoing (b) TBD
1.6	Review Adequacy of Licensee Analysis in IPEs/IPEEEs	TBD
1.7	Apply Guidance to Assess Effectiveness of SBO and ATWS Rules	TBD
1.8(a)	Staff review of PRAs for design certification applications	Ongoing
1.8(b)	Develop SRP for Review of PRAs for Evolutionary Reactor Designs	12/99T
1.8(c)	Develop Guidance for Use of Risk in Simplification of Emergency Planning Requirements	12/96C
1.9	Accident Management - Develop Risk Insights to Review and Inspect Industry Accident Management Programs	TBD
1.10	Evaluate IPE insights to determine followup activities	12/97

Description: This action plan is intended to describe the process for the staff to use PRA method and technology in the agency's effort toward risk-informed regulatory approaches. The plan encompasses methods development, pilot applications, and staff training. The plan will be used to ensure timely and integrated agency-wide effort that is consistent with the PRA Policy Statement.

Historical Background: The NRC has been making use of PRA technology to varying degrees in its regulatory activities since WASH-1400. Prior to 1991, this had been an ad hoc application, depending on the availability of expertise in various technical groups. Since 1991, there have been a number of high-level studies within NRC that have focused on the status of PRA use and its role in the regulatory process. Collectively, the findings and recommendations from these studies support the view that there is a need for increased emphasis on PRA technology applications. For the full value of our investment in risk assessment methodology to be achieved, it is important that consistent high-level agency guidance be provided on the appropriate use of PRA. To this end, in November 1993, the Office Directors of NRR, AEOD, NMSS, and RES proposed to take the initiative in providing guidance on coordination and expectations for PRA efforts. Specifically, they proposed to develop an integrated plan for the staff's risk assessment and risk management practices. In August 1994, the staff submitted SECY-94-219, "Proposed

Agency-Wide Implementation Plan For Probabilistic Risk Assessment," for the Commission's information. On March 30, 1995, The staff submitted SECY-95-079, "Status Update of the Agency-Wide Implementation Plan for PRA," and briefed the Commission on the subject on April 5, 1995. On May 18, 1995, the staff forwarded SECY-95-126, "Final Policy Statement on the Use of Probabilistic Risk Assessment Methods in Nuclear Regulatory Activities," for Commission vote. On June 8, 1995, the staff briefed the ACRS on the PRA policy statement. The final PRA policy statement was published in the *Federal Register* on August 16, 1995.

Proposed Actions: The PRA Implementation Plan includes activities for NRR, RES, AEOD, and NMSS staff to increase the use of PRA methods in all regulatory matters. NRR focuses on the PRA applications in reactor regulations, the development of standard review plans, the pilot programs to use PRA technology in specific regulatory initiatives, events assessment, and working with Regions on risk-informed inspections. RES focuses on the IPE/IPEEE reviews, PRA method and quality, and the development of PRA regulatory guides for the industry. AEOD focuses on risk-informed trends and patterns analysis, reliability data for PRA applications, and staff training. NMSS focuses on using PRA in high and low level waste issues. The detailed actions are described in the PRA Implementation Plan.

Originating Document: Memorandum dated November 2, 1993, T. Murley et al. to J. Taylor, "Agency Directions For Current and Future Uses of Probabilistic Risk Assessment".

Regulatory Assessment: This action plan is meant to improve the regulatory process by developing state-of-the-art PRA tools that will expand the use of PRA technologies in making regulatory decisions. The plan is not intended to correct safety problems at licensed facilities. Therefore, continued facility operation is justified.

Current Status:

The staff has updated the status of activities in the agency's PRA Implementation Plan in SECY-97-076 dated April 3, 1997.

On January 22, 1997, the Commission issued its Staff Requirements Memorandum on SECY-96-218. This SRM provided Commission guidance on the four emerging policy issues associated with moving toward risk-informed, performance-based regulation.
The staff has incorporated proposed resolutions of the policy, technical, and process issues in new drafts of the broad-scope general regulatory guide (RG) and standard review plan (SRP) and the application-specific RG and SRP for Inservice Testing (IST), Graded Quality Assurance (GQA) and Technical Specifications (TS) and has discussed the new drafts with the Advisory Committee on Reactor Safeguards (ACRS) and the Committee to Review Generic Requirements (CRGR). Both the ACRS and the CRGR have completed their reviews of the guidance and concurred in the staff's proposal to issue the guidance for comment by the public. On April 8, 1997, the staff forwarded the draft guidance documents to the Commission (SECY-97-077) and requested their approval for issuing the documents for comment by the public. The staff plans to hold a public workshop in July 1997 to discuss the guidance and provide any needed clarification.

In April 1997, the staff held a public workshop to discuss draft NUREG-1560 (report on insights from IPE program). The staff expects to issue the final version of NUREG-1560 by the end of June 1997.

There is some schedule slippage of milestone dates including a two month delay in completing the draft and final SRP for ISI and a six month delay in completing the GQA pilot applications for Grand Gulf and Palo Verde. The next quarterly update of the PRA Implementation Plan is scheduled to be forwarded to the Commission in June 1997.

NRR Technical Contact: Tom Hiltz, SPSB, 415-1105

References:

SECY-94-219, "Proposed Agency-Wide Implementation Plan for Probabilistic Risk Assessment"

SECY-95-079, "Status Update of The Agency-Wide Implementation Plan for Probabilistic Risk Assessment"

SECY-95-126, "Final Policy Statement on The Use of Probabilistic Risk Assessment Methods In Nuclear Regulatory Activities"

SECY-95-280, "Framework For Applying Probabilistic Risk Analysis In Reactor Regulation"

Memorandum from James M. Taylor to Chairman Jackson, "Improvements Associated with Managing The Utilization of Probabilistic Risk Assessment (PRA) and Digital Instrumentation and Control Technology," January 3, 1996.

Memorandum from James M. Taylor to the Commission, "Status Update of the Agency-Wide Implementation Plan for Probabilistic Risk Assessment (PRA) (From March 30, 1995 to February 29, 1996)," March 26, 1996.

Staff Requirements - Briefing on PRA Implementation Plan, 10:00 a.m., Thursday, April 4, 1996, Commissioners' Conference Room, One White Flint North, Rockville, Maryland (Open to Public Attendance), May 15, 1996.

Memorandum from James M. Taylor to the Commission, "Status Update of the Agency-Wide Implementation Plan for Probabilistic Risk Assessment (PRA) (From March 1, 1996 to May 31, 1996)," June 20, 1996.

Letter from T. S. Cress, ACRS Chairman to Chairman Jackson, NRC, "Risk-informed, performance-based regulation and related matters" dated August 15, 1996.

SECY-96-218, "Quarterly Status Update for the Probabilistic Risk Assessment (PRA) Plan, Including a Discussion of Four Emerging Policy Issues Associated With Risk-informed Performance-based Regulation," October 11, 1996.

Memorandum from James M. Taylor to Chairman Jackson, "Status of the Development of Risk-Informed Regulatory Guides and Standard Review Plans," December 10, 1996.

SECY-97-009, "Quarterly Status Update for the Probabilistic Risk Assessment (PRA) Implementation Plan," January 13, 1997.

Staff Requirements Memorandum - SECY-96-218 - Quarterly Status Update for the Probabilistic Risk Assessment (PRA) Implementation Plan, Including a Discussion of Four Emerging Policy Issues Associated with Risk-Informed Performance-Based Regulation, January 22, 1997.

SECY-97-076, "Quarterly Status Update for the Probabilistic Risk Assessment (PRA) Implementation Plan," April 3, 1997.

SECY-97-077, "Draft Regulatory guides, Standard Review Plans and NUREG Document in support of Risk Informed Regulation for Power Reactors", April 8, 1997.

ENVIRONMENTAL QUALIFICATION TASK ACTION PLAN

TAC No. M85648 Last Update: 04/28/97
GSI: 168 Lead NRR Division: DSSA

	MILESTONES	DATE (T/C)
1.	Inform Commission	05/93C
2.	Meet With Industry	Ongoing
3.	Programmatic Review	5/97T
4.	Risk Assessment	5/97T
5.	Data Collection and Analysis	4/96C
6.	Review and Evaluation of the Status	12/96T
7.	Technical Issues	10/98T
8.	Options for Resolution	TBD
9.	Implementation	TBD

Description: This action plan will evaluate environmental qualification (EQ) issues, including operating experience, testing methodology, and adequacy of current rule and guidance for operating reactors. It will resolve EQ issues for aging operating reactors and license renewal.

Historical Background: A review of environmental qualification requirements for license renewal and failures of qualified cables during research tests led to the development of the EQ Task Action Plan (TAP), which was issued in July 1993. The EQ TAP was developed to address: (1) staff concerns regarding the differences in EQ requirements for older and newer plants; (2) concerns raised by some research tests which indicate that qualification of some electric cables may have been non-conservative; and (3) concerns that programmatic problems identified in the staff Fire Protection Reassessment Report might also exist in the NRC EQ Program.

Proposed Actions: The EQ TAP includes meetings with industry, a program review of EQ, data collection and analysis, a risk assessment, and research on aging and condition monitoring. Annual Commission papers are written to update the status of the EQ TAP. The staff will develop options for resolving EQ concerns, which may include issuing a generic letter, changing the rule, or documenting the acceptability of the current EQ rule and standards. The basis for the appropriate regulatory action will be documented.

Originating Document: June 28, 1993, memorandum from Samuel J. Chilk to James M. Taylor (SECY 93-049); May 27, 1993, letter to the Commission from J. Taylor on Environmental Qualification of Electric Equipment.

Regulatory Assessment: Depending on the application, failure of these cables during or following design-basis events could affect the performance of safety functions in nuclear power plants. There is no immediate safety issue because of the degree of conservatism already included in the EQ qualification test margins.

Current Status: The draft reports on the programmatic review and risk issues regarding EQ are currently under management review (Milestones 3 and 4).

BNL is continuing with the cable testing program, which includes investigating condition monitoring methodologies (Milestone 7). The cable test program includes thermal aging, radiation aging and exposure of cable samples to LOCA environments.

Results (interim) from the first set of cable tests are expected by the end of fiscal year 1997. Overall results from the test program are expected in fiscal years 1998 and 1999.

Contacts:		
	NRR Technical Contact:	G. Hubbard, SPLB, 415-2870
	RES Contact:	S. Aggarwal, EMEB, 415-5849
	NRR Lead PM:	L. Olshan, DRPE, 415-3018

References:

Letter to the Commission from J. Taylor on Environmental Qualification of Electric Equipment dated May 27, 1993 (Accession No. 9308180153).

Staff requirements memorandum (SECY 93-049) dated June 28, 1993 (Accession No. 9409010107).

Task Action Plan for Environmental Qualification and updates, July 1, 1993, April 8, 1994, November 16, 1994, June 27, 1995, August 22, 1996, and November 15, 1996.

RES Program Plan for Environmental Qualification, July 7, 1994 (Accession No. 9407250066).

CORE PERFORMANCE ACTION PLAN

TAC Nos. M91257 - DSSA
M91602 - DISP
GSI: LI-179

Last Update: 04/25/97
Lead NRR Division: DSSA
Supporting Division: DISP

MILESTONES	DATE (T/P/C)
Task 1 - Inspection of Nuclear Fuel Vendors (DISP)	ongoing*
Siemens Power Corporation [PWR AIT followup]	06/94C
ABB/Combustion Engineering [PWR reloads]	11/94C
Teledyne-Wah Chang (TWC)	12/94C
Sandvik Specialty Metals (SSM)	12/94C
Westinghouse CNFD	07/95C
General Electric NEP	10/95C
Framatome/Cogema Fuels (B&W Fuels)	09/96C
GE (SLMCPR & low density pellets)*	09/96C
SPC (comprehensive re-inspection of open items and new issues)*	04/97T
GE (new issues and followup)*	04/97T
ABB/CE [BWR] (WNP-2 transition core)*	06/97T
Task 2 - Inspection of Licensee Reload Analyses (DSSA)	ongoing*
RI - 3 licensees (PSE&G, PP&L, tbd);	12/97T
RII - 2 licensees (CP&L, TVA);	12/97T
RIII - 3 licensees (ComEd, Detroit Edison, tbd);	12/97T
RIV - 2 licensees (WPPS, Entergy)	12/97T
Task 3 - Core Performance Data Gathering/Evaluation (DSSA)	12/97T
Regions - Morning Reports & Event Notification	ongoing*
Other - Data Acquisition and Collation	ongoing
PNNL - Core Performance Evaluation Analysis (CY96)	12/97T
Task 4 - Participation of Regions in Action Plan (DSSA)	ongoing
Identification of Vendor Issues	
Feedback from Licensee Inspections	
Counterparts Meetings (RI-RIV)	
Task 5 - Evaluate Inspection Guidance (DSSA/DISP)	5/97T
Evaluate Results of Licensee Inspections	
Incorporate Feedback from Region Inspectors	
Draft Guidance for Resident and Region Inspectors	
Issue Inspection Criteria and Action Plan Update	
Task 6 - Evaluate Licensee/Vendor Lead Test Programs for Identification of Core Performance Problems (DSSA/DISP)	12/97T*

Task 7 -	Workshop on Core Performance Issues (TAC No. M95674)	
	Identify issues	07/96C
	Conduct workshop	10/96C
	Followup on Comments and Questions (RIC session)	04/97C

* Issue Driven

Description: The action plan is intended to assess the impact of reload core design activities on plant safety through inspections of fuel vendors, evaluation of licensees' reload analyses, and independent evaluation of core performance information, with regional training and interaction.

Historical Background: The action plan addresses the review of fuel fabrication, core design, and reload analysis issues that were discussed during 1994 and 1996 briefings given to the Executive Director for Operations. The briefings presented by the Reactor Systems Branch (SRXB), Division of Systems Safety and Analysis (DSSA), covered generic fuel and core performance issues and related evaluations of fuel failures. The Special Inspection Branch (PSIB), Division of Inspection and Support Programs (DISP), supported the briefings. As a result of these briefings, the Office of Nuclear Reactor Regulation (NRR) was requested to expand the action plan to monitor and improve core performance in operating reactors to include focus on licensee activities and the licensee/vendor interfaces.

Proposed Actions: Specific actions included in the action plan are: (1) evaluate fuel vendors' performance through performance-based inspections that evaluate the reload core design, safety analysis, licensing process, fuel assembly mechanical design, and fuel fabrication activities; (2) evaluate the performance of licensees that perform core reload analysis functions; (3) identify, document, and categorize core performance problems and root cause evaluations that will be further evaluated during these inspections and provide input to SALP evaluations as well as regional enforcement actions, as appropriate; (4) train and coordinate regional support staff participating in these activities; and (5) evaluate the results of these activities for use in formulating generic communications, revisions of regulatory guidance and guidance for regional inspectors, and other appropriate regulatory actions. In addition, as a result of recent generic concerns, including the failure of control rods to fully insert, the action plan is being expanded to review the adequacy of vendor lead testing programs for new fuel designs (Task 6); and to conduct a workshop on core performance issues (Task 7) in the fall of 1996. The status of core performance inspection evaluations and emerging issues was covered at the recent Regulatory Information Conference.

DSSA — The action plan identifies that licensee inspections in each region shall be performed, in coordination with the regional inspectors, to assess licensee performance in reload core analysis oversight and participation. Licensee inspections will normally be issue-driven. The data acquired through licensee/vendor inspections will be integrated with information supplied by the regions and other sources and will be evaluated for generic core performance indicators and industry conformance to current regulatory requirements. The end product of the initial assessment will include guidance for resident inspectors and regional staff. The ongoing activities to capture and address early warning of emerging issues will continue into FY97 and the action plan will reflect the planned inspection of 10 licensee/plants, 5 vendor LTA program inspections, and four anticipated event-reactive inspections.

DISP — The action plan currently identifies 8 completed and two planned vendor inspections that shall be performed by multi-disciplined inspection teams led by the Special Inspection Branch (PSIB) with contracted technical assistance. These inspections are currently scheduled to be

completed in 1997. In addition, DISP will support the FY97 vendor LTA and licensee inspections, as required.

Originating Document: Memorandum from Gary M. Holahan and R. Lee Spessard to Ashok C. Thadani, dated October 7, 1994, "Action Plan to Monitor, Review, and Improve Fuel and Core Components Operating Performance" and the enhanced focus on licensee participation.

Regulatory Assessment: Core design is a fundamental component of plant safety because maintaining fuel integrity is the first principal safety barrier (i.e., fuel cladding, reactor coolant system boundary, or the containment) against serious radioactive releases. Likewise, the safety analyses must be properly performed in order to verify, in conjunction with startup tests and normal plant parameter monitoring, that the core reload design is adequate and provide assurance that the reactor can safely be operated. Evaluation of activities that affect the quality of fuel and core components are important to ensure that safety and quality are not degraded and that the core performs as designed.

Current Status:

DSSA — The data acquired from the ongoing vendor inspections are being evaluated for generic impact and identification of emerging issues. The issue-driven inspections at GE and Siemens, were supported by SRXB/DSSA staff and contract specialists in reload design. Interaction with the regions is ongoing to participate in region-led licensee inspections. SRXB has participated in two Region I and one Region II inspector counterparts meetings. DSSA is re-evaluating the action plan to better integrate and prioritize its activities, consistent with the available FY97 TA funding. Options and recommendations for management review are being prepared to support new emphasis on licensee inspection.

DISP — The remaining issue-driven inspections include ABB Combustion Engineering's supply of a BWR transition core reload for WNP-2 (unscheduled), and a comprehensive (4 team weeks) follow-up inspection of Siemens Power Corporation issues, which began 2/10/97, and ended on 4/4/97.

NRR Technical Contacts: E. Kendrick, SRXB, 415-2891
S. Matthews, PSIB, 415-3191

* time spent on-site at vendor inspections (Task 1) is allocated to appropriate fuel vendor docket #

HIGH BURNUP FUEL ACTION PLAN

TAC NO. M91256 Last update: 4/28/97
Lead NRR Division: DSSA
GSI: 170 Supporting office: RES

	MILESTONES	DATE (T/C)
1.	Issue user need letter to RES	10/93C
2.	Contracts issued by RES	03/94C
3.	Schedule and coordinate meetings with foreign experimenters and regulatory authorities	09/95C
4.	Issue Information Notice (IN 94-64) Announcing new RIA data	08/94C
5.	Present high burnup data at water reactor safety meeting	10/94C
6.	Schedule/coordinate industry meetings to discuss actions	10/94C
7.	Determine need for further generic communications	11/94C
8.	Issue letter to vendors	11/94C
9.	Issue IN 94-64, Suppl. 1, Providing Data and Vendor Letter	03/95C
10.	RES Update NUREG-0933 on Generic Issue* and Plan of Action	03/95C* 01/96C
11.	Review industry (NEI) Response	09/95C
12.	Assess effects on design basis accidents of reduced failure threshold for high burnup fuel	09/95C
13.	Committee on the safety of nuclear installations specialists meeting on the transient behavior of high burnup fuel	09/95C
14.	CNRA (OECD) Committee on nuclear regulatory activities and CSNI annual meetings.	11/95C
15.	Issue ltr to NEI assessing industry actions (vendor/EPRI response to IN)	6/97T
16.	Water reactor safety information meetings (high burnup session) core performance issues workshop	10/95C 10/96C
17.	RES briefs ACRS and completes response to NRR user need letters	04/96C 9/97T
18.	Complete review of available fuel transient data relevant to design basis event	4/97C
19.	Develop interim acceptance criteria (e.g., Based on cladding oxide)	4/97C
20.	Issue GL to define interim criteria and request post-LOCA evaluation	8/97T
21.	Establish schedule for LOCA resolution and final assessment Determine need for further regulatory action	9/97T

*RES HAS PRIORITIZED AS GENERIC ISSUE #170 NUREG-0933.

Description: The action plan covers assessment of fuel performance for high burnup fuel and evaluation of the adequacy of SRP licensing acceptance criteria.

Historical Background: Recent experimental data on performance of high burnup (>50 GWD/MTU) under reactivity insertion conditions became available in mid-1993. The unexpectedly low energy deposition (30 CAL/GM) to initiation of fuel failure in the first test rod (at 62 GWD/MTU) led to a re-evaluation of the licensing basis assumptions in the SRP. As a result, the office of nuclear reactor regulatio (NRR) was requested to prepare an action plan, in coordination with the Office of Nuclear Regulatory Research (RES).

Proposed actions: After a preliminary safety assessment was performed, an action plan was developed, to include a user need letter to RES and the issuance of contracts to assess all aspects of the high burnup fuel issue. Concurrently, meetings would be scheduled with the non-domestic experimenters and regulatory authorities to discuss the experimental data and to assess potential consequences and regulatory actions. Meetings with industry would be scheduled to discuss their planned actions and to solicit cooperation with the safety evaluations. Based on a complete review of all available fuel transient data, relevant to design basis events, NRR/RES would define acceptance criteria, establish a schedule for final assessment, and state need for further regulatory action.

Originating Documents: Commission Memorandum from James M. Taylor (EDO), "Reactivity Transients and High Burnup Fuel," dated September 13, 1994, including IN 94-64, 'Reactivity Insertion Transient and Accident Limits for High Burnup Fuel,' dated August 31, 1994. Commission Memorandum from James M. Taylor, "Reactivity Transients and Fuel Damage Criteria for High Burnup Fuel," dated November 9, 1994, including an NRR safety assessment and the joint NRR/RES action plan.

Regulatory Assessment: There is no immediate safety issue, because of the low to medium burnup in currently operating cores. Since the fuel failure threshold declines with increasing burnup, the licensing basis design acceptance criteria may need to be redefined as a function of burnup. The end product of the plan will determine the need for regulatory action and will establish and define the need for further action on extended burnup cycles and high burnup fuel issues.

Current Status: An ACRS Subcommittee Meeting on the status of RES contractor programs was held in 4/96. An NEI letter summarizing the industry position was received in April, and the EPRI report supporting this position was sent by NEI on 9/20/96. Currently, NRR has reviewed the documents, and is drafting a response. A commission paper on the status of the high burnup issue and planned actions was prepared by NRR, has been reviewed by RES, and was issued on November 25, 1996. A Commission briefing was completed on March 25, 1997.

NRR Technical Contacts: Laurence Phillips, NRR/DSSA/SRXB, 415-3232
Shih-Liang Wu, NRR/DSSA/SRXB, 415-3284
Edward Kendrick, NRR/DSSA/SRXB, 415-2891

RES Contact: Ralph Meyer, RES/DST/RPSB, 415-6789

WOLF CREEK DRAINDOWN EVENT: ACTION PLAN

TAC Nos.: M92635

Last Update: 4/28/97
Lead NRR Division:DSSA

MILESTONES	DATE (T/C)
1. Draft Generic Letter	11/95(C)
2. Issue Supplement to IN 95-03	03/96(C)
3. Complete Draft TI/ Issue to the Regions for Comments	8/97(T)
4. Generic Letter to be Concurred by CRGR / Letter Issued	9/96(C) / 8/97(T)
5. Receive Regional Comments on TI	10/97(T)
6. Complete Evaluation of the Responses to the Generic Letter	01/98(T)
7. Issue TI	01/98(T)
8. Complete Inspections (As necessary)	04/98(T)

Description: The objective of this action plan is to collect and evaluate information from the licensees regarding plant system configurations and vulnerabilities to draindown events. A 10 CFR 50.54(f) letter will be used to gather the information, and the licensees are expected to take corrective actions, as appropriate.

Historical Background: On September 17, 1994, the Wolf Creek plant experienced loss of reactor coolant system (RCS) inventory, while transitioning to a refueling shutdown. The event occurred when operators cycled a valve in the train A side of the RHR system cross-connect line following maintenance on the valve, while at the same time establishing a flow path from the RHR system, train B, to the refueling water storage tank for reborating train B. The failure of the reactor operating staff to adequately control two incompatible activities resulted in transferring 9200 gallons of hot RCS water to the RWST in 66 seconds.

The Wolf Creek event represents a LOCA with the potential to consequentially fail all the ECCS pumps and bypass the containment. Another important feature of this event is the short time available for corrective action. Based upon calculations by the licensee and the staff, it is estimated that if the draindown had not been isolated within 3-5 minutes, net positive suction head would have been lost for all ECCS pumps, and core uncovery would follow in about 25-30 minutes. This event represents a PWR vulnerability which was not previously recognized.

Proposed Actions: Specific actions of this generic action plan are: (1) issue IN 95-03 (issued January 18, 1995) and supplement to IN 95-03 (issued March 25, 1996), (2) Request all PWR licensees, via an information gathering (10 CFR 50.54(f)) Generic Letter (GL), to provide information on draindown vulnerabilities and the measures they implemented to diminish the probability of a draindown. The staff considers the proposed action as a compliance backfit issue.

Originating Document: AEOD/S95-01, "Reactor Coolant System Blowdown at Wolf Creek on September 17, 1994".

Regulatory Assessment: The staff performed an evaluation of the probability for event initiation and of the conditional core damage probability. The value of this probability for core damage, along with licensee awareness for this scenario, makes the risk for continued PWR operation acceptably small.

Current Status: Information Notice IN 95-03 has been issued. Information Notice Supplement has also been issued.

NRR Technical Contact: M. M. Razzaque, SRXB, 415-2882
NRR Lead PM: J. C. Stone, DRPW, 415-3063

References:

* AEOD/S95-01, "Reactor Coolant System Blowdown at Wolf Creek on September 17, 1994"

* IN 95-03, issued January 18, 1995.

* Supplement to IN 95-03, issued March 25, 1996.

Attachment 2

GENERIC COMMUNICATION AND COMPLIANCE ACTIVITIES

PUBLIC MAY 1997 DIRECTOR'S MONTHLY STATUS REPORT
Open Generic Communication and Compliance Activities
Sorted by Lead Technical Division and Branch

TAC	Type	Contact	LA Comp	Title	Description
** LTD = Associate Director for Projects					
* LTB = Technical Specifications Branch					
M98238	IN	JRTappert	5/30/97 T	IN: License Condition Compliance	Many licensees had license conditions added at the time of initial licensing. Licensees are reminded that these conditions are legal commitments, and that if the conditions are no longer appropriate they need to be changed via licensing actions.
** LTD = Division of Engineering					
* LTB = Civil Engineering and Geosciences Branch					
M94293	GL	JWShapaker	5/30/97 T	GL: NRC Preliminary Findings Related To The Use Of Reduced Seismic Criteria For Temporary Conditions.	Develop a GL to advise licensees that the use of reduced seismic criteria for temporary conditions may involve unreviewed safety questions and staff review may be needed.
M95688	LT	TAGreene	9/30/97 T	Study of The Adequacy of Enveloped Response Spectrum Method	After completion of contract JCN J-2354, an IN might be issued to caution operating plant licensees that under certain conditions ERS analysys method may not provide adequate estimates of seismic response of piping systems.

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TAC	Type	Contact	LA Comp	Title	Description
M97920	GL	JWShapaker	6/30/97 T	GL: Seismic Capability of Thermal-Lag Panels	Informs addressees about reduced seismic capability of Thermo-Lag panels in high temperature areas of plants, and need for corrective actions.
M97981	GL	JWShapaker	6/30/97 T	GL: Monitoring of Containment Structure Settlement due to Degradation of Porous Concrete Sub-foundations	Informs addressees of need to review subfoundation designs and, as appropriate, describe plans for foundation settlement monitoring.
M98379	IN	TAGreene	5/30/97 T	Implementation of Containment Inspection Rule	Develops a generic communication to clarify the implementation of containment inspection rule, 10CFR50.55a which essentially endorses Subsections IWE and IWL of ASME Code (1992 ed.).

* LTB = Electrical Engineering Branch

M95215	LT	DLSkeen	8/1/97 T	Charging/Discharging of Safety-Related AT&T Round Cell Batteries	Study and interact with the industry group on the AT&T round cell battery degradation problems.
M96616	GL	JWShapaker	6/20/97 T	GL: Medium-Voltage Circuit Breaker Failures	GL to address continued breaker problems because of refurbishment practices, licensee maintenance, and inadequate review of industry operating experience.

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TAC	Type	Contact	LA Comp	Title	Description
M97147	LT	DLSkeen	5/30/97 T	LT: Failure of Westinghouse Type DS-206 Circuit Breakers	Evaluate failure of breakers due to degraded lubricant.
M97328	IN	DLSkeen	5/30/97 T	IN 95-22,Sup 1, Hardened or Contaminated Lubricants Cause Metal-Clad Circuit Breaker Failures	Supplement to IN to discuss additional area of operating mechanism where hardened lubricant can cause breaker failure.
M97397	IN	JRTappert	7/31/97 T	IN: Potential Deficiency of Electric Cable Connections	Notifies licensees about information obtained from aging and LOCA testing of electrical cable connections as contained in the Sandia National Laboratory draft report NUREG/CR-6412.
M98126	IN	TAGreene	6/15/97 T	IN: Circuit Breakers Left Racked Out in Non-seismically Qualified Position	Alerts licensees to issues related to circuit breaker left racked out in a non-seismically qualified position. The Class 1E switchgear might not function as required for a DBA, and therefore, put the plant in a condition outside of its design basis.
M98234	IN	TJCarter	8/1/97 T	IN: Environmental Qualification Deficiency for Cables and Containment Penetration Pigtail	Informs licensees of the cause for a particular type of cable failure.
M98443	IN	EJBenner	6/27/97 T	IN 96-44, Sup 1, Failure of RTB from Cracking of Phenolic Material in Secondary Contact Assembly	Informs licensees of results of Westinghouse Owners Group survey and Westinghouse-recommended RTB maintenance practices.

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TAC	Type	Contact	LA Comp	Title	Description
M98643	IN	DLSkeen	7/31/97 T	IN: Reversed Current Transformer Leads Resulted in Loss of Multiple Safety Functions	

* LTB = Materials and Chemical Engineering Branch

M95279	GL	JWShapaker	7/30/97 T	GL: Modification of the Requirements for Post-Accident Sampling System	Extending to operating reactor licensees, on voluntary basis, relaxations in PASS program requirements.
M95290	GL	JWShapaker	6/30/97 T	GL: Degradation of Steam Generator Internals	Identification of steam generator internals degradation mechanisms based on foreign reactor operating experience.
M95373	GL	JWShapaker	6/30/97 T	GL: Implementation of App. VIII of Sec XI of The 1995 Edition of The ASME Boiler And Pressure Vessel Code	Discusses the need for lecensees to adopt the Appendix VIII to improve the quality and confidence level of inservice inspections.
M95444	LT	TAGreene	6/15/97 T	Lead Technical Review - Induction Heat Stress Improvement for Stainless Steel Piping	Cracking has been found in several utilities' austentic stainless steel piping which had been subjected to IHSI in the 1980's . Staff concerns include that IHSI may not have been properly applied.
M96401	GL	JWShapaker	6/30/97 T	GL: Steam Generator Tube Inspection Techniques	Informs licensees of the importance of performing s/g tube inservice inspections using qualified techniques and requests that licensees implement described actions.

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TAC	Type	Contact	LA Comp	Title	Description
M97329	IN	EJBenner	5/23/97 T	IN: Degradation in U-Bend Regions of Steam Generator Tubes	Informs licensees of performing S/G tube inspections for detection of degradation in U-bend region.
M97743	LT	EJBenner	7/31/97 T	LT: Weld Toughness of Moment Connection	Evaluate need for further generic action related to weld failures during Northridge earthquake.
M98182	IN	EJBenner	5/30/97 T	IN: Steam Generator Tube Degradation in B&W Plants	Discusses recent examples of tube degradation found in B&W once-through steam generators.

* LTB = Mechanical Engineering Branch

M96073	IN	EJBenner	6/20/97 T	IN: Concerns with Dry Cask Loading and Unloading Procedures	Alerts licensees to several identified problems with procedures for the loading and unloading of spent fuel storage casks.
M96354	LT	TAGreene	12/31/97 T	Containment Recirculation Spray and Quench Spray Piping Outside Design Basis	Millstone 3 determined that the containment recirculation spray and quench spray piping and supports could be subjected to higher accident temperatures than those previously assumed in the design basis.
M96614	LT	TKoshy	5/20/97 T	LPSI Pump Mission Time	When the RCS pressure remains higher than LPSI injection head, the pumps may be required to run for long durations with minimum flow. It appears that there is no demonstrated evidence to ensure LPSI pump capability for the require mission time.

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TAC	Type	Contact	LA Comp	Title	Description
M96714	IN	TKoshy	6/14/97 T	IN: Steam Line Rupture at Oconee Unit 2	Informs licensees the event that occurred at Oconee Unit 2 on 9/24/96. In this event, a heater drain line ruptured due to waterhammer, and caused significant injury to members of plant staff.
M97327	LT	CDPetrone	9/30/97 T	LT: Target Rock Two-Stage SRV Setpoint Drift	Consider Issuing an information notice when BWR owners group comes to a conclusion regarding the cause of the Target Rock two-stage SRV setpoint drift.
M97667	IN	JRTappert	6/10/97 T	IN: Undersized Oil Heat Exchangers	Research in the 1980s revealed that heat transfer coefficients for water/oil heat exchangers were considerably different than previously thought. Therefore, some HXs may not have the heat transfer capacity they were designed to.
M98233	IN	EJBenner	5/28/97 T	IN: Reactor Coolant Pump Degradation Experience in Foreign Plants	Informs licensees of cracks found in foreign reactor coolant pump thermal barrier heat exchangers.

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TAC	Type	Contact	LA Comp	Title	Description
** LTD = Division of Inspection and Support Programs					
* LTB = Special Inspections Branch					
M97801	IN	DLSkeen	5/30/97 T	IN: Setpoint Drift in ITT Barton Model 753 Gage Pressure Transmitters	Sulfur-induced corrosion may cause excessive setpoint drift in Model 753 transmitters.
M98235	IN	DLSkeen	6/1/97 T	IN: Defective Critical Component in Limitorque Actuator	A defective non-OEM worm shaft clutch gear was found in a Limitorque SMB motor-operated valve actuator at Oyster Creek.
** LTD = Division of Reactor Controls and Human Factors					
* LTB = Instrumentation and Controls Branch					
M98323	IN	CVHodge		Elimination of Instrument Response Time Testing Under The Requirement of 10 CFR 50.59	Alerts licensees that TS for response time testing cannot be removed by 50.59 modification of supporting information. TS amendment must be submitted.
* LTB = Quality Assurance and Maintenance Branch					
M98441	GL	JWShapaker		GL: Quality Assurance of Electronic Records	In view of technological advancements, changes in NRC regulations, a request was made to update the guidance provided in GL 88-18.

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TAC	Type	Contact	LA Comp	Title	Description
** LTD = Division of Reactor Program Management					
* LTB = Emergency Preparedness and Radiation Protection Branch					
M98029	IN	CDPetrone	5/30/97 T	IN: Unplanned Worker Intakes of Transuranics and External Exposure due to Inadequate Control of Work	Unplanned worker intakes of transuranics and external contamination indicates a potentially serious breakdown of radiation controls, processes and procedures at the Haddam Neck plant.
M98237	IN	TAGreene	9/30/97 T	IN: Removal of FTS Lines from Service	Alerts licensees that NRC is removing from service some direct access telephone lines located at their facilities.
M98442	IN	TJCarter		IN: Unplanned Personnel Exposure in Spent Fuel Pool	Unanticipated activities and the resultant personnel exposure in the spent fuel storage pool are indicative of the potential for even more serious consequences.
* LTB = Events Assessment and Generic Communications Branch					
M91544	GL	JWShapaker	5/25/97 T	GL: Defining Info in Monthly Operating Report Required by Tech Specs	Reducing reporting requirements to the minimum needed by the staff (part of RRG).
M98030	IN	CVHodge	5/1/97 L	IN: Inadequate Safety Evaluation at Licensed Independent Spent Fuel Storage Installations	The results of NRC inspections at 3 independent spent fuel storage installations indicat repetitive problems and violations in licensee safety evaluation programs required by 10 CFR 72.48.

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TAC	Type	Contact	LA Comp	Title	Description
* LTB = Non-Power Reactors and Decommissioning Project Directorate					
M98183	IN	CVHodge	5/18/97 T	IN: Potential Undetectable Failure in Linear Neutron Flux Monitor at Non-Power Reactor Facilities	Gamma Metrics Wide Range flux monitor at North Carolina State University failed to up-range in auto mode and to down-range in manual mode.
M98644	IN	TKoshy		IN: Expiration of Non-Power Reactor Operator Licenses	
** LTD = Division of Systems Safety and Analysis					
* LTB = Analytical Support Group					
M96947	LT	TAGreene	12/31/97 T	LT : Possible Computer Code Platform Dependency	Identical computer models launched from different personal computer platforms can result in different calculations.
M97799	LT	ENFields	8/15/97 T	LT: Loop Seal Clearing Investigation - Westinghouse	To reconcile concerns regarding loop seal clearing behavior during small break LOCA for Westinghouse SBLOCA Evaluation Model.
M97800	LT	ENFields	7/30/97 T	LT: Loop Seal Clearing Investigation - CE	To reconcile concerns regarding loop seal clearing behavior during small break LOCA for CE SBLOCA Evaluation Model.

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TAC	Type	Contact	LA Comp	Title	Description
* LTB = Containment Systems and Severe Accident Branch					
M96537	GL	JWShapaker	6/30/97 T	GL: Assurance of Sufficient NPSH for ECCS and Containment Heat Removal System Pumps	Notifies licensees about a safety-significant issue that could affect the ability for long-term core cooling and containment heat removal under accident conditions and which has generic implications.
M97146	BL	JWShapaker	8/15/97 T	BL: Degradation of ECC Recirculation Following a LOCA due to Foreign Material in the Containment	Notifies addressees about the potential safety impact of foreign material in sumps and suppression pools, which could render safety-related equipment inoperable.
M97297	LT	EJBenner	11/30/97 T	LT: Errors in Containment Code Analysis	Identify generic actions necessary as a result of potential errors in Oconee's Bulletin 80-04 response.
M98125	LT	TJCarter		LT: BWR Containment Bypass Flow During Purging	A plant configuration during routine operation could potentially result in containment bypass following an accident
* LTB = Plant Systems Branch					
M80296	LT	TAGreene	9/30/97 T	Generic Communications - Assessment of Turbine Failure at Vandellos 1	Development of staff NUREG or other publication to document turbine building fire issues for U.S. plants in light of Vandellos fire.

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TAC	Type	Contact	LA Comp	Title	Description
M91323	LT	CVHodge	5/30/97 T	Reactor Water Cleanup (RWCU) Study in Response to ACRS Concern	Review of the effects of an unisolated RWCU break at several BWR's. Result of ACRS concerns during the review of the ABWR
M93335	LT	WFBurton	8/31/97 T	Main Control Room Envelope Unfiltered Inleakage	Use improved methodology to verify the effects of potential inleakage rates on compliance with radiation and toxic gas exposure limits inside the main control room.
M95871	IN	TAGreene	6/19/97 T	IN: Emergency Lighting Issues	Develop IN to alert licensees to potential problems regarding emergency lighting for plant areas needed for operation of post-fire safe shutdown equipment and in the access and egress routes.
M96912	LT	WFBurton	5/31/97 T	LT: Potential Generic Concern with regard to Fire Protection Actuation System	Farley - Failure of numerous pre-action sprinklers in fire protection systems providing fire protection service to safety-related system components.
M96913	BL	JWShapaker	6/13/97 T	BL: Potential for Loss of Remote Shutdown Capability during a Control Room Fire	To alert licensees to recent noncompliances and associated civil penalties regarding licensee's lack of demonstrable protection from a control room hot short condition.
M97151	IN	TAGreene	7/30/97 T	IN: Inadequate or Inappropriate Fire Protection Compensatory Measures	To provide examples of the fire watches used as compensatory measures for Appendix R deficiencies.

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TAC	Type	Contact	LA Comp	Title	Description
M97299	GL	JWShapaker	6/30/97 T	GL: Spent Fuel Pool Compliance Activities	Requests licensees to describe their spent fuel pool offload practices, temperature limits and bases, and decay heat removal redundancy and include the information in the FSAR.
M97978	GL	JWShapaker	6/30/97 T	GL: Laboratory Testing of Nuclear-Grade Activated Charcoal	Informs addressees about NRC staff views on charcoal testing practices and offers model technical specifications for voluntary adoption by the addressees in preparation for future testing obligations.
M98063	IN	ENFields	4/30/97 L	IN: Inadvertent Loss of ECCS Motor Cooling Capability	Alerts licensees to an inadvertent loss of ECCS motor cooling capability due to motor cooler plenum configuration.
M98066	IN	EJBenner	7/11/97 T	IN: Misunderstanding of the Ultimate Heat Sink Licensing Basis	Develop IN to inform licensees of several instances of errors in licensee's understanding of Ultimate Heat Sink licensing basis.

* LTB = Reactor Systems Branch

M92635	GL	JWShapaker	6/30/97 T	GL: Reactor Coolant Inventory Loss and Potential Loss of Emergency Mitigation Functions While Shutdown	Loss of ECCS function due to steam voiding in RWST line to suction of ECCS pumps due to loss of RCS inventory in Mode 4 (Wolf Creek).

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Open Generic Communication and Compliance Activities
Sorted by Lead Technical Division and Branch

TAC	Type	Contact	LA Comp	Title	Description
M94565	LT	DLSkeen	7/31/97 T	Slow Scram Solenoid Pilot Valves Caused by Viton Diaphragms	Scram solenoid pilot valves with viton diaphragms showing degraded scram times within 6-8 months. Currently tracking licensee response to RRG recommendations.
M95278	GL	JWShapaker	6/27/97 T	GL: Use of Thermal-Hydraulic Codes for Licensing Applications	Discusses the fact that a computer code has been developed and assessed primarily with NRC funds does not per se mean that it is acceptable as a licensing code.
M96192	IN	WFBurton	5/31/97 T	IN: ECCS Throttle Valves May Degrade Due To Cavitation Induced Erosion During LOCA	High differential pressure across ECCS throttle valves during LOCA could cause pump runout flow and subsequent ECCS pump damage
M96615	LT	TKoshy	4/25/97 L	Boron Precipitation in B&W Reactors	Design bases concern on active means of preventing boron precipitation following a LOCA.
M96961	IN	CDPetrone	4/30/97 L	IN: Extended Operation in Suppression Pool Cooling Mode	Extended use of the suppression pool cooling mode of RHR may be outside the design basis analysis assumptions and may require 50.59 review.
M97150	LT	TJCarter	6/30/97 T	LT: Evaluate Postulated Concern During Cool Down of Reactor Following a Reactor Shutdown after ATWS Event	A potential scenario not adequately addressed by EOPs was discovered during an inspection at Cooper.

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TAC	Type	Contact	LA Comp	Title	Description
M97331	BL	JWShapaker	6/30/97 T	BL: Inadequate Procedural Guidance during S/D and Site Specific Vulnerabilities due to Gas Accumulation	Requests PWR licensees to take action to assure that there is adequate procedural guidance during shutdown operation and that gas accumulation vulnerabilities are identified, and actions are taken to limit or preclude adverse system performance.
M97396	BL	JWShapaker	6/30/97 T	BL 96-01, Sup 1, Control Rod Insertion Problems	Informs addressees of issues concerning incomplete control rod insertion due to distortion of thimble tubes.
M98064	IN	JRTappert	5/15/97 T	IN: Nitrogen Intrusion into ECCS Piping	Nitrogen saturated water from safety injection tanks can leak back to ECCS systems. Ther nitrogen then comes out of solution forming voids and jeopardizing the operability of the system.

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Generic Communication and Compliance Activities Added
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TAC	Type	Contact	Tech Branch	LA Comp	Title	Reason Added
M97667	IN	JRTappert	Mechanical Engineering Branch	6/10/97 T	IN: Undersized Oil Heat Exchangers	The EAP authorized development of IN at its 1/7/97 meeting.
M97743	LT	EJBenner	Materials and Chemical Engineering Branch	7/31/97 T	LT: Weld Toughness of Moment Connection	The EAP authorized long-term follow up of this issue at its 1/21/97 meeting.
M97799	LT	ENFields	Analytical Support Group	8/15/97 T	LT: Loop Seal Clearing Investigation - Westinghouse	The EAP authorized review of this issue at its 1/28/97 meeting.
M97800	LT	ENFields	Analytical Support Group	7/30/97 T	LT: Loop Seal Clearing Investigation - CE	The EAP authorized review of this issue at its 1/28/97 meeting.
M97801	IN	DLSkeen	Special Inspections Branch	5/30/97 T	IN: Setpoint Drift in ITT Barton Model 753 Gage Pressure Transmitters	The EAP authorized development of IN at its 1/28/97 meeting.
M97920	GL	JWShapaker	Civil Engineering and Geosciences Branch	6/30/97 T	GL: Seismic Capability of Thermal-Lag Panels	The EAP authorized development of GL at its 2/11/97 meeting.
M97978	GL	JWShapaker	Plant Systems Branch	6/30/97 T	GL: Laboratory Testing of Nuclear-Grade Activated Charcoal	The EAP authorized development of GL at its 2/18/97 meeting.

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TAC	Type	Contact	Tech Branch	LA Comp	Title	Reason Added
M97981	GL	JWShapaker	Civil Engineering and Geosciences Branch	6/30/97 T	GL: Monitoring of Containment Structure Settlement due to Degradation of Porous Concrete Sub-foundations	The EAP authorized development of GL at its 2/11/97 meeting.
M98029	IN	CDPetrone	Emergency Preparedness and Radiation Protection Branch	5/30/97 T	IN: Unplanned Worker Intakes of Transuranics and External Exposure due to Inadequate Control of Work	The EAP authorized development of IN at its 2/25/97 meeting.
M98030	IN	CVHodge	Events Assessment and Generic Communications Branch	5/1/97 L	IN: Inadequate Safety Evaluation at Licensed Independent Spent Fuel Storage Installations	The EAP authorized development of IN at its 2/25/97 meeting.
M98064	IN	JRTappert	Reactor Systems Branch	5/15/97 T	IN: Nitrogen Intrusion into ECCS Piping	The EAP authorized development of IN at its 3/4/97 meeting.
M98065	IN	ENFields	Plant Systems Branch	4/30/97 L	IN: Inadvertent Loss of ECCS Motor Cooling Capability	The EAP authorized development of IN at its 3/4/97 meeting.
M98066	IN	EJBenner	Plant Systems Branch	7/11/97 T	IN: Misunderstanding of the Ultimate Heat Sink Licensing Basis	The EAP authorized development of IN at its 3/4/97 meeting.

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TAC	Type	Contact	Tech Branch	LA Comp	Title	Reason Added
M98125	LT	TJCarter	Containment Systems and Severe Accident Branch		LT: BWR Containment Bypass Flow During Purging	The EAP authorized long term followup of this issue at its 3/11/97 meeting..
M98126	IN	TAGreene	Electrical Engineering Branch	6/15/97 T	IN: Circuit Breakers Left Racked Out in Non-seismically Qualified Position	The EAP authorized development of IN at its 3/11/97 meeting..
M98182	IN	EJBenner	Materials and Chemical Engineering Branch	5/30/97 T	IN: Steam Generator Tube Degradation in B&W Plants	The EAP authorized development of IN at its 3/18/97 meeting.
M98183	IN	CVHodge	Non-Power Reactors and Decommissioning Project Directorate	5/18/97 T	IN: Potential Undetectable Failure in Linear Neutron Flux Monitor at Non-Power Reactor Facilities	The EAP authorized development of IN at its 3/18/97 meeting.
M98233	IN	EJBenner	Mechanical Engineering Branch	5/28/97 T	IN: Reactor Coolant Pump Degradation Experience in Foreign Plants	The EAP authorized development of IN at its 3/25/97 meeting.
M98234	IN	TJCarter	Electrical Engineering Branch	8/1/97 T	IN: EQ Deficiency for Cables and Containment Penetration Pigtail	The EAP authorized development of IN at its 3/25/97 meeting.

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TAC	Type	Contact	Tech Branch	LA Comp	Title	Reason Added
M98235	IN	DLSkeen	Special Inspections Branch	6/1/97 T	IN: Defective Critical Component in Limitorque Actuator	The EAP authorized development of IN at its 3/25/97 meeting.
M98237	IN	TAGreene	Emergency Preparedness and Radiation Protection Branch	9/30/97 T	IN: Removal of FTS Lines from Service	The EAP authorized development of IN at its 3/25/97 meeting.
M98238	IN	JRTappert	Technical Specifications Branch	5/30/97 T	IN: License Condition Compliance	The EAP authorized development of IN at its 3/25/97 meeting.
M98323	IN	CVHodge	Instrumentation and Controls Branch		Elimination of Instrument Response Time Testing Under The Requirement of 10 CFR 50.59	The EAP authorized development of IN at its 4/8/97 meeting.
M98379	IN	TAGreene	Civil Engineering and Geosciences Branch	5/30/97 T	Implementation of Containment Inspection Rule	The EAP authorized development of GC at its 4/22/97 meeting. The type of GC remains tol be determined.
M98441	GL	JWShapaker	Quality Assurance and Maintenance Branch		GL: Quality Assurance of Electronic Records	The EAP authorized development of GL at its 4/22/97 meeting.

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TAC	Type	Contact	Tech Branch	LA Comp	Title	Reason Added
M98442	IN	TJCarter	Emergency Preparedness and Radiation Protection Branch		IN: Unplanned Personnel Exposure in Spent Fuel Pool	The EAP authorized development of IN at its 4/22/97 meeting.
M98443	IN	EJBenner	Electrical Engineering Branch	6/27/97 T	IN 96-44, Sup 1, Failure of RTB from Cracking of Phenolic Material in Secondary Contact Assembly	The EAP authorized development of IN at its 4/22/97 meeting.
M98643	IN	DLSkeen	Electrical Engineering Branch	7/31/97 T	IN: Reversed Current Transformer Leads Resulted in Loss of Multiple Safety Functions	The EAP authorized development of IN at its 5/6/97 meeting.
M98644	IN	TKoshy	Non-Power Reactors and Decommissioning Project Directorate		IN: Expiration of Non-Power Reactor Operator Licenses	The EAP authorized development of IN at its 5/6/97 meeting.

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TAC	Type	Contact	Tech Branch	LA Comp	Title	Reason Closed
M80326	LT	SSKoenick	Reactor Systems Branch	3/3/97 C	Accumulation of Volume Control Tank Cover Gass in ECCS Piping Connected to the Charging System.	This activity was incorporated into M97331, the generic communication about gas accumulation.
M91404	GL	JWShapaker	Technical Specifications Branch	1/21/97 C	GL: Administrative Controls Section	11/07/96 TSB decision to cancel GL.
M92544	GL	JWShapaker	Technical Specifications Branch	2/27/97 C	GL: Design Features Technical Specifications	The proposed GL was canceled per memo from CIGrimes to AEChaffee, 2/21/97.
M92553	LT	RABenedict	Civil Engineering and Geosciences Branch	1/22/97 C	Investigate Impact of Failure of SMRFs (During Northridge EQ) to NPP Steel Structures	Per EAP meeting of 1/21/97, the work on this issue is being fold into M97743 and M97744.
M94840	GL	JWShapaker	Operator Licensing Branch	1/31/97 C	GL 95-06, Sup 1: Changes in the Operator Licensing Program	GL95-06, Sup 1, issued 1/31/97.
M94861	IN	RABenedict	Civil Engineering and Geosciences Branch	3/13/97 C	IN: Liner Plate Corrosion in Concrete Containment	IN 97-10 issued 3/13/97.

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TAC	Type	Contact	Tech Branch	LA Comp	Title	Reason Closed
M95280	GL	JWShapaker	Materials and Chemical Engineering Branch	4/1/97 C	GL: Degradation of Control Rod Drive Mechanism Nozzle and Other Vessel Closure Head Penetrations	GL 97-01 issued 4/1/97.
M95443	IN	WFBurton	Mechanical Engineering Branch	4/18/97 C	IN: Safety Injection System Weld Flaw at Sequoyah Nuclear Power Plant, Unit 2	IN 97-19 issued 4/18/97.
M95791	IN	TJCarter	Civil Engineering and Geosciences Branch	3/24/97 C	IN: Cement Erosion from Containment Subfoundations at Nuclear Power Plants	IN 97-11 issued 3/21/97.
M96055	LT	CVHodge	Electrical Engineering Branch	4/29/97 C	GE Magne-Blast Breaker Failure	This TAC is closed per e-mail from CVHodge to PCWen 3/25/97. The results of SPSB's risk insight study was transimitted to EELB (APal) on 10/3/96. Further work on Medium-Voltage Circuit Breaker is tracked under M96616.
M96076	LT	EJBenner	Electrical Engineering Branch	4/23/97 C	Cracking of Phenolics in Reactor Trip Breakers	Based on the result of WOG survey, the EELB determined that a generic communication is needed. The EAP authorized development of IN at its 4/22/97 meeting. The IN development activity is tracked under M98443.

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TAC	Type	Contact	Tech Branch	LA Comp	Title	Reason Closed
M96191	IN	RABenedict	Reactor Systems Branch	3/4/97 C	IN: Plant Specific EOPs Contain Inadequate Technical Info to Accomplish Timely and Effectively Feeding of OTSG	IN 97-06 issued 3/4/97.
M96355	LT	SSKoenick	Reactor Systems Branch	3/3/97 C	Concerns Regarding Siemens Large Break LOCA ECCS Evaluation Model	This activity was incorporated into M96948.
M96502	LT	CDPetrone	Plant Systems Branch	12/30/96 C	Potential for Air Regulator Failures to Overpressurized Safety-Related SOVs	The EAP decided that a new GC is not needed because the issue was already addressed by IN 88-24 and GL 91-15.
M96611	IN	JRTappert	Electrical Engineering Branch	1/8/97 C	IN: Improper Grounding Results in Fire at Palo Verde	IN 97-01 issued 1/8/97.
M96914	IN	EJBenner	Reactor Systems Branch	3/19/97 C	IN: Inadequate MSSV Setpoints due to Neglecting the Dynamic Pressure Loss between the SG and the MSSVs	IN 97-09 issued 3/12/97.

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TAC	Type	Contact	Tech Branch	LA Comp	Title	Reason Closed
M96915	IN	EJBenner	Events Assessment and Generic Communications Branch	3/31/97 C	IN: Distribution of AEOD Study "Assessment of Spent Fuel Cooling"	IN 97-14 issued 3/28/97.
M96916	IN	MKotzalas	Emergency Preparedness and Radiation Protection Branch	2/27/97 C	IN: Licensee Offsite Communication Capabilities	IN 97-05 issued 2/27/97.
M96917	IN	WFBurton	Mechanical Engineering Branch	3/7/97 C	IN: NRC Inspection of Completion of Generic Letter 89-10 MOV Programs	IN 97-07 issued 3/6/97.
M96948	IN	EJBenner	Reactor Systems Branch	4/4/97 C	IN: Reporting of Changes in the Large Break LOCA ECCS Evaluation Models	IN 97-15 issued 4/4/97.
M97149	IN	ENFields	Electrical Engineering Branch	3/24/97 C	IN 92-27, Sup 1, Thermal Induced Accelerated Aging and Failure of ITE/Gould Relays Used in Safety-Related Applications	IN 92-27, Sup 1, issued 3/21/97.

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TAC	Type	Contact	Tech Branch	LA Comp	Title	Reason Closed
M97207	IN	TAGreene	Plant Systems Branch	2/27/97 C	IN 91-85, Rev 1, "Potential Failures of Thermostatic Control Valves for DG Jacket Cooling Water"	IN 91-85, Rev 1, issued 2/27/97.
M97230		JWShapaker	Materials and Chemical Engineering Branch	4/1/97 C	GL: Quality Assurance Programs for Safety-Related Coatings	This activity will be included in M97146.
M97253	IN	TJCarter	Plant Systems Branch	3/24/97 C	IN: Misapplication of Internal Pipe Coating	IN 97-13 issued 3/24/97.
M97298	IN	DLSkeen	Special Inspections Branch	3/19/97 C	IN: Failures of GE Magne Blast Breakers	IN 97-08 issued 3/12/97.
M97395	IN	TJCarter	Materials and Chemical Engineering Branch	2/6/97 C	IN: Cracking of BWR Jet Pump Riser Elbow	IN 97-02 issued 2/6/97.
M97436	IN	DLSkeen	Electrical Engineering Branch	3/24/97 C	IN: Potential Armature Binding in GE Type HGA Relays	IN 97-1? issued 3/24/97.

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TAC	Type	Contact	Tech Branch	LA Comp	Title	Reason Closed
M97744	IN	EJBenner	Civil Engineering and Geosciences Branch	4/25/97 C	IN: Failure of Welded-Steel Moment-Resisting Frames During The Northridge Earthquake	IN 97-22 issued 4/25/97.
M97918		JTMunday	Emergency Preparedness and Radiation Protection Branch	3/11/97 C	IN: Non-power Reactor Submitting Emergency plan Revision with Incorrect Terminology	Based on the discussion between PERB and PECB, the proposed IN was canceled on 3/11/97.
M97919	IN	TKoshy	Electrical Engineering Branch	4/18/97 C	IN: Availability of Alternate AC Power Source Designed for Station Blackout Event	IN 97-21 issued 4/18/97.
M97979	IN	CDPetrone	Mechanical Engineering Branch	4/4/97 C	LT: Preconditioning of Equipment prior to Surveillance Testing	IN 97-16 issued 4/4/97.
M98028	IN	CDPetrone	Quality Assurance and Maintenance Branch	4/15/97 C	IN: Problems Identified during 10 CFR 50.65 Baseline Inspections	IN 97-18 issued 4/14/97.

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TAC	Type	Contact	Tech Branch	LA Comp	Title	Reason Closed
M98181	IN	WFBurton	Operator Licensing Branch	4/15/97 C	IN 94-14, Sup 1, Failure to Implement Requirements for Biennial Medical Exam and Notification to the NRC	IN 94-14, Sup 1, issued 4/14/97.
M98236	IN	TAGreene	Materials and Chemical Engineering Branch	4/4/97 C	IN: Cracking Found in Vertical Welds of BWR Core Shroud	IN 97-17 issued 4/4/97.
M98239	IN	TKoshy	Instrumentation and Controls Branch	5/9/97 C	IN: Dynamic Range Uncertainties of Reactor Vessel Level Instrumentation System	IN 97-25 issued 5/9/97.