#### <u>ATTACHMENT</u>

GENERIC ISSUE MANAGEMENT CONTROL SYSTEM REPORT

OFFICE OF NUCLEAR REGULATORY RESEARCH APRIL 2003

#### TABLE OF CONTENTS

(a)	Generic Issue Management Control System
	(1) Description

- (1) Description(2) Legend(3) Data Elements

	(3) Da	ta Elements
(b)	Table 1	Reactor GSIs Scheduled for Resolution
(c)	Table 1A	Plan by Fiscal Year for Resolving Remaining Reactor GSIs
(d)	Table 2	Number of Reactor GSIs Resolved by Fiscal Year, FY-1983 to FY-2003 (2nd Quarter)
(e)	Table 3	Reactor GSIs Resolved by Fiscal Year
(f)	Table 4	Net Change by Fiscal Year in Reactor GSIs Scheduled for Resolution, FY-1983 to FY-2003 (2nd Quarter)
(g)	Table 4A	Net Change in Reactor GSIs Resolved, FY-1983 to FY-2003 (2nd Quarter)
(h)	Table 5	Reactor Generic Issues to be Prioritized
(i)	Table 6	Reactor Generic Issues to be Reprioritized
(j)	Table 7	Number of Reactor GSIs Prioritized
(k)	Table 8	Number of Reactor GSIs Prioritized from FY-1983 to FY-2001
(1)	Table 8A	Number of Reactor GSIs Screened in Accordance with MD 6.4, from FY-2001 to FY-2003 (2nd Quarter)
(m)	Table 9	Reactor GSIs Scheduled for Screening in Accordance with MD 6.4
(n)	Table 10	Reactor GSIs Screened in Accordance with MD 6.4
(o)	Table 11	Non-Reactor Generic Issues Prioritized
(p)	Table 12	Non-Reactor Generic Issues Screened in Accordance with MD 6.4
(p)	Table 13	Non-Reactor Generic Issues Resolved by Fiscal Year
(r)	Table 14	Non-Reactor Generic Issues Scheduled for Resolution
(s)	Work Scope	& Schedules for Active Generic Issues

#### GENERIC ISSUE MANAGEMENT CONTROL SYSTEM

#### **DESCRIPTION**

The Generic Issue Management Control System (GIMCS) provides information necessary to manage the resolution of generic safety issues (GSIs) as well as non-safety-related generic issues. GSIs have the potential for safety enhancements and the promulgation of new or revised requirements or guidance. For the purpose of this management control system, resolution of a reactor GSI is defined as the point when a close-out memorandum is issued by the lead office to the EDO summarizing the staffs findings and conclusion. This conclusion can either be: (1) no new requirements; or (2) new requirements, with incorporation of the resolution into one or more of the following documents:

- (a) Commission Order
- (b) NRC Policy Statement
- (c) Rule
- (d) Standard Review Plan (SRP)
- (e) Regulatory Guide
- (f) Generic Letter
- (g) Bulletin
- (h) Information Notice

For non-safety-related reactor issues and all non-reactor issues, resolution is defined as the point when a close-out memorandum is issued by the lead office documenting the staff's findings and conclusion.

GIMCS is part of an integrated system of reports and procedures that is designed to manage GSIs through the stages of prioritization and resolution (development of new criteria, management review and approval, public comments, and incorporation into the regulations, as appropriate). The priority evaluation for each issue listed in this report is contained in NUREG-0933, "A Prioritization of Generic Safety Issues." For reactor issues, the "Procedures for Identification, Prioritization, Resolution, and Tracking of Generic Issues" are outlined in RES Office Letter No. 7, dated February 16, 1996. The procedures for processing non-reactor issues are documented in NMSS Policy and Procedures Letter 1-57, Revision 1, "NMSS Generic Issues Program," dated October 1997. In 1999, Management Directive 6.4, "Generic Issues Program," was initiated for the processing of all new GSIs.

GIMCS provides the proposed schedules for managing the resolution of: (1) GSIs that have a HIGH-priority; (2) GSIs that have a MEDIUM-priority; and (3) other issues designated to receive resources for resolution. Reactor GSIs ranked as either LOW or DROP are not allocated resources for resolution and, therefore, are not tracked in GIMCS.

#### **LEGEND**

ANPRM - Advance Notice of Proposed Rulemaking

BNL - Brookhaven National Laboratory

BTP - Branch Technical Position
DE - Division of Engineering

DET - Division of Engineering Technology

DRPM - Division of Reactor Program Management - Division of Systems Safety and Analysis

DTR - Draft Technical Resolution

EPRI - Electric Power Research Institute FIN - Financial Identification Number

FRN - Federal Register Notice FTR - Final Technical Resolution

GL - Generic letter

GSI - Generic Safety Issue H - HIGH-priority GSI

IEB - Inspection & Enforcement Bulletin

IN - Information Notice

INEL - Idaho Nuclear Engineering Laboratory

M - MEDIUM-priority GSI

ORNL - Oak Ridge National Laboratory
PNL - Pacific Northwest Laboratories
PRA - Probabilistic Risk Assessment
PRAB - Probabilistic Risk Analysis Branch
RAI - Request for Additional Information

RG - Regulatory Guide RI - Regulatory Impact

S - Subsumed in Another Issue (No.)

SFPO - Spent Fuel Project Office SOW - Statement of Work SRP - Standard Review Plan

STS - Standard Technical Specification

T/A - Technical Assistance
TAP - Task Action Plan
TBD - To be Determined
TI - Temporary Instruction
TS - Technical Specification
USI - Unresolved Safety Issue

#### **DATA ELEMENTS**

Management and control indicators used in GIMCS are defined as follows:

1.	Issue No.	Generic Issue	Number
2.	<u>Title</u>	Generic Issue	e Title
3.	Identification Date	Date the issue	e was identified
4.	Prioritization Date	The date that the RES Direct	the prioritization evaluation was approved by ctor
5.	<u>Type</u>	Generic Safe	ty (GSI)
6.	Priority	High (H), Med	dium (M), or Continue
7.	Task Manager	Name of assi	gned individual responsible for resolution
8.	Office/Division/Branch		ivision, and Branch of the Task Manager who onsibility for resolving the issue
9.	Action_Level	<u>Active</u>	Technical assistance funds appropriated for resolution and/or Task Manager actively pursuing resolution
		<u>Inactive</u>	No technical assistance funds appropriated for resolution, Task Manager assigned to more important work, or no Task Manager assigned
		Resolved	All necessary work has been completed and no additional resources will be expended
10.	<u>Status</u>	3A - (Resolve	ary as follows: ed with requirements) ed with No requirements)
11.	TAC Number	Task Action C	Control (TAC) number assigned to the issue
12.	Resolution Date	Scheduled re	solution date for the issue
13.	Work Authorization	Who or what	authorized work to be done on the issue

#### **DATA ELEMENTS (cont.)**

-	<del></del>		
23.	<u>FIN</u>	Financial ide for technical	entification number assigned to contract (if any) assistance
24.	Contractor	Contractor n	ame
25.	Contract Title	Contract Title	e (if contract issue)
26.	Work Scope		riefly the work necessary to technically resolve e the generic issue
27.	Status	Describes cu	urrent status of work
28.	Affected Documents	Identifies do be incorpora	cuments into which the technical resolution will ted
29.	Problem/Resolution		oblem areas and describes what actions are resolve them
30.	<u>Milestones</u>	Selected sig	nificant milestones:
		<u>Original</u>	Scheduled dates reflected in the original Task Action Plan, plus additional milestone dates added during resolution of the GSI
		<u>Curren</u> t	Expected date of completion, or changes in the original scheduled dates

<u>Actual</u>

The date the milestone was completed

# TABLE 1 REACTOR GSIs SCHEDULED FOR RESOLUTION

ISSUE NUMBER	TITLE	LEAD/OFFICE/ DIVISION/ BRANCH	PRIORITY	DATE APPROVED FOR RESOLUTION	RESOLUTION DATE AT END OF FY-2002	CURRENT RESOLUTION DATE
80	Pipe Break Effects on Control Rod Drive Hydraulic Lines in the Drywells of BWR MARK I and II Containments	TBD	CONTINUE**	02/14/2003	NA	TBD
156.6.1	Pipe Break Effects on Systems and Components	RES/DSARE/REAHFB	HIGH	07/16/1999	TBD	TBD
163	Multiple Steam Generator Tube Leakage	NRR/DE/EMCB	HIGH	01/17/1997	09/2005	09/2005
168	Environmental Qualification of Electrical Equipment	NRR	HIGH*	04/01/1993	TBD	TBD
185	Control of Recriticality Following Small-Break LOCAs in PWRs	RES/DSARE/SMSAB	HIGH	07/07/2000	09/2005	09/2005
188	Steam Generator Tube Leaks/Ruptures Concurrent with Containment Bypass	RES/DET/ERAB	CONTINUE**	05/21/2001	TBD	09/2004
189	Susceptibility of Ice Condenser and MARK III Containments to Early Failure from Hydrogen Combustion During A Severe Accident	NRR/DSSA/SPSB	CONTINUE**	02/13/2002	TBD	TBD
191	Assessment of Debris Accumulation on PWR Sump Performance	NRR/DE/EMCB	HIGH*	09//1996	TBD	03/2007

Previously listed as Nearly-Resolved but changed to HIGH in SECY-98-166 Defined in Management Directive 6.4

1

Total 8

TABLE 1A
PLAN BY FISCAL YEAR FOR RESOLVING REMAINING REACTOR GSIS

PRIORITY	FY-2003	FY-2004	FY-2005	FY-2006	FY-2007	TBD	TOTAL
HIGH	-	-	163 185	-	191*	156 6.1 168*	5
MEDIUM	-	-	-	-	-	-	0
CONTINUE**	-	188	-	-	-	80 189	3
TOTAL:	0	1	2	0	1	4	8

- Previously listed as Nearly-Resolved but changed to HIGH in SECY-98-166 Defined in Management Directive 6.4

# TABLE 2 NUMBER OF REACTOR GSIs RESOLVED BY FISCAL YEAR FY-1983 TO FY-2003 (2nd QUARTER)

FISCAL YEAR	USI	HIGH	MEDIUM	NR	CONTINUE	TOTAL
FY-1983	2	0	0	4	-	6
FY-1984	2	1	3	9	-	15
FY-1985	0	6	10	7	-	23
FY-1986	1	3	2	3	-	9
FY-1987	2	3	4	1	-	10
FY-1988	5	6	2	3	-	16
FY-1989	4	9	3	2	-	18
FY-1990	0	2	2	3	-	7
FY-1991	0	2	1	1	-	4
FY-1992	0	4	2	1	-	7
FY-1993	0	7	3	0	-	10
FY-1994	0	1	2	2		5
FY-1995	0	0	0	1	-	1
FY-1996	0	1	1	1	-	3
FY-1997	0	0	1	2	-	3
FY-1998	0	0	0	0	-	0
FY-1999	0	2	2	0	-	4
FY-2000	0	3	2	0	-	5
FY-2001	0	1	0	0	0	1
FY-2002	0	2	0	0	0	2
TOTAL	16	53	40	40	0	149

ISSUE NUMBER	TITLE	PRIORITY	RESOLUTION PRODUCT	DATE APPROVED FOR RESOLUTION	DATE RESOLVED
FY-1983					
A-11	Reactor Vessel Materials Toughness	USI	GL 82-26	01/79	10/82
A-16	Steam Effects on BWR Core Spray Distribution	NR	MPA D-12	NRR-OP FY83	03/29/83
A-39	Determination of Safety Relief Valve (SRV) Pool Dynamic Loads and Temperature Limits for BWR Containment	USI	SRP Revision	01/79	10/82
B-53	Load Break Switch	NR	SRP Revision	NRR-OP FY83	07/28/83
II.E.5.1	(B&W) Design Evaluation	NR	No Req.	NRR-OP FY83	03/21/83
IV.C.1	Extend Lessons Learned from TMI toOther NRC Programs	NR	No Req.	NRR-OP FY83	04/15/83
FY-1984				-	-
12	BWR Jet Pump Integrity	Medium	No Req.	NRR-OP FY83	09/25/84
20	Effects of Electromagnetic Pulse on Nuclear Plant Systems	NR	NUREG/CR-3069	NRR-OP FY83	11/15/83
40	Safety Concerns Associated with Breaks in the BWR Scram System	NR	MPA B-65	07/18/83	12/27/83
45	Inoperability of Instruments Due to Extreme Cold Weather	NR	SRP Revision	09/08/83	03/23/84
50	Reactor Vessel Level Instumentation in BWRs	NR	MPA F-26	07/28/83	09/06/84
69	Make-Up Nozzle Cracking in B&W Plants	NR	MPA B-43	12/06/83	09/27/84
A-1	Water Hammer	USI	SRP Revision	01/79	03/15/84
A-12	Steam Generator and Reactor Coolant Pump Supports	USI	SRP Revision	01/79	10/83
B-10	Behavior of BWR Mark III Containments	High	SRP Revision	NRR-OP FY83	09/10/84
B-26	Structural Integrity of Containment Penetrations	Medium	No Req.	NRR-OP FY83	09/27/84
B-60	Loose Parts Monitoring Systems (LPMS)	NR	GL	NRR-OP FY83	09/25/84

ISSUE NUMBER	TITLE	PRIORITY	RESOLUTION PRODUCT	DATE APPROVED FOR RESOLUTION	DATE RESOLVED
FY-1984 (C	ONT.)				
I.A.1.4	Long-Term Upgrading of Operating Personnel	NR	New Rule	NRR-OP FY83	01/01/84
II.A.1	Siting Policy Reformulation	Medium	No Req	NRR-OP FY83	09/20/84
II.E.5.2	(B&W) Reactor Transient Response Task Force	NR	NUREG-0667	NRR-OP FY83	09/28/84
III.D.2.5	Offsite Dose Calculation Manual	NR	NUREG/CR-3332	NRR-OP FY83	01/17/84
FY-1985				•	
22	Inadvertent Boron Dilution Events	NR	GL 85-05	11/05/82	10/15/84
A-41	Long Term Seismic Program	Medium	No Req.	NRR-OP FY83	10/10/84
B-19	Thermal-Hydraulic Stability	NR	GL	01/03/85	05/21/85
B-54	Ice Condenser Containments	Medium	NUREG/CR-4001	NRR-OP FY83	10/22/84
B-58	Passive Mechanical Failures	Medium	No Req	NRR-OP FY83	07/09/85
C-11	Assessment of Failure and Reliability of Pumps and Valves	Medium	No Req.	NRR-OP FY83	07/09/85
I.A 2.2	Training and Qualifications of Operating Personnel	High	Policy Statement (No Req.)	NRR-OP FY83	06/24/85
I.A.2.6(4)	Operator Workshops	Medium	No Req.	NRR-OP FY83	09/25/85
I.A.2.7	Accreditation of Training Institutions	Medium	Policy Statement (No Req )	NRR-OP FY83	06/24/85
I.A.3.4	Licensing of Additional Operations Personnel	Medium	Policy Statement (No Req )	NRR-OP FY83	02/12/85
I.G.2	Scope of Test Program	Medium	No Req.	NRR-OP FY83	10/05/84
II.B.6	Risk Reduction for Operating Reactors at Sites with High Population Densities	High	No Req	NRR-OP FY83	09/25/85

ISSUE NUMBER	TITLE	PRIORITY	RESOLUTION PRODUCT	DATE APPROVED FOR RESOLUTION	DATE RESOLVED
FY-1985 (CC	ONT.)				
II.B.8	Rulemaking Proceedings on Degraded Core Accidents	High	-	-	-
	(a) Hydrogen Rule		Rule/Policy Statement	NRR-OP FY83	07/19/85
	(b) Severe Accidents		Rule/Policy Statement	NRR-OP FY83	08/12/85
II.C.1	Interim Reliability Evaluation Program	High	No Req.	NRR-OP FY83	07/09/85
II.C.2	Continuation of Interim Reliability Evaluation Program	High	No Req	NRR-OP FY83	09/25/85
II.E.2.2	Research on Small-Break LOCAs and Anomalous Transients	Medium	No Req	NRR-OP FY83	07/25/85
III.A.1.3(2)	Maintain Supplies of Thyroid-Blocking Agent for Public	NR	Policy Statement	NRR-OP FY83	08/15/85
III.A.3.4	Nuclear Data Link	Medium	No Req.	NRR-OP FY83	06/26/85
III.D.2.3(1)	Develop Procedures to Discriminate Between Sites/Plants	NR	ESRP Revision	NRR-OP FY83	08/28/85
III.D.2.3(2)	Discriminate Between Sites and Plants that Require Consideration of Liquid Pathway Interdiction Techniques	NR	ESRP Revision	NRR-OP FY83	08/28/85
III.D.2.3(3)	Establish Feasible Method of Pathway Interdiction	NR	ESRP Revision	NRR-OP FY83	08/28/85
III.D.2.3(4)	Prepare a Summary Assessment	NR	ESRP Revision	NRR-OP FY83	08/28/85
IV.E.5	Assess Currently Operating Plants	High	No Req.	NRR-OP FY83	09/25/85
FY-1986					
3	Setpoint Drift in Instrumentation	NR	Reg Guide Rev. (No Req.)	NRR-OP FY83	05/19/86
14	PWR Pipe Cracks	NR	No Req.	NRR-OP FY83	10/04/85

ISSUE NUMBER	TITLE	PRIORITY	RESOLUTION PRODUCT	DATE APPROVED FOR RESOLUTION	DATE RESOLVED
FY-1986 (C	ONT.)				
36	Loss of Service Water	NR	SRP Revision (No Req.)	02/15/84	05/13/86
61	SRV Discharge Line Break Inside the Wetwell Airspace of BWR Mark I and II Containments	Medium	No Req.	11/30/83	08/08/86
A-43	Containment Emergency Sump Performance	USI	SRP Revision (Req )	01/79	10/85
I.C.9	Long-Term Plan for Upgrading of Procedures	Medium	No Req.	NRR-OP FY83	06/07/85
III.D.3.1	Radiation Protection Plans	High	No Req.	NRR-OP FY83	05/19/86
HF1.2	Engineering Expertise on Shift	High	No Req.	10/01/84	10/28/85
HF1.3	Guidance on Limits and Conditions of Shift Work	High	No Req	10/01/84	06/26/86
FY-1987					
91	Main Crankshaft Failures in Transamerica Delaval Diesel Generators	NR	NUREG-1216 (No Req.)	07/85	09/87
A-46	Seismic Qualification of Equipment in Operating Plants	USI	GL 87-02 (Req.)	02/81	02/87
A-49	Pressurized Thermal Shock	USI	Rule/Reg. Guide 1.154 (Req.)	12/81	02/87
I A.2.6(1)	Long-Term Upgrading of Training and Qualifications - Revise Reg Guide 1.8	High	Reg. Guide 1.8 (Req.)	10/82	05/87
1.A.3.3	Requirement for Operator Fitness	High	No Req	12/82	01/87
I.A.4.2(1)	Research on Training Simulators	High	Reg. Guide 1.149, Rev. 1 (Req )	10/84	05/87

ISSUE NUMBER	TITLE	PRIORITY	RESOLUTION PRODUCT	DATE APPROVED FOR RESOLUTION	DATE RESOLVED
FY-1987 (C	ONT.)				
1.B.1.1	Organization and Management Long-Term Improvements	-	-	-	
l.B.1.1(1)	Prepare Draft Criteria	Medium	No Req.	12/82	01/87
I.B.1.1(2)	Prepare Commission Paper	Medium	No Req.	12/82	01/87
I.B.1.1(3)	Issue Requirements for the Upgrading of Management and Technical Resources	Medium	No Req.	12/82	01/87
I.B.1.1(4)	Review Responses to Determine Acceptability	Medium	No Req	12/82	01/87
FY-1988					-
86	Long Range Plan for Dealing with Stress Corrosion Cracking in BWR Piping	NR	NUREG-0313, Rev. 2 GL 88-01 (Req.)	10/84	01/88
93	Steam Binding of Auxiliary Feedwater Pumps	High	GL 88-03 (No Req.)	10/84	02/88
I.D.4	Control Room Design Standard	Medium	No Req.	NRR-OP FY83	03/88
II E.4.3	(Containment) Integrity Check	High	NUREG-1273 (No Req.)	NRR-OP FY83	03/88
B-5	Ductility of Two-Way Slabs and Shells and Buckling Behavior of Steel Containments	Medium	No Req.	NRR-OP FY83	04/88
HF8	Maintenance and Surveillance Program	High	Policy Statement (No Req.)	03/85	05/88
I.A.4.2(4)	Review Simulators for Conformance	High	Rule (Req.)	NRR-OP FY83	05/88
A-44	Station Blackout	USI	Rule/Reg. Guide 1.155 (Req)	01/79	06/88

ISSUE NUMBER	TITLE	PRIORITY	RESOLUTION PRODUCT	DATE APPROVED FOR RESOLUTION	DATE RESOLVED
FY-1988 (C	ONT.)	•			•
43	Reliability of Air Systems	High	GL 88-14 (Req)	12/87	09/88
66	Steam Generator Requirements	NR	NUREG-0844 (No Req )	11/83	09/88
102	Human Error in Events Involving Wrong Unit or Wrong Train	NR	NUREG-1192 (No Req.)	02/85	09/88
125.11.7	Reevaluate Provision to Automatically Isolate Feedwater from Steam Generator During a Line Break	High	NUREG-1332 (No Req.)	09/86	09/88
A-3,4,5	Steam Generator Tube Integrity	USI	NUREG-0844 (No Req.)	01/79	09/88
A-45	Shutdown Decay Heat Removal Requirements	USI	NUREG-1289 (No Req.)	02/81	09/88
FY-1989					
51	Proposed Requirements for Improving Reliability of Open Cycle Service Water Systems	Medium	GL 89-13 (Req.)	06/83	08/89
82	Beyond Design Bases Accidents in Spent Fuel Pools	Medium	NUREG-1353 (No Req.)	12/07/83	04/89
99	RCS/RHR Suction Line Interlocks on PWRs	High	GL 88-17 (Req.)	08/85	11/88
101	BWR Water Level Redundancy	High	GL 89-11 (Req.)	05/06/85	06/89
115	Enhancement of the Reliability of Westinghouse Solid State Protection System	High	NUREG-1341 (No Req.)	07/07/86	04/89
122.2	Initiating Feed-and-Bleed	High	No Req.	01/86	04/89
124	Auxiliary Feedwater System Reliability	NR	2 Plant-Specific Backfits (Req.)	02/86	01/89

ISSUE NUMBER	TITLE	PRIORITY	RESOLUTION PRODUCT	DATE APPROVED FOR RESOLUTION	DATE RESOLVED
FY-1989 (C	ONT.)				
125.I.3	SPDS Availability	NR	GL 89-06 (No Req.)	05/06/88	04/89
134	Rule on Degree and Experience Requirements for Senior Operators	High	Policy Statement (No Req.)	01/86	08/89
A-17	Systems Interaction	USI	NUREG-1174 (No Req.)	01/79	08/89
A-40	Seismic Design Criteria USI SRP Revisions 01/79 (Req )		01/79	09/89	
A-47	Safety Implications of Control Systems	USI	GL 89-19 (Req )	02/81	08/89
A-48	Hydrogen Control Measures and Effects of Hydrogen Burns on Safety Equipment	USI	Rules (Req.)	02/81	04/89
HF1.1	Shift Staffing	High	Reg Guide 1.114, Rev.2 (Req.)	10/01/84	05/89
HF4.1	Inspection Procedure for Upgraded Emergency Operating Procedures	High	IN 86-64 (No Req.)	10/01/84	10/88
I.F.1	Expand QA List	High	No Req	NRR-OP FY83	01/89
II.C.4	Reliability Engineering	High	No Req.	NRR-OP FY83	10/88
II.E.6.1	Test Adequacy Study	Medium	GL 89-10 (Req.)	NRR-OP FY83	06/89
FY-1990					
70	PORV and Block Valve Reliability	Medium	GL 90-06	05/14/84	06/90
75	Generic Implications of ATWS Events at the Salem Nuclear Power Plant	NR	Req	10/19/83	05/90

ISSUE NUMBER	TITLE	PRIORITY	RESOLUTION PRODUCT	DATE APPROVED FOR RESOLUTION	DATE RESOLVED
FY-1990 (C	ONT.)				
84	CE PORVs	NR	SECY-90-232 (No Req.)	02/27/85	06/90
94	Additional Low-Temperature Overpressure Protection for LWRs	High	GL 90-06 (Req.)	07/23/85	06/90
103	Design for Probable Maximum Precipitation	NR	GL 89-22 (Req.)	09/04/85	11/89
A-29	Nuclear Power Plant Design for the Reduction of Vulnerability to Industrial Sabotage	Medium	No Req NRR-OP FY83		10/89
C-8	Main Steam Line Isolation Valve Leakage Control Systems	High	No Req	NRR-OP FY83	03/90
FY-1991					
128	Electrical Power Reliability	High	GL 91-06, GL 91-11 (Req.)	11/28/86	09/91
130	Essential Service Water System Failures at Multiplant Sites	High	GL 91-13 (Req.)	03/10/87	09/91
135	Steam Generator and Steam Line Overfill	Medium	No Req.	05/27/86	03/91
II.J.4.1	Revise Deficiency Report Requirements	NR	Rule (Req.)	NRR-OP FY83	07/91
FY-1992					
29	Bolting Degradation or Failure in Nuclear Power Plants	High	No Req.	NRR-OP FY-83	10/91
73	Detached Thermal Sleeves	NR	NUREG/CR-6010 (No Req.)	08/20/91	09/92
79	Unanalyzed Reactor Vessel Thermal Stress During Natural Convection Cooldown	Medium	GL 92-02 (No Req.)	NRR-OP FY-84	05/92
87	Failure of HPCI Steam Line Without Isolation	High	No Req.	09/26/85	12/91
113	Dynamic Qualification Testing of Large Bore Hydraulic Snubbers	High	No Req.	07/02/87	08/92

ISSUE NUMBER	TITLE	PRIORITY	RESOLUTION PRODUCT	DATE APPROVED FOR RESOLUTION	DATE RESOLVED
FY-1992 (C	ONT.)				
121	Hydrogen Control for Large, Dry PWR Containments	High	No Req	09/26/85	03/92
151	Reliability of ATWS Recirculation Pump Trip in BWRs	Medium	No Req.	08/27/91	09/92
FY-1993					
105	Interfacing Systems LOCA at LWRs	High	No Req	06/11/85	06/93
120	On-Line Testability of Protection Systems	Medium	No Req.	11/23/90	03/93
142	Leakage Through Electrical Isolators	Medium	No Req.	06/20/90	03/93
143	Availability of Chilled Water Systems and Room Cooling	High	No Req.	03/29/91	09/93
153	Loss of Essential Service Water in LWRs	High	No Req.	03/29/91	06/93
B-56	Diesel Reliability	High	Reg Guides. 1.9, Rev. 3, 1.160 (Req.)	NRR-OP FY83	06/93
HF4.4	Guidelines for Upgrading Other Procedures	High	No Req.	10/01/84	07/93
HF5.1	Local Control Stations	High	No Req.	10/01/84	06/93
HF5.2	Review Criteria for Human Factors Aspects of Advanced Controls and Instrumentation	High	No Req.	10/01/84	06/93
1.D.3	Safety System Status Monitoring	Medium	No Req.	NRR-OP FY83	09/93
FY-1994		-			
57	Effects of Fire Protection System Actuation on Safety-Related Equipment	Medium	NUREG-1472 (No Req )	06/08/88	02/94
106	Piping and Use of Highly Combustible Gases in Vital Areas	Medium	No Req	11/03/87	11/93
I.D.5(3)	On-Line Reactor Surveillance Systems	NR	No Req.	NRR-OP FY83	11/93

ISSUE NUMBER	TITLE	PRIORITY	RESOLUTION PRODUCT	DATE APPROVED FOR RESOLUTION	DATE RESOLVED
FY-1994 (C	ONT.)			-	
II.H.2	Obtain Technical Data on the Conditions Inside the TMI-2 Containment Structure	High	No Req.	NRR-OP FY83	02/94
B-64	Decommissioning of Nuclear Reactors	NR	Rule (Req.)	NRR-OP FY84	09/94
FY-1995			·		•
155.1	More Realistic Source Term Assumptions	NR	NUREG-1465 (Req.)	02/26/92	03/95
FY-1996					
15	Radiation Effects on Reactor Vessel Supports	High	NUREG-1509 (No Req.)	02//89	05/96
24	Automatic Emergency Core Cooling System Switch to Recirculation	Medium	No Req.	07//91	10/95
83	Control Room Habitability	NR	NUREG/CR-5669 (No Req.)	08//83	06/96
FY-1997					
78	Monitoring of Fatigue Transient Limits for Reactor Coolant System	Medium	No Req	07/10/92	02/97
166	Adequacy of Fatigue Life of Metal Components	NR	No Req	04/01/93	02/97
173.B	Spent Fuel Storage Pool. Permanently Shutdown Facilities	NR	No Req	06/24/96	10/96
FY-1998					
None.					
FY-1999					
171	ESF Failure from LOOP Subsequent to a LOCA	HIGH	No Req.	06/16/95	12/98
B-61	Allowable ECCS Equipment Outage Periods	MEDIUM	No Req.	NRR OP FY-83	03/99

ISSUE NUMBER	TITLE	PRIORITY	RESOLUTION PRODUCT	DATE APPROVED FOR RESOLUTION	DATE RESOLVED
FY-1999 (C	ONT.)				
158	Performance of Safety-Related Power-Operated Valves Under Design Basis Conditions	MEDIUM	Staff Report (No Req )	01/26/1994	08/1999
165	Spring-Actuated Safety and Relief Valve Reliability	HIGH	Staff Report (No Req.)	11/26/1993	06/1999
FY-2000					
23	Reactor Coolant Pump Seal Failures	HIGH*	Staff Report (No Req.)	NRR OP FY-83	11/1999
145	Actions to Reduce Common Cause Failures	HIGH*	Regulatory Issue Summary 99-03 (No Req.)	02/11/1992	10/1999
190	Fatigue Evaluation of Metal Components for 60-Year Plant Life	HIGH*	Staff Report (No Req.)	08/26/1996	12/1999
B-17	Criteria for Safety-Related Operator Actions	MEDIUM	Staff Report (No Req.)	03/22/1982	03/2000
B-55	Improve Reliability of Target Rock Safety Relief Valves	MEDIUM	Staff Report (No Req.)	NRR OP FY-83	12/1999
FY -2001					
170	Reactivity Transients and Fuel Damage Criteria for High Burnup Fuel	HIGH	Staff Report (No Req.)	11/09/1994	05/2001
FY -2002					
173.A	Spent Fuel Storage Pool. Operating Facilities	HIGH*	Staff Report (No Req )	06/24/1996	12/2001

ISSUE NUMBER	TITLE	PRIORITY	RESOLUTION PRODUCT	DATE APPROVED FOR RESOLUTION	DATE RESOLVED
FY -2002 (C	ONT.)				
172	Multiple System Responses Program	HIGH*	Staff Report (No Req )	12/07/1995	02/2002

<sup>\*</sup> Previously listed as Nearly-Resolved but changed to HIGH in SECY-98-166

TABLE 4

FY-1983

PRIORITY CATEGORY	START	ADDITIONS	RESOLVED	INTEGRATED	END
USI	16	0	2	0	14
HIGH	24	2	0	0	26
MEDIUM	31	2	0	0	33
NR	20	3	4	0	19
TOTAL	91	7	6	0	92

FY-1984

PRIORITY CATEGORY	START	ADDITIONS	RESOLVED	INTEGRATED	END
USI	14	0	2	0	12
HIGH	26	1	1	0	26
MEDIUM	33	4	3	0	34
NR	19	5	9	0	15
TOTAL	92	10	15	0	87

PRIORITY CATEGORY	START	ADDITIONS	RESOLVED	INTEGRATED	END
USI	12	0	0	0	12
HIGH	22*	41	6	0	57
MEDIUM	28*	1	10	0	19
NR	15	11	7	0	19
TOTAL	77	53	23	0	107

TABLE 4

#### FY-1986

PRIORITY CATEGORY	START	ADDITIONS	RESOLVED	INTEGRATED	END
USI	12	0	1	0	11
нісн	57	<16>*	3	0	38
MEDIUM	19	7	2	0	24
NR	19	<3>*	3	0	13
TOTAL	107	<12>*	9	0	86

#### FY-1987

PRIORITY CATEGORY	START	ADDITIONS	RESOLVED	INTEGRATED	END
USI	11	0	2	0	9
HIGH	38	4	3	7	32
MEDIUM	24	1	4	5	16
NR	13	0	1	1	11
TOTAL	86	5	10	13	68

#### FY-1988

PRIORITY CATEGORY	START	ADDITIONS	RESOLVED	INTEGRATED	END
USI	9	0	5	0	4
HIGH	32	1	6	3	24
MEDIUM	16	2	2	3	13
NR	11	1	3	0	9
TOTAL	68	4	16	6	50

TABLE 4

FY-1989

PRIORITY CATEGORY	START	ADDITIONS	RESOLVED	INTEGRATED	END
USI	4	0	4	0	0
HIGH	24	1	9	0	16
MEDIUM	13	1	3	1	10
NR	9	0	2	0	7
TOTAL	50	2	18	1	33

FY-1990

PRIORITY CATEGORY	START	ADDITIONS	RESOLVED	INTEGRATED	END
HIGH	16	0	2	0	14
MEDIUM	10	1	2	0	9
NR	7	0	3	0	4
TOTAL	33	1	7	0	27

FY-1991

PRIORITY CATEGORY	START	ADDITIONS	RESOLVED	INTEGRATED	END
HIGH	14	2	2	0	14
MEDIUM	9	3 /	1	0	11
NR	4	1	1	0	4
TOTAL	27	6	4	0	29

TABLE 4

FY-1992

PRIORITY CATEGORY	START	ADDITIONS	RESOLVED	INTEGRATED	END
HIGH	14	0	4	0	10
MEDIUM	11	1	2	0	10
NR	4	2	1	0	5
TOTAL	29	3	7	0	25

FY-1993

PRIORITY CATEGORY	START	ADDITIONS	RESOLVED	INTEGRATED	END
HIGH	10	0	7	0	3
MEDIUM	10	0	3	0	7
NR	5	2	0	0	7
TOTAL	25	2	10	0	17

PRIORITY CATEGORY	START	ADDITIONS	RESOLVED	INTEGRATED	END
HIGH	3	1	1	0	3
MEDIUM	7	1	2	0	6
NR	7	0	2	0	5
TOTAL	17	2	5	0	14

TABLE 4

FY-1995

PRIORITY CATEGORY	START	ADDITIONS	RESOLVED	INTEGRATED	END
HIGH	3	1	0	0	4
MEDIUM	6	0	0	0	6
NR	5	1	1	0	5
TOTAL	14	2	1	0	15

FY-1996

PRIORITY CATEGORY	START	ADDITIONS	RESOLVED	INTEGRATED	END
HIGH	4	0	1	0	3
MEDIUM	6	0	1	0	5
NR	5	5	1	0	9
TOTAL	15	5	3	0	17

PRIORITY CATEGORY	START	ADDITIONS	RESOLVED	INTEGRATED	END
HIGH	3	1	0	0	4
MEDIUM	5	0	1	0	4
NR	9	0	2	0	7
TOTAL	17	1	3	0	15

TABLE 4

FY-1998

		<u>,</u>			
PRIORITY CATEGORY	START	ADDITIONS	RESOLVED	INTEGRATED	END
HIGH	4	7	0	0	11
MEDIUM	4	0	0	0	4
NR	7	<7>	0	0	0
TOTAL	15	0	0	0	15

FY-1999

			1333		
PRIORITY CATEGORY	START	ADDITIONS	RESOLVED	INTEGRATED	END
HIGH	11	1	2	0	10
MEDIUM	4	0	2	0	2
TOTAL	15	1	4	0	12

PRIORITY CATEGORY	START	ADDITIONS	RESOLVED	INTEGRATED	END
HIGH	10	1	3	0	8
MEDIUM	2	0	2	0	0
TOTAL	12	1	5	0	8

TABLE 4

FY-2001

PRIORITY CATEGORY	START	ADDITIONS	RESOLVED	INTEGRATED	END
HIGH	8	0	1	0	7
MEDIUM	0	0	0	0	0
TOTAL	8	0	1	0	7

FY-2002

PRIORITY CATEGORY			RESOLVED	INTEGRATED	END
HIGH	7	0	2	0	5
MEDIUM	0	0	0	0	0
CONTINUE	0	2	0	0	2
TOTAL	7	2	2	0	7

PRIORITY CATEGORY	START	ADDITIONS	RESOLVED	INTEGRATED	END
HIGH	5	0	0	0	5
MEDIUM	0	0	0	0	0
CONTINUE	2	1	0	0	3
TOTAL	7	1	0	0	8

# TABLE 4A NET CHANGE IN REACTOR GSIS RESOLVED FY-1983 TO FY-2003 (2nd QUARTER)

PRIORITY CATEGORY	START	ADDITIONS	SUB- TOTAL	RESOLVED	INTEGRATED**	REMAINDER
USI	16	0	16	16	0	0
HIGH	24	44*	68	53	10	5
MEDIUM	31	18	49	40	9	0
NR	20	21*	41*	40	1	0
CONTINUE	0	3	3	0	0	3
TOTAL:	91	86	177	149	20	8

Extensive revisions to Human Factors issues resulted in priority changes in FY-85 and FY-86.

GSIs Integrated

FY-87 (13):

Issues 48, 49, and A-30 into Issue 128

Issue 65 into Issue 23

Issues 68; 122.1.a; 122.1.b; 122.1.c; and 125.II.1.b into Issue 124

Issues I.B.1.1(6) and I.B.1.1(7) into Issue 75 Issue B-6 into Issue 119.1

Issue 67.7 into 135

FY-88 (6)·

Issue 77 into A-17

Issues I.D.5(5), II.B.5(1), II.B.5(2), II.B.5(3), and II.F.5 were integrated into the Research Activities Program and were reclassified as Licensing Issues.

FY-89 (1):

Issue 131 was integrated into the IPEEE Program.

NONE.

# TABLE 6 REACTOR GENERIC ISSUES TO BE REPRIORITIZED

NONE.

ISSUE NUMBER	TITLE	IDENTIFICATION DATE	DATE PRIORITIZED	CURRENT PRIORITY
FY-1983			•	•
31	Natural Circulation Cooldown	09/1982	07/1983	S(I.C.1)
32	Flow Blockage in Essential Equipment Caused by Corbicula	09/82	05/83	S(51)
33	Correcting Atmospheric Dump Valve Opening Upon Loss of Integrated Control System Power	09/82	08/82	S(A-47)
39	Potential for Unacceptable Interaction Between the CRD System and Non-Essential Control Air the CRD System and Non-Essential Control Air System	09/82	07/82	S(25)
40	Safety Concerns Associated with Pipe Breaks in the BWR Scram System	09/82	07/83	NR
41	BWR Scram Discharge Volume Systems	09/82	07/83	RESOLVED
42	Combination Primary/Secondary System LOCA	09/82	04/83	S(18)
45	Inoperability of Instrumentation Due to Extreme Cold Weather	09/82	09/83	NR
46	Loss of 125 Volt DC Bus	09/82	02/83	S(76)
47	Loss of Off-Site Power	09/82	04/83	RESOLVED
50	Reactor Vessel Level Instrumentation in BWRs	09/82	07/83	NR
51	Proposed Requirements for Improving the Reliability of Open Cycle Service Water Systems	09/82	06/83	MEDIUM
52	SSW Flow Blockage by Blue Mussels	09/82	05/83	S(51)
56	Abnormal Transient Operating Guidelines as Applied to a Steam Generator Overfill Event	09/82	02/83	S(A-45/I.D.1)
58	Inadvertent Containment Flooding	09/82	08/83	DROP
64	Identification of Protection System Instrument Sensing Lines	10/82	02/83	RESOLVED
65	Probability of Core-Melt Due to Component Cooling Water System Failures	02/83	07/83	HIGH
77	Flooding of Safety Equipment Compartments by Back-Flow Through Floor Drains	06/83	09/83	HIGH
79	Unanalyzed Reactor Vessel Thermal Stress During Natural Convection Cooldown	06/83	07/83	MEDIUM
D-1	Advisability of a Seismic Scram	09/1982	06/1983	LOW
IV.E.2	Plan for Early Resolution of Safety Issues	09/82	06/83	RESOLVED

ISSUE NUMBER	TITLE	IDENTIFICATION DATE	DATE PRIORITIZED	CURRENT PRIORITY
FY-1984				
34	RCS Leak	09/1982	02/1984	DROP
35	Degradation of Internal Appurtenances in LWRs	09/82	02/84	LOW
36	Loss of Service Water	09/82	02/84	NR
43	Contamination of Instrument Air Lines	09/82	11/83	DROP
44	Failure of Saltwater Cooling System	09/82	10/83	S(43)
48	LCO for Class IE Vital Instrument Buses in Operating Reactors	09/82	10/83	NR
49	Interlocks and LCOs for Redundant Class IE Tie Breakers	09/82	07/84	MEDIUM
53	Consequences of a Postulated Flow Blockage Incident in a BWR	09/82	09/84	DROP
60	Lamellar Tearing of Reactor Systems Structural Supports	10/82	11/83	S(A-12)
61	SRV Line Break Inside the BWR Wetwell Airspace of Mark I and II Containments	10/82	11/83	MEDIUM
66	Steam Generator Requirements	06/83	11/83	NR
68	Postulated Loss of Auxiliary Feedwater System Resulting from Turbine-Driven Auxiliary Feedwater Pump Steam Supply Line Rupture	06/83	04/84	HIGH
69	Make-up Nozzle Cracking in B&W Plants	06/83	12/83	NR
70	PORV and Block Valve Reliability	06/83	05/84	MEDIUM
75	Generic Implications of ATWS Events at the Salem Nuclear Plant	06/83	10/83	NR
80	Pipe Break Effects on Control Rod Drive Hydrau-lic Lines in the Drywells of BWR Mark I and II Containments	06/83	01/84	LOW
82	Beyond Design Basis Accidents in Spent Fuel Pools	08/83	12/83	MEDIUM
90	Technical Specifications for Anticipatory Trips	02/84	08/84	LOW
92	Fuel Crumbling During LOCA	04/83	07/84	LOW
B-65	lodine Spiking	09/82	06/84	DROP

ISSUE NUMBER	TITLE	IDENTIFICATION DATE	DATE PRIORITIZED	CURRENT PRIORITY
FY-1985				
37	Steam Generator Overfill and Combined Primary and Secondary Blowdown	09/82	05/85	S(A-47)
54	Valve Operator-Related Events Occurring During 1978, 1979, and 1980	09/82	06/85	S(II.E.6.1)
55	Failure of Class IE Safety-Related Switchgear Circuit Breakers	09/82	03/85	DROP
59	Technical Specification Requirements for Plant Shutdown	10/82	02/85	RI
67	Steam Generator Staff Actions	06/83	03/85	MEDIUM
81	Potential Safety Problems Associated With Locked Doors and Barriers in Nuclear Power Plants	11/83	10/84	DROP
83	Control Room Habitability	11/83	06/84	NR
84	CE PORVs	11/83	02/85	NR
85	Reliability of Vacuum Breakers Connected to Steam Discharge Lines Inside BWR Containments	11/83	07/85	DROP
86	NRC Pipe Cracking Review Group Study	12/83	10/84	NR
87	Failure of HPCI Steam Line Without Isolation	01/84	09/85	HIGH
91	Transamerica Delaval Emergency Diesel Generator Main Crankshaft Failure	03/84	07/85	NR
93	Steam Binding of Auxiliary Feedwater Pumps	07/84	10/84	HIGH
94	Additional Low Temperature Overpressure Protection For Light Water Reactors	08/84	07/85	HIGH
98	CRD Accumulator Check Valve Leakage	09/84	02/85	DROP
99	RCS/RHR Suction Line Interlocks on PWRs	09/84	08/85	HIGH
101	BWR Water Level Redundancy	09/84	05/85	HIGH
102	Human Error in Events Involving Wrong Unit or Wrong Train	09/84	02/85	S(HF-02)
103	Design For Probable Maximum Precipitation	10/84	09/85	NR
105	Interfacing Systems LOCA at LWRs	10/84	06/85	HIGH
108	BWR Suppression Pool Temperature Limits	12/84	02/85	RI(LOW)
119	Piping Review Committee Recommendations	07/85	09/85	RI(NR)

ISSUE NUMBER	TITLE	IDENTIFICATION DATE	DATE PRIORITIZED	CURRENT PRIORITY
FY-1985 (C	ONT.)			
121	Hydrogen Control For Large Dry PWR Containments	08/85	09/85	HIGH
B-50	Post Operating Basis Earthquake Inspection	02/83	04/85	RI(LOW)
B-59	N-1 Loop Operation in BWRs and PWRs	02/83	06/85	RESOLVED
HF-01	Human Factor Program Plan (HFPP with 24 subtasks)	08/83	10/84	HIGH
HF-02	Maintenance and Surveillance Program Plan (MSPP with 10 subtasks)	04/84	03/85	HIGH
FY-1986				
21	Vibration Qualification of Equipment	03/83	06/86	DROP
30	Potential Generator Missiles - Generator Rotor Retaining Rings	09/82	10/85	DROP
74	Reactor Coolant Activity Limits for Operating Reactors	06/83	05/86	DROP
97	PWR Reactor Cavity Uncontrolled Exposures	09/84	10/85	S(III.D 3.1)
111	Stress Corrosion Cracking of Pressure Boundary Ferritic Steels in Selected Environments	01/85	11/85	LI
112	Westinghouse RPS Surveillance Frequencies andOut-of-Service Times	01/85	10/85	RI(R)
114	Seismic-Induced Relay Chatter	03/85	06/86	S(A-46)
115	Reliability of Westinghouse Solid State Protection System	04/85	07/86	HIGH
122.1.a	Common Mode Failure of Isolation Valves in Closed Position	08/85	01/86	HIGH
122.1.b	Recovery of Auxiliary Feedwater	08/85	01/86	MEDIUM
122.1.c	Interruption of Auxiliary Feedwater Flow	08/85	01/86	HIGH
122.2	Initiating Feed-and-Bleed	08/85	01/86	HIGH
122.3	Physical Security System Constraints	08/85	01/86	LOW
124	Auxiliary Feedwater System Reliability	12/85	02/86	NR
125.l.2.a	PORV Reliability - Test Program	11/85	06/86	S(70)
125.l.2 b	PORV Reliability - Surveillance	11/85	06/86	S(70)

ISSUE NUMBER	TITLE	IDENTIFICATION DATE	DATE PRIORITIZED	CURRENT PRIORITY
FY-1986 (CC	ONT.)	•		
125.l.2.c	Auto Block Valve Closure	11/85	06/86	DROP
125.l.2.d	Equipment Qualification for Feed-and-Bleed Environment	11/85	06/86	S(A-45)
125.II.3	Review Steam/Feed Line Break Mitigation Systems for Single Failure	11/85	08/86	DROP
125.II.4	OTSG Dryout and Reflood Effects	11/85	09/86	DROP
125.II.7	Reevaluate Provisions to Automatically Isolate Feedwater from Steam Generator During Line Break	11/85	09/86	HIGH
125.11.9	Enhance Feed-and-Bleed Capability	11/85	08/86	S(A-45)
125.11.14	Remote Operation of Equipment Which Must Now be Operated Locally	11/85	08/86	LOW
133	Update Policy Statement on Nuclear Plant Staff Working Hours	07/86	07/86	LI
134	Rule on Degree and Experience Requirement	07/86	07/86	HIGH
C-4	Statistical Methods for ECCS Analysis	02/83	06/86	RI(R)
C-5	Decay Heat Update	02/83	06/86	RI(R)
C-6	LOCA Heat Sources	02/83	06/86	RI(R)
FY-1987				
113	Dynamic Qualification Testing of Large Bore Hydraulic Snubbers	03/85	07/87	HIGH
125.I.1	Availability of the STA	11/85	07/87	DROP
125.I.4	Plant-Specific Simulator	11/85	02/87	DROP
125.l.7.b	Realistic Hands-On Training	11/85	03/87	DROP
125.I 8	Procedures and Staffing for Reporting to NRC Emergency Response Center	11/85	06/87	DROP
125.ll.1.a	Two-Train AFW Reliability	11/85	10/86	DROP
125.ll.1.b	Review Existing AFW Systems for Single Failure	11/85	10/86	HIGH
125.ll.1.c	NUREG-0737 Reliability Improvements	11/85	10/86	DROP
125.ll.1.d	AFW Steam and Feedwater Rupture Control System/ICS Interactions in B&W Plants	11/85	10/86	DROP

ISSUE NUMBER	TITLE	IDENTIFICATION DATE	DATE PRIORITIZED	CURRENT PRIORITY
FY- 87 (CON	T.)			
125.11.2	Adequacy of Existing Maintenance Requirements for Safety-Related Systems	11/85	06/87	DROP
125.II.5	Thermal-Hydraulic Effects of Loss and Restoration of Feedwater on Primary System Components	11/85	06/87	DROP
125.II.6	Reexamine PRA Estimates of Core Damage Risk from Loss of All Feedwater	11/85	03/87	DROP
125.II.8	Reassess Criteria for Feed-and-Bleed Initiation	11/85	03/87	DROP
125.II.10	Hierarchy of Impromptu Operator Actions	11/85	02/87	DROP
125.II.12	Adequacy of Training Regarding PORV Operation	11/85	03/87	DROP
127	Testing and Maintenance of Manual Valves in Safety-Related Systems	05/86	06/87	LOW
128	Electrical Power Reliability	05/86	11/86	HIGH
130	Essential Service Water Pump Failures at Multiplant Sites	06/86	03/87	HIGH
135	Steam Generator and Steam Line Overfill	05/86	06/87	MEDIUM
FY-1988				
43*	Reliability of Air Systems	04/87	12/87	HIGH
55*	Failure of Class 1E Safety-Related Switchgear Cırcuit Breakers to Close on Demand	09/85	02/88	DROP
57	Effects of Fire Protection System Actuation on Safety-Related Equipment	09/82	06/88	MEDIUM
62	Reactor Systems Bolting Applications	10/82	08/88	S(29)
88	Earthquakes and Emergency Planning	01/84	10/87	RESOLVED
104	Reduction of Boron Dilution Requirements	10/84	08/88	DROP
106	Piping and Use of Highly Combustible Gases in Vital Areas	10/84	11/87	MEDIUM
125.l.3	SPDS Availability	11/85	05/88	NR
125.l.6	Valve Torque Limit and Bypass Switch Settings	11/85	12/87	DROP
125.I.7A	Recover Failed Equipment	11/85	12/87	DROP
125.11.11	Recovery of Main Feedwater as Alternative to AFW	11/85	06/88	DROP

ISSUE NUMBER	TITLE	IDENTIFICATION DATE	DATE PRIORITIZED	CURRENT PRIORITY
FY-88 (CON	т.)			
125.II.13	Operator Job Aids	11/85	03/88	DROP
126	Reliability of PWR Main Steam Safety Valves	03/86	03/88	LI
136	Storage and Use of Large Quantities of Cryogenic Combustibles on Site	09/86	03/88	LI
C-14	Storm Surge Model for Coastal Sites	02/83	05/88	LI(DROP)
III.D.1.1(2)	Review Information on Provisions for Leak	12/82	09/88	DROP
III.D.1.1(3)	Develop Proposed System Acceptance Criteria	12/82	09/88	DROP
FY-1989				
15*	Radiation Effects on Reactor Vessel Supports	09/88	02/89	HIGH
125.l.5	Safety Systems Tested in All Conditions Required by Design Basis Analysis	11/85	11/88	DROP
131	Potential Seismic Interaction Involving the Moveable In-Core Flux Mapping System Used in Westinghouse Plants	07/86	07/89	S(IPE)
139	Thinning of Carbon Steel Piping in LWRs	12/86	11/88	RESOLVED
B-31	Dam Failure Model	02/83	02/89	LI(DROP)
D-2	ECCS Capability for Future Plants	06/83	10/88	DROP
FY-1990				-
63	Use of Equipment Not Classified as Essential to Safety in BWR Transient Analysis	10/1982	02/1990	DROP
71	Failure of Resin Demineralizer Systems and Their Effects on Nuclear Power Plant Safety	06/1983	02/1990	LOW
81*	Impact of Locked Doors and Barriers on Plant and Personnel Safety	12/1986	02/1990	DROP
95	Loss of Effective Volume for Containment Recirculation Spray	08/1984	02/1990	RESOLVED
96	RHR Suction Valve Testing	04/1984	02/1990	S(105)
107	Generic Implications of Main Transformer Failures	11/1984	02/1990	LOW
109	Reactor Vessel Closure Failure	12/1984	02/1990	DROP
116	Accident Management	04/1985	09/1990	s

ISSUE NUMBER	TITLE	IDENTIFICATION DATE	DATE PRIORITIZED	CURRENT PRIORITY
FY-1990 (C	DNT.)			
117	Allowable Time for Diverse Simultaneous Equipment Outages	05/1985	02/1990	DROP
129	Valve Interlocks to Prevent Vessel Drainage During Shutdown Cooling	05/1986	02/1990	DROP
137	Refueling Cavity Seal Failure	10/1986	05/1990	DROP
140	Fission Product Removal Systems	03/1987	02/1990	DROP
141	LBLOCA With Consequential SGTR	04/1987	05/1990	DROP
142	Leakage Through Electrical Isolators	06/1987	06/1990	MEDIUM
B-29	Effectiveness of Ultimate Heat Sinks	02/1983	08/1990	LI(RESOLVED)
B-32	Ice Effects on Safety-Related Water Supplies	02/1983	08/1990	S(153)
FY-1991				
24	Automatic Emergency Core Cooling System Switch to Recirculation	03/83	07/91	MEDIUM
38	Potential Recirculation System Failure as a Consequence of Ingestion of Containment Paint Flakes or Other Fine Debris	09/82	08/91	DROP
72	Control Rod Drive Guide Tube Support Pin Failures	06/83	10/90	DROP
73	Detached Thermal Sleeves	06/83	08/91	NR
100	Once-Through Steam Generator Level	09/84	09/91	DROP
120	On-line Testability of Protection Systems	08/85	11/90	MEDIUM
143	Availability of Chilled Water Systems and Room Cooling	10/87	03/91	HIGH
150	Overpressurization of Containment Penetrations	04/89	08/91	DROP
151	Reliability of Anticipated Transient Without Scram Recirculation Pump Trip in BWRs	04/89	08/91	MEDIUM
153	Loss of Essential Service Water in LWRs	05/90	03/91	HIGH
A-19	Digital Computer Protection System	02/83	11/90	LI
B-22	LWR Fuel	02/83	06/91	DROP

ISSUE NUMBER	TITLE	IDENTIFICATION DATE	DATE PRIORITIZED	CURRENT PRIORITY
FY-1992				
2	Failure of Protective Devices on Essential Equipment	05/83	07/92	DROP
76	Instrumentation and Control Power Interactions	06/83	04/92	DROP
78	Monitoring of Fatigue Transient Limits for Reactor Coolant System	06/83	07/92	MEDIUM
81*	Impact of Locked Doors and Barriers on Plant and Personnel Safety	08/91	04/92	LOW
89	Stiff Pipe Clamps	02/84	08/92	MEDIUM
110	Equipment Protection Devices on Engineered Safety Features	12/84	06/92	DROP
118	Tendon Anchorage Failure	07/85	01/92	RESOLVED
123	Deficiencies in the Regulations Engineered Safety Features Governing DBA and Single Failure Criterion Suggested by the Davis Besse Incident of June 9, 1985	11/85	12/91	DROP
132	RHR Pumps Inside Containment	07/86	03/92	DROP
138	Deinerting of BWRs With MARK I and II Containments During Power Operations Upon Discovery of Reactor Cooling System Leakage or a Train of a Safety System Inoperable	10/86	10/91	LOW
144	Scram Without a Turbine/Generator Trip	03/88	03/92	LOW
145	Actions to Reduce Common Cause Failures	09/88	02/92	NR
147	Fire-Induced Alternate Shutdown/Control Room Panel Interactions	04/89	08/92	LI
148	Smoke Control and Manual Fire-Fighting Effectiveness	04/89	08/92	LI
154	Adequacy of Emergency and Essential Lighting	09/90	01/92	LOW
155.1	More Realistic Source Term Assumptions	02/91	02/92	NR
155.2	Establish Licensing Requirements for Non-Operating Facilities	02/91	04/92	RI
155.4	Improve Criticality Calculations	02/91	08/92	DROP
155.5	More Realistic Severe Reactor Accident Scenario	02/91	06/92	DROP
155.6	Improve Decontamination Regulations	02/91	08/92	DROP
155.7	Improve Decommissioning Regulations	02/91	04/92	DROP

ISSUE NUMBER	TITLE	IDENTIFICATION DATE	DATE PRIORITIZED	CURRENT PRIORITY
FY-1992 (CC	DNT.)			
156.1.1	Settlement of Foundations and Buried Equipment	02/91	08/92	S(IPEEE)
156.1.2	Dam Integrity and Site Flooding	02/91	01/92	DROP
156.1.3	Site Hydrology and Ability to Withstand Floods	02/91	01/92	DROP
156.1.4	Industrial Hazards	02/91	03/92	DROP
156.1.5	Tornado Missiles	02/91	01/92	DROP
156.1.6	Turbine Missiles	02/91	10/91	DROP
156.2.1	Severe Weather Effects on Structures	02/91	01/92	DROP
156.2.2	Design Codes, Criteria, and Load Combinations	02/91	07/92	DROP
156.2.3	Containment Design and Inspection	02/91	05/92	DROP
156.2.4	Seismic Design of Structures, Systems, and Components	02/91	03/92	DROP
156.3.1.1	Shutdown Systems	02/91	03/92	DROP
156.3.1.2	Electrical Instrumentation and Control	02/91	03/92	DROP
156.3.2	Service and Cooling Water Systems	02/91	03/92	DROP
156.3 3	Ventilation Systems	02/91	09/92	DROP
156.3.4	Isolation of High and Low Pressure Systems	02/91	12/91	DROP
156.3.5	Automatic ECCS Switchover	02/91	11/91	S(24)
156.3 6.1	Emergency AC Power	02/91	02/92	S(B-56)
156.3.8	Shared Systems	02/91	06/92	DROP
156.4.1	RPS and ESFS Isolation	02/91	11/91	S(142)
156.4.2	Testing of the RPS and ESFS	02/91	03/92	S(120)
157	Containment Performance	10/91	02/92	RESOLVED

ISSUE NUMBER	TITLE	IDENTIFICATION DATE	DATE PRIORITIZED	CURRENT PRIORITY
FY-1993				
146	Support Flexibility of Equipment and Components	01/89	09/93	RESOLVED
149	Adequacy of Fire Barriers	04/89	10/92	LOW
152	Design Basis for Valves That Might Be Subjected to Significant Blowdown Loads	03/90	01/93	LOW
155.3	Improve Design Requirements for Nuclear Facilities	02/91	01/93	DROP
156.3.6.2	Emergency DC Power	02/91	03/93	LOW
159	Qualification of Safety-Related Pumps While Running on Minimum Flow	10/91	09/93	DROP
160	Spurious Actions of Instrumentation Upon Restoration of Power	10/91	09/93	DROP
161	Use of Non-Safety-Related Power Supplies in Safety-Related Circuits	10/91	03/93	DROP
162	Inadequate Technical Specifications for Shared Systems at Multiplant Sites When One Unit Is Shut Down	10/91	07/93	DROP
164	Neutron Fluence in Reactor Vessel	10/92	03/93	DROP
166	Adequacy of Fatigue Life of Metal Components	04/93	04/93	NR
168	Environmental Qualification of Electrical Equipment	04/93	04/93	NR
FY-1994				
158	Performance of Power-Operated Valves Under Design Basis Conditions	09/91	01/94	MEDIUM
165	Spring-Actuated Safety and Relief Valve Reliability	10/92	11/93	HIGH
167	Hydrogen Storage Facility Separation	06/93	09/94	LOW
FY-1995				
170	Reactivity Transients and Fuel Damage Criteria for High Burn-Up Fuel	01/95	01/95	NR
171	ESF Failure from LOOP Subsequent to A LOCA	02/95	06/95	HIGH
FY-1996				
172	Multiple System Responses Program	10/89	12/95	NR
173.A	Spent Fuel Storage Pool: Operating Facilities	02/96	05/96	NR

ISSUE NUMBER	TITLE	IDENTIFICATION DATE	DATE PRIORITIZED	CURRENT PRIORITY
FY-1996 (C	ONT.)			
173.B	Spent Fuel Storage Pool. Permanently Shutdown Facilities	02/96	05/96	NR
174.A	Fastener Gaging Practices: SONGS Employees'Concern	02/96	05/96	RESOLVED
174.B	Fastener Gaging Practices. Johnson Gage Company Concern	02/96	05/96	RESOLVED
175	Nuclear Power Plant Shift Staffing	02/96	05/96	RESOLVED
176	Loss of Fill-Oil in Rosemount Transmitters	02/96	05/96	RESOLVED
177	Vehicle Intrusion at TMI	02/96	05/96	RESOLVED
178	Effect of Hurricane Andrew on Turkey Point	05/96	05/96	LI
179	Core Performance	02/96	05/96	LI
180	Notice of Enforcement Discretion	02/96	05/96	LI (Resolved)
181	Fire Protection	02/96	05/96	LI
182	General Electric Extended Power Uprate	05/96	05/96	RI
183	Cycle-Specific Parameter Limits in Technical Specifications	02/96	05/96	RI
184	Endangered Species	05/96	05/96	El
190	Fatigue Evaluation of Metal Components for 60-Year Plant Life	08/96	08/96	NR
191	Assessment of Debris Accumulation on PWR Sump Performance	09/96	09/96	NR
FY-1997				
163	Multiple Steam Generator Tube Leakage	06/92	01/97	HIGH
FY-1998				
169	BWR MSIV Common Mode Failure Due to Loss of Accumulator Pressure	10/93	03/98	DROP
I.F.2(1)*	QA - Assure the Independence of the Organization Performing the Checking Function	04/1997	07/1998	LOW
II.D.2*	Research on Relief and Safety Valve Test Requirements	04/1997	07/1998	DROP

ISSUE NUMBER	TITLE	IDENTIFICATION DATE	DATE PRIORITIZED	CURRENT PRIORITY
FY-1999				
107*	Generic Implications of Main Transformer Failures	04/1996	03/1999	DROP
156 6.1	Pipe Break Effects on Systems and Components	02/1991	07/1999	HIGH
FY-2000				
185	Control of Recriticality Following Small-Break LOCA in PWRs	01/1999	07/2000	HIGH
FY-2001				
71*	Failure of Resin Demineralizer Systems and Their Effects on Nuclear Power Plant Safety	04/1996	12/2000	DROP
152*	Design Basis for Valves That Might Be Subjected to Significant Blowdown Loads	04/1996	04/2001	DROP

<sup>\*</sup> Previous Priority Evaluation Published in NUREG-0933

TABLE 8
NUMBER OF REACTOR GSIs PRIORITIZED FROM FY-1983 TO FY-2001

ISSUE TYPE	<u>FY-83</u>	FY-84	FY-85	FY-86	<u>FY-87</u>	FY-88	FY-89	FY-90	FY-91	<u>FY-92</u>	<u>FY-93</u>	<u>FY-94</u>	<u>FY-95</u>	FY-96	FY-97	FY-98	FY-99	<u>FY-00</u>	FY-01	TOTAL
Issues Identified	56	19	54	45*	6	3	38	3	29	7	5	1	2	17	0	0	1	0	0	286
to be Prioritized		_	_			^	•	•	•	•		•	•	•	_	•	•	0	0	20
Issues Identified to be Reprioritized	19 d	2	0	1	1	2	0	0	0	0	0	0	0	3	2	0	0	U	U	30
Total:	75	21	54	46	7	5	38	3	29	7	5	1	2	20	2	0	1	0	0	316
New Issues (Enter	red								-	•										
into GIMCS)																				
High	2	1	41	6	4	1	1	0	2	0	0	1	1	0	1	0	1	1	0	63
Medium	2	4	1	1	1	2	0 0	0 1	2 3 1	0 2 2	0 2	1	0	0	0	0	0	0	0	18
Nearly-Resolved	3	5	6	1	0	1	0	0	1	2	2	0	1	5	0	0	0	0	0	27
Sub-total:	7	10	48	8	5	4	1	1	6	4	2	2	2	5	1	0	1	1	0	108
Resolved	4	0	1	0	0	1	1	1	0	2	1	0	0	5	0	0	0	0	0	16
Low	1	4	0	2	1	0	0	2	0	4	3	1	0	0	0	1	0	0	0	19
Drop	1	4	4	6	13	9 2	2	8	5	24	6	0	0	0	0	2	1	0	2	87
RI/LI/EI	0	0	4	6	0	2	33	1	1	3	0	0	0	7	0	0	0	0	0	57
Integrated	8	2	3	6	0	1	1	3	0	5	0	0	0	0	0	0	0	0	0	29
Total Issues Prioritized.	21	20	60	28	19	17	38	16	12	42	12	3	2	17	1	3	2	1	2	316
[Annual Progress] Remaining Issues to be Prioritized	S					40			47	05		•					4	4	01	
or Reprioritized:	[ +54	+1	-6	+18	-12	-12	0	-13	+17	-35	-7	-2	0	+3	+1	-3	-1	-1	-2]	0

# TABLE 8A NUMBER OF REACTOR GSIs SCREENED\*\* IN ACCORDANCE WITH MD 6.4 FROM FY-1999 TO FY-2003 (2nd QUARTER)

ISSUE TYPE	<u>FY-98</u>	<u>FY-99</u>	<u>FY-00</u>	<u>FY-01</u>	<u>FY-02</u>	<u>FY-03</u>	TOTAL
Issues Identified to be Screened	0	2	1	1	3	1	8
Issues Identified to be Reevaluated	1*	0	0	0	0	0	1
Total:	1	2	1	1	3	1	9
New Issues (Entered	<u> </u>						
Continue	0	0	0	1	1	1	3
Drop	0	0	0	1	1	0	2
Integrated	0	0	0	0	0	0	0
Total Issues Screened:	0	0	0	2	2	0	5
[Annual Progress]/ Remaining Issues to be Screened		· · · · · · · · · · · · · · · · · · ·					<del> </del>
or Reevaluated. [	+1	+2	+1	-1	+1	0]	4

Originally identified for reprioritization, but was subjected to screening Beginning in FY-1999, GSIs began to be screened in accordance with MD 6.4, "Generic Issues Program."

# TABLE 9 REACTOR GSIs SCHEDULED FOR SCREENING IN ACCORDANCE WITH MD 6.4

ISSUE NUMBER	TITLE	LEAD OFFICE/ DIVISION/BRANCH	IDENTIFICATION DATE	CURRENT SCHEDULE
186	Potential Risk and Consequences of Heavy Load Drops in Nuclear Power Plants	RES/DSARE/REAHFB	04/1999	05/2003
193	BWR ECCS Suction Concerns	RES/DSARE/REAHFB	05/2002	06/2003
194	Implications of Updated Probabilistic Seismic Hazard Estimates	RES/DSARE/REAHFB	06/2002	05/2003
195	Hydrogen Combustion in Foreign BWR Piping	RES/DSARE/REAHFB	02/2003	08/2003

TOTAL· 4

# TABLE 10 REACTOR GSIs SCREENED IN ACCORDANCE WITH MD 6.4

ISSUE NUMBER	TITLE	IDENTIFICATION DATE	SCREENING COMPLETION DATE	CONCLUSION
FY-2001				
187	The Potential Impact of Postulated Cesium Concentration on Equipment Qualification in the Containment Sump	04/1999	04/2001	DROP
188	Steam Generator Tube Leaks/Ruptures Concurrent with Containment Bypass	06/2000	05/2001	CONTINUE
FY-2002				
189	Susceptibility of Ice Condenser and MARK III Containments to Early Failure from Hydrogen Combustion During a Severe Accident	05/2001	05/2002	CONTINUE
192	Secondary Containment Drawdown Time	12/2001	06/2002	DROP
FY-2003				
80*	Pipe Break Effects on Control Rod Drive Hydraulic Lines in the Drywells of BWR MARK I and II Containments	03/1998	02/2003	CONTINUE

<sup>\*</sup> Previous Priority Evaluation Published in NUREG-0933

NMSS ISSUE NUMBER	TITLE	IDENTIFICATION DATE	DATE PRIORITIZED	CURRENT PRIORITY
FY-1997				
0001	Door Interlock Failure Resulting from Faulty MicroSelectron-High Dose Rate Remote Afterloader	04/1996	02/1997	Resolved
0002	Significant Quantities of Fixed Contamination Remain in Krypton-85 Leak-Detection Devices After Venting	07/1996	10/1996	Resolved
0003	Corrosion of Sealed Sources Caused by Sensitization of Stainless Steel Source Capsules During Shipment	07/1996	10/1996	Resolved
0005	Potential for Erroneous Calibration, Dose Rate,or Radiation Exposure Measurements With Victoreen Electrometers	06/1997	06/1997	High
0006	Criticality Concerns With Unusual Moderators in Low-Level Waste	08/1997	08/1997	Medium
FY-1998				
0004	Overexposures Caused by Sources Stolen from Facility of Bankrupt Licensee	07/1996	12/1997	Resolved
0007	Criticality Benchmarks Greater Than 5% Enrichment	05/1998	06/1998	Low
8000	Year 2000 Computer Problem - Non-Reactor Licensees	05/1998	06/1998	High
0009	Amersham Radiography Source Cable Failures	05/1998	06/1998	Hıgh
0010	Troxler Gauge Source Rod Weld Failures	05/1998	06/1998	Medium
0011	Spent Fuel Dry Cask Weld Cracks	05/1998	06/1998	Medium
0012	Inadequate Transportation Packaging Puncture Tests	05/1998	06/1998	Medium
0013	Use of Different Dose Models to Demonstrate Compliance	06/1998	07/1998	Medium
0014	Surety Estimates for Groundwater Restoration at In-Situ Leach Facilities	06/1998	07/1998	Medium
0015	Adequacy of Part 150 Criticality Requirements	06/1998	07/1998	Medium
0016	Adequacy of 0.05 Weight Percent Limit in Part 40	06/1998	07/1998	Medium
FY-1999		•		
None.				

NMSS ISSUE NUMBER	TITLE	IDENTIFICATION DATE	DATE PRIORITIZED	CURRENT PRIORITY
FY-2000				
None.				
FY-2001				
0017	Misleading Marketing Information to General Licensees	07/2000	11/2000	Resolved
0018	Problems Encountered When Manually Editing Treatment Planning Data on Nucletron Microselection-HDR Model 105.999	03/1999	11/2000	Resolved
0019	Control Unit Failures of Classic Nucletron HDR Units	07/1999	11/2000	Resolved
0020	Leaking Pools	11/2000	01/2001	Drop
0021	Unlikely Events	11/2000	01/2001	Drop
0022	Gamma Stereotactic Radiosurgery	01/2001	02/2001	Drop

# TABLE 12 NON-REACTOR GENERIC ISSUES TO BE SCREENED IN ACCORDANCE WITH MD 6.4

NONE.

# TABLE 13 NON-REACTOR GSIS RESOLVED BY FISCAL YEAR

NMSS ISSUE NUMBER	TITLE	PRIORITY	RESOLUTION PRODUCT	DATE APPROVED FOR RESOLUTION	DATE RESOLVED
FY-1997				•	
0001	Door Interlock Failure Resulting from Faulty MicroSelectron-High Dose Rate Remote Afterloader	Resolved	IN 96-21	02/1997	02/1997
0002	Significant Quantities of Fixed Contamination Remain in Krypton-85 Leak-Detection Devices After Venting	Resolved	IN 96-51	10/1996	10/1996
0003	Corrosion of Sealed Sources Caused by Sensitization of Stainless Steel Source Capsules During Shipment	Resolved	IN 96-54	10/1996	10/1996
0005	Potential for Erroneous Calibration, Dose Rate or Radiation Exposure Measurements With Victoreen Electrometers	High	Bulletin 97-01	06/1997	09/1997
FY-1998		•			
0004	Overexposures Caused by Sources Stolen from Facility of Bankrupt Licensee	Resolved	Staff Report	12/1997	12/1997
FY-1999					
0006	Criticality Concerns With Unusual Moderators in Low-Level Waste	Medium	Staff Report	06/1997	06/1999
0009	Amersham Radiography Source Cable Failures	High	IN 97-91, Supplement 1	06/1998	10/1998
0011	Spent Fuel Dry Cask Weld Cracks	Medium	NUREG-1536	06/1998	10/1998
0012	Inadequate Transportation Packaging Puncture Tests	Medium	Staff Report	05/1998	06/1999
0013	Use of Different Dose Models to Demonstrate Compliance	Medium	Staff Report	07/1998	05/1999
FY-2000					
0008	Year 2000 Computer Problem - Nonreactor Licensees	High	Staff Report	05/1998	03/2000
0015	Adequacy of Part 150 Criticality Requirements	Medium	Staff Report	07/1998	01/2000
FY-2001					
0017	Misleading Marketing Information to General Licensees	Resolved	New Rule	07/1999	07/2000

# TABLE 13 NON-REACTOR GSIs RESOLVED BY FISCAL YEAR

NMSS ISSUE NUMBER	TITLE	PRIORITY	RESOLUTION PRODUCT	DATE APPROVED FOR RESOLUTION	DATE RESOLVED
FY-2001 (Cont.)					
0018	Problems Encountered When Manually Editing Treatment Planning Data on Nucletron Microselection-HDR Model 105 999	Resolved	IN 99-09	03/1999	08/2000
0019	Control Unit Failures of Classic Nucletron HDR Units	Resolved	IN 99-23	07/1999	07/1999
FY-2002					
0010	Troxler Gauge Source Rod Weld Failures	Medium	Staff Report	05/1998	11/2001

# TABLE 14 NON-REACTOR GSIs SCHEDULED FOR RESOLUTION

NMSS ISSUE NUMBER	TITLE	LEAD OFFICE/DIVISION/ BRANCH	PRIORITY	DATE APPROVED FOR RESOLUTION	RESOLUTION DATE AT END OF FY-2001	CURRENT RESOLUTION DATE
0007	Criticality Benchmarks Greater Than 5% Enrichment	NMSS/FCSS/FLIB	High	05/1998	06/2004	06/2005
0014	Surety Estimates for Groundwater Restoration at In- Situ Leach Facilities	NMSS/FCSS/FCLB	Medium	07/1998	09/2002	07/2003
0016	Adequacy of 0.05 Weight Percent Limit in Part 40	NMSS/IMNS	Medium	07/1998	12/2001	TBD

TOTAL: 3

All Active Issue(s)

Run Date: 04/28/2003 Run Time: 17:13:53 Page: Page 1 of 24

**ISSUE NUMBER: 156.6.1** 

TYPE: GSI

OFFICE/DIVISION/BRANCH: RES/DSARE/REAHFB

TITLE: Pipe Break Effects on Systems and Components

**PRIORITY: H** 

**ACTION LEVEL: ACTIVE** 

STATUS:

**IDENT. DATE: 02/1991** 

**PRIORITIZATION DATE: 07/1999** 

**RESOLUTION DATE: --**

**ID STATUS: C** 

PD STATUS: C

**RD STATUS:** 

TASK MANAGER: R. Lloyd

**TAC NUMBERS:** 

WORK AUTH.: Memo from A. Thadani to E. Rossi dated July 16, 1999.

FIN Number CONTRACTOR CONTRACT TITLE

Y6406 ISI

**WORK SCOPE** 

Efforts are underway to implement the approved Action Plan.

### **STATUS**

A letter was sent from F. Eltawila (NRC) to W. Glenn Warren (BWROG) expressing concerns related to the GSI. The BWROG responded on 01-10-2001 that a committee was formed to coordinate the response to the ACRS. There are a total of 16 SEP III BWRs. A Task Action Plan for resolving the issue was approved in May 2001. The previous Task Manager (Stuart Rubin) was reassigned to the Advanced Reactors Group in REAHFB/DSARE/RES in July 2001. New Task Manager (Ron Lloyd) was assigned in January 2002. The contractor is currently comparing the BWR Owners' Group study with the INEEL analysis that was completed in support of the reprioritization of the GSI.

Task 4 of Contract Y6406 (NRC-04-01-67) was issued to Information Systems Laboratories (ISL). ISL issued a draft report in September addressing many of the BWOG peer review comments on the prioritization done by INEEL (issued in 1999). The ISL report has been reviewed and comments have been made. In December 2002, ISL completed its review of technical comments made by the BWROG on the INEEL's "Enhanced Prioritization of Generic Safety Issue 156.6.1 Pipe Break Effects on Systems and Components Inside Containment." ISL concluded that, in general, INEEL's analysis was overly conservative in its risk estimates, and simplistic in accident sequence development. A followup meeting was held on 1/15/03 to discuss potential options for resolution of differences. A meeting to discuss options was held on March 19, 2003.

**AFFECTED DOCUMENTS** 

To be determined.

PROBLEM / RESOLUTION

None.

All Active Issue(s)

Run Date: 04/28/2003 Run Time:17:13:53

Page: Page 2 of 24

**ISSUE NUMBER: 156.6.1** 

TYPE: GSI

OFFICE/DIVISION/BRANCH: RES/DSARE/REAHFB

TITLE: Pipe Break Effects on Systems and Components

MILESTONES	ORIGINAL DATE	CURRENT DATE	ACTUAL DATE
Task Action Plan Approved	05/2001		05/2001
Task Manager Reassigned to Other Duties	07/2001		07/2001
New Task Manager Assigned	01/2002		01/2002
Draft Contractor Report	09/2002		12/2002
Meeting to Discuss Options	03/2003		03/2003
Revise TAP, if necessary	11/2002		

All Active Issue(s)

Run Date: 04/28/2003 Run Time:17:13:53

Page: Page 3 of 24

**ISSUE NUMBER: 163** 

TYPE: GSI

OFFICE/DIVISION/BRANCH: NRR/DE/EMCB

TITLE: Multiple Steam Generator Tube Leakage

PRIORITY: H

**ACTION LEVEL: ACTIVE** 

STATUS:

**IDENT. DATE:** 06/1992

PRIORITIZATION DATE: 01/1997

**RESOLUTION DATE: 09/2005** 

ID STATUS: C

PD STATUS: C

RD STATUS:

TASK MANAGER: E. Murphy

TAC NUMBERS:

WORK AUTH.: January 17, 1997, Memorandum from H. Thompson to D. Morrison

### **WORK SCOPE**

This issue addresses the safety concern associated with multiple steam generator tube leaks during a main steam line break that cannot be isolated. It was opened in response to a DPV filed in late 1991. The DPV (and later DPO) issues are being considered in the staff's work on steam generator tube integrity. The NRC originally planned to develop a rule pertaining to steam generator tube integrity. The proposed rule was to implement a more flexible regulatory framework for steam generator surveillance and maintenance activities that allows a degradation-specific management approach. The regulatory analysis concluded that the more optimal regulatory approach was to utilize a generic letter. The NRC staff suggested, and the Commission subsequently approved, a revision to the regulatory approach to utilize a generic letter. Finally, in late 1998, the regulatory approach was revised once again. The staff has worked to resolve concerns with the industry initiative, NEI 97-06, in lieu of a generic letter. The current framework provides reasonable assurance that operating PWRs are safe. However, the current regulatory framework has shortcomings. To resolve these shortcomings, the staff is working with industry to revise the regulatory framework to utilize a risk-informed and performance-based approach that will ensure compliance with current regulations (i.e., GDC, Appendix B, ASME Code, 10 CFR Part 100).

All Active Issue(s)

Run Date: 04/28/2003
Run Time:17:13:53
Page: Page 4 of 24

**ISSUE NUMBER: 163** 

TYPE: GSI

OFFICE/DIVISION/BRANCH: NRR/DE/EMCB

TITLE: Multiple Steam Generator Tube Leakage

### **STATUS**

The staff completed a draft risk assessment and draft regulatory analysis and met with ACRS on March 4, 5, and April 3, 1997, to discuss the two efforts. The results of these two efforts caused the staff to conclude that generic regulatory action in the form of a rule was not necessary. The staff subsequently drafted and sent to the Commission COMSECY-097-013 (05-23-1997) which discussed the basis for revising the regulatory approach to utilize a generic letter. The commission approved the revised regulatory approach in the SRM dated 06-30-1997.

The DPO issues document was completed and sent to the ACRS full committee for review in October 1997. The staff met with CRGR on 06-12-1998 for an information briefing on the package. The staff met with CRGR on 07-21-1998 for a detailed review of the proposed generic letter package. The staff issued Commission Paper SECY-98-248 with the recommendation to put a hold on the issuance of a GL while the staff works with the industry on NEI 97-06 (the proposed alternative to a GL). The Commission agreed with this approach in an SRM dated 12-21-1998.

On 01-20-99, the staff issued the DPO consideration document for public comment. The DPO consideration document has been updated to reflect the status of the NEI 97-06 industry initiative and has been forwarded to the EDO. Resolution of the GSI is pending completion of the DPO process. At the request of the EDO, the ACRS served as an equivalent ad hoc panel to review the DPO issues and to provide the EDO with a summary report documenting its findings relative to the DPO issues. The ACRS met with the DPO author and other members of the NRC staff and reviewed relevant documentation relative to the DPO issues. The ACRS issued NUREG-1740 documenting its conclusions and recommendations on Feb. 1, 2001. By memo dated 03-05-2001, the EDO directed that NRR and RES develop a joint action plan by May 4,2001 (issued on May 11, 2001) to address the conclusions and recommendations in the ACRS report, which encompass the GSI-163 issues. Based on this Action Plan, the completion date for this GSI is September 2005.

#### **AFFECTED DOCUMENTS**

MILESTONES	ORIGINAL DATE	CURRENT DATE	ACTUAL DATE
Regulatory Analysis	05/1997		05/1997
Proposed GL Package	06/1997		10/1997
ACRS Endorsement	06/1997		10/1997
GL Package Placed in Concurrence	10/1997	••	10/1997
NEI 97-06 Submitted	12/1997		12/1997

All Active Issue(s)

Run Date: 04/28/2003 Run Time:17:13:53

Page: Page 5 of 24

**ISSUE NUMBER: 163** 

TYPE: GSI

OFFICE/DIVISION/BRANCH: NRR/DE/EMCB

TITLE: Multiple Steam Generator Tube Leakage

MILESTONES	ORIGINAL DATE	CURRENT DATE	ACTUAL DATE
GL Package Sent to CRGR by NRR	07/1997		04/1998
CRGR Meeting on GL Package	06/1998		06/1998
CRGR Meeting on Proposed GL	07/1998		07/1998
NRR Memo to EDO Putting GL on Hold	09/1998	• •	09/1998
Commission Paper Recommending Hold on Issuance of GL	11/1998		10/1998
SRM on SECY-98-248	12/1998	••	12/1998
DPO Consideration Document to the EDO	09/1999		09/1999
DO Establishes an Independent Panel to Review the DPO	02/2000		05/2000
CRS to Perform DPO Review Panel Function	10/2000		10/2000
CRS to Provide Conclusions and Recommendations	12/2000	••	02/2001
NRR & RES Issue Joint Action Plan	05/2001		05/2001
Completion of GSI-Related Joint Action Plan Issues	03/2005	03/2005	••
Close Out Issue	02/2001	09/2005	

All Active Issue(s)

Run Date: 04/28/2003 Run Time: 17:13:53 Page: Page 6 of 24

**ISSUE NUMBER: 168** 

TYPE: GSI

OFFICE/DIVISION/BRANCH: NRR/DE/EEIB

TITLE: Environmental Qualification of Electrical Equipment

**PRIORITY:** H

**ACTION LEVEL: ACTIVE** 

STATUS:

**IDENT. DATE: 04/1993** 

**PRIORITIZATION DATE: 06/1993** 

**RESOLUTION DATE: --**

**ID STATUS:** C

PD STATUS: C

**RD STATUS:** 

**TAC NUMBERS: K81278** 

TASK MANAGER: T. Koshy

WORK AUTH.: April 1, 1993, Memorandum from T. Murley to J. Sniezek

A1818 SNL

FIN Number CONTRACTOR CONTRACT TITLE

**LOCA Testing of Connectors** 

ANL

Risk Impact of EQ

A2336 E2097 Scientech

**EQ** for Operating Reactors

W6169 BNL

Literature Review

W6465 BNL LOCA Testing of Low Voltage I&C Cables

### **WORK SCOPE**

In accordance with the 5/5/94 memorandum to the NRR Director from the RES Director, resolution will include consideration of a license renewal period of 20 years. The current scope of this GSI is limited to two representative groups of low-voltage I&C safety-related cables.

<sup>1.</sup> To gather, review, and evaluate operating experience data and equipment replacement schedules for nuclear power plants to provide insight as to where NRC should focus its resources in the performance of EQ aging reviews.

<sup>2.</sup> To perform a detailed assessment of the risk associated with EQ issues.

All Active Issue(s)

Run Date: 04/28/2003 Run Time:17:13:53 Page: Page 7 of 24

**ISSUE NUMBER: 168** 

TYPE: GSI

OFFICE/DIVISION/BRANCH: NRR/DE/EEIB

TITLE: Environmental Qualification of Electrical Equipment

#### STATUS

Detailed status information for GSI-168 was submitted to the Commission in a memorandum dated February 5, 1998. The draft program review report was issued in April 1996 for data collection and analysis. The review of EQ-related published documents and industry reports, review of equipment failures associated with the accident at TMI-2, and the development of an integrated database of EQ test reports, research tests, and other test activities are completed. A final report, NUREG/CR-6384, issued in April 1996, concluded that 19 unresolved issues within the scope of planned research for low-voltage I&C cables can be reduced to six. Planned research to investigate uncertainties with accelerated aging and to review promising cable condition monitoring methods, which began in 1996, is now complete. Planned LOCA tests have been completed. Issue transferred from NRR to RES in 02/1998. A two-volume report (NUREG/CR-6704) on assessment of environmental qualification practices and condition monitoring techniques for low voltage electric cables was issued in February 2001. The staff has entered into discussions with the industry to explore voluntary industry initiatives to provide data and relevant information to resolve the issue.

On April 12, 2001, the staff met with industry representatives to discuss several technical issues related to EQ. On behalf of the industry, NEI and IEEE have provided industry positions and relevant information to the staff in October 2001. Since then, Okonite has completed testing of their single conductor, bonded-jacket cables. The results will be appropriately factored into the resolution of GSI-168.

The ACRS endorsed the staff's recommendations after a briefing on June 6, 2002. The RES technical assessment was completed and forwarded to NRR on June 28, 2002, for development of a generic communication. If requested, NRR will brief the ACRS prior to issuing the generic communication. Issuance of the generic communication will complete the GSI.

### **AFFECTED DOCUMENTS**

IN 92-81 and IN 93-33.

### PROBLEM / RESOLUTION

None.

MILESTONES	ORIGINAL DATE	CURRENT DATE	ACTUAL DATE
Inform Commission	05/1993		05/1993
Data Collection and Analysis	08/1994		04/1996
Status Review	02/1995		11/1996
Risk Assessment	10/1994		12/1997
Programmatic Review	06/1994		12/1997

All Active Issue(s)

Run Date: 04/28/2003 Run Time:17:13:53 Page: Page 8 of 24

**ISSUE NUMBER: 168** 

TYPE: GSI

OFFICE/DIVISION/BRANCH: NRR/DE/EEIB

TITLE: Environmental Qualification of Electrical Equipment

MILESTONES	ORIGINAL DATE	CURRENT DATE	ACTUAL DATE
Issue Transferred from NRR to RES	02/1998		02/1998
Initiate Artificial Aging of I&C Cables to Simulate 60 Years of Service	09/1998		05/1998
Complete Artificial Aging of I&C Cables to Simulate 40 Years of Service	08/1998		08/1998
Complete LOCA Testing of I&C Cables with Simulated Service of 40 Years	08/1999		12/1999
Complete LOCA Testing of I&C Cables with Simulated Service of 60 Years	04/2000		04/2000
Conduct Open Review Meeting with the Industry	07/2000		02/2001
Conduct Second Review Meeting with the Industry	04/2001		04/2001
Response from NEI & IEEE	10/2001		10/2001
Transmit Technical Assessment Package to the ACRS	09/2000	••	04/2002
Staff Briefing of the ACRS	06/2002		06/2002
Transfer GSI from RES to NRR	12/2000		06/2002
NRR Develops Generic Communication	11/2002		03/2003
NRR Briefs ACRS (If Requested)	12/2002	06/2003	
NRR Issues Generic Communication, Closing GSI	01/2003	07/2003	

All Active Issue(s)

Run Date: 04/28/2003 Run Time: 17:13:53

Page: Page 9 of 24

**ISSUE NUMBER: 185** 

TYPE: GSI

OFFICE/DIVISION/BRANCH: RES/DSAR/SMSA

TITLE: Control of Recriticality Following Small-break LOCA in PWRs

**ACTION LEVEL: ACTIVE** 

**PRIORITIZATION DATE: 07/2000** 

STATUS: 3A **RESOLUTION DATE: 09/2005** 

**ID STATUS: C** 

**PRIORITY:** H

PD STATUS: C

**RD STATUS:** 

TASK MANAGER: Harold Scott

**IDENT. DATE: 01/1999** 

**TAC NUMBERS:** 

WORK AUTH .: Memo from F. Eltawila to A. Thadani on July 7, 2000

BNL **BNL** 

FIN Number CONTRACTOR CONTRACT TITLE

W6382

Y6587

#### **WORK SCOPE**

This issue addresses those SBLOCA scenarios in PWRs that involve steam generation in the core and condensation in the steam generators causing deborated water to accumulate in part of the RCS. Restart of RCS circulation may cause a recriticality event (reactivity excursion) by moving this deborated water into the core.

### **STATUS**

A Task Action Plan for resolving the issue was developed on 03-19-2001 (ML010780309). In March 2002, BNL submitted fuel enthalpy calculations for the deborated water recriticality event (ML020860192). As a result of the BNL finding of no vulnerability, milestones based on a vulnerability finding were deleted. The technical basis for closing the issue was presented to the ACRS Thermal-Hydraulic Subcommittee on June 26, 2002, and September 9, 2002. Additional calculations assuming start of a reactor coolant pump have been completed by BNL.

#### **AFFECTED DOCUMENTS**

To be determined.

### **PROBLEM / RESOLUTION**

None.

MILESTONES	ORIGINAL DATE	CURRENT DATE	ACTUAL DATE
Task Action Plan Approved	03/2001		03/2001
Receive BNL Calculations of Fuel Enthalpy for Deborated Water Recriticality Event	03/2002		03/2002

All Active Issue(s)

Run Date: 04/28/2003 Run Time:17:13:53

Page: Page 10 of 24

**ISSUE NUMBER:** 185

TYPE: GSI

OFFICE/DIVISION/BRANCH: RES/DSAR/SMSA

TITLE: Control of Recriticality Following Small-break LOCA in PWRs

MILESTONES	ORIGINAL DATE	CURRENT DATE	ACTUAL DATE
Presentation to ACRS Subcommittee	06/2002	••	06/2002
Additional Briefing of ACRS Thermal-Hydraulic Sub-Committee	09/2002		09/2002
Draft Technical Resolution	06/2002	05/2003	
Closeout Memo to the EDO	09/2005	06/2003	

All Active Issue(s)

Run Date: 04/28/2003 Run Time: 17:13:53

Page: Page 11 of 24

**ISSUE NUMBER: 188** 

TYPE: GSI

OFFICE/DIVISION/BRANCH: RES/DET/MEB

TITLE: STEAM GENERATOR TUBE LEAKS/RUPTURESCONCURRENT WITH CONTAINMENT BYPASS

PRIORITY:

**ACTION LEVEL: ACTIVE** 

STATUS:

**IDENT. DATE: 06/2000** 

**PRIORITIZATION DATE: 05/2001** 

**RESOLUTION DATE: 09/2004** 

**ID STATUS:** C

PD STATUS: C

**RD STATUS:** 

TASK MANAGER: Jim Davis

**TAC NUMBERS:** 

WORK AUTH.: Memorandum to A. Thadani from M. Mayfield, "Task Action Plan for Generic Safety Issue 188, 'Steam Generator Tube Leaks or Ruptures Concurrent with Containment Bypass from Main Steam Line or Feedwater Line Breaches," March 28,

#### **WORK SCOPE**

This issue addresses the effects on the validity of steam generator tube leak and rupture analyses of resonance vibrations in steam generator tubes, during steam line break depressurization.

### **STATUS**

Thermal-Hydraulic loads were transferred to Argonne National Laboratory (ANL) for their use in estimating the upper bound loads, cycles, and displacements on tube support plates and tubes. This work was completed. ANL is currently estimating the amount of crack growth on degraded tubes, using the bounding loads plus the pressure stresses. ANL will then estimate the margins for crack growth during normal and accident conditions. ANL will also determine if more refined thermal-hydraulic analyses will be required to obtain the forces and displacements that may result from a main steam line break.

MILESTONES	ORIGINAL DATE	CURRENT DATE	ACTUAL DATE
Develop Task Action Plan	03/2002		03/2002
Complete Estimate of the Margins for Crack Propagation for a Range of Crack Sizes for Main Steam Line Break-Type Loads	03/2003	06/2003	
ACRS Review	06/2003	06/2003	
Determine the Impact of GSI-188 on GSI-163	09/2003	09/2003	
Conduct Tests of the Degraded SG Tubes Under Pressure and with Axial and Bending Loads	09/2003	09/2003	
Meet with ACRS	12/2003	12/2003	

All Active Issue(s)

Run Date: 04/28/2003 Run Time:17:13:53

Page: Page 12 of 24

**ISSUE NUMBER: 188** 

TYPE: GSI

OFFICE/DIVISION/BRANCH: RES/DET/MEB

TITLE: STEAM GENERATOR TUBE LEAKS/RUPTURESCONCURRENT WITH CONTAINMENT BYPASS

MILESTONES	ORIGINAL DATE	CURRENT DATE	ACTUAL DATE	
Complete Technical Assessment	09/2004	09/2004		

All Active Issue(s)

Run Date: 04/28/2003 Run Time: 17:13:53

Page: Page 13 of 24

**ISSUE NUMBER: 189** 

TYPE: GSI

OFFICE/DIVISION/BRANCH: NRR/DSSA/SPLB

TITLE: Susceptibility of Ice Condenser and MARK III Containments to Early Fai

**PRIORITY:** 

**ACTION LEVEL: ACTIVE** 

STATUS: Cn

**IDENT. DATE: 05/2001** 

**PRIORITIZATION DATE: 00/0000** 

**RESOLUTION DATE: --**

**ID STATUS: C** 

PD STATUS:

**RD STATUS:** 

TASK MANAGER: G. Cranston

TAC NUMBERS: MB7245

WORK AUTH .: Memo from J. Zwolinski to F. Eltawila, "Resolution Process for Generic Safety Issue 189: "Post-Accident Combustible

Gas Control in Pressure Suppression Containments"

#### **WORK SCOPE**

The staff will conduct studies to determine whether providing an independent power supply for the igniter systems to deal with station blackout events provides a substantial increase in the overall protection of the public health and safety with implementation costs that are justified in view of this increased protection. Work on this issue is being continued following an initial screening in accordance with MD 6.4.

### **STATUS**

A Task Action Plan for pursuing the issue was developed on February 13, 2002. The staff presented its technical assessment to the ACRS on June 6, 2002. The ACRS response on June 17, 2002, recommended that the staff consider the uncertainties associated with its technical assessment, including the uncertainty related to the use of a control volume code (MELCOR), to determine detailed hydogen concentration distributions. The staff briefed the Thermal Hydraulic Phenomena and the Reliability PRA Sub-committees on November 5, 2002 and the full ACRS Committee on November 13, 2002. The ACRS recommended that the form of this action should be through the plant-specific severe accident management guidelines.

RES provided its technical assessment for resolving GSI-189 to NRR in a memorandum dated December 17, 2002. RES concluded that further action to provide back-up power to one train of igniters is warranted for both ice condenser and Mark III plants. NRR prepared a reply memorandum that outlined the next steps in the resolution of this GSI. NRR has prepared a Task Action Plan and has nearly completed MD 6.4, Stage 4, Regulation and Guidance Development. Final review of the proposed regulatory actions and associated draft documents by senior management and OGC are in progress. The milestone to complete plant-specific analyses was deleted.

MILESTONES	ORIGINAL DATE	CURRENT DATE	ACTUAL DATE
Draft Technical Assessment	05/2002	• •	05/2002
Meet with ACRS	06/2002		06/2002
Second Meeting on Technical Assessment with ACRS Sub-Committee	10/2002		11/2002

All Active Issue(s)

Run Date: 04/28/2003 Run Time:17:13:53

Page: Page 14 of 24

**ISSUE NUMBER:** 189

TYPE: GSI

OFFICE/DIVISION/BRANCH: NRR/DSSA/SPLB

TITLE: Susceptibility of Ice Condenser and MARK III Containments to Early Fai

MILESTONES	ORIGINAL DATE	CURRENT DATE	ACTUAL DATE
Final Technical Assessment	11/2002		11/2002
Meet with ACRS Full Committee	11/2002		11/2002
Transfer GSI to NRR	12/2002	• •	12/2002
NRR Develops Generic Communication			
NRR Briefs ACRS (If Requested)			
Licensees Complete GSI-191 Activities, Including All Modifications (If Needed)			
Close Out Issue			

All Active Issue(s)

Run Date: 04/28/2003 Run Time: 17:13:53

Page: Page 15 of 24

**ISSUE NUMBER: 191** 

TYPE: GSI

OFFICE/DIVISION/BRANCH: NRR/DSSA/SPLB

TITLE: Assessment of Debris Accumulation on PWR Sump Performance

PRIORITY: H

**ACTION LEVEL: ACTIVE** 

STATUS:

**IDENT. DATE: 09/1996** 

**PRIORITIZATION DATE: 09/1996** 

**RESOLUTION DATE: 03/2007** 

**ID STATUS: C** 

PD STATUS: C

**RD STATUS:** 

TASK MANAGER: R. Architzel

TAC NUMBERS: MA6454, MB4864

WORK AUTH .: Memo to D. Morrison from W. Russell, "Third Supplemental User Need Request...Accident Generated Debris," 12/07/95

#### FIN Number CONTRACTOR CONTRACT TITLE

W6650

SEA

Technical Assistance in Resolving Generic Safety Issues

Y6041

LANL

Assessment of Debris Accumulation on Pressurized Water Reactors Sump Performance

J2978

LANL

Technical Assistance for the Resolution of the PWR Sump Clogging Issue

#### **WORK SCOPE**

The goals of the NRC's reassessment are to: (1) determine if the transport and accumulation of debris in containment following a LOCA will impede the operation of the ECCS in operating PWRs; (2) if it is shown that debris accumulation will impede ECCS operation, develop the technical basis for revising NRC's regulations or guidance to ensure that debris accumulation in containment will not prevent ECCS operation; (3) if it is shown that debris accumulation will impede ECCS operation, provide NRC technical reviewers with sufficient information on phenomena involved in debris accumulation and how it affects ECCS operation to facilitate the review of any changes to plants that may be warranted; and (4) issue Generic Communication and work with the industry plan to evaluate and resolve GSI-191 for all PWRs.

### **STATUS**

Preliminary parametric calculations were completed in July 2001 indicating the potential for debris accumulation for 69 cases. These 69 cases are representative of, but not identical to, the operating PWR population. Following the ACRS agreement with the staff's Technical Assessment of the issue in 09/2001, the issue was forwarded to NRR in a memorandum dated September 28, 2001. Consistent with Management Directive 6.4, NRR has the GSI-191 lead for Stages 4 through 6 of the Generic Issues Process. NRR has evaluated the technical assessment and prepared a Task Action Plan for developing appropriate regulatory guidance and resolution for GSI-191. Draft Guide 1107 (Revision 3 to Regulatory Guide 1.82) was issued for public comment in February 2003. NRR is preparing generic communications to resolve GSI-191.

### **AFFECTED DOCUMENTS**

1(1) Regulatory Guide 1.82, Rev. 2

- (2) NUREG-0800
- (3) Generic Letter 85-22
- (4) Draft Generic Letter 03-XX
- (5) Draft Bulletin 03-XX

All Active Issue(s)

Run Date: 04/28/2003 Run Time:17:13:53

Page: Page 16 of 24

**ISSUE NUMBER: 191** 

TYPE: GSI

OFFICE/DIVISION/BRANCH: NRR/DSSA/SPLB

TITLE: Assessment of Debris Accumulation on PWR Sump Performance

### PROBLEM / RESOLUTION

None.

MILESTONES	ORIGINAL DATE	CURRENT DATE	ACTUAL DATE
NRR User Need Request Sent to RES	12/1995		12/1995
User Need Request Assigned to GSIB/RES	01/1996		01/1996
Reassessment Declared a New GSI	09/1996		09/1996
Issue SOW for Evaluation of GSI A-43	11/1996		11/1996
Complete Evaluation of GSI A-43	04/1997		03/1997
Issue SOW for Reassessment of Debris Blockages in PWR Containments Impact on ECCS Performance	09/1998		09/1998
Complete Collection and Review of PWR Containment and Sump Design and Operation Data	12/1999		12/1999
Complete All Debris Transport Tests	09/2000		08/2000
Complete Development of Models and Methods for Analyzing Impact of Debris Blockages in PWR Containments on ECCS Performance	04/2001		06/2001
Complete Parametric Evaluation	07/2001		07/2001
Proposed Recommendations to the ACRS	08/2001		08/2001
ACRS Review Completed	09/2001	••	09/2001
Complete Reassessment of Debris Blockages in PWR Containments Impact on ECCS Performance	09/2001		09/2001
Complete Estimate of Average CDF Reduction, Benefits, and Costs	04/2002		09/2001
Prepare Memo Discussing Proposed Recommendations (End of Technical Assessment Stage of Generic Issue Process)	04/2002		09/2001

All Active Issue(s)

Run Date: 04/28/2003 Run Time:17:13:53

Page: Page 17 of 24

**ISSUE NUMBER: 191** 

TYPE: GSI

OFFICE/DIVISION/BRANCH: NRR/DSSA/SPLB

TITLE: Assessment of Debris Accumulation on PWR Sump Performance

MILESTONES	ORIGINAL DATE	CURRENT DATE	ACTUAL DATE
Issue Transferred from RES to NRR	09/2001	• •	09/2001
Develop Generic Letter for Resolution of GSI	02/2003	10/2003	• •
Issue Updated Reg. Guide 1.82	09/2003	12/2003	
Industry Guidance for Plant-Specific Analyses	09/2003	12/2003	
Complete Plant-Specific Analyses	05/2005	05/2005	
Licensees Complete GSI-191 Activities, Including All Modifications	01/2007	01/2007	
Close Out Issue	03/2007	03/2007	

All Active Issue(s)

Run Date: 04/28/2003 Run Time: 17:13:53

Page: Page 18 of 24

**ISSUE NUMBER: NMSS-0007** 

TYPE: GSI

OFFICE/DIVISION/BRANCH: NMSS/FCSS/SPIB

TITLE: Criticality Benchmarks Greater than 5% Enrichment

**IDENT. DATE:** 05/1998

**ACTION LEVEL: ACTIVE PRIORITIZATION DATE: 05/1998** 

**RESOLUTION DATE: 06/2005** 

**ID STATUS: C** 

PD STATUS: C

**RD STATUS:** 

STATUS:

TASK MANAGER: H. Felsher

**PRIORITY:** H

**TAC NUMBERS:** 

**WORK AUTH.:** 

**WORK SCOPE** 

The importance of software (methods and data) in establishing the criticality safety of systems with fissile material is increasing as licensees work to optimize facilities and storage/transport packages at the same time that access to experimental data is decreasing. Available experimental data are insufficient to validate nuclear criticality safety evaluations for all required configurations at U-235 enrichments in the range of 5-20%.

The purpose of this project is to develop and confirm the adequacy of methods, analytical tools, and guidance for criticality safety software to be used in licensing nuclear facilities. The contractor will develop and test methods to estimate trends in calculational bias and uncertainty (thus extending the range of applicability) using sensitivity analysis techniques that: relate the importance of the system parameters to the calculated neutron multiplication factor; provide expert guidance on assessing the adequacy of the parameter phase space used in the validation process and the resulting bias and uncertainty; and illustrate use of the guidance by application to a regime of experimental phase space (such as 5-10% U-235 and degree of moderation) that has limited measured data but extensive interest in terms of current and planned safety evaluations.

All Active Issue(s)

Run Date: 04/28/2003 Run Time:17:13:53

Page: Page 19 of 24

**ISSUE NUMBER: NMSS-0007** 

TYPE: GSI

OFFICE/DIVISION/BRANCH: NMSS/FCSS/SPIB

TITLE: Criticality Benchmarks Greater than 5% Enrichment

### STATUS

The final reports for the sensitivity/uncertainty (S/U) methods were published in November 1999 as Volumes 1 and 2 of NUREG/CR-6655. The reports cover the following subjects: (1) methodology for defining range of applicability including extensions of enrichments from 5% to 11%; (2) test applications and results of the method; (3) test application for higher enrichments using foreign experiments; (4) feasibility study for extending the method to multidimensional analyses, such as transport casks and reactor fuel. The current method can only be used for one-and two-dimensional geometries.

Results of the test applications of the ORNL methods show that, for simple geometries with neutron spectra that are well moderated (high H/X), benchmark experiments at 5% enrichment are applicable to calculations up to 11% enrichment. On the other hand, these test applications also show that benchmark experiments at intermediate and higher H/X values are not applicable to calculations at very low H/X. There are relatively few benchmarks at these very low H/X values for many compositions of interest to LEU licensees.

Although the ORNL method must be applied by licensees to each individual process to determine an acceptable subcritical margin, the preliminary results indicate that there may be situations where there are no applicable benchmarks. In these cases, the method does provide sensitivity and uncertainty information to aid designers in allowing adequately large margins to cover the lack of benchmark validation.

A new statement of work is needed for other contract work (e.g., applying the methods developed to determine margins of safety for actual scenarios, training NRC personnel on the contract methods, revising national standards, incorporation of codes into scale, or performing benchmark experiments). A User-Need memo to RES dated 04/17/2001 requested assistance in these areas, including making computer codes for S/U methods available through the release of SCALE 5.0. In a memo to NMSS from RES dated 06/11/2001, once funding is available, RES will work with NMSS. Since RES has not found any funding, no work has been done. Therefore, the completion date of June 2004 and preceding milestones were changed. However, under NMSS Contract J5443, NRC will be provided in May 2003 a pre-release version of SCALE 5.0 along with training on its use. Since RES has not funded the effort under this item, NMSS is considering beginning to fund a project in FY-03 that will ultimately provide NMSS with the tools necessary to evaluate the safety of processes with uranium enriched up to 10%wt. along with training in those tools.

#### AFFECTED DOCUMENTS

To be determined.

### **PROBLEM / RESOLUTION**

None.

MILESTONES	ORIGINAL DATE	CURRENT DATE	ACTUAL DATE
Development of Generalized Sensitivity Methods	12/1997		12/1997

All Active Issue(s)

Run Date: 04/28/2003 Run Time:17:13:53

Page: Page 20 of 24

**ISSUE NUMBER:** NMSS-0007

TYPE: GSI

OFFICE/DIVISION/BRANCH: NMSS/FCSS/SPIB

TITLE: Criticality Benchmarks Greater than 5% Enrichment

Acquisition and Documentation of Russian Data  Development of Guidance for Defining Ranges of Applicability  Application of Guidance to Extend Low Enrichment Range  O9/1998  Technical Assistance and Project Planning  O3/1999  Receive Final ORNL Contract Reports  O3/1999  Publish Final ORNL Contract Reports  10/1999  User Need Request Memo to RES  12/2000  O3/2001  12/2003
Application of Guidance to Extend Low Enrichment Range 09/1998 11/1998  Technical Assistance and Project Planning 03/1999 03/1999  Receive Final ORNL Contract Reports 03/1999 10/1999  Publish Final ORNL Contract Reports 10/1999 11/1999  User Need Request Memo to RES 12/2000 06/2001
Technical Assistance and Project Planning  Receive Final ORNL Contract Reports  O3/1999  03/1999  Publish Final ORNL Contract Reports  10/1999  11/1999  User Need Request Memo to RES  12/2000  06/2001
Receive Final ORNL Contract Reports       03/1999 10/1999         Publish Final ORNL Contract Reports       10/1999 11/1999         User Need Request Memo to RES       12/2000 06/2001
Publish Final ORNL Contract Reports 10/1999 11/1999 User Need Request Memo to RES 12/2000 06/2001
User Need Request Memo to RES 12/2000 06/2001
·
Make New Computer Codes Available Through Scale 5.0 Release 03/2001 12/2003
Revise Staff Procedures and Communicate Acceptability of New 10/2000 06/2004 Methods to Licensees
Training to NRC Staff and Licensees 09/2002 12/2004
Determine If User Needs Have Been Met by ORNL Contract 11/2000 03/2005
Close Out Issue 03/2003 06/2005

All Active Issue(s)

Run Date: 04/28/2003 Run Time:17:13:53

Page: Page 21 of 24

**ISSUE NUMBER: NMSS-0014** 

TYPE: GSI

OFFICE/DIVISION/BRANCH: NMSS/FCSS/FCLB

TITLE: Surety Estimates for Groundwater Restoration at In-situ Leach Fields

**PRIORITY: M** 

**ACTION LEVEL: ACTIVE** 

STATUS:

**IDENT. DATE: 06/1998** 

**PRIORITIZATION DATE: 07/1998** 

**RESOLUTION DATE: 07/2003** 

**ID STATUS: C** 

**PD STATUS: C** 

**RD STATUS:** 

TASK MANAGER: D. Diaz-Toro

WORK AUTH.: NMSS Operational Events Briefing on 06-08-98.

**TAC NUMBERS:** 

### **WORK SCOPE**

,This research will provide a methodology to calculate surety for groundwater restoration activities at in situ leach uranium extraction facilities and a post-restoration groundwater quality stability monitoring methodology. The research will be conducted by an RES contractor.

### **STATUS**

RES developed a contract Statement of Work for this effort in July 2001. The scheduled completion of this GSI was delayed seven months due to requests by the NRC contractor (USGS) for additional information from licensees. NRC contractor has finished several sub-tasks in order to start developing a report on the project.

### **AFFECTED DOCUMENTS**

- (1) SRP for In Situ Leach Uranium Extraction License Applications
- (2) BTP on Financial Assurances for Reclamation, Decommissioning, and Long Term Surveillance and Control of Uranium Recovery Facilities

### **PROBLEM / RESOLUTION**

None.

MILESTONES	ORIGINAL DATE	CURRENT DATE	ACTUAL DATE
Pore Volume - Data Evaluation (Task 1)	12/1997		06/1998
Commission Response to SECY-99-013	08/1999		07/2000
Complete Statement of Work	06/2001		07/2001
Progress Briefing to NRC Staff and Stakeholders	06/2002	03/2003	
Draft NUREG to Staff for Comment	08/2002	06/2003	

All Active Issue(s)

Run Date: 04/28/2003 Run Time:17:13:53

Page: Page 22 of 24

**ISSUE NUMBER: NMSS-0014** 

TYPE: GSI

OFFICE/DIVISION/BRANCH: NMSS/FCSS/FCLB

TITLE: Surety Estimates for Groundwater Restoration at In-situ Leach Fields

MILESTONES	ORIGINAL DATE	CURRENT DATE	ACTUAL DATE
Public Meeting at NRC	09/2002	07/2003	
Close Out Issue	09/2002	08/2003	

All Active Issue(s)

Run Date: 04/28/2003 Run Time: 17:13:53

Page: Page 23 of 24

**ISSUE NUMBER: NMSS-0016** 

TYPE: GSI

OFFICE/DIVISION/BRANCH: NMSS/IMNS/RGB

TITLE: Adequacy of 0.05 Weight Percent Limit in 10 CFR 40

**ACTION LEVEL: ACTIVE** 

STATUS:

**PRIORITY:** M **IDENT. DATE: 06/1998** 

**PRIORITIZATION DATE: 07/1998** 

**RESOLUTION DATE: --**

**ID STATUS:** C

PD STATUS: C

**RD STATUS:** 

TASK MANAGER: G. Comfort

**TAC NUMBERS:** 

WORK AUTH .: NMSS Operational Events Briefing on 06-08-98.

### **WORK SCOPE**

Exposure to the "unimportant quantities" of source material defined in 10 CFR 40.13(a) as < 0.05 Wt% uranium or thorium could result in annual doses to the public of hundreds of millirem exceeding NRC's public dose limit of 100 mem/yr from all sources. In 07/96, DWM/NMSS staff developed a draft User Need memo requesting development of a regulation to limit the transfer of source material meeting the "unimportant quantity" limit, or to revise the definition of source material.

Discussions in 1996 and 1997 with RES and OGC, as well as with other NMSS divisions, indicated that there were several options available to the staff to revise the definition of source material. However, the User Need memo was never finalized because of lack of budgeted resources and the limited potential for success of the options.

Subsequently, FCSS received a licensee request to transfer baghouse dust containing less than 0.05 Wt% uranium and thorium to an exempt person per 10 CFR 40.51(b)(3) and 40.13 (a). Some conservative dose estimates indicated that the transfer could result in doses exceeding the public dose limit. FCSS proposed a rulemaking to immediately cease transfers under 40.51(b)(3) and 40.51(b)(4) of source material exempted under 40.13(a). By eliminating these provisions, any future transfers would have to meet existing general license conditions, or be specifically approved on a case-by-case basis.

#### **STATUS**

The recommendation to amend part 40 was dropped from the final FCSS Commission Paper. On 02-02-1999, an SRM on SECY-98-022 requested options for commission consideration on how to proceed with jurisdictional and technical issues on regulation of source material. SECY-99-259 responding to SRM was issued on 11/01/1999. SRM issued 03/09/2000 approving staff recommendations with comments. A proposed rule was sent to the Commission on 09-25-2000 in SECY-00-0201. The SRM responding to SECY-00-0201, dated March 29, 2002, directed the staff to publish the proposed rule for comment. Proposed rule was published in the Federal Register on August 28, 2002. Twenty-five comment letters were received and are being evaluated.

#### AFFECTED DOCUMENTS

To be determined.

All Active Issue(s)

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### PROBLEM / RESOLUTION

None.

MILESTONES	ORIGINAL DATE	CURRENT DATE	ACTUAL DATE
Issue Options Paper (SECY-99-259)	07/1998		11/1999
Receive SRM	02/2000		03/2000
Proposed Rule to the Commission	08/2000		09/2000
Publish Proposed Rule	08/2002		08/2002
Final Rule to Commission			
Issue Final Rule			
Close Out Issue	12/2001		