

April 23, 2007

MEMORANDUM TO: Farouk Eltawila, Director
Division of Risk Assessment & Special Projects
Office of Nuclear Regulatory Research

THRU: Patrick W. Baranowsky, Deputy Director /RA/
Operating Experience and Risk Analysis
Division of Risk Assessment and Special Projects
Office of Nuclear Regulatory Research

FROM: Jack W. Foster, Chief /RA/
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Office of Nuclear Regulatory Research

SUBJECT: GENERIC ISSUE MANAGEMENT CONTROL SYSTEM (GIMCS)
REPORT – SECOND QUARTER FY 2007

The enclosed Second Quarter FY 2007 GIMCS Report reflects enhanced results from trial implementation of generic issues program (GIP) improvements described in SECY-07-0022, "Status Report on Proposed Improvements to the Generic Issues Program" (ML063460239), as noted.

Specifically, GIP staff coordinated and assisted the responsible offices in providing accurate and complete information updates for each open generic issue (GI). This interaction improved office understanding of the expectations for consistency in GIMCS updates and their associated roles and responsibilities. The results include detailed GIMCS update information from the responsible offices verified through the management level for each open GI.

The GIP staff also identified various opportunities for additional improvements to the process for obtaining routine GIMCS updates and will make adjustments for further improvements to streamline the process, as appropriate.

This report excludes the GIMCS Accounting Status Tables (count of 18 tables). These tables provide various accounting elements of GIs over time. The GIP staff removed these tables in response to user feedback in order to streamline the content of this report. You may still access these GIMCS Accounting Status Tables in ADAMS (ML071030339). Please inform the contact identified below if you prefer that these GIMCS Accounting Status Tables be included in future GIMCS Quarterly Report distributions or if you have any feedback regarding GIP activities.

CONTACT: Timothy Mitts, RES/DRASP/OEGIB
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The table below presents the summary status of the GIs with an Action Level of Active during the second quarter FY 2007. The paragraphs following this summary table provide a narrative summary of the current status of these Active GIs. Finally, the enclosure provides the GIMCS report details for these Active GIs. Note that all GIs that are in the implementation and verification stages, in the following tables may be removed from the active GI list per SECY-07-022. These issues will continue to be tracked and reported in GIMCS until completion of verification.

Status Summary of GIs Active During 2nd Quarter FY 2007						
GI No.	Title	Current Stage	Status	Planned Closure	Months Open	Regulatory Impacts
156.6.1	Pipe Break Effects on Systems and Components	Technical Assess.	Active	12/2007	194	To Be Determined
163	Multiple Steam Generator tube Leakage	Implement & Verify	Active	04/2009	177	NUREG 1430 - 1432, GL 2006-01, PWR T/S
186	Potential Risk and Consequences of Heavy Load Drops in Nuclear Power Plants	Implement & Verify	Active	10/2007	95	NUREG-1774, NUREG-0800, Sec. 9.1.5
189	Susceptibility of Ice condenser and Mark III Containments to Early Failure from Hydrogen Combustion During a Severe Accident	Implement & Verify	Active	06/2010	70	10CFR50.44, 10CFR50.34
191	Assessment of Debris Accumulation on PWR Sump	Implement & Verify	Active	11/2008	126	RG 1.82 Rev. 3, NUREG-0800, GL 1985-22, Bulletin 2003-01, GL 2004-02
193	BWR ECCS Suction Concerns	Technical Assess.	Active	03/2008	58	To Be Determined
196	Boral Degradation	Technical Assess.	Closed	02/2007	39	None
198	Hydrogen Combustion in PWR Piping	Screening	Closed	03/2007	37	None
199	Implications of Updated Probabilistic Seismic Hazard Estimates in Central and Eastern United States	Screening	Active	09/2007	22	To Be Determined
200	Tin Whiskers	Screening	Closed	01/2007	17	None
201	Small-Break LOCA and Loss of Offsite Power	Screening	Closed	03/2007	7	None
202	Spent Fuel Pool Leakage Limits	Screening	Active	05/2007	7	To Be Determined
203	Potential Safety Issues with Cranes That Lift Spent Fuel Casks	Screening	Closed	03/2007	3	None

Status Summary of GIs Active During 2 nd Quarter FY 2007						
GI No.	Title	Current Stage	Status	Planned Closure	Months Open	Regulatory Impacts
NMSS-0007	Criticality Benchmarks Greater Than 5% Enrichment	Implement & Verify	Active	08/2007	106	ISG-10
NMSS-0014	Surety Estimates for Groundwater Restoration at In-Situ Leach Facilities	Implement & Verify	Active	04/2007	105	NUREG-1569, BTP

Narrative Summary of Active GIs

REACTOR GIs

GI-156.6.1 TECHNICAL ASSESSMENT, Pipe Break Effects on Systems and Components (pages 1-3 of GIMCS report): The staff completed review of licensee piping configurations in October 2006 and identified one site for which additional information is needed to determine if there might be a vulnerability. The Offices of RES and NRR will work together to determine a path forward to resolve this possible site specific issue and develop draft recommendations by June 2007, as appropriate.

GI-163 REGULATION AND GUIDANCE DEVELOPMENT, Multiple Steam Generator Tube Leakage (pages 4-7 of GIMCS report): All pressurized water reactor (PWR) licensees submitted license amendment applications to change their technical specifications in accordance with technical specifications task force (TSTF)-449 as part of their response to NRC Generic Letter 2006-01, "Steam Generator Tube Integrity and Associated Technical Specifications." The staff has approved and issued amendments for 48 PWRs and has targeted December 31, 2007, for issuing amendments for the remaining PWRs. The Steam Generator (SG) Action Plan tasks relevant to resolution of this GI have been completed with the exception of task 3.1.k, which involves evaluation of the conditional probabilities of multiple tube failures for risk assessment pertaining to SG alternate repair criteria. The staff is assessing this condition from the broad standpoint of the integrity of the overall tube, rather than focusing only on tube locations with alternate repair criteria, and targets completion by January 31, 2008. The current target date to close this GI is by April 30, 2009.

GI-186 REGULATION AND GUIDANCE DEVELOPMENT, Potential Risk and Consequences of Heavy Load Drops in Nuclear Power (pages 8-10 of GIMCS report): The staff plans to issue Supplement 1 to Regulatory Issue Summary (RIS) 2005-25 by April 30, 2007, to notify industry of the changes to Standard Review Plan (SRP) Section 9.1.5 and to further clarify existing regulatory positions. The current target date to close this GI is by October 31, 2007.

GI-189 REGULATION AND GUIDANCE DEVELOPMENT, Susceptibility of Ice Condenser and Mark III Containments to Early Failure from Hydrogen Combustion During a Severe Accident (pages 11-15 of GIMCS report): On January 30, 2007, the EDO issued a memo summarizing the outcome of the meetings regarding consideration of security insights in the design of the plant modifications. The staff received industry proposals for modifications that incorporate security insights in late February and early March 2007. The staff is evaluating these voluntary proposals and plans on clarifying commitments to resolve any remaining issues by December 31, 2007, to support implementation, verification, and ultimate close out of this GI by June 30, 2010.

GI-191 IMPLEMENTATION AND VERIFICATION, Assessment of Debris Accumulation on PWR Sump Performance (pages 16-21 of GIMCS report): The staff will use inputs from review of licensee responses to Generic Letter (GL) 2004-02, plant audits, and items identified from Regional inspections using Temporary Instruction TI-2515/166 to support closure of GI-191. As of March 2007, the NRC has approved 12 extension requests for completing modifications identified in licensee responses to GL 2004-02 and the staff is currently reviewing four additional extension requests. The staff continues to hold public meetings with Nuclear Energy Institute (NEI) and industry representatives (approximately 2 per quarter) and to brief Advisory Committee on Reactor Safeguards (ACRS) periodically (approximately 2 per year). The current target date to complete assessment of licensee modifications is June 30, 2008, and to complete evaluation of licensee responses GL responses is July 24, 2008, in support of issue closure by November 28, 2008.

GI-193 TECHNICAL ASSESSMENT, BWR ECCS Suction Concerns (pages 22-24 of GIMCS report): In March 2007, the Offices of RES and NRR (the Generic Communication and Power Uprate Branch) decided to seek Boiling Water Reactor (BWR) Owners Group (BWROG) cooperation to support the ongoing assessment of this GI, consistent with the principles described in SECY-07-0022. Based on preliminary contact with the BWROG in March 2007, the staff plans to meet with BWROG by June 2007 to discuss their input regarding the plausibility of air ingress into the Emergency Core Cooling System (ECCS) strainers and intake piping, and its potential impact on the ECCS pumps' ability to fulfill their design function. The current target date to close out this GI is by March 31, 2008.

GI-196 CLOSED, Boral Degradation (pages 25-26 of GIMCS report): Following the Advisory Committee on Nuclear Waste (ACNW) endorsement of the staff's recommendation, dated December 13, 2006, (ML063520459), RES informed the OEDO of the decision, and associated rationale, to close out GI-196 in memorandum dated February 22, 2007 (ML070090182).

GI-198 CLOSED, Hydrogen Combustion in PWR Piping (pages 27-28 of GIMCS report): The screening panel reviewed the staff's screening analysis on February 8, 2007, and concluded that this issue should not be pursued further as a generic issue because of its very low likelihood of leading to a severe accident. In a memorandum to the RES Office Director dated March 22, 2007, the screening panel recommended RES Office Director approval that the GI be dropped from further pursuit, which the RES Office Director approved on March 22, 2007 (ML070580447).

GI-199 SCREENING, Implications of Updated Probabilistic Seismic Hazard Estimates in Central and Eastern United States for Existing Plants (pages 29-31 of GIMCS report): The staff will engage the stakeholders, consistent with Management Directive (MD) 6.4 "Generic Issues Program" and SECY-07-0022, to identify a path forward, and prepare a plan for proceeding that includes new milestones, as appropriate. The current target for issuing the screening results report to the RES Office Director is September 2007.

GI-200 CLOSED, Tin Whiskers (pages 32-33 of GIMCS report): The screening panel met on November 29, 2006, to review the staff's screening analysis, and recommended the GI be dropped from further pursuit under the GIP based on the conclusion that it represents a compliance issue that should be addressed under the reactor oversight process (ROP). On January 26, 2007 the RES Office Director approved the panel's recommendation to close out GI-200 (ML070250399).

GI-201 CLOSED, Small Break LOCA and Loss of Offsite Power (pages 34-35 of GIMCS report): The screening panel reviewed the staff's screening analysis in March 2007, agreed with the screening analysis, and recommended dropping this GI from further pursuit because it involves a negligible increase in core-damage frequency (i.e., bounding estimate of 4E-8). This recommendation and the RES Office Director's approval is documented in memorandum dated March 29, 2007 (ML070820124).

GI-202 SCREENING, Spent Fuel Pool Leakage Limits (pages 36-37 of GIMCS report): The staff completed initial screening analysis in January 2007. A screening panel comprised of experts from FSME, NRR, and RES is scheduled to convene in April 2007 to independently review the staff's analysis per MD 6.4.

GI-203 CLOSED, Potential Safety Issues With Cranes That Lift Spent Fuel Casks (pages 38-40 of GIMCS report): The staff determined these concerns represent licensee compliance issues that are not suitable for further consideration under the GIP per MD 6.4 and SECY-07-0022. With agreement from the Offices of NRR and NMSS management, the staff closed this issue as documented in memorandum dated March 6, 2007 (ML070400565). The concern involves questions about the technical adequacy or programmatic effectiveness of existing regulatory programs and activities that are implemented through the ROP. Therefore, in March 2007, the staff entered the issue into the ROP Feedback Program as ROP Feedback Form Item Number 60854-1-1113.

At the end of the reporting period, eight reactor GIs remained to be resolved: four GIs have been transferred from RES to NRR for regulation and guidance development or for implementation and verification, two GIs are undergoing technical assessment in RES, and two GIs are in various stages of initial screening in RES.

NON-REACTOR GIs

GI-NMSS-0007 IMPLEMENTATION, Criticality Benchmarks Greater Than 5% Enrichment (pages 41-43 of GIMCS report): The staff prepared Interim Staff Guidance (ISG)-10, "Justification for Minimum Margin of Subcriticality for Safety," which was finalized in June 2006, to communicate the acceptability of using the TSUNAMI code as one method for determining subcriticality margins. The TSUNAMI code can be used to apply adequately large margins to ensure the application is properly validated by SCALE 5.0. Additional benchmarks would be needed for lower margins in certain applications. However, development and funding of additional benchmarks are not in the scope of this GI. The current activities include preparing a closure memorandum and obtaining management approval to support GI closure by August 31, 2007.

GI-NMSS-0014 IMPLEMENTATION, Surety Estimates for Groundwater Restoration at In-Situ Leach Facilities (pages 44-45 of GIMCS report): The staff issued draft NUREG/CR-6870, "Consideration of Geochemical Issues in Groundwater Restoration at Uranium In Situ Leach Mining Facilities" for public comment in June 2005 and finalized and published NUREG/CR-6870 in January 2007. The current target date to close this GI is by April 30, 2007.

At the end of the reporting period, two non-reactor GIs remained to be resolved.

I will continue to keep you informed of progress in resolving the remaining unresolved reactor and non-reactor GIs as well as any major problems that might surface during the course of their resolution.

Enclosure:
GIMCS Report, April 2007

At the end of the reporting period, two non-reactor GIs remained to be resolved.

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Enclosure:
GIMCS Report, April 2007

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ENCLOSURE

GENERIC ISSUE MANAGEMENT CONTROL SYSTEM (GIMCS) REPORT

OFFICE OF NUCLEAR REGULATORY RESEARCH
April 2007

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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 (GIs). As of 2007, issues in the generic issues program (GIP) are simply referred as GIs. The resolution of any GI has the potential for safety enhancements and the promulgation of new or revised requirements or guidance.

GIMCS is part of an integrated system of reports and procedures that is designed to manage GIs from issue identification through resolution (development of new criteria, management review and approval, public comments, and incorporation into the regulations, as appropriate). The priority evaluation of generic issues (i.e., listed as HIGH- or MEDIUM) is primarily of historical significance only as issue prioritization was discontinued in 1999 with issuance of MD 6.4. Issue priority in this report and in NUREG-0933, "A Prioritization of Generic Safety Issues," is retained, where applicable, for historical purposes.

For reactor issues, the "Procedures for Processing Generic Issues" are outlined in RES Office Instruction TEC-002, dated September 29, 2005. 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 (MD) 6.4, "Generic Issues Program," was initiated for the processing of all new GIs; MD 6.4 was revised on July 29, 2005; and is currently under revision again with scheduled completion early in 2008.

GIMCS provides the proposed schedules for managing the resolution of: (1) GIs that have HIGH- or MEDIUM-priority designations, as determined by the procedures of NUREG-0933 and NMSS Policy and Procedures Letter 1-57; and (2) other issues designated as CONTINUE, as determined by the screening procedures of MD 6.4. Reactor GIs ranked as either LOW or DROP cease being tracked in GIMCS upon issue closure.

The data fields (or elements) documented in GIMCS include 22 items as described below. Some of these data fields (e.g., priority) are not used for new GIs, but have historical value for tracking legacy GIs.

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
DSSA	- 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
GI	- Generic Issue (same meaning as GSI)
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. Title Generic Issue Title
3. Identification Date Date the issue was identified
4. Prioritization Date The date that the prioritization evaluation was approved by the RES Director (historical value only for issues identified before 1999)
5. Type Generic Issue (GI)
6. Priority High (H), Medium (M), or Continue (Priority designations of H and M have historical value only for issues identified before 1999)
7. Task Manager Name of assigned individual responsible for resolution
8. Office/Division/Branch The Office, Division, and Branch of the Task Manager who has lead responsibility for resolving the issue
9. Action Level Active Technical assistance funds appropriated for resolution and/or Task Manager actively pursuing resolution

Inactive 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. Status Coded summary as follows:
3A - (Resolved with requirements)
3B - (Resolved with No requirements)
11. TAC Number Task Action Control (TAC) number assigned to the issue
12. Resolution Date Scheduled resolution date for the issue
13. Work Authorization Who or what authorized work to be done on the issue

DATA ELEMENTS (cont.)

- | | | | | | | | | |
|-----------------|---|---|-----------------|---|----------------|---|---------------|--------------------------------------|
| 14. | <u>FIN</u> | Financial identification number assigned to contract (if any) for technical assistance | | | | | | |
| 15. | <u>Contractor</u> | Contractor name | | | | | | |
| 16. | <u>Contract Title</u> | Contract Title (if contract issue) | | | | | | |
| 17. | <u>Work Scope</u> | Describes briefly the problem and the work necessary to technically resolve and complete the generic issue | | | | | | |
| 18. | <u>Status</u> | Describes current status of work while also retaining an accurate running narrative discussion of major activities, milestones, and decision points. | | | | | | |
| 19. | <u>Affected Documents</u> | Identifies documents into which the technical resolution will be incorporated | | | | | | |
| 20. | <u>Problem/Resolution</u> | Identifies current problem areas and describes what actions are necessary to resolve them. Note: Discussions of previous problems and resolutions are incorporated into the status narrative, as appropriate. | | | | | | |
| 21. | <u>Schedule Changes</u> | Describes reasons for and explain all changes in milestones (additions, deletions, and delays). | | | | | | |
| 22. | <u>Milestones</u> | Selected significant milestones:

<table border="0" style="margin-left: 20px;"><tr><td style="padding-right: 10px;"><u>Original</u></td><td>Scheduled dates reflected in the original Task Action Plan, plus additional milestone dates added during resolution of the GI</td></tr><tr><td style="padding-right: 10px;"><u>Current</u></td><td>Expected date of completion, or changes in the original scheduled dates</td></tr><tr><td style="padding-right: 10px;"><u>Actual</u></td><td>The date the milestone was completed</td></tr></table> | <u>Original</u> | Scheduled dates reflected in the original Task Action Plan, plus additional milestone dates added during resolution of the GI | <u>Current</u> | Expected date of completion, or changes in the original scheduled dates | <u>Actual</u> | The date the milestone was completed |
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| <u>Actual</u> | The date the milestone was completed | | | | | | | |