

November 19, 2007

MEMORANDUM TO: Christiana H. Lui, Director
Division of Risk Assessment
Office of Nuclear Regulatory Research

FROM: Jack W. Foster, Chief */RA/*
Operating Experience and Generic Issues Branch
Division of Risk Assessment
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SUBJECT: GENERIC ISSUE MANAGEMENT CONTROL SYSTEM (GIMCS)
REPORT — 4th QUARTER FY 2007

The enclosed GIMCS report for the 4th Quarter of Fiscal Year (FY) 2007 reflects the results of the staff's continued implementation of Generic Issues Program (GIP) improvements described in SECY-07-0022, "Status Report on Proposed Improvements to the Generic Issues Program." That paper, dated January 30, 2007, is available in the Agencywide Documents Access and Management System (ADAMS), under Accession No. ML063460239.

During this reporting period, the GIP staff continued working with the responsible offices to ensure accurate and complete information updates for open generic issues (GIs). This interaction improved office understanding of the expectations for consistency in updates to the Generic Issue Management Control System (GIMCS), as well as their associated roles and responsibilities. The results include detailed GIMCS information updates from the responsible offices, which have been verified through the management level. The GIP staff also continued to use the Management Oversight Tracking Plan for "Quarterly GIMCS Update Input to the Office of the Executive Director for Operations (OEDO)" (ML072820603), to improve the process for obtaining routine GIMCS input and streamlining the process, as appropriate.

As with the 3rd Quarter GIMCS Report, this report excludes the 18 GIMCS Accounting Status Tables. You may access these tables in ADAMS, under Accession No. ML072920222.

The following table summarizes the status of the open GIs and those that were closed during this reporting period. The subsequent paragraphs provide a narrative summary of the current status of these GIs. Finally, the enclosure to this memorandum provides the related GIMCS report details.

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Status Summary of Active GIs During 4 th 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	200	None
163	Multiple Steam Generator Tube Leakage	Regulatory Office Implementation		04/2009	183	NUREG-1430-1432, Generic Letter (GL) 2006-01, Pressurized-Water Reactor (PWR) Technical Specifications (T/S)
186	Potential Risk and Consequences of Heavy Load Drops in Nuclear Power Plants	Implement & Verify	Active	02/2008	101	NUREG-1774, Standard Review Plan (SRP) 9.1.5 (NUREG-0800)
189	Susceptibility of Ice Condenser & Mark III Containments to Early Failure from Hydrogen Combustion During a Severe Accident	Regulatory Office Implementation		06/2010	76	Title 10, Sections 50.34 and 50.44, of the <i>Code of Federal Regulations</i> (10 CFR 50.34 and 50.44)
191	Assessment of Debris Accumulation on PWR Sump	Regulatory Office Implementation		10/2008	132	Regulatory Guide (RG) 1.82, Rev. 3; NUREG-0800; GL 1985-22; Bulletin 2003-01; GL 2004-02
193	BWR ECCS Suction Concerns	Technical Assess.	Active	06/2008	64	To Be Determined
199	Implications of Updated Probabilistic Seismic Hazard Estimates in Central and Eastern United States on Existing Plants	Screening	Active	06/2008	28	To Be Determined

Status Summary of Active GIs During 4 th 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	Closed	08/2007	111	Interim Staff Guidance (ISG) 10

Reactor GIs

GI-156.6.1 Technical Assessment, Pipe Break Effects on Systems and Components (pages 1–4 of the GIMCS report): The staff of the U.S. Nuclear Regulatory Commission (NRC) completed a technical assessment report, which was transmitted to the Advisory Committee on Reactor Safeguards (ACRS) on July 18, 2007. The staff then briefed the ACRS on September 9, 2007, and the ACRS issued a memorandum, dated September 26, 2007 (ML072530615), to the Executive Director for Operations (EDO), stating that the Committee concurred with the staff's recommendation that GI-156.6.1 should be closed, and no further actions by NRC staff or licensees are necessary with respect to this issue. Toward that end, by December 31, 2007, the staff plans to issue a memorandum, from the Director of the Office of Nuclear Regulatory Research (RES) to the EDO, closing this issue.

GI-163 Regulatory Office Implementation, Multiple Steam Generator Tube Leakage (pages 5–8 of the GIMCS report): The staff has completed the relevant task items defined in the Steam Generator (SG) Action Plan, with the exception of Item 3.1.k, which involves evaluating the conditional probabilities of multiple tube failures for risk assessment pertaining to alternative SG repair criteria. Completion of Item 3.1.k (currently scheduled for January 31, 2008) has been delayed while the staff considers alternatives for completing this item. The estimated completion date for this item will be determined when the staff identifies a suitable alternative. Consequently, this item constitutes the critical path for completing the staff's work on GI-163.

GI-186 Implementation and Verification, Potential Risk and Consequences of Heavy Load Drops in Nuclear Power (pages 9–11 of the GIMCS report): The staff prepared temporary guidance to enhance the inspection of heavy load lift activities during refueling. On September 14, 2007, the Nuclear Energy Institute (NEI) notified the NRC that the nuclear industry approved a formal initiative, which specifies the actions that each plant will take to ensure that heavy load lifts continue to be conducted safely and that plant licensing bases accurately reflect plant practices. That initiative is expected to clarify the licensing basis with respect to the handling of heavy loads. The NRC staff is modifying its guidance documents to accommodate the initiative, allow time to implement the initiative, and be consistent with the expected end state following implementation. The staff has rescheduled the related ACRS briefing to allow additional time to modify guidance documents. The current target date to close this GI is February 28, 2008.

GI-189 Regulatory Office Implementation, Susceptibility of Ice Condenser and Mark III Containments to Early Failure from Hydrogen Combustion During a Severe Accident (pages 12–16 of the GIMCS report): On the basis of industry proposals, the staff expects nearly all affected units

to complete full implementation of the modifications by June 2008, with two units delayed as late as early 2010 for more complex modifications. The staff expects to ultimately close-out this GI by June 30, 2010.

GI-191 Regulatory Office Implementation, Assessment of Debris Accumulation on PWR Sump Performance (pages 17–22 of the GIMCS report): To support closure of GI-191, the staff will use input from reviews of licensees' responses to Generic Letter (GL) 2004-02, plant audits, and items identified from regional inspections using Temporary Instruction TI-2515/166. As of September 2007, the NRC has approved 15 requests for extensions to complete modifications identified in licensees' responses to GL 2004-02. The staff continues to hold public meetings with NEI and industry representatives (approximately two per quarter) and to brief the ACRS periodically (approximately twice per year). The current targets are to complete the assessment of licensees' modifications by June 30, 2008, and evaluation of licensees' GL responses by July 24, 2008, in support of issue closure by October 28, 2008.

GI-193 Technical Assessment, BWR ECCS Suction Concerns (pages 23–25 of the GIMCS report): During a conference call held on June 6, 2007 (ML071640257), the BWR Owners Group (BWROG) informed the staff that no plant-specific studies have been performed relative to GI-193 issues. However, the BWROG provided references to two research reports from the Lappeenranta University of Technology laboratory in Finland (ML071640273 and ML071640280). Subsequently, the BWROG informed the staff that further contacts with Finland have been initiated. In addition, the staff has independently pursued contact with Finland through the Office of International Programs, and will independently evaluate the significance of the information provided by Finland upon receipt. The additional time required to obtain these documents creates the need to extend the close-out schedule for this issue until June 30, 2008.

GI-199 Screening, Implications of Updated Probabilistic Seismic Hazard Estimates in Central and Eastern United States for Existing Plants (pages 26–28 of the GIMCS report): In June 2007, the staff decided to focus its screening analysis efforts on using existing U.S. Geologic Survey (USGS) seismic hazard information to address the seven criteria for screening GIs, as described in SECY-07-0022, "Status Report on Proposed Improvements to the Generic Issues Program." Following this approach, the staff completed the milestone: "Generate Screening Analysis," on July 27, 2007, and then completed the milestone: "Screening Panel Meeting," on September 12, 2007. However, in October 2007, for consistency with the staff's performance-based approach for assessing seismic hazards for new reactors as described in memorandum to the Commission, "A Performance-Based Approach to Define the Safe Shutdown Earthquake Ground Motion," dated July 26, 2006 (ML052360044), the staff determined that the screening analysis should consider seismic hazard information and models besides those available from the USGS, which are used for building code applications (as opposed to nuclear power plant licensing). The staff is currently assessing the various seismic information and models available and will identify an approach that is suitable for the screening analysis. As a result, the staff still plans to complete the milestones: "Complete Screening" and "Issue Panel Report to RES Director" on February 15, 2008 and February 28, 2008, respectively.

At the end of the reporting period, seven reactor GIs remain to be resolved.

Non-Reactor GIs

GI-NMSS-0007 Implementation, Criticality Benchmarks Greater Than 5% Enrichment (pages 29–31 of the GIMCS report): The staff closed NMSS-0007 as a formal generic issue on August 28, 2007 (ML072340091), based on issuing Fuel Cycle Safety and Safeguards (FCSS) Interim Staff Guidance (ISG) 10, “Justification of Minimum Margin of Subcriticality for Safety” (ML061650370), on June 15, 2006. The issuance of FCSS ISG-10 was the final milestone required to close out this GI. The Office of Nuclear Material Safety and Safeguards (NMSS) will continue to address future regulatory challenges associated with benchmarking criticality codes, as needed, through additional research, code development, and/or guidance development.

At the end of the reporting period, no non-reactor GIs remain to be resolved.

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

Enclosure:
As stated

Non-Reactor GIs

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Enclosure:
As stated

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