

July 29, 2004

MEMORANDUM TO: Carl J. Paperiello, Director  
Office of Nuclear Regulatory Research

FROM: Farouk Eltawila, Director */RA/* by Farouk Eltawila  
Division of Systems Analysis and Regulatory Effectiveness  
Office of Nuclear Regulatory Research

SUBJECT: GENERIC ISSUE MANAGEMENT CONTROL SYSTEM (GIMCS)  
REPORT – THIRD QUARTER FY 2004

The GIMCS Report for the Third Quarter of FY 2004 is attached for your information. During the reporting period, significant progress was made on the following generic safety issues (GSIs):

REACTOR GSIs

**GSI-80, Pipe Break Effects on Control Rod Drive (CRD) Hydraulic Lines in the Drywells of Boiling Water Reactor (BWR) MARK I and II Containments:** The Office of Nuclear Regulatory Research (RES) completed studies of the high-energy piping interactions with CRD piping bundles in MARK I and II drywells with no adverse findings. Draft recommendations are scheduled to be finalized in October 2004.

**GSI-156.6.1, Pipe Break Effects on Systems and Components:** RES completed a study of the high-energy piping interactions with MARK I drywell shells with no adverse findings. Draft recommendations are scheduled to be finalized in October 2004.

**GSI-185, Control of Recriticality Following Small-Break Loss-of-Coolant Accident (LOCA) in Pressurized Water Reactors (PWRs):** Following issuance of the draft report on the assessment of recriticality from the transport of boron-diluted water from loop seals to the core during small-break LOCAs in PWRs, RES will discuss the issue with the Advisory Committee on Reactor Safeguards (ACRS) in September 2004.

**GSI-188, Steam Generator Tube Leaks/Ruptures Concurrent with Containment Bypass:** RES conducted tests of degraded tubes under pressure and with axial and bending loads to validate analytical results from other Steam Generator Action Plan items. Results of the tests showed that dynamic loads associated with a main steam line break will have little impact on the integrity of steam generator tubes unless extensive circumferential cracking is present. The staff is finalizing its draft report and plans to discuss its findings with the ACRS.

CONTACT: Ronald C. Emrit, RES:DSARE;ARREB  
(301) 415-6447

**GSI-191, Assessment of Debris Accumulation on PWR Sump Performance:** Industry guidance for plant-specific analyses was submitted in May 2004, and responses to the Office of Nuclear Reactor Regulation (NRR) requests for additional information were received in June 2004.

**GSI-193, Boiling-Water Reactor (BWR) Emergency Core Cooling System (ECCS) Suction Concerns:** The action plan for the technical assessment of this issue was approved in May 2004, and RES has begun investigating the key issues that were conservatively treated in the initial screening (e.g., air entrainment in the suppression pool and pump failure probabilities).

**Generic Issue (GI) 196, Boral Degradation:** This issue addresses a concern regarding degradation mechanisms that could impair the effectiveness of Boral as a neutron absorber in spent fuel casks. RES completed a draft analysis of the issue in May for use by the screening panel in July 2004. The initial screening of the issue is scheduled to be completed in August 2004.

At the end of the reporting period, nine reactor GSIs remained to be resolved, including four GSIs that were transferred from RES to NRR for regulation and guidance development (see Table 1). One GI remained to be screened (see Table 9).

#### NON-REACTOR GSIs

**NMSS-7, Criticality Benchmarks Greater than 5% Enrichment:** In June 2004, the staff was provided with, and trained on, sensitivity/uncertainty computer codes available in the SCALE 5.0 modular code system. The acceptability of new methods is scheduled to be communicated to licensees in December 2004.

**NMSS-14, Surety Estimates for Groundwater Restoration at In Situ Leach Facilities:** U.S. Geological Survey (USGS) is currently revising its draft report "Consideration of Geochemical Issues in Groundwater Restoration at Uranium In Situ Leach Mining Facilities," to incorporate additional information provided by the industry; the staff anticipates that USGS will complete its revised draft in July 2004.

At the end of the reporting period, three non-reactor GSIs remained to be resolved (see Table 14).

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

Attachment: GIMCS Report, July 2004

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Attachment: GIMCS Report, July 2004

cc:

J. Strosnider, RES	R. Barrett, NRR	R. Torres, NMSS	L. Reyes, Region II
J. Rosenthal, RES	J. Donoghue, NRR	J. Bell, IRM	J. Caldwell, Region III
M. Mayfield, RES	J. Birmingham, NRR	J. Larkins, ACRS	B. Mallett, Region, IV
F. Cherny, RES	S. Black, NRR	W. Usilton, IRM	S. Duraiswamy, ACRS
S. Schneider, NRR	J. Strosnider, NMSS	J. Dyer, NRR	
B. Sheron, NRR	M. Federline, NMSS	H. Miller, Region I	

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