

October 31, 2005

MEMORANDUM TO: Farouk Eltawila, Director  
Division of Systems Analysis and Regulatory Effectiveness  
Office of Nuclear Regulatory Research

FROM: Jack Rosenthal, Chief */RA/*  
Advanced Reactors and Regulatory Effectiveness Branch  
Division of Systems Analysis and Regulatory Effectiveness  
Office of Nuclear Regulatory Research

SUBJECT: GENERIC ISSUE MANAGEMENT CONTROL SYSTEM (GIMCS)  
REPORT – FOURTH QUARTER FY 2005

The GIMCS Report for the Fourth Quarter of FY 2005 is attached for your information. One new generic issue (GI) was identified for initial screening:

200 Tin Whiskers

The following is a summary of the significant progress that was made in resolving open generic safety issues (GSIs) and other GIs during the reporting period:

#### 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 RES technical assessment of GI-80 was completed in a joint effort by DET and DSARE on August 8, 2005, and sent to the Advisory Committee on Reactor Safeguards (ACRS) on August 11, 2005. RES presented its findings to the ACRS on October 6, 2005, following which, ACRS agreement with the staff's recommendations was sent to the Executive Director for Operations (EDO) on October 18, 2005. Closure of this issue is underway and is expected to be completed in November 2005.

**GSI-156.6.1, Pipe Break Effects on Systems and Components Inside Containment:** DSARE/RES conducted a review of 37 operating plants as part of its selection of some plants for walkdowns. Identification of those plants to be visited by the staff will be made after consultation with NRR.

**GSI-185, Control of Recriticality Following Small-Break LOCAs in PWRs:** This issue was closed by DSARE/RES with no new requirements or guidance, in an RES memorandum to the EDO on September 23, 2005.

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

**GSI-186, Potential Risk and Consequences of Heavy Load Drops in Nuclear Power Plants:** NRR is expected to issue a Regulatory Issue Summary (RIS) in October 2005 to address the concerns of this issue. The RIS is expected to address endorsement of the American Society of Mechanical Engineers (ASME) NOG-1, "Rules for Construction of Overhead and Gantry Cranes."

**GSI-188, Steam Generator Tube Leaks/Ruptures Concurrent With Containment Bypass:** The technical assessment of this issue has been completed by DET/RES and the issue will be closed with no new requirements or guidance. A memorandum to this effect is in concurrence in RES, and is expected to be sent to the EDO in November 2005.

**GSI-189, Susceptibility of Ice Condenser Containments to Early Failure from Hydrogen Combustion During a Severe Accident:** On July 18, 2005, Commissioner Jaczko was briefed by NRR on the regulatory analysis results and safety significance of this issue. NRR met with owners on August 3, 2005, to discuss safety-security interface issues, and plans to issue letters to these owners requesting information on voluntary actions implemented to address the safety concern of the issue.

**GSI-191, Assessment of Debris Accumulation on PWR Sump Performance:** The staff conducted briefings on the status of the issue with Commissioners Jaczko and Lyons, on July 18, 2005, and with the ACRS on September 9, 2005. Information Notice 2005-26, "Results of Chemical Effects Head Loss Tests in a Simulated PWR Sump Pool Environment," was issued on September 16, 2005. NRR will continue to review final licensee responses to Generic Letter 2004-02, "Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized-Water Reactors," and plans to begin coating transport testing at the Naval Surface Warfare Center in October 2005.

**GSI-193, BWR Emergency Core Cooling System (ECCS) Suction Concerns:** A literature search was completed by DET/RES for two specific thermal-hydraulic phenomena: liquid gas jet; and bubble breakup. In September 2005, information on suppression pool experiments was requested from the Technical Research Center of Finland. RES plans to revise its Task Action Plan in November 2005.

**GSI-196, Boral Degradation:** On September 28, 2005, DSARE/RES completed a review of NMSS-supplied literature and other information in its effort to evaluate the effects of boral degradation and their impact on potential inadvertent criticality.

**GI-197, Iodine Spiking Criteria:** DSARE/RES addressed questions raised by panel members during the screening of the issue, and a revised screening evaluation was submitted to the panel in September 2005. Panel agreement on the screening of the issue is expected in November 2005.

**GI-200, Tin Whiskers:** This issue was identified by DET/RES on August 18, 2005, and a schedule for its initial screening will be developed after completion of a review of all information received by DSARE/RES.

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). Four GSIs remained to be screened (see Table 9).

#### NON-REACTOR GSIs

**NMSS-14, Surety Estimates for Groundwater Restoration at In Situ Leach Facilities:** The comment period for Draft NUREG/CR-6870, "Consideration of Geochemical Issues in Groundwater Restoration at Uranium In Situ Leach Mining Facilities," ended on August 31, 2005. RES/DSARE is currently addressing comments received, and the final report is scheduled to be published in May 2006.

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.

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NON-REACTOR GSIs

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cc: w/att.:

J. Rosenthal, RES  
 R. Barrett, RES  
 F. Cherny, RES  
 S. Bahadur, RES  
 J. Starefos, RES  
 J. Birmingham, NRR  
 J. Dyer, NRR  
 J. Bell, IRM  
 W. Usilton, IRM  
Distribution w/o att.  
 DSARE R/F  
 ARREB R/F

S. Schneider, NRR  
 B. Sheron, NRR  
 M. Mayfield, NRR  
 J. Donoghue, NRR  
 J. Strosnider, NMSS  
 M. Federline, NMSS

J. Larkins, ACRS  
 S. Duraiswamy, ACRS  
 S. Collins, Region I  
 W. Travers, Region II  
 J. Caldwell, Region III  
 B. Mallett, Region IV

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DATE	10/28/05		10/28/05		10/28/05		10/31/05	

OFFICE	*SISP Review		*SISP Review	
NAME	REmrit		JRosenthal	
DATE	10/31/05		10/31/05	