January 8, 2012

MEMORANDUM TO: William H. Ruland, Director
Division of Safety Systems
Office of Nuclear Reactor Regulation

Patrick L. Hiland, Director
Division of Engineering
Office of Nuclear Reactor Regulation

FROM: Richard P. Correia, Director ***/RA/***
Division of Risk Analysis
Office of Nuclear Regulatory Research

SUBJECT: GENERIC ISSUE MANAGEMENT CONTROL SYSTEM REPORT (FY 2012, Q1)

Enclosed is the first Generic Issue Management Control System (GIMCS) report in FY 2012. This report is sent to the Division Directors responsible for one or more of the Generic Issues (GIs). The following table summarizes the status of GIs, and the subsequent paragraphs provide a narrative summary of the current status of these GIs. This memorandum and the enclosed GIMCS report cover the period of September 1, 2011 through November 30, 2011.

CONTACT: Mehdi Reisi Fard, RES/DRA
301-251-7490

Status Summary of Active Generic Issues During Q1 of FY 2012						
GI No.	**Title**	**Current Stage**	**Status**	**Planned Closure**	**Months Open**	**Regulatory Impacts**
186	Potential Risk and Consequences of Heavy Load Drops in Nuclear Power Plants	Verification	Active	1/2012	152	NUREG-1774; Standard Review Plan (NUREG-0800), Section 9.1.5
189	Susceptibility of Ice Condenser and Mark III Containments to Early Failure from Hydrogen Combustion During a Severe Accident	Regulatory Office Implementation		4/2012	127	Title 10, Sections 50.34 and 50.44, of the *Code of Federal Regulations* (10 CFR 50.34 and 50.44)
191	Assessment of Debris Accumulation on PWR Sump Performance	Regulatory Office Implementation		To Be Determined	183	Regulatory Guide 1.82, Rev. 3; NUREG-0800; GL 1985-22; Bulletin 2003-01; GL 2004-02
193	BWR ECCS Suction Concerns	Technical Assessment	Active	To Be Determined	115	To Be Determined
199	Implications of Updated Probabilistic Seismic Hazard Estimates in Central and Eastern United States for Existing Plants	Regulatory Office Implementation		To Be Determined	79	IN 2010-018

GI-189, GI-191 and GI-199 have exited the Generic Issues Program. The responsibility for their implementation and verification was transferred to the Office of Nuclear Reactor Regulation (NRR) in accordance with Management Directive 6.4, “Generic Issues Program,” dated November 17, 2009 (Agencywide Documents Access & Management System (ADAMS) Accession No. ML083181192). Their status will continue to be tracked and reported in GIMCS until completion by the program office.

Reactor Generic Issues

GI-186, Implementation and Verification, Potential Risk and Consequences of Heavy Load Drops in Nuclear Power Plants (pages 1 – 3 of the GIMCS report). In July 2008, Nuclear Energy Institute (NEI) submitted final industry-developed guidelines in NEI 08-05 to address reactor vessel head drop consequence analyses and to establish a highly reliable handling system for reactor vessel head lifts. On September 5, 2008, the U.S. Nuclear Regulatory Commission (NRC) staff issued a safety evaluation endorsing these guidelines, with one exception regarding acceptance criteria for the consequence analysis. The staff also issued supplementary inspection guidance for refueling and other outage activities that addresses implementation of the industry initiative on control of heavy loads. This inspection guidance was posted for inspector use and public review on September 18, 2008. The NRC issued Regulatory Issue Summary 2008-28, "Endorsement of Nuclear Energy Institute Guidance for Reactor Vessel Head Heavy Load Lifts," to notify stakeholders of NRC endorsement of the guidelines in NEI 08-05. The NRC staff issued a request for the Advisory Committee on Reactor Safeguards (ACRS) review of a draft closeout memorandum on September 7, 2011. The request and draft closeout memorandum are available under the ADAMS Package Accession No. ML112380189. In a memorandum to the NRC Executive Director for Operations dated October 12, 2011 (ADAMS Accession No. ML11284A132), the Executive Director of the ACRS reported that the ACRS considered the proposed closeout of GI-186 during the 587th meeting of the ACRS held October 6-8, 2011, and that the Committee had no objection to staff issuance of the proposed closeout.

GI-189, Regulatory Office Implementation, Susceptibility of Ice Condenser and Mark III Containments to Early Failure from Hydrogen Combustion during a Severe Accident (pages 4 – 8 of the GIMCS report). The NRC staff has reviewed industry proposals from licensees affected by GI-189 and has concluded that those proposed modifications will resolve GI-189 and provide benefit for some separate security scenarios which were identified during the course of the GI-189 review. On June 15, 2007, the NRC staff issued letters to affected licensees accepting the commitments to changes that enhance plant capabilities to mitigate the potential for early containment failure from hydrogen combustion. Since that time, licensee implementation and NRC verification inspections performed pursuant to NRC Temporary Instruction (TI) 2515/174, "Hydrogen Igniter Backup Power Verification," have been completed at all 9 affected sites. In November 2010, the staff received a commitment from the Tennessee Valley Authority to implement measures at Watts Bar Unit 2 equivalent to those measures verified to have been implemented at Watts Bar Unit 1. Final closeout was extended to address the technical issue in the licensing review for Watts Bar Unit 2, and to assess the impact of the reactor events in Japan. Final closeout is planned for April 2012.

GI-191, Regulatory Office Implementation, Assessment of Debris Accumulation on Pressurized Water Reactor (PWR) Sump Performance (pages 9 – 14 of the GIMCS report). This generic issue concerns the possibility that, following a loss of coolant accident in a PWR, debris accumulating on the emergency core cooling system sump screen may result in clogging and restrict water flow to the pumps. As a result of this generic issue and the related generic letter (GL 2004-02), all PWR licensees increased the size of their containment sump strainers, significantly reducing the risk of strainer clogging. An associated issue, which needs to be resolved to close GI-191, regards the potential for debris to bypass the sump strainers and enter the reactor core. In 2008, the NRC staff determined that additional industry-sponsored testing

was necessary to support resolution of this issue. Some testing was performed, but testing and NRC evaluation are continuing because of NRC staff concerns about the testing results and related assumptions. The Commission issued a Staff Requirements Memorandum (SRM) in December 2010. The Commission determined that it was prudent to allow the nuclear industry to complete testing on in-vessel effects and zone of influence in 2011, and to develop a path forward by mid 2012. The SRM directed the staff to evaluate alternative approaches, including risk-informed approaches, for resolving GSI-191 and to present them to the Commission by mid 2012.

GI-193, Technical Assessment, Boiling Water Reactor (BWR) Emergency Core Cooling System (ECCS) Suction Concerns (pages 15 – 18 of the GIMCS report). This GI involves an evaluation of suppression pool designs, the dynamics of air entrainment in the suppression pool, and the effects of air entrainment on ECCS pump performance. Based upon a staff request, the BWR owners group provided voluntary data regarding the characteristics of LOCA phenomena at the earliest stages of the postulated accidents plus general information about wetwell geometries in relation to ECCS suction strainers. Staff is continuing efforts to estimate the maximum potential void fraction through scale experiments conducted at Purdue University. The experiments should provide clarification as to the potential for bubbles formed during a simulated LOCA blowdown to be transported in the wetwell to the ECCS pump inlets and, consequently, ingested into the ECCS pump impellers. The test plan is available at ADAMS Accession No. ML100750236. Steady state tests began in mid-June 2010 and transient tests were completed by December 2010. The final report was received in March 2011. The staff is in the process of evaluating the test results and developing recommendations for a path forward.

GI-199, Safety/Risk Assessment, Implications of Updated Probabilistic Seismic Hazard Estimates in Central and Eastern United States for Existing Plants (pages 19 – 22 of the GIMCS report). GI-199 was opened to assess the implications of updated seismic data and methods for Central and Eastern U.S. (CEUS) operating plants. For the Safety/Risk Assessment, RES evaluated the effects of new seismic hazard data and methods on U.S. nuclear plants, and collaborated with the Electric Power Research Institute to assure a sound technical approach. The Safety/Risk Assessment Panel recommended in September 2010 that further actions be taken to address GI-199 outside the GI Program. The issue was transferred to NRR for Regulatory Office Implementation. Information Notices were issued to inform stakeholders of the issuance of the GI-199 Safety/Risk Assessment Report. Information Notice IN 2010-18 was issued to nuclear power plants and independent spent fuel storage installations (ISFSI); it stated that the NRC will follow the appropriate regulatory process to request operating plants and ISFSIs to provide specific information relating to their facilities to enable the NRC staff to complete the Regulatory Assessment where candidate backfits are identified and evaluated. Information Notice IN 2010-19 was issued to fuel cycle facilities. NRR developed a draft Generic Letter to request needed data from power reactor licensees. The request was originally intended only for power reactor licensees in the CEUS but, in light of the recent Japanese earthquake, NRR expanded the scope of the request to include all U.S. power reactor licensees.

As summarized above, five reactor GIs remain to be resolved.

Nonreactor Generic Issues

At the end of the reporting period, no nonreactor GIs remain to be resolved.

The GI Program will continue to track the staff's progress in resolving reactor GIs and is available to support any significant challenges that may arise during their resolution.

Enclosure:
As stated

The GI Program will continue to track the staff's progress in resolving reactor GIs and is available to support any significant challenges that may arise during their resolution.

Enclosure:
As stated

DISTRIBUTION:

EHackett, ACRS	HNourbakhsh, ACRS	MVirgillio, DEDR	MWeber, DEDMRT
MSatorius, FSME	AMcIntosh, FSME	CHaney, NMSS	EDoolittle, NMSS
MJohnson, NRO	CJackson, NRO	JO'Driscoll, NRO	ELeeds, NRR
DDorman, NRR	JDavis, NRR	MCheok, NRR	SBailey, NRR
GCasto, NRR	KManoly, NRR	SRosenberg, NRR	SJones, NRR
BPurnell, NRR	JWiggins, NSIR	LHarris, NSIR	BSheron, RES
BHolian, RES	MCase, RES	KGibson, RES	DCoe, RES
JLane, RES	WDean, RGN-I	VMcCree, RGN-II	CPederson, RGN-III
ECollins, RGN-IV	DRA r/f	EDO r/f	

ADAMS Accession No.: ML120030240

OFFICE	RES/DRA/OEGIB	RES/DRA/OEGIB	RES/DRA
NAME	M. Reisi Fard	B. Beasley	R. Correia
DATE	1/3/12	1/3/12	1/8/12

OFFICIAL RECORD COPY