POLICY ISSUE
INFORMATION

July 20, 2006 SECY-06-0161

FOR: The Commissioners

FROM: Luis A. Reyes
Executive Director for Operations

SUBJECT: SUMMARY OF ACTIVITIES RELATED TO GENERIC SAFETY ISSUES

PURPOSE:

To present the annual summary of activities related to generic safety issues (GSIs), and to provide an update on the staff's plan for renewed attention to the generic issues program.

BACKGROUND:

In a staff requirements memorandum (SRM) dated May 8, 1998, in response to SECY-98-030, "Implementation of [Direction-Setting Issue] DSI-22 Research," the Commission directed the staff to provide an annual summary of activities related to open reactor and non-reactor GSIs. In the August 31, 2005, SRM issued in response to SECY-05-0126, the Commission directed the staff to (1) reformat the annual report to include additional information and (2) develop a plan to focus renewed attention to the generic issues program that will resolve the older GSIs still on the books and ensure that future GSIs are resolved in a timely manner.

DISCUSSION:

History

The NRC generic issues program was developed to comply with Section 210 of the Energy Reorganization Act, which was passed by Congress in December 1977. After issuance of a Policy Statement on the program for resolving GSIs in January 1978, the Commission approved, in December 1983, the first quantitative approach to developing a priority listing of

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the open GSIs. This approach was published with the GSI evaluations in NUREG-0933, “A Prioritization of Generic Safety Issues.” After 10 years of use, the methodology for determining the priority of GSIs was modified by the staff and approved by the Commission in July 1993. As part of the implementation of DSI-22, the staff developed Management Directive (MD) 6.4, “Generic Issues Program,” to more clearly define each office’s responsibilities for resolving GSIs. Issued in December 2001, MD 6.4 delineated the NRC program for addressing reactor and non-reactor GSIs and described the seven stages of GSI resolution: (1) identification, (2) initial screening, (3) technical assessment, (4) regulation and guidance development, (5) regulation and guidance issuance, (6) implementation, and (7) verification. In July 2005, the staff issued Revision 1 to MD 6.4 to simplify GSI identification methods and to add closure as the eighth stage.

Current Process

GSIs identified after March 1999 have been processed in accordance with MD 6.4. Candidate GSIs may be identified by organizations or individuals either within or external to NRC. Generally, safety concerns associated with operating events, research results, or risk assessments form the basis for the identification of GSIs by the NRC staff, the Advisory Committee on Reactor Safeguards (ACRS), the nuclear industry, or the public. After a GSI is identified (Stage 1), the staff conducts an initial screening evaluation to determine whether the GSI requires a technical assessment, should be excluded from further analysis, or should be sent to the appropriate NRC program office for review (Stage 2). During this stage, GSIs are also evaluated for compliance with existing regulations. In its technical assessment, the staff determines whether the GSI involves adequate protection, safety enhancement, or burden reduction (Stage 3). If the GSI requires further pursuit, the staff uses its technical assessment findings as the basis for developing or revising agency rules, guidance, and programs (Stage 4). In the next three stages, NRC issues new or revised regulations or guidance (Stage 5), which are then implemented by licensees and/or certificate holders (Stage 6) and verified by NRC (Stage 7). However, if a GSI results in a commitment by a licensee, long term verification of implementation could be accomplished through the NRR Project Manager (PM) audits conducted in accordance with guidance associated with NRR Office Instruction LIC-105, "Managing Regulatory Commitments Made by Licensees to the NRC." In accordance with LIC-105, every three years, PMs are required to audit the licensee's commitment management program by addressing the adequacy of the licensee's implementation of a sample of commitments made to the NRC. In the final stage, the staff closes the GSI, and no further resources are expended (Stage 8).

The Office of Nuclear Regulatory Research (RES) is responsible for cataloging and screening all new GSIs associated with nuclear reactor power plants, and performing the technical assessments of those GSIs that require further pursuit after screening. The Office of Nuclear Reactor Regulation (NRR) is responsible for developing and issuing regulations or guidance that may be recommended in the technical assessments, and subsequently verifying the implementation of the resultant regulation or guidance by licensees and/or certificate holders. NRR also conducts a justification for continued operation evaluation for each newly identified GSI to determine whether plants should continue operating while the issue is being processed in accordance with MD 6.4. The Office of Nuclear Material Safety and Safeguards (NMSS) is responsible for managing all stages of the MD 6.4 process for non-reactor GSIs.

Plan for Renewed Attention

In response to the SRM issued on SECY-05-0126, the staff submitted its renewed attention plan to the Commission on March 29, 2006. The staff identified a two-phased approach to improve the timeliness in resolving existing GSIs (Phase I), and its intention to perform a more comprehensive and fundamental reevaluation of the generic issues program (Phase II). Phase I accomplishments to date include: (1) assignment of appropriate priorities, budgets, and technical resources for resolution; (2) expansion of the Generic Issue Management Control System (GIMCS) to provide more useful information for managing resolution; (3) issuance of Revision 1 to MD 6.4 to enhance oversight of the program; (4) inclusion of GSI milestones in the operating plans of the affected offices; and (5) reorganizations in NRR and RES that are intended to produce better coordination of the work associated with the program.

Phase II was initiated with a meeting on May 10, 2006, with representatives from RES, NRR, and the Office of Nuclear Security and Incident Response (NSIR), and included discussion of potentially significant changes in the program related to its objectives, timeliness expectations, roles and responsibilities of the participating offices, public participation, communications, the relationship to rulemaking and generic communications, and safety issues outside the GSI program. Future meetings are being planned with the intention to develop a Commission Paper on proposals for significant program changes to be prepared by January 2007. The proposed changes will be designed to ensure the right issues are placed into the GSI program, significantly reduce the time it takes to resolve a GSI, and potentially save resources.

Tracking

Tracking the status of all GSIs is accomplished with GIMCS, which was developed as an integral part of the generic issues program approved by the Commission in 1983. The staff modified the GIMCS in 1985 to address the General Accounting Office (GAO) recommendations in GAO/RCED 84-149, “Management Weaknesses Affect Nuclear Regulatory Commission Efforts to Address Safety Issues Common to Nuclear Power Plants,” issued on September 19, 1984. In 1996, the staff expanded GIMCS to track the status of all (reactor and non-reactor) GSIs agencywide, as directed by the Commission in SRM 951219A. RES is responsible for the maintenance of GIMCS.

In response to the Commission directive on August 31, 2005, the enclosed GIMCS report has been expanded further to include the additional information requested. In addition to other information, the GIMCS summary for each open GSI includes the date the issue was opened, a brief description of the issue, the current status, potential problems, reasons for schedule changes, resources expended, technical contacts, and a table of milestones and completion dates for each of the eight stages described in MD 6.4.

Reporting

In addition to this annual report to the Commission, the GIMCS report is issued quarterly and placed in the Public Document Room for use by the industry and the public. From December 1998 to December 2005, the staff prepared monthly reports on significant accomplishments in resolving open reactor GSIs for Commission use in its monthly status report to the U.S. Senate Committee on Environment and Public Works on NRC’s licensing activities and regulatory duties. Beginning in January 2006, the reporting frequency to

Congress was changed from monthly to quarterly. RES is responsible for preparing all reports on the status of open GSIs.

Documentation

The screening analyses and disposition of all GSIs are documented in NUREG-0933, and the staff has made it available to the public on the NRC Web page. Since the initial publication of NUREG-0933 in December 1983, the staff has issued 29 supplements, including Supplement 29 which was published in November 2005. RES is responsible for the compilation and publication of all supplements to NUREG-0933.

Status of Open Generic Issues

Since the staff issued its previous report to the Commission (SECY-05-0126) on July 15, 2005, the staff has identified one new reactor GSI, screened and closed one reactor GSI, and completed the technical assessments and closed three reactor GSIs. As a result, the staff reduced the total number of open reactor and non-reactor GSIs from 16 to 13.

Reactor Generic Issues

During the reporting period, the staff of the Division of Engineering Technology in RES identified one new issue for initial screening, GSI-200, “Tin Whiskers.” On August 25, 2005, the staff issued NRC Information Notice 2005-25, “Inadvertent Reactor Trip and Partial Safety Injection Actuation Due to Tin Whisker.” In addition, the staff completed the initial screening of GSI-197, “Iodine Spiking Phenomena,” which was dropped from further pursuit. The staff closed the following three issues after completing the technical assessments: GSI-80, “Pipe Break Effects on Control Rod Drive (CRD) Hydraulic Lines in the Drywells of BWR MARK I and II Containments”; GSI-185, “Control of Recriticality Following Small-Break LOCAs in Pressurized-Water Reactors (PWRs)”; and GSI-188, “Steam Generator Tube Leaks/Ruptures Concurrent with Containment Bypass.” Thus, the staff reduced the total number of open reactor GSIs from 13 to 10 since July 15, 2005.

Over the past several years, the number of new GSIs identified has decreased to an average of approximately two per year, and the staff has closed 840 of the 850 reactor GSIs (98.8%) identified since the inception of the generic issues program in 1976. The enclosure to this paper contains the status of the 10 open reactor GSIs that are in various stages of the generic issues program.

Non-Reactor Generic Issues

The staff has not identified nor closed any non-reactor GSIs during the reporting period. The enclosure to this paper also describes the status of the three non-reactor GSIs that remain open.

COMMITMENT:

Recommendations associated with changes to the generic issues program will be presented to the Commission for consideration. The staff continues to implement the MD 6.4 process for identifying and resolving reactor and non-reactor GSIs and will provide annual updates to the Commission on activities related to the issues. NMSS expects to close two GSIs in 2006, and one GSI in 2007. The Commission will be kept informed of any significant developments in the implementation of the plan to focus renewed attention on the generic issues program.

RESOURCE:

The resource needs for this project are $3,516K and 5.4 FTE in FY 2006, $1,600K and 6.0 FTE in FY 2007, and $2,050K and 5.7 FTE in FY 2008. The resources are budgeted in FY 2006 and FY 2007, and have been requested for FY 2008. There is no impact on budgeted resources.

COORDINATION:

The Office of the General Counsel has reviewed this package and has no legal objection.
The Office of the Chief Financial Officer has reviewed this package and has no objection.

/RA/

Luis A. Reyes
Executive Director
for Operations

Enclosure: Generic Issue Management
Control System dated June 30, 2006

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