POLICY ISSUE
INFORMATION

July 30, 2013 SECY-13-0081

FOR: The Commissioners

FROM: Brian W. Sheron, Director
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SUBJECT: SUMMARY OF ACTIVITIES RELATED TO GENERIC ISSUES PROGRAM

PURPOSE

The purpose of this paper is to inform the Commission on Generic Issues (GIs) Program activities, including both the status of open generic issues and program improvements the U.S. Nuclear Regulatory Commission (NRC) staff is developing. This paper does not contain any new commitments.

BACKGROUND

Since 1983, the staff of the NRC has provided the Commission with an annual update of the GIs Program activities. Management Directive (MD) 6.4, "Generic Issues Program," dated November 17, 2009, delineates the NRC's program for addressing GIs. A GI is a regulatory issue that meets all seven of the following criteria:

- potentially affects public health and safety
- applies to two or more facilities
- is not readily addressable through other established regulatory processes
- can be resolved by new or revised regulation, policy, or guidance
- risk or safety significance can be adequately determined or estimated
- is well-defined, discrete, and technical
- may involve review, analysis, or action by the licensee

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THIS SECY PAPER, WITH THE EXCEPTION OF THE ENCLOSURE, WILL BE RELEASED TO THE PUBLIC IN 10 WORKING DAYS

Proposed GIs include questions regarding safety or security that are not being addressed elsewhere at the NRC and often involve difficulty in assessing their safety or risk significance. Broadly, the GI Program assists in developing a clearer understanding of each potential GI and works to generate consensus on a regulatory solution for each issue determined to satisfy the above criteria. Proposed Generic issues can be identified both by the NRC staff or members of the public.

Proposed issues are currently assessed and GIs are currently resolved through the following five stages:

Stage 1-Identification begins when an individual or organization identifies a potential GI.

Stage 2–The acceptance review is a limited screening assessment of the proposed GI against the seven criteria listed above to determine if it meets all of the criteria.

Stage 3–The screening analysis uses a multi-office panel and readily available information to confirm that the issue meets the GI criteria and to recommend a course of action.

Stage 4–The safety/risk assessment evaluates the significance of the GI and recommends regulatory actions.

Stage 5–The regulatory assessment is the final stage, during which potential regulatory changes are evaluated and, if appropriate, imposed on licensees.

The following sections discuss the closure of one GI, the status of the four open GIs, and the planned program changes to more effectively resolve GIs and communicate to stakeholders the status of GIs and the GI process.

DISCUSSION

Status of GIs

Three proposed GI's are currently being assessed. No new potential issues have been proposed since the last report to the Commission in SECY-12-0105, "Summary of Activities Related to the Generic Issues Program." As described below, one reactor GI has been closed since the last report, one reactor GI remains open in the safety/risk assessment stage, and three reactor GIs are open in the regulatory assessment stage. There are no open nonreactor GIs.

Recently Closed GIs

- GI-189, "Susceptibility of Ice Condenser and Mark III Containments to Early Failure from Hydrogen Combustion during a Severe Accident." On January 31, 2013, the staff transmitted a technical report supporting closure of GI-189 to the Advisory Committee on Reactor Safeguards (ACRS) for review (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13008A361). ACRS endorsed the technical report on March 11, 2013. In a memorandum to the NRC Executive Director for Operations, dated June 12, 2013 (ADAMS Accession No. ML13113A442), the Director of the Office of Nuclear Reactor Regulation (NRR)

reported that GI-189 was closed.

GIs in Safety/Risk Assessment

- GI-193, "BWR ECCS Suction Concerns." The activities to resolve this GI involve an evaluation of the dynamics of gas bubbles in a boiling-water reactor Mark I suppression pool and the impact on emergency core cooling system pump performance. Estimated completion of the safety/risk assessment stage is summer 2014.

GIs in Regulatory Office Implementation

- GI-191, "Assessment of Debris Accumulation on PWR Sump Performance." The staff provided the Commission a notation vote paper, SECY-12-0093, "Closure Options for Generic Safety Issue-191, Assessment of Debris Accumulation on Pressurized-Water Reactor Sump Performance," in July 2012 (ADAMS Accession No. ML121310648), with options for the path forward to resolve GI-191. The Commission endorsed the staff's proposed options for resolving GI-191 in a staff requirement memorandum dated December 14, 2012 (ADAMS Accession No. ML12349A378). The estimated completion date for implementing and verifying plant changes is late 2018.

- GI-199, "Implications of Updated Probabilistic Seismic Hazard Estimates in Central and Eastern U.S. on Existing Plants." Resolution is being pursued through implementation of the NRC's Japan Near-Term Task Force (NTTF) Recommendations 2.1 and 2.3. Estimated completion of the NTTF activities is late 2019.

- GI-204, "Flooding of Nuclear Power Plant Sites following Upstream Dam Failure." Resolution is being pursued through the implementation of NTTF Recommendations 2.1 and 2.3. Estimated completion of the NTTF activities on flooding is late 2019.

More information on active and recently closed GIs appears in the generic issue management control system (GIMCS) report. The GIMCS report is updated each quarter to track and report the status of active GIs. The GIMCS report and periodic status report on proposed GIs are available at the NRC public Web site on the GI Program Web page, http://www.internal.nrc.gov/RES/projects/GIP/index.html.

Improvement Efforts

As mentioned in SECY-12-0105, the Directors of the Office of Nuclear Reactor Regulation (NRR) and the Office of Nuclear Regulatory Research (RES) chartered an initiative to identify and propose further refinements to the agency processes and procedures for GIs, such as Management Directive 6.4. The initiative used a business process improvement (BPI) approach and included representatives from the Offices of Nuclear Regulatory Research, Nuclear Reactor Regulation, New Reactors, Federal and State Materials and Environmental Management Programs, Nuclear Material Safety and Safeguards, Nuclear Security and

Incident Response, and Region 1. The staff has completed the activities associated with this initiative and revisions to Management Directive 6.4 and the RES Office Instruction TEC-002, "Procedures for Processing Generic Issues," are underway to incorporate the process improvement changes described below.

Results of Business Process Improvement Evaluation

Overall, the BPI evaluation found that the GI Program is effective in addressing proposed and approved GIs and in communicating their status. Enhancements were identified in the areas of communicating timeliness expectations, showing progress on issues, and requiring better documentation of the safety justification that facilities are acceptably safe while the GI Program works on the issue. The objective of these enhancements is to improve stakeholder acceptance and understanding of the program.

A stakeholder criticism of the GI Program is that they believe it takes too long to resolve issues. When the agency identifies a clear and urgent safety issue, immediate actions are taken by the regulatory offices (e.g., Orders). GIs, however, involve matters that are complex and that usually have an unclear safety nexus in the early stages of the process. In general, the GI Program furthers the understanding of proposed issues, including building a consensus for a regulatory solution, if needed. Assuming a regulatory solution is needed, the GI Program then transfers the issue to the appropriate regulatory office for action. The regulatory office uses existing agency programs and processes to address the generic issues. These processes (e.g., rulemaking, generic communications, oversight activities) all ensure appropriate technical, stakeholder, legal, and management involvement. These existing processes often involve extensive deliberation and public engagement, which can be lengthy. If a new regulatory requirement or position is issued, licensees may be required to evaluate the issue for their site; design, procure, and install plant modifications (installation often can only occur during plant outages); and then the NRC staff must verify the acceptable resolution at every affected facility before a GI is closed.

The following program enhancements are intended to improve the GI process timeliness for resolving issues. The NRC will issue formally tracked assignments, monitored by the responsible office, to establish GI milestones, track their progress, and improve accountability. The office directors of RES and the regulatory implementation offices will periodically meet to review GI progress, set direction, and address any impediments to progress. Additionally, the NRC will establish a transition team to ensure effective coordination, communication, and collaboration with the receiving office when an issue is ready to move to regulatory office implementation. This is intended to ensure the receiving office is fully informed of the detailed technical aspects of the issue and that GI staff and program office staff are working effectively and efficiently to develop the planned approach to address the issue.

Other program enhancements are intended to improve GI communications. The program will require better documentation of the justification that facilities are acceptably safe to operate while the issue is worked by the GI Program. This safety justification will be communicated more directly in documents (e.g., periodic reports, screening analyses, and communication plans). Also, GI Program status reporting and communication tools, such as

periodic reports and Web pages, will be enhanced to better show interim milestones and progress. In particular, the staff is developing dashboards that will visually show progress. For example, for an issue in regulatory office implementation, the dashboard will be able to show how many plants have installed a modification, how many plants have been inspected, and how many plants are fully completed. The dashboard will also have the ability for the user to get detailed implementation status at each plant.

As part of the program enhancement, the GI process will be simplified by reducing the number of stages from five to three. The three stages will be screening, assessment, and regulatory office implementation. A related change is that an issue will be declared a GI after the assessment stage, rather than after the screening stage, so that issues will only receive the GI designation when their safety or risk significance has been established and the NRC has consensus on the need for agency action. Other changes include clarification of the GI Criterion 3 and better documentation of the transfer or referral of non-GIs to other programs. Criterion 3 will be changed from "issue cannot be readily addressed through other regulatory programs…" to the "issue is not being addressed by other regulatory programs..." This change will eliminate the current ambiguity and give the program greater flexibility in considering potential generic issues.

Scope expansion can sometimes occur as a GI is assessed and the NRC gains better understanding of the associated phenomena and risk insights. To better define the scope of issues, changes will be made to program guidance. The staff will more broadly consider any related implications of the issue at the screening stage. Issue scope will be defined in detail during the screening process, and it may be more efficient to treat subsequently identified scope expansion issues as separate GIs.

Criteria will be added to help identify and address any scope expansion that occurs while an issue is being addressed. Possible indicators of scope expansion include any new information that suggests that the issue could:

- cause an effect on a different type of facility
- cause a different effect on the same facility, or if the issue causes a different plant response
- result from a different source than initially understood
- substantially extend the time required to resolve the original generic issue
- require lengthy research or additional information from licensees
- make use of a second generic communication tool necessary
- require that different technical experts are used

When the NRC identifies scope expansion, the staff will determine whether the subsidiary issue should be handled as a separate issue or included in the existing issue with clear communication to all stakeholders explaining the issue and path forward.

Improvements to Production and Release of NUREG-0933

Implementation and publication of a user-friendly, Web-based, accessible, and searchable version of NUREG-0933, "Resolution of Generic Safety Issues," will begin this fiscal year. NUREG-0933 contains all the documentation of historical GIs since the program's inception. The new Web publication will replace the paper version as the official agency record.

The original paper version of NUREG-0933 was a living document that was supplemented 34 times since 1983. The supplement process was cumbersome and resource-intensive. Each supplement included revised pages and instructions for replacing the updated pages. Since the supplements are each separate records in ADAMS, it has been a challenge to obtain a complete copy of the NUREG. Similarly, since the current Web version is composed of a separate file for each issue, table, and reference, it has been difficult to search the NUREG.

Publication of the new version of NUREG-0933 will resolve these problems. As examples, the Web-based publication will enable full text searches of the full NUREG, filtering by technical area, filtering by facility type, and other enhancements that will make NUREG-0933 a user-friendly source of information on historical issues.

In addition, conducting the publication process electronically will substantially improve the workflow of producing the NUREG-0933 supplements. Updating issues, sending out updates for management concurrence, technical editing, and publication to the Web will all be accomplished electronically. Such workflow process tools may be useful for publication of other regulatory documents that are periodically updated now that the infrastructure has been established for NUREG-0933.

RESOURCES

The enclosure contains the staff's estimated resources needed for Generic Issues Program activities.

COORDINATION

The Office of the General Counsel has reviewed this SECY paper and has no legal objection. The Chief Financial Officer reviewed this package and determined that it has no financial impact.

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Enclosure:
Resources for the Generic
Issues Program