May 5, 2000

MEMORANDUM TO: William D. McDowell, Acting
Assistant Inspector General for Audits

FROM: Frank J. Miraglia Jr. ***/RA by Carl Paperiello Acting For/***
Deputy Executive Director
for Regulatory Programs

SUBJECT: STATUS OF STAFF ACTIONS TAKEN PURSUANT TO THE OFFICE OF INSPECTOR GENERAL REPORT 99A-03 REGARDING SENIOR REACTOR ANALYSTS (WITS 199900056)

The Office of the Inspector General (OIG) Report 99A-03, dated May 26, 1999, forwarded the results of the Audit entitled "The Senior Reactor Analysts (SRA) Program Could Provide More Benefits". On May 17, 1999, the staff responded to the draft audit report recommendations and the final audit report was issued on May 26, 1999. This memorandum reports our actions to address your recommendations:

Recommendation 1

Revisit the goals and objectives for the SRA program to ensure they are properly updated and integrated into NRR's implementation of risk-informed, performance-based regulatory approaches.

Status

Over the past year and a half, the staff undertook a complete review of the goals and objectives for the reactor inspection, assessment, and enforcement programs. Based on this review, the staff developed and implemented extensive changes to these programs. These changes are aimed directly at making these programs more risk-informed and performance-based, and thereby more effective and efficient. They constitute the most significant steps ever taken to institutionalize risk-informed and performance-based regulatory oversight practices at the NRC. The new emphasis is on objectively evaluating the change in risk caused by a licensee performance problem. All NRC risk analysts, including the SRAs, have an important role in the revised oversight process. Since the SRAs work most closely with the inspectors, they are primarily called upon to help plan inspections, evaluate findings, assess licensee performance, and perform initial risk evaluations of reactor operating events. The SRAs will be assisted by headquarters risk analysts in providing detailed analyses of findings that appear to have potential for risk significance and for findings that may require specialized risk expertise, such as fire protection and shutdown safety.

We have formally incorporated SRA task objectives into the revised reactor oversight process guidance in NRC Inspection Manual Chapter 0609, Significance Determination Process (SDP), Supplement 4, recently issued by memorandum (see attachment). In addition, NRC response to events and incidents is being revised in Management Directive 8.3, "Incident Investigation Program," to include a risk evaluation that

assists in determining the appropriate level of NRC response. The SRAs will use these guidelines and work with resident inspectors and other agency risk analysts to provide valuable input to NRC management concerning the risk associated with reactor operating events. In general, the SRAs play an integral role with many other agency employees in achieving the objectives of the new reactor oversight programs. Based on the substantial changes made to risk-inform the reactor oversight program and the documentation of SRA and risk analyst roles in program guidance, we consider this item completed.

Recommendation 2

Provide better program focus and guidance to ensure that the best SRA practices are identified and used consistently.

Status

The reactor safety Significance Determination Process (SDP) is a simplified, risk-principled thought process using a probabilistic framework. The reactor oversight process has been designed using this framework as one of its principal elements, and is described in SECY-99-007, SECY-99-007A, and SECY-00-0049. Therefore, the risk-principled thinking that was once the sole purview of SRAs and other risk analysts has been made an integral part of our reactor oversight program. We believe this framework and the related program implementation guidance will substantially improve the risk focus of the reactor oversight process and will exploit the benefits of risk analysis practices in the process to a greater extent than previously attained. The regional and headquarters SRAs, as well as many other agency risk analysts, provided valuable input in the development of this SDP.

We continue to hold SRA counterpart meetings, the last of which was in November 1999. These meetings provide a forum for SRAs and other NRC risk analysts to share ideas and experiences, and to collaborate on improvements to policy, procedures, and guidance. One of the outcomes from the last SRA counterpart meeting was achieving consensus on a “best-practice” format for documenting risk analyses related to SDP determinations. This format is now specified in NRC Inspection Manual Chapter 0609, Appendix A, paragraph A.1.06 (see attachment), for risk analyses performed by SRAs or other risk analysts. Our initial implementation of the new reactor oversight process includes continuous feedback from all agency staff, licensee, and other public stakeholders, and we expect to continue incorporating improvements and best-practices into our guidance as the process matures. Based on the initial incorporation of SRA input into program guidance and the ongoing improvement process from feedback during initial implementation of the new reactor oversight programs, we consider this item completed.

In summary, the revised reactor oversight process represents a significant change in our use of risk information in the inspection and assessment programs. The SRAs experience and risk expertise were highly beneficial throughout the development of the changes to the inspection, assessment, and enforcement programs comprising this process. Their input has been incorporated into program procedures and guidance, most notably those associated with the SDP. This has resulted in standardized policies and an approach for processing risk

significance determinations. The increased focus on risk will require all NRC employees involved with the reactor oversight programs to better understand both the value and the limitations of risk analysis. All agency risk analysts will continue to play key roles in moving forward with risk-informed and performance-based regulation. As such, the staff has also initiated steps to assure that future agency training programs continue to support these needs.

Attachment: IMC 0609, Significance Determination Process

cc: H. Miller, RI
wo atts L. Reyes, RII
J. Dyer, RIII
E. Merschoff, RIV

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