INSPECTION MANUAL CHAPTER 0609 ATTACHMENT 3

SENIOR REACTOR ANALYST AND RISK ANALYST SUPPORT EXPECTATIONS

Effective Date: 11/19/2026

0609.03-01 PURPOSE

The NRC Senior Reactor Analysts (SRAs) and risk analysts perform critical roles in the implementation of the Reactor Oversight Process (ROP), which includes risk-informed components such as risk-informed inspection planning, the significance determination process (SDP), and incident investigation program, and in advocating for and advancing risk-informed decision-making (RIDM) throughout the agency. The purpose of this guidance is to provide a high-level framework that describes the roles and responsibilities of the SRA and headquarters (HQ) risk analyst positions as they relate to the ROP and RIDM. The information contained in this Inspection Manual Chapter (IMC) is guidance aimed at promoting a common understanding of the responsibilities of these positions and consistency across the NRC regions and headquarters.

0609.03-02 GUIDANCE

The SRAs are trained to help achieve specific expectations and tasks in support of the ROP and RIDM. These tasks are important in helping NRC management gain risk-insights for decision-making and for communicating with internal and external stakeholders. Additionally, by the nature of their position, SRAs are operating reactor oversight experts and should strive to improve the focus and practices of agency oversight activities to make them more effective by ensuring they are more safety focused and risk informed. To successfully achieve these tasks, all SRA's are expected to support the following:

- Agencywide Resource to Advance RIDM: Support agencywide initiatives to advance RIDM, including the Be riskSMART initiative.

- Risk-informed Regulation Activities: Support implementation of NRC's risk-informed regulatory activities to successfully accomplish the agency's mission. The SRAs are expected to participate in and/or provide leadership on task forces or small working groups for risk-informed activities. The SRAs are a resource and point of contact for all risk-related topics in the ROP. The SRA efforts would be focused on risk-informed activities associated with improvements to the ROP.

- ROP Implementation: Support reactor inspection staff by providing risk-insights to inspection sample selection and assisting as needed with evaluating issues of concern via the issue screening process. Evaluate the safety significance of 1) plant events in support of reactive inspection decision-making as part of the incident investigation program, 2) inspection findings in support of the SDP, 3) Notice of Enforcement Discretion (NOED) requests, and 4) any other technical issue that could benefit from risk-informed decision-making, using quantitative and qualitative assessment techniques and applicable guidance documents. Based on the safety significance evaluations and insights, provide timely recommendations

to NRC management, including expectations on resources (i.e., time and level-of-effort), to support effective risk-informed decisions. Perform peer reviews of risk analyses and evaluations completed by other risk analysts and SRAs. Provide insights during end-of-cycle assessment meetings.

- Risk Communication: Provide effective communication regarding risk-informed applications with internal and external stakeholders through interactions with other agency probabilistic risk assessment (PRA) groups, licensees, reactor vendors, other Federal agencies, National Laboratories, international organizations, and other stakeholders.

- Train Technical Staff and Management in Risk-informed Applications: Support the qualification and training of reactor inspectors, particularly in the SDP and risk-informed inspection sample selection. Provide periodic refresher training (and initial training) to regional management (i.e., regional SERP members) and other technical staff as necessary to ensure a common understanding of risk-informed techniques and applications (e.g., uncertainty, SDP, MD 8.3, NOED, PRA techniques) in support of risk-informed decision-making. Provide support to SRA candidates during their qualification and training and provide mentorship throughout the process.

- Support Revisions to ROP and SDP-related Guidance: Participate and attend, as often as possible, SDP-related meetings (e.g., monthly SRA phone call between HQ and the regional offices, SRA counterpart meetings, ROP monthly public meetings). Review and provide comments on revisions to IMC 0609, its associated attachments and appendices, and other ROP-related IMCs and inspection procedures (IPs). Contribute to efforts to review and revise the Risk Assessment Standardization Project of Operational Events (RASP) Handbook.

- Awareness of PRA State-of-the-Art: Maintain awareness of risk assessment capabilities, licensee-generated risk insights, and NRC-generated risk insights. Maintain a general awareness of overall industry risk insights and integrate these risk perspectives with other regulatory concepts (e.g., defense-in-depth, licensing basis, performance history), to provide recommendations to NRC management for inspection effort focus. Continue professional development in the PRA field through training and education opportunities. Maintain exposure to evolving PRA best practices and techniques through attendance and participation in PRA-related conferences.

- Maintain SRA Qualifications: Maintain inspector and SRA certifications in accordance with the guidance in IMC 1245, Appendix C9, “Senior Reactor Analyst Training and Qualification Program,” or any other SRA qualification program that supersedes or is equivalent to IMC 1245, Appendix C9.

- Licensee Communications: Interactions between SRAs and licensee personnel can significantly influence how licensees allocate resources, manage internal communications, and perceive the NRC’s line of inquiry, particularly when issues in question are related to escalated enforcement or increased oversight. To help ensure that licensees retain appropriate control over their risk analyst resources and maintain clear internal communication channels, SRAs should explicitly describe the reason for the communication when contacting licensee staff.

  It is generally expected that minimal coordination and effort with licensees (e.g., less than a few hours) will be needed for inspection issue evaluations prior to an Inspection Finding

Review Board (IFRB). Prior to an IFRB, SRAs should use their experience and judgment to ensure any early communication with the licensee enhances efficient resolution of an inspection issue. It is recognized that licensees may initiate communications at this stage and the SRAs are free to support such interaction. After the IFRB has approved the performance deficiency and CNRI leadership has communicated the decision to licensee leadership in accordance with IMC 0609, Attachment 5, more detailed engagement will likely be needed and may commence. In these cases, the SRA should inform the licensee that the inquiry supports a detailed risk evaluation with enough detail such that the licensee understands the NRC's assumed performance deficiency, the initial assessment about exposure time, and any other influential factors that drove the IFRB to approve work by the SRA.

For inquiries unrelated to a DRE (e.g., Management Directive (MD) 8.3 evaluations, general inspection questions, or inspector requests for assistance), the SRA should clearly state the specific purpose of the communication so the licensee understands the context and does not infer that the outreach relates to a potential greater than green inspection issue. For MD 8.3 evaluations specifically, the SRA should explain that the inquiry supports CNRI management's decision-making process to determine whether a reactive inspection is warranted.

- Timeliness of SRA Work Products: SRA work products directly support key agency decisions; therefore, their timeliness has a significant impact on the quality and effectiveness of those decisions. Delays in SRA risk evaluations, particularly those supporting ROP detailed risk evaluations and MD 8.3 decisions, can hinder timely agency actions and pose both enterprise and reputational risk to the NRC.

  SRAs are expected to complete risk evaluations within organizational timeliness expectations. Absent unusual and compelling circumstances, SRAs shall meet these timeliness expectations to ensure predictable and reliable support to the agency. A particular emphasis is placed on detailed risk evaluations (DREs) for GTG inspection findings and MD 8.3 evaluations:

  - Detailed Risk Evaluations (DREs): SRAs should strive to complete a DRE in time to support an exit meeting by technical staff within 120 days following identification of the event. Timely inspection and performance deficiency development by the inspection branches is a necessary prerequisite to completion of a DRE within 120 days.

  - Final Significance Determinations: SRAs should be prepared to evaluate materials provided in writing or during a regulatory conference in a manner that supports finalizing the risk evaluation within 90 days.

  Meeting these milestones supports completion of final GTG findings within 255 days, consistent with agency timeliness goals.

  SRA work in support of other agency processes, such as NOEDs, the incident investigation program, the accident sequence precursor program, and LIC-504, should be accomplished in a manner that supports timeliness goals and expectations for implementing those processes.

  SRAs are empowered to use all available tools and resources to meet these timeliness expectations. Best practices include early alignment on assumptions and model differences through site visits and leveraging technical counterparts in regional offices and

headquarters. If SRAs have any uncertainty regarding prioritization of their work products, they should consult with the CNRI ET/LT to clarify priorities.

CNRI/DOCP SRAs and risk analysts that support ROP activities are also responsible for these support expectations:

- Risk Communication: Maintain CNRI management awareness of significant PRA and/or SDP issues and changes via periodic communications and meetings with technical staff. Present summaries of detailed risk evaluations performed by regional SRAs ahead of SERPs or Regulatory Conferences.

- ROP Implementation: Provide specific risk assessment assistance to region-based SRAs and inspectors by performing peer reviews of SDP, MD 8.3, and NOED risk analyses and additional support as requested. Maintain awareness of overall implementation of the SDP and whether it meets stated objectives and timeliness goals. Identify and implement process improvements when necessary. Communicate and coordinate with the Office of Research in the development of Accident Sequence Precursor analyses and any resulting actions.

- Train Technical Staff and Management in Risk-informed Applications: Support the qualification and training of risk analysts. Provide periodic refresher training (and initial training) to HQ management (i.e., HQ SERP members), and other technical staff as necessary, to ensure a common understanding of risk-informed techniques and applications (e.g., uncertainty, SDP, MD 8.3, NOED, PRA techniques) in support of risk-informed decision-making. Provide support to regional SRA candidates during their qualification and training process (i.e., HQ rotation).

- Support Revisions to ROP and SDP-related Guidance: Participate and attend, as often as possible, SDP-related meetings (e.g., monthly SRA phone call, SRA counterpart meetings, ROP monthly public meetings). Review and provide comments on revisions to IMC 0609, and its associated attachments and appendices, other ROP-related IMCs and IPs, and the RASP Handbook.

- Awareness of PRA State-of-the-Art: Maintain awareness of risk assessment capabilities, licensee-generated risk insights, and NRC-generated risk insights. For CNRI/DOCP risk analysts, continue professional development in the PRA field through training and education opportunities. Maintain exposure to evolving PRA best practices and techniques through attendance and participation in PRA-related conferences. Ensure that regional-based SRAs are briefed on the latest PRA best practices and techniques.

0609.03-03 REFERENCES

ADM 504, R.2 Qualification Program - Appendix M, "Reliability and Risk Analyst"

IMC 0609, Attachment 1, “Significance and Enforcement Review Panel Process”

IMC 1245, Appendix C9, “Senior Reactor Analyst Training and Qualification Program”

MD 8.3, “NRC Incident Investigation Program”

NRC Enforcement Manual, Appendix F, “Notices of Enforcement Discretion”

END

Attachment 1: Revision History for IMC 0609 Attachment 3

Commitment Tracking Number	Accession Number Issue Date Change Notice	Description of Change	Description of Training Required and Completion Date	Comment Resolution and Closed Feedback Form Accession Number (Pre-Decisional, Non-Public Information)
N/A	ML23318A446 04/21/00 CN 00-007	This manual chapter supports the New Reactor Oversight Program for significant determination of findings. The significance determination process detailed in the manual chapter is designed to characterize the significance of inspection findings for the NRC licensee performance assessment process using risk insights, as appropriate.	N/A	N/A
N/A	ML012430235 08/16/01 CN 01-015	0609.04 has been renamed 0609.03.	N/A	N/A
N/A	ML061590488 07/26/06 CN 06-018	Revision updates the management expectations for Senior Reactor Analyst located in the regional offices and headquarters.	N/A	ML061590493
N/A	ML101400526 06/02/11 CN 11-009	Revision updates references and adds expectation for SRAs to maintain their SRA and inspector certifications by attending required training courses. The SRA is expected to participate in periodic communications and meeting and conduct inspection staff refresher training. Provide comments and improvements to the RASP handbook based on field use and support the RASP User Group, when possible.	N/A	ML103490443
N/A	ML14314A921 04/29/15 CN 15-008	Several significant changes to the guidance were made based on recommendations from the SDP Business Process Improvement (BPI) Report (ML14318A512) and the ROP Independent Assessment (ML14035A571).	N/A	ML15072A323

Commitment Tracking Number	Accession Number Issue Date Change Notice	Description of Change	Description of Training Required and Completion Date	Comment Resolution and Closed Feedback Form Accession Number (Pre-Decisional, Non-Public Information)
N/A	ML20218A888 10/09/20 CN 20-050	Minor revision based on the 5-year periodic update requirement. Better documentation of the peer-review process was considered (consistent with the recommendation in FBF 0609-2179) but was not pursued in this revision pending inclusion of an agreed upon process and/or checklist in another official document, perhaps the RASP Handbook.	N/A	ML20223A028
N/A	ML26161A429 11/19/26 CN 26-053	Periodic 5-year update with edits to support the NRC reorganization and the establishment of the Office of the Chief Nuclear Reactor Inspector.	N/A	ML26163A268