

POLICY ISSUE NOTATION VOTE

June 5, 2011

SECY-11-0073

FOR: The Commissioners

FROM: R. W. Borchardt
Executive Director for Operations

SUBJECT: STAFF PROPOSAL TO REINTEGRATE SECURITY INTO THE
ACTION MATRIX OF THE REACTOR OVERSIGHT PROCESS
ASSESSMENT PROGRAM

PURPOSE:

The purpose of this paper is to obtain Commission approval of a staff proposal to reintegrate security inspection findings and performance indicators (PIs) as inputs to the Action Matrix of the Reactor Oversight Process (ROP) for commercial nuclear power licensees to present an integrated assessment of licensee performance.

SUMMARY:

As a consequence of the terrorist attacks of September 11, 2001, the ROP underwent a number of changes to ensure that individuals could not obtain and use sensitive, security-related information about a nuclear facility's design, operation, and protective capabilities for malevolent purposes. In its efforts to protect security-related information by withholding it from public disclosure, the staff developed and now applies a security assessment process separate from

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the safety cornerstones within the ROP framework. However, the staff recognizes that the application of separate assessment processes has the potential to programmatically constrain its regulatory response. The staff proposes that security assessment inputs (security inspection findings and performance indicators) be reintegrated into one ROP Action Matrix that would include inputs from all seven ROP cornerstones, consistent with the original design of the ROP framework. A single Action Matrix would more accurately reflect a holistic representation of licensee performance, and the NRC's response to performance would be dictated by a column designation commensurate with an integrated assessment of licensee performance. Under the current assessment process, the security assessment letters and licensee performance meetings are independent of the assessments, letters, and meetings that the NRC conducts for the other six ROP cornerstones. The staff proposal would also recombine the safety and security ROP mid-cycle and end-of-cycle NRC assessment letters and public meetings on licensee performance, thereby enhancing communication of an integrated assessment and associated agency response. The staff estimates that its proposal can be implemented within existing budgeted resources for fiscal year 2011 and beyond.

BACKGROUND:

The ROP provides a framework for the regulatory oversight of operating nuclear power facilities across seven cornerstones of safety that the U.S. Nuclear Regulatory Commission (NRC) established when it first developed the framework. Those seven cornerstones continue to frame the ROP today. Fundamental to the ROP is the premise that licensee performance that meets the objectives and key attributes of each of these cornerstones would provide reasonable assurance that the overall NRC mission of adequate protection of public health and safety is met. The NRC chose the cornerstones of safety to focus licensee efforts on the following: (1) minimize the frequency of initiating events; (2) ensure the availability, reliability, and capability of mitigating systems; (3) ensure the integrity of the fuel cladding, reactor coolant system, and containment boundaries; (4) ensure the adequacy of the emergency preparedness functions; (5) protect the public from exposure to radioactive material releases; (6) protect nuclear plant workers from exposure to radiation, and (7) provide assurance that the physical protection system can protect against the design-basis threat of radiological sabotage. Implicit in the framework is the recognition that physical protection of the facility is necessary to ensure safety.

Following the terrorist attacks of September 11, 2001, the ROP underwent a number of changes to ensure that individuals could not obtain and use sensitive, security-related information about a nuclear facility's design, operation, and protective capabilities for malevolent purposes. In a staff requirements memorandum (SRM), (SRM-SECY-04-0020, "Treatment of Physical Protection Under the Reactor Oversight Process" dated March 29, 2004, the Commission directed the staff to develop a separate but parallel ROP for the physical protection (now security) cornerstone. In SECY-05-0082, "Revised Assessment Process for the Security Cornerstone of the Reactor Oversight Process," dated May 12, 2005, the staff described the new security oversight process that it had developed as separate from the ROP but still within the ROP framework. On August 22, 2005, the staff issued Inspection Manual Chapter (IMC) 0320, "Operating Reactor Security Assessment Program," thereby implementing the new program.

In SECY-07-0008, "Evaluation of Revised Security Oversight Process for Nuclear Power Reactors," dated January 9, 2007, the staff informed the Commission that it planned to make one change to the publicly available cover letters for security inspection reports to align them with the then recent changes in the ROP on the identification of substantive cross-cutting issues (SCCIs). The staff subsequently made the necessary program modifications to allow the cover letters for security inspection reports to mention whether any security findings had cross-cutting aspects associated with them. This change enabled the staff to identify SCCIs across all cornerstones of safety based on publicly available information.

DISCUSSION:

As described in the preceding section, the NRC conducts security performance assessments separately from the other ROP cornerstones and withholds security-related information from public disclosure, as directed by the Commission in the SRM dated March 29, 2004. However, the staff recognizes that the application of separate assessment processes has the potential to programmatically constrain its regulatory response. In its calendar year (CY) 2010 ROP self-assessment (SECY-11-0054, "Reactor Oversight Process Self-Assessment for Calendar Year 2010"), the staff further characterized this potential constraint as a consequence of ROP changes that were largely driven by a desire to protect security-related information following the September 11 terrorist attacks.

The ROP framework provides for the assessment of licensee performance in cross-cutting areas. The staff and the Commission have long recognized the potential for cross-cutting issues to impact licensee performance across all cornerstones of safety. The current ROP framework considers security findings with cross-cutting aspects along with all other cross-cutting aspects in the other ROP cornerstones in the identification of a cross-cutting theme and SCCI.

Similarly, when the NRC developed the ROP, it had assessed indications of licensee performance from all seven cornerstones of the Action Matrix together to provide a complete picture of overall licensee safety performance. However, the current segmentation of greater-than-green security findings from other Action Matrix inputs precludes (by process) the staff from formulating and communicating a holistic assessment of licensee performance and determining its regulatory response commensurate with that performance.

The ROP was founded on a principle of seven cornerstones of safety which serve as the fundamental building blocks. Acceptable licensee performance in these cornerstones provides reasonable assurance that licensees are taking appropriate actions to ensure adequate protection of public health and safety. In a post-September 11 environment, the role of security is integral to ensuring reactor safety. Yet, separate assessment of performance deficiencies within the Security Cornerstone does not fully acknowledge or clearly communicate the role of security in ensuring safety and is inconsistent with the ROP regulatory framework, which was designed to establish predictable, objective, and transparent regulatory responses to an integrated representation of licensee performance across all seven ROP cornerstones.

The current approach may cause the NRC's oversight of some licensees to not consider indications of declining performance that would be apparent under an integrated assessment process that offers a complete representation of licensee performance. For example, a plant can be in the degraded cornerstone column of the Action Matrix because of reactor or radiation

safety inspection findings or PIs, and receive two white findings or a yellow finding in the security cornerstone, but it will not be treated as having multiple degraded cornerstones. The plant would not transition to Column 4 in either the ROP Action Matrix or the security Action Matrix, and the NRC would conduct two separate inspections at the plant in accordance with Inspection Procedure (IP) 95002, "Supplemental Inspection for One Degraded Cornerstone or Any Three White Inputs in a Strategic Performance Area."

Prior to 2010, only one plant had entered the Degraded Cornerstone Column of the Security Action Matrix. However, in CY 2010, three plants transitioned to this column. If safety performance issues at these plants had simultaneously placed them in the Degraded Cornerstone Column of the ROP Action Matrix, they would not have received the more comprehensive inspection under IP 95003, "Supplemental Inspection for Repetitive Degraded Cornerstones, Multiple Degraded Cornerstones, Multiple Yellow Inputs or One Red Input," which provides for the assessment of safety culture to ensure that any organizational causal factors are identified and resolved before further declines in performance become detrimental to safe plant operations. As such, the NRC's current structure requires workarounds to ensure we are responding appropriately to licensee performance.

To rectify these issues, the staff proposes to reintegrate security assessment inputs from inspections conducted in the security cornerstone into the ROP and thereby include any greater-than-green security PIs and inspection findings as inputs to the ROP Action Matrix. The staff recognizes that, under the current approach to assessments, it can invoke the Action Matrix deviation process to ensure an appropriate level of regulatory response if it perceives that such a response is necessary. Therefore, the staff has retained in this SECY the option to maintain the status quo.

The Commission's direction to the staff in the resulting SRM related to this SECY will determine if or how the NRC will revise IMC 0305, "Operating Reactor Assessment Program," dated December 24, 2009; IMC 0320; and other ROP guidance.

Staff Proposal

The staff proposes that security assessment inputs (security inspection findings and PIs) be integrated into one ROP Action Matrix. The use of the security Action Matrix in IMC 0320 would be suspended, and IMCs 0305 and 0320 would be revised to reflect the reintegration of the security assessment inputs into the ROP Action Matrix (which would now include inputs from all seven ROP cornerstones). A single Action Matrix would reflect licensee performance, and the NRC's response to performance would be dictated by a column designation commensurate with an integrated assessment of licensee performance.

This proposal would recombine the safety and security ROP mid-cycle and end-of-cycle NRC assessment letters and public meetings on licensee performance, thereby enhancing communication of an integrated assessment. Under the current process, the security assessment letters and licensee performance meetings are independent of the assessments, letters, and meetings that the NRC conducts for the other six ROP cornerstones. The NRC separated these security activities to help ensure effective control of sensitive security information. However, meeting this objective is also possible under an integrated assessment process.

The staff's proposal would not result in release of sensitive security information beyond what is already publicly available. Under the staff's proposal, the publicly available inspection report cover letters would continue to acknowledge any greater-than-green inspection findings but not discuss the attributes or specific vulnerability identified by the finding. Mid-cycle and end-of-cycle assessment letters would be publicly available, and annual assessment public meetings would address licensee performance in all cornerstones. Sensitive unclassified non-safeguards information and safeguards information would not be discussed in correspondence or in public meetings, consistent with NRC policy.

Should there be the need to communicate sensitive security information, as is the current practice, a controlled non-public attachment can be issued to the licensee, and a breakout session or separate non-public meeting can be held to discuss sensitive security-related information. Sensitive details associated with security inspection findings and their significance, inspection procedures, and inspection reports would still be withheld from public disclosure and issued separately.

This proposal is consistent with and supports the NRC Principles of Good Regulation. Final assessment decisions will be based on the objective consideration of all information, and will be documented in accordance with a clearly understood process. Efficiency is improved by combining independent and duplicative assessment activities into one process. Clarity will be enhanced by an assessment process that establishes a clear nexus between licensee performance in all ROP cornerstones and the NRC response as defined in the ROP Action Matrix. By including security in the assessment of licensee performance, the public is better informed about an integrated performance assessment process and corresponding regulatory action; thus, openness and public understanding are increased. Finally, reliability is increased by minimizing the potential for inconsistent and unpredictable regulatory outcomes via deviations from the ROP Action Matrix, which may be pursued to achieve an appropriate level of oversight if two of seven cornerstones are degraded. The NRC level of inspection will be determined using the best available information taking into account licensee performance in all ROP cornerstones.

Implications of Maintaining the Status Quo

The current approach maintains a limited interface of the security cornerstone within the ROP. The only aspects of the ROP used in the security cornerstone under the current approach are the SCCI process and programmatic components of the ROP framework (e.g., internal feedback processes, ROP self-assessment activities, administration of the inspection program, and inspection procedure processing).

Currently, the NRC performs security assessments separately from the other ROP cornerstones. The ROP Action Matrix does not integrate the results of security cornerstone PIs and inspection findings (i.e., the NRC does not use greater-than-green PIs and findings from the security cornerstone to determine the ROP Action Matrix column in which a plant belongs). However, the current framework does allow the staff to request a deviation from the ROP Action Matrix to consider security-related inspection findings and PIs in determining an appropriate agency response. The deviation process is applied at the discretion of NRC management. Therefore, invoking the deviation process introduces a measure of uncertainty and unpredictability in a framework that was intended to be stable and predictable. For this reason, when used, application of the deviation process must be authorized by the Executive Director

for Operations (EDO). In an effort to restore program stability and predictability, the staff assesses deviations annually to determine if program adjustments are needed to preclude future deviations for similar reasons.

Because deviations from the Action Matrix incur uncertain and unpredictable outcomes for licensees, the deviation must be transparent to preclude the appearance of arbitrary and capricious regulatory decision-making. As such, EDO approval is documented in a memorandum that is publicly available in ADAMS and posted on the NRC's public website. Guidance in IMC 0305, "Operating Reactor Assessment Program," is being clarified to emphasize the need for transparency in the Action Matrix deviation process. Specifically, guidance will require that approval memoranda include a synopsis of the licensee performance deficiencies, the required NRC actions per the Action Matrix for these inputs, the approved alternative actions, and the rationale for requesting the deviation. For security-related findings, the approval memoranda would acknowledge potential greater-than-green security issues but would not discuss the attributes or specific vulnerabilities associated with the issues. Therefore, a deviation would make available to the public the same information that would be available with a reintegrated Action Matrix that includes inspection findings and performance indicators from the security cornerstone.

RECOMMENDATION:

The staff recommends the proposed change because it represents a comprehensive process to integrate security inspection findings and PIs into the ROP Action Matrix. This action permits a complete, integrated NRC assessment of commercial power reactor licensee performance that includes input from all ROP cornerstones of safety and security and will ensure an appropriate regulatory response in a stable, predictable, and consistent manner. The staff would implement this recommended change without releasing sensitive security-related information to the public. In addition, an integrated approach to licensee performance assessment would reduce redundant staff activities and, thereby, improve efficiency. The staff also recommends that this proposal be considered, where applicable and appropriate, for other NRC security inspection and oversight programs, such as reactors under construction.

RESOURCES:

The ROP performance assessment activities are budgeted in Planned Accomplishment (PA) Number 115-139F, "Reactor Performance Assessment" program area. The current FY 2011 budget for these activities is 14.5 FTEs for regions, 6.0 FTEs for HQ, and \$660,000. The budget request for FY 2012 is 14.5 FTEs for regions, 6.0 FTEs for HQ, and \$685,000.

The staff estimates that either the recommended action or the current approach can be accomplished within existing budgeted resources for fiscal year 2011 and beyond.

COORDINATION:

The Office of the General Counsel has reviewed this paper and has no legal objection. The Office of the Chief Financial Officer has reviewed this paper for resource implications and has no objections. The staff position recommended in this paper has been coordinated with the Office of Nuclear Security and Incident Response and the Regional Offices.

/RA by Martin J. Virgilio for/

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