

UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
OFFICE OF NUCLEAR REACTOR REGULATION  
OFFICE OF NEW REACTORS  
WASHINGTON, D.C. 20555-0001

August 30, 2017

**NRC REGULATORY ISSUE SUMMARY 2017-04**  
**CLARIFICATION ON THE IMPLEMENTATION OF COMPENSATORY MEASURES FOR**  
**PROTECTIVE STRATEGY DEFICIENCIES OR DEGRADED OR INOPERABLE SECURITY**  
**SYSTEMS, EQUIPMENT, OR COMPONENTS**

**ADDRESSEES**

All holders of and applicants for a power reactor operating license or construction permit, and all holders of and applicants for a limited work authorization, under Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, "Domestic Licensing of Production and Utilization Facilities," including those that have permanently ceased operations and have certified that fuel has been permanently removed from the reactor vessel.

All holders of and applicants for a power reactor early site permit or combined license under 10 CFR Part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants."

**INTENT**

The U.S. Nuclear Regulatory Commission (NRC) is issuing this regulatory issue summary (RIS) to remind addressees of the requirements for implementation of compensatory measures to ensure their physical protection program maintains, at all times, the capability to detect, assess, interdict, and neutralize threats up to and including the design basis threat of radiological sabotage, as identified in 10 CFR 73.55(b)(3)(i), "General performance objective and requirements." Additionally, this RIS reminds licensees that protective strategy deficiencies identified during performance evaluation exercises and drills should be assessed to determine if these deficiencies meet the criteria identified in 10 CFR 73.55(o) for implementation of compensatory measures.

**BACKGROUND INFORMATION**

As stated in 10 CFR 73.55(b)(3)(i) and (ii), each licensee is required to ensure that the site's physical protection program maintains, at all times, the capability to detect, assess, interdict, and neutralize threats up to and including the design-basis threat for radiological sabotage, as identified in 10 CFR 73.1, and provide defense-in-depth through the integration of systems, technologies, programs, equipment, supporting processes, and implementing procedures as needed to ensure the effectiveness of the physical protection program.

As stated in 10 CFR 73.55(n)(1)(v), each licensee is required to "Implement compensatory measures that ensure the effectiveness of the onsite physical protection program when there is a failure or degraded operation of security-related components or equipment." Additionally, as stated in 10 CFR 73.55(o)(1), each licensee must "...identify criteria and measures to compensate for degraded or inoperable equipment, systems, and components to meet the

requirements of this section.” Compensatory measures must: (1) provide a level of protection that is equivalent to the protection that was provided by the equipment, system, or components before it was degraded or inoperable; (2) be implemented within specific timeframes necessary to meet the requirements stated in 10 CFR 73.55(b); and (3) be described in the licensee’s security plans.

As required by 10 CFR 73.55(b)(4), each licensee is required to identify and analyze site-specific conditions that may affect the measures needed to implement the licensee’s physical protection program. The licensee may use this site-specific analysis to identify security equipment, systems, or components relied upon to implement its physical protection program. This site-specific analysis may also be used to identify the impact of a degradation of such equipment, systems, or components on the physical protection program, including, for example, the physical protection system, and address safety interface requirements contained in 10 CFR 73.58. This site-specific analysis may also be used to identify the specific criteria and measures, associated timelines, and level of protection required to compensate for degraded or inoperable security equipment, systems, or components.

Furthermore, when identifying security equipment, systems, and components that would require implementation of a compensatory measure, a licensee should evaluate the impact that a degradation or inoperability has on the overall physical protection program, as well as the function that was performed by the affected security equipment, systems, or components, considering all available information, including the impact on the physical security strategy and contingency response plan.

## **SUMMARY OF ISSUE**

As directed by the Commission in Staff Requirements Memorandum SECY-14-0088, “Proposed Options to Address Lessons Learned Review of the U.S. Nuclear Regulatory Commission’s Force-on-Force Inspection Program in Response to Staff Requirements Memorandum COMGEA/COMWCO 14-0001” (Agencywide Documents Access and Management System (ADAMS) Accession No. ML14139A231), the NRC staff conducted a lessons-learned review of the NRC’s force-on-force inspection program. As a result of this review, the NRC identified that in certain cases, licensees are applying immediate compensatory measures where such measures are not required by NRC regulations and guidance.

As stated above, 10 CFR 73.55(o)(1) requires that a licensee identify criteria and measures to compensate for degraded or inoperable security equipment, systems, or components needed to implement the requirements of 10 CFR 73.55. The criteria established by each licensee should describe how the licensee will identify and assess a degradation or the inoperability of security equipment, systems, or components relied upon to implement the requirements of 10 CFR 73.55(b)(3)(i) and (ii). The licensee should identify the specific function or functions performed by the degraded or inoperable equipment, system, or component and adopt measures to compensate for that function or functions. Based on the lessons-learned review, the NRC has learned that some licensees may be implementing compensatory measures for security equipment, systems, or components that were installed to provide margin, but are not relied upon by the licensee to implement its physical protection program, specifically the requirements of 10 CFR 73.55(b)(3)(i) and (ii).

Degraded or inoperable security systems, equipment, or components, and protective strategy deficiencies identified during performance evaluation exercises and drills, should be evaluated to determine if they are relied upon to meet the licensee’s physical protection program and,

therefore, meet the criteria for implementation of compensatory measures in accordance with 10 CFR 73.55(o). Additionally, as stated in 10 CFR Part 73, Appendix B, Section (VI)(C)(3)(i), “Findings, deficiencies, and failures identified during tactical response drills and force-on-force exercises that adversely affect or decrease the effectiveness of the protective strategy and physical protection program shall be entered into the licensee’s corrective action program to ensure that timely corrections are made to the appropriate program areas.”

Guidance addressing the timeframes for implementing compensatory measures is contained in Regulatory Guide (RG) 5.76, “Physical Protection Programs at Nuclear Power Reactors (SGI),” which also describes acceptable methods for evaluation of the timeframes associated with the implementation of compensatory measures. Because RG 5.76 contains safeguards information, it is a non-publicly available document; however, applicable non-safeguards portions are summarized herein. Section 14.1 of RG 5.76 discusses that compensatory measures should be evaluated to ensure they provide an equivalent level of protection. This evaluation should include, for example, the impact of a degradation on the physical protection system, and address safety/security interface requirements contained in 10 CFR 73.58. Sections 14.1.5 and 14.1.6 of RG 5.76 further discuss that the evaluation of compensatory measures should consider the minimum complement of security manpower, and identify whether additional manpower beyond the minimum complement are needed.

## **BACKFITTING AND ISSUE FINALITY DISCUSSION**

This RIS reminds addressees of NRC’s expectations regarding the implementation of compensatory measures. These expectations do not represent new or changed staff positions. In addition, this RIS does not require any action or written response on the part of any licensee or applicant. Accordingly, issuance of this RIS in final form would not represent backfitting as defined in 10 CFR 50.109(a)(1), or be inconsistent with any applicable issue finality provision in 10 CFR Part 52. Therefore, the NRC did not prepare a backfit analysis for this RIS, or further address the issue finality criteria in Part 52.

## **FEDERAL REGISTER NOTIFICATION**

The NRC published a notice of opportunity for public comment on this RIS in the *Federal Register* (81 FR 10686) on March 1, 2016. The agency received comments from two commenters. The staff considered all comments, which resulted in minor revisions to the RIS. The evaluation of these comments and the resulting changes to the RIS are discussed in a publicly-available memorandum which is in ADAMS under Accession No. ML16110A370.

## **CONGRESSIONAL REVIEW ACT**

This RIS is not a rule as defined in the Congressional Review Act (5 U.S.C. §§ 801-808).

## **PAPERWORK REDUCTION ACT STATEMENT**

This RIS does not contain new or amended information collection requirements that are subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). Existing requirements were approved by the Office of Management and Budget (OMB), approval number 3150-0002.

### Public Protection Notification

The NRC may not conduct or sponsor, and a person is not required to respond to, a request for information or an information collection requirement unless the requesting document displays a currently valid OMB control number.

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**CLARIFICATION ON THE IMPLEMENTATION OF COMPENSATORY MEASURES FOR PROTECTIVE STRATEGY DEFICIENCIES OR DEGRADED OR INOPERABLE SECURITY SYSTEMS, EQUIPMENT, OR COMPONENTS**      **DATE: August 30, 2017**

**ADAMS Accession No.: ML16110A366**

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