

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

Month XX, 2016

**NRC DRAFT REGULATORY ISSUE SUMMARY 2016-XX
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."

PURPOSE

The U.S. Nuclear Regulatory Commission (NRC) is issuing this regulatory issue summary (RIS) to remind addressees of requirements for implementation of compensatory measures supported by a site-specific analysis to ensure their physical protection program maintains, at all times, the capability to detect, assess, interdict, and neutralize threats, as identified in 10 CFR 73.1, "Purpose and scope." Compensatory measures must be implemented for degraded or inoperable security systems, equipment, or components. Additionally, protective strategy deficiencies identified during performance evaluation exercises and drills should be evaluated to determine if these deficiencies meet the criteria for implementation of compensatory measures in accordance with 10 CFR 73.55(o).

BACKGROUND INFORMATION

The specific timeframes and measures to compensate for protective strategy deficiencies, or degraded or inoperable security equipment, systems, or components should be based on a site-specific analysis, considering all available information, to ensure the licensee's physical protection program maintains, at all times, the capability to detect, assess, interdict, and neutralize threats, as identified in 10 CFR 73.1. This includes the impact on the protective strategy and contingency response plans. For nuclear power reactor licensees licensed under 10 CFR Parts 50 and 52, these requirements are set forth in 10 CFR 73.55(n), "Maintenance, testing, and calibration," and 10 CFR 73.55(o), "Compensatory measures." Regulatory Guide (RG) 5.76, "Physical Protection Programs at Nuclear Power Reactors," provides guidance on the use of compensatory measures.

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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.

As stated in 10 CFR 73.55(o), each licensee must identify criteria and measures to compensate for degraded or inoperable equipment, systems, and components. These measures must 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. These measures must be implemented within specific time frames necessary to meet the requirements stated in 10 CFR 73.55(b), and as described in the licensee's security plans.

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 (FOF) 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.

SUMMARY OF ISSUE

As directed by the Commission in Staff Requirements Memorandum (SRM)-SECY-14-0088, "Proposed Options to Address Lessons Learned Review of the NRC's Force-on-Force Inspection Program in 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 FOF inspection program. As a result of this review, the NRC learned that in certain cases, licensees are applying immediate compensatory measures where such measures are not required by NRC regulations and guidance. This RIS is being issued to clarify the NRC's expectations regarding the implementation of compensatory measures.

As stated in 10 CFR 73.55(o)(1), each licensee shall identify criteria and measures to compensate for degraded or inoperable equipment, systems, and components to meet the requirements of 10 CFR 73.55. Therefore, each licensee must establish criteria that describe how the licensee will identify and assess a degradation or inoperability to include the criteria that must be met by a specific measure relative to the function that was performed by the degraded or inoperable equipment, system, or component. The criteria and measures established to meet 10 CFR 73.55(o)(1) must be based on the specific function that must be performed, and the design of the physical protection program. The compensatory measures must provide a level of protection that is equivalent to the protection that was provided by the degraded or inoperable equipment, system, or component as identified in 10 CFR 73.55(o)(2). Additionally,

as stated in 10 CFR 73.55(o)(3), the compensatory measures must be implemented within specific time frames necessary to meet the requirements stated in 10 CFR 73.55(b), and must be described in NRC-approved security plans.

This RIS also addresses when the implementation of compensatory measures is not required by NRC regulations and guidance. Licensees are not required to immediately implement compensatory measures in all cases. However, they are required to take immediate action to assess any identified deficiency to determine the cause of the deficiency and the impact of the deficiency on the site's protective strategy. Based on this assessment, the licensee must determine if a compensatory measure is required and, if required, whether the compensatory measure must be immediately implemented.

Guidance addressing the time frames for implementing compensatory measures is contained in RG 5.76, "Physical Protection Programs at Nuclear Power Reactors (SGI)," which also describes acceptable methods for evaluation of the time frames 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.

The SOC associated with the amendment of existing security regulations and addition of new security requirements, published in the *Federal Register* on March 27, 2009 (74 FR 13926), contains additional guidance associated with the identification and implementation of compensatory measures. Specifically, in discussing 10 CFR 73.55(o), the SOC states, in part, "This paragraph establishes requirements for the actions to be taken by a licensee in response to a failure or degradation of security equipment to perform intended functions within the physical protection program. The rule requires that the licensee will identify conditions where security equipment has failed or is not operating as required and initiates timely actions that ensure the failure or degradation cannot be exploited." Regarding 10 CFR 73.55(b)(4), the SOC states, in part, "Section 73.55(b)(4) is added to specifically require that each licensee perform a site-specific analysis for the purpose of identifying and analyzing site-specific conditions that affect the design of the onsite physical protection program. Commission regulations are generic and cannot in all instances account for site-specific conditions, and therefore, it is the licensee's responsibility to identify and account for site-specific conditions relative to meeting Commission requirements, subject to NRC inspection."

The intent of this RIS is to remind addressees of requirements for implementation of compensatory measures supported by a site-specific analysis to ensure the licensee's physical protection program maintains, at all times, the capability to detect, assess, interdict, and neutralize threats, as identified in 10 CFR 73.1. 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 these deficiencies meet the criteria for implementation of compensatory measures in accordance with 10 CFR 73.55(o). In all cases, compensatory measures must:

1. provide a level of protection that is equivalent to the protection that was provided by the equipment, system, or component, before it was degraded or inoperable
2. be implemented within specific time frames necessary to ensure that the capability to detect, assess, interdict, and neutralize threats to the facility are maintained at all times, as stated in Section 73.55(b)
3. be described in the licensee's NRC-approved security plans, as stated in 10 CFR 73.55(o)(3)

The NRC has learned that some licensees have applied immediate compensatory measures where such measures are not required by NRC regulations. For example, some licensees have conservatively implemented compensatory measures for potential findings, deficiencies, and failures identified during tactical response drills or FOF exercises, without conducting an analysis to determine if the deficiency meets the criteria for implementation of compensatory measures in accordance with 10 CFR 73.55(o). When conducting an analysis to determine if a deficiency meets the criteria for 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. Licensees are free to implement compensatory measures that are not required by NRC regulatory requirements.

BACKFITTING AND ISSUE FINALITY DISCUSSION

This RIS reminds addressees of NRC's expectations regarding the implementation of compensatory measures, and clarifies when the implementation of compensatory measures is not required by NRC regulations and guidance. These positions 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

[Discussion to be provided in final RIS]

CONGRESSIONAL REVIEW ACT

[Discussion to be provided in final RIS]

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.

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CONTACT

Please direct any question about this matter to the technical contact listed below.

Michael C. Layton, Director
Division of Security Operations
Office of Nuclear Security
and Incident Response

John R. Tappert, Director
Division of Decommissioning, Uranium Recovery,
and Waste Programs
Office of Nuclear Material Safety and Safeguards

Michael C. Cheok, Director
Division of Construction Inspection and
Operational Programs
Office of New Reactors

Lawrence E. Kokajko, Director
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

Technical Contact: Daniel Cardenas, NSIR
(301) 287-0756
e-mail: Daniel.Cardenas@nrc.gov

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Division of Policy and Rulemaking
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e-mail: Daniel.Cardenas@nrc.gov

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*via email

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