

SECURITY SIGNIFICANCE DETERMINATION PROCESS FOR POWER REACTORS

Effective Date: 07/09/2026

0609E-01 PURPOSE

- 01.01 Baseline Security Significance Determination Process (BSSDP). The purpose of the BSSDP is to provide an objective means of evaluating **performance deficiencies (PDs)** related to common defense and security for activities licensed by the U.S. Nuclear Regulatory Commission (NRC) as defined in Inspection Manual Chapter (IMC) 2201, "Security Inspection Program for Operating Commercial Nuclear Power Reactors." The process also will be used to provide assurance that licensees' safeguards systems can effectively protect against the design basis threat (DBT) based on defense-in-depth layers of protection as part of licensees' commitments to NRC requirements.
- 01.02 Construction Fitness-for-Duty Significance Determination Process (CFFDSDP). The purpose of the CFFDSDP is to provide an objective means by which NRC inspectors and management can assess the significance of fitness-for-duty **PDs** identified at facilities subject to Title 10 of the *Code of Federal Regulations* (10 CFR) Part 26, "Fitness for Duty Programs," for which a Limited Work Authorization or a Combined License has been issued authorizing construction activities. These inspection activities are associated with IMC 2200, "Security Inspection Program for Construction," which, in part, provides assurance that construction activities are not adversely affected because of **fitness-for-duty** issues.
- 01.03 Cyber Security Significance Determination Process (CSSDP) for Power Reactors. The purpose of the CSSDP is to provide an objective means of evaluating **PDs** relating to cyber security requirements for power reactors licensed by the NRC.

0609E-02 OBJECTIVES

- 02.01 The objective of the **Security** Cornerstone is to provide assurance that the safeguards systems and programs effectively protect against the DBT and the loss or theft of special nuclear materials. The attributes of this cornerstone are based on defense-in-depth strategies and are intended to provide protection against both internal and external threats. The NRC assesses licensee performance in this cornerstone by determining the significance of security-related issues and **PDs**.
- 02.02 The BSSDP, **as identified in IMC 0609, Appendix E, Part I**, is the tool with which NRC inspectors will assess the risk or security significance of **PDs**. This process consists of a deterministic, logic-flow chart that will allow individual **PDs** to be categorized **based on significance**.
- 02.03 The CFFDSDP for new reactors is identified in IMC 0609, Appendix E, Part III, "Construction Fitness for Duty Significance Determination Process for New Reactors."

02.04 The CSSDP is identified in IMC 0609, Appendix E, Part IV, and “Cyber Security Significance Determination Process for Power Reactors.”

0609E-03 APPLICABILITY

The SDPs described in this manual chapter are applicable to inspection findings identified through the implementation of the NRC’s inspection programs described in IMC 2201 and IMC 2200.

0609E-04 BACKGROUND

Background information on the security SDP can be found in IMC 0308, Attachment 6, “Basis Document for Security Cornerstone of the Reactor Oversight Process.”

0609E-05 SDP DEVELOPMENT AND FEEDBACK PROCESS

05.01 SDP Development. The development of a new SDP or significant modification of an existing SDP should follow the general process used for original SDP development. This process should include the following general steps:

- a. The draft of the SDP or the modification is subjected to internal NRC stakeholder review, including NRC regional input. Early external stakeholder input also may be solicited through public meetings, if appropriate.
- b. NRC staff performs a feasibility review to assess the adequacy of the proposed SDP or changes. This review should specifically involve regional representation and should test the SDP with real (preferred) or hypothetical inspection finding examples. This review should determine if the proposed SDP or change is ready to be issued for appropriate stakeholder comment or for initial evaluation through field use by regional inspectors.
- c. Upon reconciliation of stakeholder comments and initial user feedback, the NRC issues the SDP or change as a revision to this manual chapter.
- d. The NRC provides appropriate training to its inspection staff.

05.02 SDP Feedback and Improvement. IMC 0801, “Reactor Oversight Process Feedback Program,” describes in detail the feedback process and feedback form used by the **Office of the Chief Nuclear Reactor Inspector**, Division of **Oversight and Compliance Programs**, to document problems, concerns, or difficulties encountered during implementation of the NRC’s ROP.

To help ensure the consistent application of the security SDP and security SDP results, the staff shall perform self-assessments of the security SDP and associated tools in accordance with IMC 0307, Appendix A, “Reactor Oversight Process Self-Assessment Metrics and Data Trending.”

0609E-06 SDP AND ENFORCEMENT REVIEW PANEL PROCEDURES

Refer to the applicable sections in IMC 0609 or IMC 2519 “Construction Significance Determination Process” for information on the SDP and enforcement review panel procedures.

0609E-07 PROCESS FOR LICENSEE APPEAL OF A STAFF SDP DETERMINATION

If a licensee disagrees with the staff’s final determination of significance, the licensee may appeal the determination to the appropriate NRC regional administrator or appropriate office director; for FOF, **the Office of the Chief Nuclear Reactor Inspector** is the issuing organization. Any such review must meet the requirements stated in the Prerequisites and Limitations sections described in Attachment 2 of IMC 0609 or IMC 2519. Specifically, the licensee must have opted for an opportunity to present additional information to the staff either by meeting with regional or headquarters management, as appropriate, at a regulatory conference or by submitting a written response on the docket.

0609E-08 USING THE SDP TO DETERMINE THE SIGNIFICANCE OF INSPECTION FINDINGS THAT ARE NOT VIOLATIONS OF THE LICENSING OR DESIGN BASIS

The staff’s use of the SDP to determine the significance of the result or consequence of a licensee performance deficiency will be made regardless of if the result or consequence constitutes a violation of a licensee’s licensing or design basis or any other regulatory requirement or commitment. Agency follow-up of such findings, if determined to be significant, will be handled in accordance with the backfit rules of 10 CFR 50.109, “Backfitting,” as appropriate.

0609E-09 REFERENCES

IMC 0307, Appendix A, “Reactor Oversight Process Self-Assessment Metrics and Data Trending”

IMC 0308, Attachment 3, Appendix E, “Technical Basis for the Baseline Security Significance Determination Process”

IMC 0308, Attachment 6, “Basis Document for the Security Cornerstone of the Reactor Oversight Process”

IMC 0609, “Significance Determination Process”

IMC 0611, “Power Reactor Inspection Reports”

IMC 0613, “Power Reactor Construction Inspection Reports”

IMC 0801, “Reactor Oversight Process Feedback Program”

IMC 2200, “Security Inspection Program for Construction”

IMC 2201, “Security Inspection Program for Operating Commercial Nuclear Power Reactors”

IMC 2519, "Construction Significance Determination Process"

MD 8.13, Reactor Oversight Process

END

Attachments:

Revision History for IMC 0609, Appendix E

Attachment 1: Revision History for IMC 0609 Appendix E

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)
	04/21/00 CN 00-007	Initial issuance.		
N/A	ML010750263 02/27/01 CN 01-005	The Physical Protection Significance Determination Process (SDP) IMC 0609, Appendix E, that was initially issued in April of 2000, was found to be incompatible with assessing the significance of inspection findings. The Commission has approved an interim Physical Protection SDP. This revision reflects the approved interim Physical Protection SDP.		
	ML01090539 03/23/01 CN 01-009	(Interim Physical Protection Significance Determination Process) has been revised to delete a paragraph describing enforcement guidance from the significance determination process description. The flow chart was revised to correct a typo by changing the word "green" to "white" in the first line of the chart.		
	ML012420087 08/14/01 CN 01-014	Revised to add definitions to the interim Physical Protection Significance Determination Process. The definitions are to be used in conjunction with the flow chart. The sequence of the flow chart boxes on the right side of the flow chart was also revised to make the chart more "user friendly."		
	ML052020433 07/21/2005 CN 05-020	Revised to align the process with the current security baseline inspection procedures.	N/A	N/A

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)
	ML12335A203 11/30/12 CN 12-027	Total rewrite; revision incorporates Part III, Construction Fitness-for-Duty Significance Determination Process (CFFDSDP) and clarifies additional sections.	N/A	N/A
N/A	ML15253A850 10/08/15 CN 15-019	This document was revised to administratively incorporate Part IV, Cyber Security Significance Determination Process for Power Reactors (CSSDP), and to reflect minor administrative changes.	N/A	ML15253A861
N/A	ML20295A356 04/02/21 CN 21-018	This document was revised to incorporate organizational changes and other administrative changes.	N/A	ML20295A358
N/A	ML25321A508 07/09/26 CN 26-032	This document was revised to incorporate changes made with respect to Minor and more-than-Minor screening of performance deficiencies.	N/A	ML25310A228