



U.S. NUCLEAR REGULATORY COMMISSION  
**STANDARD REVIEW PLAN**  
OFFICE OF NUCLEAR REACTOR REGULATION

13.6 PHYSICAL SECURITY

REVIEW RESPONSIBILITIES

Primary - Physical Security Licensing Branch, Division of Safeguards, NMSS

Secondary - Standardization & Special Projects Branch, Division of Licensing, NRR

I. AREAS OF REVIEW

At the preliminary safety analysis report (PSAR) stage, the review of this section covers plans for implementing security measures relating to (1) preemployment of personnel employed to work at the proposed plant and (2) the layout of the plant and other design features and equipment arrangements intended to provide protection of vital equipment against acts of radiological sabotage in accordance with 10 CFR Part 73, §73.55.

At the final safety analysis report (FSAR) stage, the review involves the evaluation of the physical security plan, the Guard Training Qualification Plan, and the Contingency Plan which collectively describes a comprehensive physical security program for the plant site. The review encompasses the physical security organization, access controls to the plant protected and vital areas including physical barriers, searches of personnel and packages and means of detecting unauthorized intrusions, provisions for monitoring the access to vital equipment, selection of personnel for security purposes, communications systems for security, intrusion alarm systems, arrangements with law enforcement authorities for assistance in responding to security threats, training of security personnel and response to contingencies. The implementation schedule for the physical security program is reviewed, including phases for a multiunit plant where applicable.

Specific information to be reviewed, referenced to applicable sections of 10 CFR Part 73, §73.55, including 10 CFR Part 73, Appendices B and C, include the following:

1. Clear diagrams, to approximate, scale, displaying the following:
  - a. Designated protected and vital areas of the plant site, including physical barriers.

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**USNRC STANDARD REVIEW PLAN**

Standard review plans are prepared for the guidance of the Office of Nuclear Reactor Regulation staff responsible for the review of applications to construct and operate nuclear power plants. These documents are made available to the public as part of the Commission's policy to inform the nuclear industry and the general public of regulatory procedures and policies. Standard review plans are not substitutes for regulatory guides or the Commission's regulations and compliance with them is not required. The standard review plan sections are keyed to the Standard Format and Content of Safety Analysis Reports for Nuclear Power Plants. Not all sections of the Standard Format have a corresponding review plan.

Published standard review plans will be revised periodically, as appropriate, to accommodate comments and to reflect new information and experience.

Comments and suggestions for improvement will be considered and should be sent to the U.S. Nuclear Regulatory Commission, Office of Nuclear Reactor Regulation, Washington, D.C. 20555.

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- b. The locations of alarm stations.
- c. The locations of access control points to protected and to vital areas.
- d. The locations of parking lots relative to the clear areas adjacent to the physical barriers surrounding protected areas.
- e. Special features of the terrain which may present special vulnerability problems.
- f. The location of relevant law enforcement agencies and their geographical jurisdictions.
- g. The interaction of plant operations with the security program.

The response capabilities of local law enforcement agencies, including estimates of the number of officers that can arrive at the plant site in the event of a security threat after receipt of a call for assistance. (This response capability bears upon the adequacy of the size of the onsite guard force.)

Secondary responsibilities will be conducted by SSPB to assure balance between safety and safeguards.

## II. ACCEPTANCE CRITERIA

At the PSAR stage, preliminary planning for physical security is considered acceptable if it provides reasonable assurance that conformance to the applicable provisions of 10 CFR Part 73, §73.55 are expected to be achieved, including:

1. 10 CFR Part 73, §73.55 in its entirety and Part 73 Appendices B and C
2. 10 CFR Part 25 and 10 CFR Part 95 (if applicable)
3. Regulatory Guide 5.44
4. NUREG-0674
5. ANSI N18.17, Paragraph 4.3 Employee Screening
6. 10 CFR Part 50, §50.70(b)(3)
7. Regulatory Guide 5.12
8. Regulatory Guide 5.20

To be considered acceptable, this planning should include commitment to design phase review for physical security and should show how, to the satisfaction of the staff, this responsibility is to be implemented by the applicant.

At the FSAR stage, the applicant's security plan is considered acceptable if it conforms to the requirements of 10 CFR Part 50, §50.34(c), 10 CFR Part 73, §73.55 and 10 CFR Part 73, Appendix B and Appendix C. If applicable, 10 CFR Parts 25, 75, and 95 must be addressed. In addition, the requirements and recommendations of ANSI N18.17 establish the basis for an adequate security plan for the protection of nuclear power plants against radiological sabotage.

Specific acceptance criteria, including staff positions, regarding some of the more general requirements of 10 CFR Part 73, §73.55 and Part 73, Appendices B and C are as follows:

- a. Section b of §73.55 - Physical security organization. The licensee shall establish a security organization, including guards, to protect his facility against radiological sabotage.
- b. Section c of §73.55 - Physical Barriers. The licensee shall locate vital equipment only within a vital area, which, in turn, shall be located within a protected area such that access to vital equipment requires passage through at least two physical barriers.

- c. Section d of §73.55 - Access Requirements. The licensee shall control all points of personnel and vehicle access into a protected area. Identification and search of all individuals shall be made and authorization shall be checked at such points.
- d. Section e of §73.55 - Detection Aids. All alarms required pursuant to this part shall annunciate in a continuously manned central alarm station located within the protected area and in at least one other continuously manned station, not necessarily onsite, such that a single act cannot remove the capabilities of calling for assistance or otherwise responding to an alarm.
- e. Section f of §73.55 - Communication Requirements. Each guard, watchman or armed response individual, or any other individual performing an active security function on duty shall be capable of maintaining continuous communications with an individual in each continuously manned alarm stations.
- f. Section g of §73.55 - Testing and Maintenance. Each licensee shall test and maintain intrusion alarms, emergency alarms, communications equipment, access control equipment, physical barriers, and other security-related devices or equipment.
- g. Section h of §73.55 - Response Requirements. The licensee shall maintain liaison with local law enforcement authorities. Each licensee shall maintain an adequate number of guards for response and assessment of possible security threats. Each licensee shall require that those guards take steps to neutralize the threat when detected with sufficient force to protect the health and safety of the public.
- h. Part 73, Appendix B - General Criteria for Security Personnel. These general criteria establish requirements for the selection, training, equipping, testing, and qualification of individuals who will be responsible for the protecting of special nuclear materials, nuclear facilities, and nuclear shipments.
- i. Part 73, Appendix C - Licensee Safeguards Contingency Plans. A licensee safeguards contingency plan is a documented plan to give guidance to licensee personnel in order to accomplish specific defined objectives in the event of threats, thefts, or radiological sabotage relating to special nuclear material or nuclear facilities licensed under the Atomic Energy Act of 1954, as amended.

Implementation of the physical security program should be accomplished 1 to 2 months before fuel loading. Security features required for new fuel in storage prior to loading of the first unit should be implemented as of the time fuel is onsite.

### III. REVIEW PROCEDURES

At the PSAR stage, the review consists of a careful examination of the information submitted and comparison with the acceptance criteria set forth in subsection II above. The general plant description in Chapter 1 and site-related information in Chapter 2 of the PSAR should be examined to determine if there are unique features that should be considered in establishing the physical protection program. It will be desirable at this stage to discuss the formulation of this program with the applicant.

At the FSAR stage, the physical security plan is reviewed to determine its conformance with the regulations, the information requirements of subsection I above, and the acceptance criteria of subsection II above. Applicable regulations and the requirements and recommendations of industry standards (such as ANSI 18.17) are used as checklists for this review. The reviewers may also use appropriate Division 5 Regulatory Guides and Review Guidelines 1 through 24 to the extent they are applicable to physical protection programs at nuclear power plants. Those having potential applicability are listed in the references. It is particularly important that the reviewer assure himself that all items of vital equipment are contained within vital areas. Site visits by the reviewers are necessary, during the construction phase, before the evaluation of the plan can be completed. Upon completion of the installation of the security equipment, a confirmatory site visit is made approximately 3 months before the anticipated fuel loading. Only after that final confirmatory site visit is the security program approved.

#### IV. EVALUATION FINDINGS

The evaluation finding at the PSAR stage should be substantially equivalent to the following statement:

The applicant has provided a general description of plans for protecting the plant against potential acts of radiological sabotage. Provisions for the screening of employees at the plant, and for design phase review of plant layout and protection of vital equipment have been described and conform to 10 CFR Part 73, §73.55. We find there is reasonable assurance that the final physical security plan will meet the requirements of 10 CFR Part 25, 10 CFR Part 73, and 10 CFR Part 95 by conforming to regulatory positions in regulatory guides or equivalent guidance. We conclude that the applicant's arrangements for protection of the plant against acts of radiological sabotage are satisfactory for this stage of the licensing process.

The evaluation finding at the FSAR stage should be substantially equivalent to the following statement:

The applicant has submitted a comprehensive physical security plan for the protection of the plant against potential acts of radiological sabotage. This plan has been withheld from public disclosure pursuant to 10 CFR Part 2, §2.790(d).

This plan has been reviewed, found to contain all features considered essential for such a program by the staff, and is acceptable. In particular, it has been found to comply with the Commission's regulations including 10 CFR Part 50, §50.34(c), 10 CFR Part 25, 10 CFR Part 75, 10 CFR Part 95, sections of 10 CFR Part 73, §73.55 and Part 73, Appendix B and Appendix C, and conforms to the regulatory positions set forth in regulatory guides.

#### V. IMPLEMENTATION

The following references are intended to provide guidance to applicants and licensees regarding the NRC staff's plans for using this SRP section.

Except in those cases in which the applicant proposes an acceptable alternative method for complying with specified portions of the Commission's regulations,

the method described herein will be used by the staff in its evaluation of conformance with Commission regulations.

## VI. REFERENCES

1. 10 CFR Part 73, "Physical Protection of Plants and Materials."
2. 10 CFR Part 73, Appendixes B and C.
3. 10 CFR Part 50, §50.34(c), "Physical Security Plan."
4. 10 CFR Part 50, §50.34(d), "Safeguards Contingency Plan."
5. 10 CFR Part 50, §50.54(p), "Safeguards Contingency Plan Procedures."
6. 10 CFR Part 50, §50.70(b)(3), "Immediate Unfettered Access."
7. 10 CFR Part 2, §2.790(d)(1), "Security Measures Exempt from Disclosure."
8. 10 CFR Part 75, "Safeguards on Nuclear Material - Implementation of US/IAEA Agreement."
9. 10 CFR Part 25, "Access Authorization for Licensee Personnel."
10. 10 CFR Part 95, "Security Facility Approval and Safeguarding of National Security Information and Restricted Data."
11. Regulatory Guide 5.12, "General Use of Locks in the Protection and Control of Facilities and Special Nuclear Material."
12. Regulatory Guide 5.20, "Training, Equipping and Qualifying of Guards and Watchmen."
13. Regulatory Guide 5.44, "Perimeter Intrusion Alarm Systems."
14. Regulatory Guide 5.54, "Standard Format and Content of Safeguards Contingency Plans for Nuclear Power Plants."
15. NUREG-0207, "Interim Format and Content for a Physical Security Plan for Nuclear Power Plants."
16. NUREG-0219, "Nuclear Security Personnel for Power Plants."
17. NUREG-0220, "Interim Acceptance Criteria for a Physical Security Plan for Nuclear Power Plants."
18. NUREG-0416, "Security Plan Evaluation Report."
19. NUREG-0674, "Security Personnel Training and Qualification Criteria."
20. Review Guidelines 1 through 24.
21. ANSI N18.17, "Industrial Security for Nuclear Power Plants."