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U.S. ATOMIC ENERGY COMMISSION

REGULATORY GUIDE

DIRECTORATE OF REGULATORY STANDARDS

REGULATORY GUIDE 5.43

PLANT SECURITY FORCE DUTIES

A. INTRODUCTION

Paragraph (a)(3) of §73.50 of 10 CFR Part 73 "Physical Protection of Plants and Materials," requires certain licensees to maintain and follow written security procedures that document the structure of the licensee's security organization and that detail those duties of guards, watchmen, and other individuals responsible for security required by 10 CFR Part 73. This guide provides criteria acceptable to the Regulatory staff relative to the organization of the plant security force and duties of guards, watchmen, and other individuals responsible for security.

B. DISCUSSION

In development of the plant security plan, the objective is to establish a security program compatible with health and safety considerations and compatible with efficient operation of the plant. An organized security force with a clearly designated chain of command is an effective means of implementing that program. Assignment of detailed responsibilities and duties addressing a variety of routine and emergency situations to each member of the security force will enable the security force to function effectively and provide the level of protection sought.

1. Plant Security Organization

In order to achieve an effective security organization, it is important to have clearly designated management responsibilities that follow a logical chain of command. Accordingly, charging an individual in upper management with overall responsibility for security policy at the plant will facilitate establishment of an effective security organization.

Reporting directly to the upper management individual who has overall security responsibility may be individuals responsible for implementation of specific portions of the plant security program. However, it is the facility guards and watchmen, along with individuals

responsible for maintenance of security devices, who are the means by which the plant security plan is executed; therefore, detailed assignment of specific duties and responsibilities will assist the guards and watchmen in contributing to plant security.

2. Security Force Duties: Guards and Watchmen

The duties of facility guards and watchmen can be categorized generally as follows:

- a. Security tours and inspections,
- b. Access control and searches of personnel, packages, and vehicles,
- c. Escort duties,
- d. Alarm system testing,
- e. Alarm station duties and recordkeeping, and
- f. Response to security incidents.

Frequent security tours by guards and watchmen serve as a deterrent by providing high visibility of the plant security force. Moreover, such tours offer a means of continued inspection of security areas, physical barriers, and intrusion detection devices.

Control of access is necessary to ensure that only duly authorized individuals and vehicles are permitted within protected areas, vital areas, and material access areas.

Certain licenses are required by 10 CFR Part 73 to routinely search individuals, packages, and vehicles for explosives, firearms, and incendiary devices and for concealed special nuclear material. Such searches are most effective when performed by individuals specifically assigned and trained for the task of searching. Guards and watchmen usually perform the searches required at entrance points into a protected area and at exit points from material access areas.

Visitors, vendors, and other nonemployees are required to be escorted while within protected areas. Escort responsibility usually is taken by the employee being visited. However, vehicle drivers, certain packages, and, in some cases, individuals being taken into a plant may be escorted by members of the security force.

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Published guides will be revised periodically, as appropriate, to accommodate comments and to reflect new information or experience.

Copies of published guides may be obtained by request indicating the divisions desired to the U.S. Atomic Energy Commission, Washington, D.C. 20545. Attention: Director of Regulatory Standards. Comments and suggestions for improvements in these guides are encouraged and should be sent to the Secretary of the Commission, U.S. Atomic Energy Commission, Washington, D.C. 20545. Attention: Docketing and Service Section.

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Alarm systems and detection devices have to be tested frequently to verify that they are functioning properly. A member of the plant security organization is usually assigned supervision of such systems and devices. Nonetheless, it is the individual guards and watchmen who monitor, use, and respond to the detection equipment and alarm systems. Therefore, it will assist security if they are familiar with the alarm systems and they verify that detection equipment is functioning properly. Systems can be checked during the course of routine tours by guards or watchmen.

The keeping of access logs, visitor registration, records of security tours and inspections, and records of alarms and alarm testing is an essential element in an effective security program. Logs and records provide a necessary input to management review of plant security and can as well provide valuable information in the event of a security or safety incident. Logs and records are usually maintained by individuals manning alarm stations and security area access points.

The licensee's security organization should be capable of maintaining plant security during a variety of security incidents such as bomb threats, intrusion, attempted diversion or theft of SNM, attempted unauthorized transport of weapons or explosives into a security area, etc. Detailed statements of responsibilities and procedures dictated by the type of incident will assist the plant security force in effectively coping with security incidents without undue risks to themselves or others.

Of special concern are the specific actions and procedures related to the use of firearms by members of the plant security force. Special nuclear material and related facilities should not be looked upon as ordinary property since the theft of special nuclear material or sabotage of a nuclear facility would be inimical to the public health and safety and the common defense and security. Accordingly, members of the guard force should be prepared to use their firearms rather than permit the theft of special nuclear material or the sabotage of a nuclear facility. As far as the Atomic Energy Commission is aware, both acts would be felonies under Federal law. Theft and diversion are felonies under Sections 57 and 220 of the Atomic Energy Act of 1954, as amended, 42 U.S.C. §§2077 and 2272. Depending on the circumstances, sabotage is a felony under 18 U.S.C. §§2155 or 2156. Attempts and conspiracies to commit such acts are also felonies.

C. REGULATORY POSITION

A plant security program that is structured as suggested below, and that charges guards and watchmen with the duties cited below would be acceptable to the Regulatory staff.

1. Plant Security Organization

The plant security organization should be under the direction of an individual in upper management who has

the overall responsibility for the security of the plant. This includes development and maintenance of the plant security plan, approval of detailed security procedures, the overall training and supervision of the guard force, and the installation, maintenance, and testing of alarm systems, detection equipment, and communication equipment.

The plant security organization should include a security manager who is directly responsible for the preparation of detailed security procedures, for training and maintaining the security force, for security shift assignments, and for the maintenance of alarm systems, detection equipment, and communication systems. The security shift supervisors should report to the security manager, who in turn reports to the upper management individual who has the overall responsibility for plant security.

In addition, the plant security organization should have a member responsible for inspections of security personnel and equipment, for security personnel qualification, and for planning and assessing of periodic security audits, including scheduled and unscheduled drills. This individual should be independent of the security manager and should report directly to the upper management individual who has overall security responsibility.

During emergency situations that may require plant employees not normally employed in a security function to act as guards or watchmen, the security manager or security shift supervisor should have authority to assign such employees duties as appropriate. Any employees so designated should be properly trained and equipped as guards or as watchmen (see Regulatory Guide 5.20, "Training, Equipping, and Qualifying of Guards and Watchmen").

2. Security Force Duties: Guards and Watchmen

a. Security Tours and Inspections Conducted by Guards and Watchmen.

Security tours should be planned so that no one area of the facility is toured less frequently than once every four hours. Tours should be conducted in a random fashion and initiated at random times.

To ensure rapid response to an alarm, at least one guard should be on tour at any time. Under most conditions, however, additional guards or watchmen should be on tour.

The tours should be utilized to inspect various elements of security hardware. A guard or watchman on a security tour should inspect fences, gates, locks, doors, and building walls for integrity and evidence of intrusion. In addition, perimeter lighting and interior lighting should be checked for inoperative fixtures, and clear areas should be inspected for items which could cover or shield an individual. Security faults observed on tours should be recorded and submitted to the on-duty security shift supervisor at the completion of each tour.

b. Access Control and Searching of Personnel, Packages, and Vehicles.

Security personnel should execute the searches and should exercise access control as required by §§ 73.50(c), 73.60(a)(6), and 73.60(b) of 10 CFR Part 73. Regulatory Guide 5.7, "Control of Personnel Access to Protected Areas, Vital Areas, and Material Access Areas," describes access control procedures acceptable to the Regulatory staff. The search of personnel can be conducted either by the use of detection equipment or by a hands-on search.

If the search is accomplished by use of detection equipment, it should be conducted in accordance with Regulatory Guide 5.7. The search for weapons and explosives should be by use of a metal weapon detector and an explosive detector and should be conducted at entrance points into protected areas. The search for concealed SNM should be conducted at material access area exit points by means of an SNM detector and a metal detector which is capable of detecting metallic shielding material (e.g., lead).*

If detection equipment is not routinely used for personnel searches, or is not functioning, a guard or watchman stationed at the search point should conduct a hands-on search in lieu of using detection equipment.

The severity of the hands-on search should be in accordance with the potential threat. A routine hands-on search for firearms and explosives should be conducted in the manner of a frisk or pat-down, as inoffensively as possible. A more thorough search is called for when there is reason to believe that the individual is concealing weapons, explosives, or special nuclear material. In such cases, a standard police search for concealed weapons should be performed.

If the search is a hands-on search or is conducted by use of hand-held detectors, the individual performing the search should not be armed while the search is conducted. A second guard or armed watchman should be present during the search.

Individuals such as local law enforcement officials and AEC couriers who are responding to a call for assistance or who are on site at the invitation of the licensee and who are required to be armed as part of their duties need not be searched or required to check their weapons upon entry into a protected area.

Upon arrival of shipments into the protected area, a guard or watchman should check each package being delivered into the protected area for proper identification and authenticity or should summon an authorized individual to perform the check prior to removal of any package from the loading dock or other point of delivery. In no case should a package be taken directly into a material access area or vital area without such identification and verification.

Prior to release of a package (including waste packages) from the material access area, a guard or

*See Regulatory Guide 5.27, "Special Nuclear Material Doorway Monitors."

watchman should check that package for concealed SNM unless exit is into a contiguous material access area. In most cases, verification by the guard or watchman of the authenticity of the signature of an individual who is authorized to release packages from the material access area on an intact tamper-indicating seal* of a sealed package or container constitutes sufficient search for SNM concealed within the package or container.

Prior to each shipment from the facility or receipt of a shipment at the facility, a security individual should verify the absence of unidentified or unauthorized packages in the loading/unloading area, if such area is located within the protected area.

Road vehicles should be maintained under visual surveillance at all times when within a material access area. All vehicles, including licensee forklift trucks and other such nonroad vehicles, exiting from any material access area into a protected area should be searched by a guard or watchman for concealed SNM. A thorough visual search, including the cab and engine area, aided by a device capable of detecting SNM, should be performed on each vehicle being searched for concealed SNM.

c. Escort Duties

Only individuals specifically designated as "escorts" by plant management should be allowed to act as escorts. Such designation need not be limited to members of the licensee security organization. A call-in procedure should be employed to notify the security shift supervisor of movement of individuals or vehicles under escort when such movement is between buildings and when the escort responsibility is changed from one escort to another.

d. Alarm Testing

(1) Perimeter Intrusion Alarms. Perimeter intrusion alarm systems should be inspected for performance by a security individual according to the frequency and methods indicated in Regulatory Guide 5.44, "Perimeter Intrusion Alarm Systems." The testing need not be done in conjunction with a security patrol, but if so accomplished, only one or two segments of the system should be tested by any one guard or watchman on tour per security tour to avoid the possibility of a real alarm being masked by a test alarm. Any section of the alarm system being taken out of access mode† or being placed in service following repair should be tested for proper operation by a security individual.

(2) Interior Intrusion Alarms. A security individual should be present to test or observe the test of an

*See Regulatory Guide 5.10, "Selection and Use of Pressure-Sensitive Seals on Containers for Onsite Storage of Special Nuclear Material," and Regulatory Guide 5.15, "Security Seals for the Protection and Control of Special Nuclear Material."

†Access mode means the condition that maintains the system sensitive to intrusion but inhibits the audible (and in some cases visible) annunciation of an alarm.

interior intrusion alarm at the time the alarm is placed in or taken out of the access mode or is placed in service following installation or repair. The security individual may be a watchman whose (nonsecurity) work station is within the area protected. Observation of the test may be accomplished by closed-circuit television (CCTV) in lieu of an attending guard or watchman.

e. Alarm Station Duties

The onsite central alarm station should be manned by the security shift supervisor. That individual should know the status of all alarm equipment. The primary function of the security shift supervisor should be to dispatch other security personnel to areas from which alarms have been received and to call for assistance from local law enforcement authorities (LLEA) if needed. In addition to the security shift supervisor, other security personnel may be stationed in the central alarm station. The individual(s) in the central alarm station should maintain communication with security personnel on tour to be advised immediately of any real or suspected breach of security.

The individual(s) in the central alarm station also should observe (via CCTV) and control unattended access points. The security shift supervisor should have the authority to dispatch guards and watchmen to monitor areas where alarm systems temporarily are inoperative and to call for repair of such systems.

An individual attending an alarm station other than the central alarm station need not be a member of the plant security force. However, if an alarm sounds, he immediately should contact the individual in the central alarm station to be apprised of the situation. If unable to do so, he should contact the LLEA and advise them of the situation. Thus, he should have the responsibility to call for assistance if he cannot contact the onsite central alarm station.

The security shift supervisor in the central alarm station should oversee the recordkeeping activities of the security force during his shift. He should personally log any alarm, unless this is done automatically, and should record the details of security force response to an alarm. The security manager should have overall responsibility for security force records. The individual observing unattended access points should record the access data unless this is done automatically via key-card reader or other automated access device. The security shift supervisor also should oversee the testing of communication equipment.

The central alarm station should serve as a command post during plant emergencies unless the station itself is threatened. Response by facility personnel and outside assistance should be coordinated through the central alarm station.

f. Response to Security Incidents

The size of the onsite security force, the deployment of the security force, and the security force

procedures governing response should be such that the security organization is capable of:

(1) Preventing any successful theft or act of sabotage by one or two armed individuals or a group of unarmed people.

(2) Delaying the attack of an armed group up to squad size sufficiently long to allow notification of and response by law enforcement authorities so that the attempted theft or sabotage is thwarted or stolen material is promptly recovered.

(3) Defending itself in the event of a well-planned attack, executed in a disciplined and organized manner sufficiently well to communicate with law enforcement authorities to advise them of the attack and its scope and furnish information to be used as a basis for countermeasures and a properly escalated response by local, State or Federal counterforces either to prevent removal of the material or recover it or to initiate appropriate postsabotage action.

In general, upon receipt of an alarm or other indication of a possible security threat two armed members of the licensee's security force should be dispatched to the area of the alarm. The individuals responding should assess the threat and apprise the security shift supervisor of the extent of the threat, if any. If a threat exists, the individuals responding should take no further action until assistance arrives from other members of the licensee security organization or from law enforcement authorities, if needed. There may, of course, be circumstances in which the responding individuals may need to take such action as self-defense or defense of another, prior to arrival of assistance. Observation of the protected area isolation zone and other security areas via CCTV in certain situations can alleviate the necessity for dispatching guards to the area of alarm and thus avoid exposing the responding guards to attack.

Upon being advised of the existence and extent of a threat, the security shift supervisor should immediately notify law enforcement authorities and request appropriate action. The licensee security organization should take action including the use of force (to the extent possible under the laws of the State in which the facility is located) appropriate to the threat as indicated above while awaiting arrival of law enforcement personnel. Above all, owing to the severe potential for harm to the public health and safety and threat to the common defense and security of the United States, the unauthorized removal of special nuclear material from the facility or sabotage to the facility should be prevented. Any standing orders or policies of the licensee which prohibit the use of deadly force regardless of circumstances or which limit the use of the authority provided by law to employ firearms would be viewed as contrary to the intention and purpose of the regulation requiring armed guards.

D. IMPLEMENTATION

The purpose of this section is to provide information to applicants and licensees regarding the Regulatory staff's plans for utilizing this regulatory guide.

This guide reflects current regulatory practice. Therefore, except in those cases in which the applicant

proposes an alternative method for complying with specified portions of the Commission's regulations, the method described herein will be used immediately in the evaluation of submittals in connection with special nuclear material license, operating license, or construction permit applications.