§ 73.50 Requirements for physical protection of licensed activities.

Each licensee who is not subject to §73.51, but who possesses, uses, or stores formula quantities of strategic special nuclear material that are not readily separable from other radioactive material and which have total external radiation dose rates in excess of 100 rems per hour at a distance of 3 feet from any accessible surfaces without intervening shielding other than at nuclear reactor facility licensed under parts 50 or 52 of this chapter, shall comply with the following:

(a) Physical security organization. (1) The licensee shall establish a security organization, including guards, to protect his facility against radiological sabotage and the special nuclear material in his possession against theft.

(2) At least one supervisor of the security organization shall be on site at all times.

(3) The licensee shall establish, maintain, and follow written security procedures that document the structure of the security organization and detail the duties of guards, watchmen, and other individuals responsible for security. The licensee shall retain a copy of the current procedures as a record until the Commission terminates each license for which the procedures were developed and, if any portion of the procedures is superseded, retain the superseded material for three years after each change.

(4) The licensee may not permit an individual to act as a guard, watchman, armed response person, or other member of the security organization unless the individual has been trained, equipped, and qualified to perform each assigned security job duty in accordance with appendix B, “General Criteria for Security Personnel,” to this part. Upon the request of an authorized representative of the Commission, the licensee shall demonstrate the ability of the physical security personnel to carry out their assigned duties and responsibilities. Each guard, watchman, armed response person, and other member of the security organization shall requalify in accordance with appendix B to this part at least every 12 months. This requalification must be documented. The licensee shall retain the documentation of each requalification as a record for three years after the requalification.
(b) Physical barriers. (1) 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. More than one vital area may be within a single protected area.

(2) The licensee shall locate material access areas only within protected areas such that access to the material access area requires passage through at least two physical barriers. More than one material access area may be within a single protected area.

(3) The physical barrier at the perimeter of the protected area shall be separated from any other barrier designated as a physical barrier within the protected area, and the intervening space monitored or periodically checked to detect the presence of persons or vehicles so that the facility security organization can respond to suspicious activity or to the breaching of any physical barrier.

(4) An isolation zone shall be maintained around the physical barrier at the perimeter of the protected area and any part of a building used as part of that physical barrier. The isolation zone shall be monitored to detect the presence of individuals or vehicles within the zone so as to allow response by armed members of the license security organization to be initiated at the time of penetration of the protected area. Parking facilities, both for employees and visitors, shall be located outside the isolation zone.

(5) Isolation zones and clear areas between barriers shall be provided with illumination sufficient for the monitoring required by paragraphs (b)(3) and (4) of this section, but not less than 0.2 foot candles.

c) Access requirements. The licensee shall control all points of personnel and vehicle access into a protected area, including shipping or receiving areas, and into each vital area. Identification of personnel and vehicles shall be made and authorization shall be checked at such points.

(1) At the point of personnel and vehicle access into a protected area, all individuals, except employees who possess an NRC or Department of Energy access authorization, and all hand-carried packages shall be searched for devices such as firearms, explosives, and incendiary devices, or other items which could be used for radiological sabotage. The search shall be conducted either by a physical search or by the use of equipment capable of detecting such devices. Employees who possess an NRC or Department of Energy access authorization shall be searched at random intervals. Subsequent to search, drivers of delivery and service vehicles shall be escorted at all times while within the protection area.

(2) All packages being delivered into the protected area shall be checked for proper identification and authorization. Packages other than hand-carried packages shall be searched at random intervals.

(3) A picture badge identification system shall be used for all individuals who are authorized access to protected areas without escort.

(4) Access to vital areas and material access areas shall be limited to individuals who are authorized access to vital equipment or special nuclear material and who require such access to perform their duties. Authorization for such individuals shall be provided by the issuance of specially coded numbered badges indicating vital areas and material access areas to which access is authorized. Unoccupied vital areas and material access areas shall be protected by an active intrusion alarm system.

(5) Individuals not employed by the licensee must be escorted by a watchman, or other individual designated by the licensee, while in a protected area and must be badged to indicate that an escort is required. In addition, the licensee shall require that each individual not employed by the licensee register his or her name, date, time, purpose of visit, employment affiliation, citizenship, name and badge number of the escort, and name of the individual to be visited. The licensee shall retain the register of information for three years after the last entry is made in the register. Except for a driver of a delivery or service vehicle, an individual not employed by the licensee who requires frequent and extended access to a protected area or a vital area need not be escorted if the
individual is provided with a picture badge, which the individual must receive upon entrance into the protected area and return each time he or she leaves the protected area, that indicates—

(i) Nonemployee-no escort required,
(ii) Areas to which access is authorized, and
(iii) The period for which access has been authorized.

(6) No vehicles used primarily for the conveyance of individuals shall be permitted within a protected area except under emergency conditions.

(7) Keys, locks, combinations, and related equipment shall be controlled to minimize the possibility of compromise and promptly changed whenever there is evidence that they have been compromised. Upon termination of employment of any employee, keys, locks, combinations, and related equipment to which that employee had access shall be changed.

(d) Detection aids. (1) 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 within the protected area, such that a single act cannot remove the capability of calling for assistance or otherwise responding to an alarm. All alarms shall be self-checking and tamper indicating. The annunciation of an alarm at the onsite central alarm station shall indicate the type of alarm (e.g., intrusion alarm, emergency exit alarm, etc.) and location. All intrusion alarms, emergency exit alarms, alarm systems, and line supervisory systems shall at minimum meet the performance and reliability levels indicated by GSA Interim Federal Specification W-A–00450 B (GSA-FSS). The GSA Interim Federal Specification has been approved for incorporation by reference by the Director of the Federal Register. A copy of the material is available for inspection at the NRC Library, 11545 Rockville Pike, Rockville, Maryland 20852-2738.

(2) All emergency exits in each protected area and each vital area shall be alarmed.

(e) Communication requirements. (1) Each guard or watchman on duty shall be capable of maintaining continuous communication with an individual in a continuously manned central alarm station within the protected area, who shall be capable of calling for assistance from other guards and watchmen and from local law enforcement authorities.

(2) The alarm stations required by paragraph (d)(1) of this section shall have conventional telephone service for communication with the law enforcement authorities as described in paragraph (e)(1) of this section.

(3) To provide the capability of continuous communication, two-way radio voice communication shall be established in addition to conventional telephone service between local law enforcement authorities and the facility and shall terminate at the facility in a continuously manned central alarm station within the protected area.

(4) All communications equipment, including offsite equipment, shall remain operable from independent power sources in the event of loss of primary power.

(f) Testing and maintenance. Each licensee shall test and maintain intrusion alarms, emergency alarms, communications equipment, physical barriers, and other security related devices or equipment utilized pursuant to this section as follows:

(1) All alarms, communications equipment, physical barriers, and other security related devices or equipment shall be maintained in operable and effective condition.

(2) Each intrusion alarm shall be functionally tested for operability and required performance at the beginning and end of each interval during which it is used for security, but not less frequently than once every seven (7) days.

(3) Communications equipment shall be tested for operability and performance not less frequently than once at the beginning of each security personnel work shift.

(g) Response requirement. (1) The licensee shall establish, maintain, and follow an NRC-approved safeguards contingency plan for responding to threats, thefts, and radiological sabotage related to the special nuclear material and nuclear facilities subject to
the provisions of this section. Safe-
guards contingency plans must be in
accordance with the criteria in appen-
dix C to this part, “Licensee Saf-
guards Contingency Plans.” The li-
censee shall retain the current safe-
guards contingency plan as a record
until the Commission terminates the
license and, if any portion of the plan
is superseded, retain the superseded
portion for 3 years after the effective
date of the change.

(2) The licensee shall establish and
document liaison with law enforce-
ment authorities. The licensee shall retain
the documentation of the current liai-
son as a record until the Commission
terminates each license for which the liai-
son was developed and, if any por-
tion of the liaison documentation is su-
erseded, retain the superseded mate-
rial for three years after each change.

(3) Upon detection of abnormal pres-
ence or activity of persons or vehicles
within an isolation zone, a protected
area, a material access area, or a vital
area; or upon evidence or indication of
intrusion into a protected area, mate-
rial access area, or vital area, the li-
censee security organization shall:

(i) Determine whether or not a threat
exists,

(ii) Assess the extent of the threat, if
any, and

(iii) Take immediate concurrent
measures to neutralize the threat, by:

(A) Requiring responding guards to
interpose themselves between material
access areas and vital areas and any
adversary attempting entry for the
purpose of theft of special nuclear ma-
terial or radiological sabotage and to
intercept any person exiting with spe-
cial nuclear material, and,

(B) Informing local law enforcement
agencies of the threat and requesting
assistance.

(4) The licensee shall instruct every
guard to prevent or impede attempted
acts of theft or radiological sabotage
by using force sufficient to counter the
force directed at him including deadly
force when the guard has a reasonable
belief it is necessary in self-defense or
in the defense of others.

(h) Each licensee shall establish,
maintain, and follow an NRC-approved
training and qualifications plan out-
lining the processes by which guards,
watchmen, armed response persons,
and other members of the security or-
ganization will be selected, trained,
equipped, tested, and qualified to en-
sure that these individuals meet the re-
quirements of paragraph (a)(4) of this
section.

§73.51 Requirements for the physical
protection of stored spent nuclear
fuel and high-level radioactive
waste.

(a) Applicability. Notwithstanding the
provisions of §§73.20, 73.50, or 73.67, the
physical protection requirements of
this section apply to each licensee that
stores spent nuclear fuel and high-level
radioactive waste pursuant to para-
graphs (a)(1)(i), (ii), and (2) of this sec-
tion. This includes—

(1) Spent nuclear fuel and high-level
radioactive waste stored under a spe-
cific license issued pursuant to part 72
of this chapter:

(i) At an independent spent fuel stor-
age installation (ISFSI) or

(ii) At a monitored retrievable stor-
age (MRS) installation; or

(2) Spent nuclear fuel and high-level
radioactive waste at a geologic reposi-
tory operations area (GROA) licensed
pursuant to part 60 or 63 of this chap-
ter;

(b) General performance objectives. (1)
Each licensee subject to this section
shall establish and maintain a physical
protection system with the objective of
providing high assurance that activi-
ties involving spent nuclear fuel and
high-level radioactive waste do not
constitute an unreasonable risk to pub-
lic health and safety.

(2) To meet the general objective of
paragraph (b)(1) of this section, each li-
censee subject to this section shall
meet the following performance capa-
bilities.