



OFFICE OF THE
CHAIRMAN

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555

COMMISSION
CORRESPONDENCE

June 12, 1980

Mr. Carl Walske, President
Atomic Industrial Forum, Inc.
7101 Wisconsin Avenue
Washington, D.C. 20014

Dear Mr. Walske:

This is in response to your letter of February 22, 1980 expressing the views of the Atomic Industrial Forum's Committee on Domestic Safeguards concerning the need to strengthen and clarify federal laws related to physical security at nuclear facilities. I regret this reply was not more prompt.

Your letter set forth four specific areas in which you requested our consideration and appropriate action. We have the following comments on those matters:

1. Sabotage of Nuclear Facilities

You commented that the sabotage, attempted sabotage or threat of sabotage of nuclear production or utilization facilities should be a federal criminal offense. Also, you recommend that there be a federal trespass law for protected areas of nuclear power plants at fuel cycle facilities.

Existing federal criminal laws on sabotage require proof of an intent to injure, interfere with or obstruct the national defense or war effort. See 18 U.S.C. 2151 *et seq.* Congress is currently considering adding a new Section 235 to the Atomic Energy Act of 1954 entitled "Sabotage of Nuclear Facilities or Fuel." That section would authorize criminal penalties for the wilful and intentional damaging of nuclear facilities, storage and disposal facilities, and special nuclear or byproduct material.

While the Commission has not taken a formal position concerning this amendment, it is clear that if enacted it addresses in a significant way many of the concerns you have expressed. On the other hand, we know of no active congressional consideration of enacting a federal trespass law for nuclear facilities. Such a provision would be far-reaching and would depart from traditional views of what matters lie in the domain of the several states. Further study evidencing the need for such legislation and subsequent careful drafting to impinge no more than absolutely necessary on states' rights would be necessary before the Commission could support such a legislative proposal.

2. Rights and Responsibilities of Guards and Use of Deadly Force

You question the legal basis for the NRC regulation requiring the availability of deadly force to protect special nuclear material and express the view that a federal law is needed for nuclear facility guards to be able to carry out the intent of the regulations requiring use of deadly force and to deal with such issues as pursuit, retention and search of suspects.

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You correctly state that by regulation certain nuclear facilities must have available deadly force. The Commission in issuing such regulation has taken the position that adequate legal basis exists for the requirement. See e.g., 43 Fed. Reg. 35321, 35323-35325 (1978) and Security Agency Study (NUREG-0015) cited therein. Relevant pages are attached for your convenience.

3. Personnel Selection and Screening

Your comments advise that revisions are underway on ANSI N18.17 and that the Committee has developed what it believes to be a satisfactory personal screening program for authoring unescorted access to nuclear power plants. In support of this plan, you suggested federal legislation -- likely a Privacy Act exemption -- to ensure the availability of criminal records for a record check as a part of a reliability program.

As you are aware, the Commission has currently under consideration in rulemaking (RM 50-7) a proposed material access rule that would establish a government conducted program. Until a decision is reached in this matter it would be premature for the NRC to state that a new statutory exemption to the Privacy Act "to ensure the availability of criminal records" to industry employers was necessary. In this regard we recall utility participants assurance to the hearing board in that proceeding that "criminal history information is available [to industry], contrary to the NRC's contention that statutory prohibitions prevent local utilities from getting this information." Report of the Hearing Board, In the Matter of Authority for Access to or Control Over Special Nuclear Material (RM 50-7), April, 1979, p. 57.

4. Protection of Safeguards Information

You state that there is a need for a federal law to protect the sensitive details of security plans from release through legal intervention or theft, and specifically that a Freedom of Information Act (FOIA) exemption is needed.

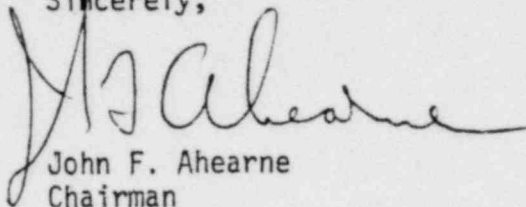
The Commission requested the Congress to enact a new Section 147 of the Atomic Energy Act for the purpose of exempting certain safeguards information from disclosure under FOIA. While this legislative proposal has been changed in several respects during its consideration by the 96th Congress, the Conference Committee has reported a provision which establishes a statutory exemption from FOIA disclosure for safeguards information, specifically including security plan information, as part of NRC's FY 80 authorization legislation. The new provision will also authorize NRC to issue rules to protect safeguards information. Violation of the rules will be subject to civil monetary penalties as well as criminal penalties as provided in Section 223 of the Atomic Energy Act for violations of regulations issued under the authority of Section 161b of the Act. Our proposal did not address any effort to protect security plans from release through legal intervention. The Commission's policy and procedures regarding release of security plan information to intervenors in licensing proceedings is currently being refined in the Matter of Pacific Gas & Electric Co. (Diablo Canyon), Docket Nos. 50-275 and 50-323 OL.

Mr. Carl Walske

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I hope that this brief review of the current status of the issues you have addressed will prove helpful. Except for legislation to give licensee guards expanded legal protection (the need for which has not been clearly established, in our view), the Congress now appears to be in the final phases of enacting statutory provisions in each of the areas mentioned in your February letter. The Commission will be assessing the adequacy of these legislative measures during the process of implementing any which are adopted. We would appreciate the continuing participation and interest of the AIF Committee on Domestic Safeguards in the implementation process.

Sincerely,

A handwritten signature in cursive script, appearing to read "J. F. Ahearne".

John F. Ahearne
Chairman

Attachments:

1. 43 Fed. Reg. 35323-35326
2. NUREG-0015

proposed rule. Response to these questions is made in several ways:

a. Definitions are added for deceit, stealth and force;

b. Changes in wording and language are made to make the meaning clear without special definition; (in particular extensive changes were made to § 73.25 to more clearly define the required transportation protection capabilities);

c. Guidance as to the intent of a term is provided by means of a regulatory guide or NUREG document, e.g., duress alarms are the subject of a forthcoming NUREG report; or

d. No change is made because the wording appeared to be sufficiently clear.

(13) There was considerable confusion with regard to the present sections in part 73 and what would happen to them. The statement of considerations for the proposed rule indicated that they would be deleted but the amendments themselves did not. The revised amendments have been changed to state which sections would be deleted and when. It is noted that § 73.50 is not being deleted at this time but being revised to apply only to spent fuel storage other than at a power reactor.

(14) Comments stated that there was insufficient time to properly plan a revised security program and to implement it. The Commission agrees that adequate time must be allowed for proper planning and implementation to assure effective programs. The rule has been changed to allow more time for both planning and implementation. Allowance also has been made for installation and construction that may require longer than the specified times in specific cases.

In addition to the comments that resulted in changes in the proposed amendments a number of other issues were raised which resulted in no changes to the proposed amendments but which warrant discussion and explanation.

(1) *External threat and general performance requirements.* Comments were directed at several aspects of the threat and its application as a general performance requirement. The comments can be categorized generally as follows: (a) Level of threat; (b) definition of threat; (c) application of general performance requirement.

(a) Comments were made that the threat was not supported by evidence. Some commenters felt the threat was not conservative enough while others felt it was overconservative.

The Commission directed that a reevaluation of the threat studies be conducted by the staff. The results of this reevaluation do not impact the level of threat to be considered in safeguards system design.

(b) Commenters stated that without bounds the threat could not be used effectively as a general performance requirement since licensees would not know the bounds to place on their physical protection systems. Commenters stated that a licensee could not know whether his physical protection system met the requirements because no bounds were given for the threat and general performance requirements.

The purpose of the threat defined in the proposed amendments is to define the general character of the domestic safeguards challenge. It is intended to provide a design basis for physical protection systems; therefore, additional adversary attributes are not necessary to serve this purpose. Physical protection systems, when designed to the level specified in the general performance sections of the rule and in accordance with the reference system specified in the rule and other design guidances to be provided along with the final rule, will be responsive to a general range of threats characterized by that stated in the regulations.

With respect to specific numbers of adversaries, the numbers are not as significant as are the capabilities and resources of the adversary. For example, the threat from a disorganized mob of 50 or so people is much different from that of only a few well organized, well trained people.

Given that the described threat is a design basis for a physical protection system, additional design criteria are given in the form of required system capabilities. These capabilities are further supported by the subsystems and components of the reference systems in the regulations designed to meet the general performance requirements and required capabilities. Additional guidance to assist the licensee in the design of his safeguards system is in preparation and will be promulgated in regulatory guides and NUREG reports. This type of guidance will provide the logic to relate the subsystems and components of physical protection systems to the required capabilities and the general performance requirements. This logic will provide design criteria that may be used by the licensee and show how the general performance requirements and system capabilities may be used in the design of a specific physical protection system. Draft copies of this guidance will be circulated for comment. Further, licensees will obtain guidance through the issuance of license review criteria for use in physical protection system design and in the license review process. Appropriate references to applicable regulatory guides, NUREG documents and other publications responsive to specified regulatory requirements will be provided in both the

design guidance documents and the evaluation criteria documents. Enforcement of the regulation will be based on the specific approved licensee plan.

(c) Commenters stated that the threat or general performance requirement should be applied in relation to the consequences of a successful adversary action as well as in relation to the usefulness of the material for malevolent uses.

Due to the disastrous consequences of the successful detonation of a clandestine weapon conservative policy dictates the need to consider safeguards systems exclusive of other considerations such as the form of the strategic special nuclear material and the probability of an adversary constructing a nuclear fission device. Nevertheless in one instance the rule has been strengthened by requiring material directly useable in a nuclear fission device to be stored only in a vault.

(2) *Use of deadly force.* Comments indicated that requiring private guards to interpose themselves and to use deadly force could be in conflict with State and local laws and was beyond what should be expected of private industry. It was suggested that legislation be obtained to permit protection of strategic special nuclear material by use of deadly force and that seizure or diversion of strategic special nuclear material be made a Federal offense with severe criminal penalties imposed.

The Commission has carefully considered the use of deadly force in the overall system of protection of formula quantities of strategic special nuclear material. A preliminary observation is that armed private industrial guards are, in fact, commonplace. They are found in airports, banks, with armored trucks transporting currency, in the employ of railroads, and frequently in large shopping centers. Thus, the requirement for armed guards to protect property is not a departure from an accepted industrial practice.

Section 73.46(h)(4) of the proposed amendments states certain basic rules on how armed guards are to function. The rule as stated in § 73.46(h) is not new, it merely repeats verbatim presently effective 10 CFR 73.50(g)(2). A recent amendment to this paragraph further clarified expected guard response. (See 42 FR 64103.)

In view, however, of the comments received, some considerations may be repeated and restated for clarification. First: An authorized guard, as a person fulfilling a legally recognized role in protecting property, is generally under no duty to retreat from a threat to his life in the performance of his job. In many States there is simply no duty to retreat (e.g., *People v. Estrada*, 213 P. 67 (Calif. 1923); *Perez v. State*, 300 P.

428 (Okla. 1931)). In other States a person need not retreat in his place of business (e.g., *State v. Feltovic*, 110 Conn. 303, 147 A. 801 (1929)). It is also accepted common law that a person lawfully arresting need not retreat in face of resistance (see e.g., *Purdon's Pennsylvania Statutes*, Annotated, section 18-505(b)(2)(ii)(B)). A guard's job includes the investigation of intrusions or unauthorized entry to protected areas. If circumstances warrant, generally the guard may arrest for an offense committed in his presence (such offenses may range from trespass under local law to a felony under Federal law, an attempt to steal or divert special nuclear material; see section 222 of the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2272).

Another aspect of the response requirement also requires clarification. The requirement as now written, adopted verbatim from 10 CFR 73.50(g)(2), places a duty on licensees to instruct their guards to prevent or impede acts of radiological sabotage or theft of strategic special nuclear material and that they may use force as necessary to counter force directed at them, including the use of deadly force when the guard believes it reasonably necessary in self-defense or defense of others. Note that the requirement is to instruct guards to prevent or impede attempts at theft, not to require guards to use force without discretion. The licensee is also to tell his guards that they may use force, but only the amount of force commensurate with force directed at them—the guards. Thus, if an intruder uses no force, the guard is not called upon to use force. Deadly force is referred to only in the context of self-defense and defense of others. It is expected, as a minimum, that the employer of armed guards will allow a guard to use his weapons when the guard has a reasonable belief it is necessary to prevent death or grievous bodily injury. Indeed, in view of the reference system requirement that he investigate intrusions or unauthorized entries and try to forestall theft, diversion, or sabotage, it is seen as essential for the protection of the guard to allow him to use his weapons under such circumstances.

It is important also to point out that the decision to use force, including deadly force, is made by the guard, not by his supervisor or his employer. In a civilian context, the justification for the use of force must rest upon the reasonable belief of the person using it. The allowance of the use of deadly force in self-defense or defense of others, i.e., when there is a reasonable belief it is necessary to prevent death or grievous bodily injury, is clearly within the mainstream of American law.

Licensees who believe any part of the guard response rule to be demonstrably illegal under the law of their respective jurisdictions may always request an exemption. However, guard response is viewed as an important element of the physical protection system and any relaxation of the rule in this regard would require a commensurate strengthening of other system components.

The Commission does not believe legislation is required in the matter of the use of deadly force nor is legislation required to impose penalties for theft or diversion of strategic special nuclear material. The Atomic Energy Act of 1954 as amended, already provides severe penalties for the unauthorized possession, or attempt to gain possession, of special nuclear material. Section 57a. of the act (42 U.S.C. 2077) makes it unlawful for any person to acquire or possess special nuclear material without a specific or general license issued by NRC. Section 222 (42 U.S.C. 2272) makes it a felony to willfully violate, attempt to violate, or conspire to violate section 57. The penalty may be a fine up to \$10,000, imprisonment for up to 10 years, or both. If the offense is committed with an intent to injure the United States or to secure an advantage to any foreign nation, the punishment may be imprisonment for life, or any term of years, or a fine up to \$20,000, or both.

(3) *Use of Government guards.* Commenters stated that the level of force required by the rule is beyond that which should be expected of private industry. One commenter recommended that NRC restudy the use of public sector personnel to guard licensed strategic special nuclear material. Specifically, commenters gave several reasons for these comments, including: (1) That the private sector cannot satisfy the proposed transportation requirements with commercially available equipment; (2) there is no evidence to support the design threat level stated in the rule, and, therefore, if the Government establishes a need to protect against such a threat, the Government should do it; (3) the rule is so open-ended only Federal forces could satisfy it; and (4) private "SWAT teams" should not be created to suppress crime.

The Security Agency study, done in compliance with the Energy Reorganization Act of 1974, concluded that licensee guards, properly trained and equipped, could be as effective as Federal forces. In fact, the Federal Government employs private guards to protect federally owned strategic special nuclear material. DOE, which uses both public and private sector guards, has stated in congressional testimony (Committee on Government Affairs, March 23, 1978) that these guards are

equally effective. In addition, the Security Agency study (SAS) reviewed a number of other issues applicable to the question of whether Government or private guards should be responsible for nuclear security and concluded that there was no reason this responsibility should not continue to rest with the private sector. Since this rule does not increase safeguards requirements beyond those considered by the SAS, its conclusions remain valid.

Nevertheless, Government has a responsibility to assist licensees in the protection of their facilities against theft of strategic special nuclear material particularly in the face of deteriorating civil order. This fact is recognized in both the proposed upgrade rule and the recently published contingency planning rule (43 FR 11962).

Regarding the specific reasons why commenters recommended Government guards, the first, that the private sector cannot satisfy the transportation requirements with commercially available equipment, is not valid. The staff has made numerous changes to the proposed rule which are responsive to public comments and as modified, the transportation requirements of the rule can be satisfied with commercially available equipment. Regarding the second reason cited, the proposed threat level is reflective of a number of studies which were extrapolated from historical evidence, communications with various law enforcement agencies, review of actual or threatened violence in the commercial nuclear industry, and prudent judgment by NRC staff based on consideration of all of this information. The results of these studies are reflected in the Joint ERDA/NRC Task Force report (NUREG 0095) and the GESMC safeguards study (NUREG 0414), which recommended protection against essentially the same threat level as that established in the rule. Both of these reports reflected the threat information available to their preparers at that time. In addition, the results of a current thorough review of all threat information available to the Commission at this time does not provide any basis for changing the design threat.

Regarding the third reason, that the rule is too open ended, the phrase which caused the greatest concern about this (i.e., " . . . but not necessarily limited to . . . ") has been deleted because the capabilities and performance requirements are comprehensive enough to cover all safeguards contingencies. In addition, a section has been added to the statement of considerations which states what guidance will be used by NRC and issued to licensees to assure that the development, licensing review, and inspection of secu-

rity plans and facilities are not open ended.

Finally, this rule does not require licensees to use "private SWAT teams" to suppress crime in general. Licensees are not expected to assume normal responsibilities of Government defense or law enforcement agencies. Rather, licensees are required, in accordance with NRC regulations and their licensing agreement, only to prevent the theft of strategic special nuclear material and protect against the radiological sabotage of a licensed facility. There are no NRC requirements relating to: (1) Protection against ordinary theft of nonnuclear materials or other criminal acts; (2) apprehension and arrest of criminals; or (3) defeating an adversary force.

(4) *Conflict with State and local gun laws and use of automatic weapons.* Comments raised the question of the regulation requiring armament for guards and transport escorts in violation of State and local laws. In particular the question was raised of transport guards carrying weapons in different jurisdictions. Also the specific question of automatic weapons was raised.

It is true that both Federal and State law have limiting effects on the possession and use of firearms by private guards. In the main, these laws make "machine guns" unavailable (a "machine gun" is any weapon that fires more than one bullet with a single function of the trigger), precluding the use of automatic weapons by private persons.

Department of Energy couriers and guards (formerly AEC or ERDA couriers and guards) are authorized by Federal law to carry firearms (section 161k. of the Atomic Energy Act of 1954, as amended). They may also have automatic weapons (42 U.S.C. 925(a)(1)). DOE may also extend this authority to employees of its contractors engaged in the protection of property owned by the United States and located at facilities owned by or contracted to the United States (within the context of activities authorized by the Atomic Energy Act).

The Commission, however, believes that the increment in firepower added by automatic weapons would not be sufficiently significant in the overall physical protection system to warrant the use of such weapons by private guards.

The Commission recognizes that carriers would need to consider the various local and State gun laws for the jurisdictions through which they would be transporting strategic special nuclear material. This is not a new situation. There are many companies transporting valuable shipments with armed escorts through various juris-

dictions. This would indicate that it is not an insoluble problem.

It is not intended that the proposed amendments would override State and local laws. It is the belief of the Commission that adequate flexibility in armament, with respect to State and Federal laws, already exists and that no further legislation is necessary at this time absent a conclusive showing that automatic weapons are essential in the total physical protection system. Where a licensee can show conclusively that there is conflict with State and local laws alternative measures would be considered.

(5) *Comments indicated confusion regarding the status of research reactors under the proposed rule.* Commenters generally felt that research reactors should not be required to meet the stringent requirements of the proposed rule. Comments indicated that those organizations operating research reactors, such as universities, could not afford the added costs of the upgraded protection. It was also noted that imposition of these requirements on research reactors would be in violation of the Atomic Energy Act of 1954, as amended wherein the Commission should " * * * impose only such minimum amount of regulation * * * and will permit the conduct of widespread and diverse research and development."

The intent and context of the proposed regulation was to include only those research reactors having more than formula quantities of strategic special nuclear material that was not self protecting by being irradiated at the level specified in § 73.6(b), i.e., 100 rems per hour at 3 feet. A major part of the confusion apparently resulted from misunderstanding as to the treatment of the present sections in part 73. These sections would be removed when the new sections became effective. Coverage for research reactors having less than the formula quantity of strategic special nuclear material would continue to be covered under § 73.40. The Commission is considering a separate section in part 73 to cover research reactor protection just as there is a separate section, § 73.55, to cover the protection of power reactors. Until such an amendment is made, research reactors having more than formula quantities would be covered by the proposed regulation when it is made effective.

(6) *Performance-oriented requirements flexibility.* Commenters suggested that flexibility be allowed in the regulation to vary the number of escorts or escort vehicles, to use an unarmored vehicle that would be less conspicuous, to permit changes of routing en route, and to adapt requirements to site specific conditions. Other suggestions were made for changes in word-

ing to permit exemptions for specific conditions or deletion of requirements that would not be appropriate for certain conditions.

The objective of the performance capability requirements is to provide flexibility to the licensee in designing his system to provide the designated capabilities. The capabilities are design goals for the licensee to fit to his individual site or transport conditions. The capabilities are the stated goals or requirements. Whether a given system actually attains a specific goal in practice will depend on the conditions pertaining at the time. The system should nevertheless be designed to attain the specified goals or capabilities under the conditions that exist at a given site or under a given transport situation. Guidance in the design of safeguards systems is being prepared and will be provided to the licensees. This guidance identifies various subsystems and components that can be used to attain the specified capabilities. The licensee must select the appropriate combinations for his needs. The first paragraphs of the system specification §§ 73.26 and 73.46 states that the Commission may authorize other measures if in its opinion the overall level of performance meets the general performance requirements and the performance capability requirements.

It is the intent of these capability requirements and general performance requirements to allow maximum flexibility to the licensee in designing his system. No exemptions to the specific requirements of § 73.26 or § 73.46 are needed so long as the differences are shown to meet the general performance and capability requirements.

(7) *Costs.* Commenters stated that the costs given in the statement of considerations were too low but provided no supporting data for higher costs. The comment also was made that some of the requirements could not be implemented at any cost but no details were given.

The Commission has studied the costs of the proposed amendments further and has had a value/impact analysis prepared on the basis of the reference system in the regulation. A copy of this analysis has been placed in the Commission's Public Document Room at 1717 H Street NW., Washington, D.C.

If the Commission adopts the proposed amendments to 10 CFR Part 73, each affected licensee would be given a period of 120 days following the effective date of the amendments to submit a revised fixed site safeguards physical protection plan and, if appropriate, a revised safeguards transportation protection plan describing how the licensee will comply with the requirements of § 73.20 (a)(1) and (a)(2). A licensee

would be given up to 300 days after the effective date of the amendments or 90 days after the submitted plan is approved, whichever is later, to implement the approved plan except for certain activities involving new construction, significant physical modification of existing structures, or major equipment installation for which 540 days or 180 days after the plan is approved would be allowed.

In addition, a licensee would be given up to 210 days after the effective date of these amendments to submit a revised fixed site safeguards physical protection plan and, if appropriate, a revised safeguards transportation protection plan describing how the licensee will comply with the requirements of § 73.20(a)(3).

A licensee would be given up to 390 days after the effective date of these amendments or 90 days after this latter plan is approved, whichever is later, to implement the approved plan except for activities specifically identified by the licensee which involve new construction, significant modification of existing structures or major equipment installation for which 540 days after the effective date of these amendments or 180 days after the plan(s) is approved, whichever is later, would be allowed.

The amendments would become effective 30 days after publication in the FEDERAL REGISTER.

The system specifications included in § 73.26 for transportation physical protection systems are based on comments received on the transportation protection requirements proposed for comment on November 13, 1974 (39 FR 40036) and subsequent considerations.

The commission has determined under Council of Environmental Quality guidelines and the criteria in 10 CFR Part 51 that an environmental impact statement for the proposed amendments to 10 CFR Part 73 is not required. Concurrently with publication of the notice of proposed rule-making of July 5, 1977 (42 FR 34310) the Commission made available in its Public Documents Room at 1717 H Street NW., Washington, D.C. an "Environmental Impact Appraisal of Amendments To 10 CFR Part 73," to support a Negative Declaration. This document is appropriate for the revised proposed amendments as well.

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, and section 553 of title 5 of the United States Code, notice is hereby given that adoption of the following amendments to Title 10, Chapter I, Code of Federal Regulations, Part 73 is contemplated.

1. Section 73.1(a) of 10 CFR Part 73 is revised to read as follows:

§ 73.1 Purpose and scope.

(a) *Purpose.* This part prescribes requirements for the establishment and maintenance of a physical protection system which will have capabilities for the protection of special nuclear material at fixed sites and in transit and of plants in which special nuclear material is used, to protect against acts of radiological sabotage and prevention of theft of special nuclear material.

2. Sections 73.2(c), (f), (h), (k), (n), and (p) of 10 CFR Part 73 are revised to read as follows:

§ 73.2 Definitions.

As used in this part:

(c) "Guard" means a uniformed individual armed with a firearm whose primary duty is the protection of special nuclear material against theft, the protection of a plant against radiological sabotage, or both.

(f) "Physical Barrier" means

(1) Fences constructed of No. 11 American wire gage, or heavier wire fabric, topped by three strands or more of barbed wire or similar material on brackets angled outward between 30° and 45° from the vertical, with an overall height of not less than 8 feet, including the barbed topping;

(2) Building walls, ceilings and floors constructed of stone, brick, cinder block, concrete, steel or comparable materials (openings in which are secured by grates, doors, or covers of construction and fastening of sufficient strength such that the integrity of the wall is not lessened by any opening), or walls of similar construction, not part of a building, provided with a barbed topping described in paragraph (f)(1) of this section of a height of not less than 8 feet; or

(3) Any other physical obstruction constructed in a manner and of materials suitable for the purpose for which the obstruction is intended.

(h) "Vital area" means any area which contains vital equipment.

(k) "Isolation zone" means any area, clear of all objects which could conceal or shield an individual, adjacent to a physical barrier.

(n) "Vault" means a windowless enclosure constructed with walls, floor, roof and door(s) that will delay pene-

tration appropriate to the response time of the local law enforcement authority that would respond to a safeguards contingency at the site.

(p) "Radiological sabotage" means any deliberate act directed against a plant or transport in which an activity licensed pursuant to the regulations in this chapter is conducted, or against a component of such a plant or transport which could directly or indirectly endanger the public health and safety by exposure to radiation.

3. Section 73.2 of 10 CFR Part 73 is amended to add paragraphs (x) thru (ff).

§ 73.2 Definitions.

As used in this part:

(x) "Strategic special nuclear material" means uranium-235 (contained in uranium enriched to 20 percent or more in the U-235 isotope), uranium-233, or plutonium.

(y) "Formula quantity" means strategic special nuclear material in any combination in a quantity of 5,000 grams or more computed by the formula, grams = (grams contained U-235 + 2.5 (grams U-233 + grams plutonium)).

(z) "Transport" means any land, sea, or air conveyance or modules for these conveyances such as rail cars or standardized cargo containers.

(aa) "Incendiary device" means any self-contained device intended to create an intense fire that can damage normally flame resistant or retardant materials.

(bb) "Controlled access area" means any temporarily or permanently established clearly demarcated area, access to which is controlled and which affords isolation of the material, equipment or persons within it.

(cc) "Movement control center" means an operations center which is remote from transport activity and which maintains periodic position information on the movement of strategic special nuclear material, receives reports of attempted attacks or thefts, provides a means for reporting these and other problems to appropriate agencies and can request and coordinate appropriate aid.

(dd) "Force" means potentially violent methods used to attempt to gain unauthorized access or introduce unauthorized materials into or remove strategic special nuclear material from protected areas, vital areas, material access areas, controlled access areas, or transports.

(ee) "Stealth" means covert methods used to attempt to gain unauthorized access or introduce or remove unauthorized materials where the fact of

SECURITY AGENCY STUDY

Report to the Congress on the Need for,
and the Feasibility of,
Establishing a Security Agency
within the
Office of Nuclear Material Safety and Safeguards



Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission

2. Rules Governing Use of Deadly Force

Armed guards are necessary to prevent theft of SSNM and to prevent malicious actions at nuclear facilities that could result in the releases of radioactive materials into the environment. Guards may be more willing to use whatever force is the minimum needed if they have--and understand that they have--authority to use it.

There are no general Federal statutes governing the use of force; liability is governed by State law. In general, the use of force is legally justifiable when such force is immediately necessary for the purpose of protecting oneself or other persons against the use of force by another person. Further, use of force may be justifiable when an individual believes that such force is immediately necessary to prevent or terminate an unlawful entry or carrying away of property though this is not the rule in all States. The degree of force that may be used is that which is reasonably necessary, and no more. The key words are "reasonably necessary." These general rules apply to Federal, State, and local law enforcement officers, and private guards. The major difference between Federal, State, and local officers, on the one hand, and private guards on the other, lies in the authority to arrest, and consequently in the power to use force to effect an arrest. If a private guard uses force to make an arrest, and no felony has in fact been committed, that use of force is not permissible; in contrast, the peace officer may use force if he reasonably believed a felony to have been committed. As a practical matter, however, the use of deadly force is permissible, by peace officers or private guards, in virtually every case in which an attempt to steal safeguarded materials or to sabotage facilities involves actual or threatened violence against security personnel.

Guards must determine how much force may be used during the heat of an emotionally charged situation. As is true of police and other individuals who find themselves in such positions, guards may be troubled by uncertainty, fear for their personal safety, and concern that use of unreasonable force may lead to civil and criminal liability. As a practical matter, however, the existing law probably allows use of deadly force in most situations where an attempt is underway to steal safeguarded materials or to sabotage facilities. For example, if an attempted theft or sabotage involved threats of violence directed against security personnel, guards may be justified in using deadly force on the ground that their own lives were threatened. On the other hand, authority to use deadly force in situations where apparently unarmed persons were suspected simply of having unauthorized possession of plutonium would be unlikely.

With regard to protection of nuclear weapons under its control, the Department of Defense has issued a forthright directive:

"All possible actions shall be taken, including the use of deadly force, to preclude unauthorized access to, or seizure of, any nuclear weapons storage area, transporting vehicle with weapons aboard, or nuclear weapons."⁷

Whether a similar rule should be applied to security personnel who protect NRC-licensed facilities and materials is a difficult question that lies beyond the scope of this study. The conclusion for present purposes is that the authority governing use of deadly force should be clarified and that such clarification can be as readily accomplished for private as for Federal guards.

3. Possession and Transportation of Certain Types of Weapons

At the typical reactor or fuel cycle facility, guards are armed with .38 caliber revolvers. In addition, they have access to shotguns. Private guards escorting SSNM shipments are armed with handguns, shotguns, and in some cases semi-automatic carbines.

Department of Defense regulations require that guard forces assigned to protect nuclear weapons be equipped with M-14 rifle or M-16 automatic rifle or their equivalent.⁸

Possession of automatic weapons, such as the M-16 is subject to particularly stringent restrictions. Although NRC has broad power to issue regulations concerning the possession and use of SSNM necessary to protect health and minimize danger to life and property, and to guard against loss or diversion of SSNM,⁹ NRC could not require licensees to arm and instruct their security forces in a manner that might contravene State or local law. If greater firepower than that presently authorized for private guards is recommended, special legislation would be needed to permit them to bear such arms. That legislation could be in the form of an amendment to the Atomic Energy Act or some other act, or through a Federal gun permit. Authority for Federal guards to bear necessary arms would presumably be delineated in the legislation creating a guard force operated by NRC or another Federal agency.

⁷DOD Directive 5210.41, op. cit., p. 3. See also, Use of Force By Personnel Engaged in Law Enforcement and Security Duties. DOD Directive 5210.56, November 27, 1974. ERDA has issued a similar regulation concerning use of deadly force. This regulation is reproduced in Appendix C.

⁸See DOD Nuclear Weapon Security Manual (DOD 5210.41M).

⁹42 USC 2201 (i).

APPENDIX C

ERDA RULES GOVERNING THE USE OF WEAPONS

Energy Research and Development Administration (ERDA) regulations governing the use of firearms from the Atomic Energy Commission handbook on "Physical Protection of Classified Matter and Information, Security Handbook," AEC Manual Appendix 2401, Part IV, "Protective Personnel," pp. 21-22. (Approved: December 10, 1974.)

13. Use of Firearms

- a. General Policy. The AEC will support the use by guards of reasonable force (that is, the use of the minimum force, as indicated by the circumstances at the time) necessary for the discharge of their duties of safeguarding persons, classified information, classified matter or special nuclear material.

Any incident involving use of a firearm by protective personnel will be reported immediately to the Director, Division of Safeguards and Security.

- b. Specific Incidents. In this regard, the AEC will support the use of firearms by a guard carrying out his official responsibilities in conjunction with incidents of actual or attempted (1) substantial bodily harm to any person, as would constitute a felony under either Federal or applicable State law, or to apprehend an individual who has committed such an act, (2) theft or compromise of classified information or material, (3) theft or destruction of special nuclear material, and (4) damage or destruction of a facility which would seriously impair the ability of the Commission to safeguard special nuclear material, classified information, or atomic weapons. The use of firearms will not be authorized if, under a reasonable view of the incident as it appeared at the time, lesser means would suffice.

- c. Prevention of Unauthorized Access to AEC Security Areas. If a single or individual attempts to enter an AEC security area without authority, a guard should not use a firearm to prevent the intrusion unless (1) there is reason to believe that the intruder has firearms, explosives, incendiaries, or other instruments which could cause substantial bodily harm, or destruction of special nuclear material, or (2) the intruder attempts to use violence to gain admittance, and may thus inflict substantial bodily harm, and lesser means will not suffice to prevent the intrusion.

If more than one person attempts to enter a security area and it can reasonably be inferred that they intend to cause substantial bodily harm or theft or compromise of classified information or theft or destruction of special nuclear material, the use of firearms by the guard to prevent the intrusion is authorized if lesser means will not suffice.

- d. Prevention of Theft or Sabotage of Nuclear Weapon or Nuclear Explosive Device. The loss of a nuclear weapon or nuclear explosive device through theft or sabotage would have the most serious consequences on the safety of the U.S. public and could seriously disrupt our national operations. Guards are expected to discharge their firearms with the intent of hitting and if necessary, killing the person or persons being fired upon if such action is the minimum amount of force necessary to prevent the theft or destruction of nuclear weapons or other nuclear explosive devices.
- e. Self-Defense or Defense of Another Person. If the guard has reason to believe that substantial bodily harm to himself or another person is imminent, the use of firearms for defense is authorized when lesser means will not suffice to prevent such harm.
- f. Prevention of Escape. If a person attempts to escape after having compromised or stolen classified information, or after having stolen or destroyed special nuclear material, or attempts to escape after having caused substantial bodily harm to any person, the use of firearms to prevent escape is authorized. Such use also is authorized if the person attempting to escape used or threatens to use firearms reason to believe

or other forms of violence which may inflict substantial bodily harm. In any case, the use of firearms is authorized only if lesser means cannot prevent the escape.

- g. Use of Firearms for Unauthorized Purposes. If a guard intentionally discharges a firearm for unauthorized purposes, the AEC will take, or will request that the guard's employer take, appropriate disciplinary action. Examples of unauthorized purposes are the killing of animals, except as necessary in the interest of mercy, and unauthorized target practice.