

MANUAL

DOE M 470.4-3A

Approved: 11-5-08

CONTRACTOR PROTECTIVE FORCE



U.S. Department of Energy
Office of Health, Safety and Security

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INITIATED BY:
Office of Health, Safety and Security

CONTRACTOR PROTECTIVE FORCE

1. PURPOSE. This Manual establishes the requirements for the management and operation of the U.S. Department of Energy (DOE) contractor protective forces (PFs).
2. CANCELLATIONS. DOE M 470.4-3, Chg 1, *Protective Force*, Attachment 2 Contractor Requirement Document (CRD) only (except Section C) dated 3-07-06. Cancellation of a directive does not, by itself, modify or otherwise affect any contractual obligation to comply with the manual. CRDs that have been incorporated into or attached to a contract remain in effect until the contract is modified to either eliminate requirements that are no longer applicable or substitute a new set of requirements.
3. APPLICABILITY.

- a. DOE Elements. The requirements in this Manual apply to DOE elements that have oversight of site and facility management and operations and offices that administer contracts for DOE PF and PF firearms programs for the purposes of protecting Safeguards and Security (S&S) interests, including those created after the Manual is issued. (Go to <http://energy.gov/organization/orgchart.htm> for the current listing of Departmental elements).

The Administrator of the National Nuclear Security Administration (NNSA) will assure that NNSA employees comply with their respective responsibilities under this Manual. Nothing in this Manual will be construed to interfere with the NNSA Administrator's authority under section 3212(d) of Public Law (P.L.) 106-65 to establish Administration-specific policies, unless disapproved by the Secretary.

- b. DOE Contractors. Except for the exclusion in paragraph 3c, the CRD (Attachment 1) sets forth requirements that apply to site/facility management contracts that include the CRD.
- c. Exclusions.
 - (1) In accordance with the responsibilities and authorities assigned by Executive Order 12344 and to ensure consistency throughout the joint Navy and DOE organization of the Naval Nuclear Propulsion Program, the Deputy Administrator for Naval Reactors will implement and oversee all requirements and practices pertaining to this Manual for activities under the Deputy Administrator's cognizance.
 - (2) Requirements in this Manual and the CRD that overlap or duplicate requirements of the Nuclear Regulatory Commission (NRC) related to radiation protection, nuclear safety (including quality assurance), and safeguards and security of nuclear material, do not apply to the design, construction, operation, and decommissioning of the Office of Civilian

Radioactive Waste Management facilities. This exemption does not apply to requirements for which the NRC defers to DOE or does not exercise regulatory jurisdiction.

- (3) DOE offices, facilities, and property protection areas that do not contain any element identified as a Safeguards and Security interest (DOE M 470.4-7, *Safeguards and Security Program References*; DOE M 470.4-1, *Safeguards and Security Program Planning and Management*) may be exempt from the requirements of this Manual; however, they must meet or exceed General Services Administration minimum security standards.
- (4) The Department intends that the highest level of protection be given to security interests and activities whose loss, theft, compromise, and/or unauthorized use would seriously affect national security, the environment, Departmental programs, and/or the health and safety of the public or employees. Therefore, field elements, such as the Power Marketing Administrations, that do not possess arming and arrest authority under the aegis of either section 161k. of the Atomic Energy Act or section 661 of the DOE Organization Act and that perceive a need to arm their security officers, may do so provided they comply with the requirements of the jurisdiction in which their officers will operate. Until such time as affected field elements are accorded DOE arming and arrest authority, and consistent with statutory authorities and local determinations based on risk and/or vulnerability assessments, selected provisions of this manual may be used as a guide when approved by the head of the field element or his/her designee.

4. REQUIREMENTS.

- a. Establish and maintain standardized requirements for management direction, training program administration, maintenance of qualifications, and execution of operations for the various contractor PF activities within DOE.
- b. Effect the policy in DOE P 470.1, *Integrated Safeguards and Security Management (ISSM) Policy*, by integrating PF into DOE operations as determined by DOE line management, and according to sound risk management practices.
 - (1) DOE P 470.1 is the Department's philosophical approach to the management of the S&S Program. A principal objective of the ISSM Program is to integrate S&S into management and work practices at all levels, based on program line management's risk management-based decisions, so that missions may be accomplished without security events such as interruption, disruption, or compromise.

- (2) This approach includes individual responsibility and implementation of the security requirements found in this Manual.
- c. Establish and maintain minimum requirements for the arming of DOE contractor PF personnel and firearms operations.

5. RESPONSIBILITIES.

a. DOE Line Management.

- (1) Provide guidance and oversight to site and facility management and operations offices that administer contracts for DOE PF and PF firearms programs for the purposes of protecting S&S interests.
- (2) Implement the requirements in paragraphs 4a through 4c.

b. Heads of Field Elements and Headquarters Departmental Elements. Review procurement requests for new non-site/facility management contracts that involve classified matter, or nuclear materials, and contain DEAR clause 952.204-2, *Security Requirements*, and, if appropriate ensure that the CRD of this Manual is included in the contract. Notify contracting officers of site/facility management contracts affected by the requirements of this Manual to include the CRD.

c. Contracting Officers. Assist originators of procurement requests who want to incorporate the requirements of this Manual in new non-site/facility management contracts, as applicable. When so notified, include the CRD to this Manual in affected site/facility management contracts.

6. DEFINITIONS. Terms commonly used in the program are defined in the S&S Glossary located in DOE M 470.4-7, *Safeguards and Security Program References*. In addition to those in the Glossary, the following definitions are provided for use in this Manual.

- a. **Tactical Response Force (TRF) Facility:** A facility or site required by DOE M 470.4-1, *Program Planning and Management*, to field a TRF employing a strategy that includes recapture/recovery and fresh pursuit capabilities. TRF facilities include those with Category I quantities of special nuclear material (SNM); credible roll-up of SNM to a Category I quantity; or those facilities that meet or exceed the Level 2 criteria for chemical, radiological, or biological thresholds specified in the current DOE Design Basis Threat.
- b. **Target Folders:** Target folders provide sufficient target-specific information to assist the PF and outside agencies in planning and conducting interagency compatible tactical operations.

7. REFERENCES.

- a. References commonly used in the S&S Program are located in DOE M 470.4-7, *Safeguards and Security Program References*, dated 8-26-05.
- b. Title XXXII of P.L. 106-65, National Nuclear Security Administration Act, as amended, which established a separately organized agency within the Department of Energy.

8. SUMMARY. The CRD to this Manual comprises 12 chapters that provide direction for administering the DOE PF and PF firearms programs for the purposes of protecting S&S interests. The Manual also contains four Appendices.

- a. Appendix A provides the guidelines for legal authority, fresh pursuit, and rules of engagement.
- b. Appendix B discusses performance testing used in the program.
- c. Appendix C contains the provisions for implementing a canine program.
- d. Appendix D provides instruction on security helicopter flight operations.

9. DEVIATIONS. Deviations from national regulations, including the Code of Federal Regulations (CFR) and national-level policies, are subject to the deviation process of the governing document rather than the DOE deviation process. There is no authority for deviation from laws applicable to this directive. Requests for deviations from requirements specific to DOE must be made in accordance with the provisions of DOE M 470.4-1 Chg 1, *Safeguards and Security Program Planning and Management*.10. IMPLEMENTATION. Requirements that cannot be implemented within 6 months of the effective date of this Manual or within existing resources must be documented by the cognizant security authority and submitted to the relevant program officers; the Under Secretary, the Under Secretary for Science, or the Under Secretary for Nuclear Security; and the Office of Security Policy, Office of Health, Safety and Security. The documentation must include timelines and resources needed to fully implement this Manual. The documentation must also include a description of the vulnerabilities and impacts created by delayed implementation of the requirements.11. CONTACT. Questions concerning this Manual should be addressed to the Office of Security Policy, Office of Health, Safety and Security at 301-903-2536.

BY ORDER OF THE SECRETARY OF ENERGY:

JEFFREY F. KUPFER
Acting Deputy Secretary

CONTRACTOR REQUIREMENTS DOCUMENT

Regardless of the performer of the work, the contractor is responsible for complying with the requirements of this Contractor Requirements Document (CRD) and flowing down CRD requirements to subcontractors at any tier to the extent necessary to ensure contractor compliance. Whenever a DOE Order, Notice or Manual is referenced within the CRD, the intent is to include reference to the CRD of that directive.

This CRD is issued to identify requirements applicable to contractors. U.S. Department of Energy (DOE) contractors must adhere to the same Protective Force (PF) program standards for protecting safeguards and security (S&S) interests including, but not limited to nuclear weapons, explosives, and components; special nuclear material; vital equipment; classified matter; assets; facilities; and other areas of interest to the S&S Program such as DOE elements and their personnel. All requirements in this CRD apply to contractors that have responsibilities for administering the DOE PF and PF Firearms Programs for the purpose of protecting S&S interests. The requirements in this CRD must flow down to all subcontractors with responsibilities for administering the PF and PF Firearms Programs. When a union is the bargaining representative of PF personnel, the contractor should be aware that it may be obligated to bargain about certain effects of implementation of this CRD, as required by the National Labor Relations Act.

A violation of the provisions of this directive relating to the safeguarding or security of Restricted Data or other classified information may result in a civil penalty pursuant to subsection a. of section 234B of the Atomic Energy Act of 1954 (42 U.S.C. 2282b). The assessment of civil penalties assessed under 42 U.S.C. 2282b are set forth in Title 10, Code of Federal Regulations (CFR), Part 824, *Procedural Rules for the Assessment of Civil Penalties for Classified Information Security Violations*, (10 CFR Part 824).

1. Terms commonly used in the program are defined in the S&S Glossary located in DOE M 470.4-7, *Safeguards and Security Program References*. In addition to those in the Glossary, the following definitions are provided for use in this Manual.
 - a. Tactical Response Force (TRF) Facility: A facility or site required by DOE M 470.4-1, *Program Planning and Management*, to field a TRF employing a strategy that includes recapture/recovery and fresh pursuit capabilities. TRF facilities include those with Category I quantities of special nuclear material (SNM); credible roll-up of SNM to a Category I quantity; or those facilities that meet or exceed the Level 2 criteria for chemical, radiological, or biological thresholds specified in the current DOE Design Basis Threat.
 - b. Target Folders: Target folders provide sufficient target-specific information to assist the PF and outside agencies in planning and conducting interagency compatible tactical operations.

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CHAPTER I – PROTECTIVE FORCE MANAGEMENT

1. MISSION AND RESOURCE PLANNING. In accordance with Integrated Safeguards and Security Management practices and in support of the Department of Energy (DOE) Safeguards and Security (S&S) Protection Program Management requirements, Protective Force (PF) programs, functions, or activities must incorporate basic planning principles to ensure they accomplish their intended purpose.
 - a. Mission. PF programs/elements, regardless of size, must clearly identify the mission to be fulfilled by the organization. Broad mission statements may be supported by establishing more specific goals and objectives for the PF element to achieve.
 - b. Resource Requirements. PF programs/elements must document the resource requirements necessary to accomplish mission objectives successfully. Sources of these requirements may include Federal laws and regulations; DOE directives; site security plans (SSPs); protection strategies; operational needs; production, inspection, or transportation schedules; and investigative work load projections. Resource requirements may be identified as, but not limited to, the following:
 - (1) The number of projected posts/patrol hours to be operated by security officers (SOs)/security police officers (SPOs) on a fixed facility, and
 - (2) Equipment items necessary to support such operations.
 - c. Authorizations. Authorizations may be identified by full-time equivalents (FTEs), the total number of personnel needed, total number of direct labor-hours, and/or quantities of equipment items to perform work. Authorizations necessary to fulfill resource requirements are determined by factoring in considerations such as, but not limited to:
 - (3) established shift schedules,
 - (4) training requirements,
 - (5) relief factors,
 - (6) travel distances,
 - (7) operational effectiveness,
 - (8) unit readiness,
 - (9) performance testing, and
 - (10) equipment maintenance.

- d. Actuals. PF programs/elements must maintain a process that monitors and periodically reports actual personnel and sensitive equipment items currently on hand. Actuals differ from authorizations in that actual on-hand numbers of personnel will generally fall short of authorizations; however, on occasion, situations may require that actuals exceed authorizations. Approval to temporarily exceed personnel authorizations must be obtained from DOE line management.
 - e. Funding. PF programs/elements must develop funding requirements that provide direct relationships between costs and identified personnel and equipment authorizations. Funding requirements must also incorporate and adjust for the difference between authorized and actual figures. This methodology constitutes a zero-based budgeting process that ensures mission objectives drive funding requirements.
2. OPERATIONAL GUIDANCE AND WRITTEN DIRECTIVES SYSTEM. To ensure that PF missions/functions are accomplished as intended, sufficient operational guidance must be provided through the establishment and maintenance of a formalized written directives system.
- a. Development. Written plans, post orders (POs), general orders (GOs), and procedures covering PF routine, emergency, and administrative duties; tactical deployment, and other operational requirements must be developed and must ensure PF assignments are oriented to allow maximum concentration of resources in a tactical posture. Plans, POs, GOs, and procedures must be clear, concise, and current.
 - b. Plans. Required protection strategies; tactical response options, actions, and times; and other applicable response requirements must be addressed in response plans. Tactical Response Force (TRF) facilities must concentrate tactical resources on or around target locations. Tactical response plans will locate protective forces either in direct defense of target locations or in appropriate ready response positions that offer immediate response to target locations. Response plans will be developed in support of tactically cohesive units; i.e., two or more SPOs with an identified leader. Required PF plans include:
 - (1) Security incident response plans (SIRPs) covering response requirements to security incidents; adversary intrusion of a facility/site; and defense against adversary use of weapons, explosives, and chemical/biological weapons (CBW) as described in the current DOE O 470.3B, *Graded Security Protection (GSP) Policy*. SIRPs must provide specific response directions and required actions to PF personnel for applicable containment, denial, recapture, recovery, and pursuit strategies and to support interruption/neutralization operations before completion of adversary task times. When a site/facility vulnerability assessment (VA), performance test (PT), and/or SSP dictates a recapture strategy, PF

personnel must have the ability to gain entry to the target facility in accordance with SSP/VA timelines.

- (2) SIRPs must be coordinated with site/facility emergency response plans and should address items such as:
 - (a) Establishment of unified command for security incidents;
 - (b) Designation of an overall incident commander (for the emergency) and incident command structure including, for example, roles and responsibilities for categorization, classification, and protective actions;
 - (c) Integration of security response with site/facility protective actions such as evacuation, take cover, or shelter-in-place; and
 - (d) Transition to normal emergency management command structures following termination of the security event.
 - (3) Security contingency response plans covering PF work stoppages, PF recall measures, and response actions of local, State, and Federal law enforcement agencies (LEAs) as documented by vulnerability analysis must be developed. Recommended format and content are contained in DOE G 473.2-1, *Guide for the Establishment of a Contingency Protective Force*.
- c. Target Folders. Target folders must be developed and maintained by TRF sites and/or those with radiological sabotage concerns. Target folders should be sufficient to provide information necessary to assist the PF and outside agencies in conducting interagency compatible tactical operations. [A sample target folder is provided on the DOE Office of Health, Safety and Security (HSS) website www.hss.energy.gov.]
 - d. Procedures. Administrative, training, and other non-response-related operational requirements must be addressed in procedures.
 - e. Non-DOE LEA Support. If local, State, or Federal LEAs are used to protect security interests and/or to respond to security incidents, sites must establish cooperative agreements, e.g., Memoranda of Understanding outlining the specific support to be provided. These agreements must be documented in the appropriate security plan and reviewed annually.
 - f. Configuration Control. The written directives system must incorporate a controlled and documented process that ensures that changes to operational guidance are adequately reviewed and approved by authorized safety and PF management representatives.

- g. Availability. Written directives must be available to PF personnel for reference and guidance in the performance of routine and emergency duties. When plans and procedures contain classified matter, reasonable measures must be implemented to afford routine access to this guidance by appropriately cleared PF personnel with a valid need to know.
- h. Review. Written operational and emergency response guidance, procedures, and cooperative agreements must be reviewed to ensure they are current when response requirements, duties, or administrative requirements are changed, or at least annually (at least every 12 months). Annual or special reviews must be documented to show the name of the reviewer and the date the review was completed. Any revisions or changes made to written guidance as a result of the review must be highlighted or marked in such a manner to ensure PF personnel are aware of those revisions and changes.

3. DOE CONTRACTOR PERSONNEL MANAGEMENT.

- a. PF Positions. PF positions include contractor positions used in either armed or unarmed status for the purpose of protecting and/or investigating offenses against DOE assets including facilities, personnel, sensitive materials, and other property. Detailed requirements for the PF positions identified below are contained within this CRD:
 - (1) SOs are unarmed contractor employees who conduct security duties at DOE facilities. SOs are not authorized to carry firearms and are not empowered with any arrest authority.
 - (2) Title 10 Code of Federal Regulations (CFR) Part 1047, *Limited Arrest Authority and Use of Force by Protective Force Officers*, delineates SPOs' responsibility at DOE facilities [other than the Strategic Petroleum Reserve (SPR)] to enforce specified laws regarding Government property and criminal provisions of the Atomic Energy Act. Such SPOs may, in accordance with 10 CFR Part 1047, be given additional local law enforcement responsibility on a site-specific basis. 10 CFR Part 1049, *Limited Arrest Authority and Use of Force by Protective Force Officers of the Strategic Petroleum Reserve*, delineates SPO responsibility at the SPR to enforce Federal criminal laws to protect SPR Government property and personnel. SPOs must possess the individual and team combat tactical skills necessary to protect S&S interests from an armed terrorist threat, to include theft or sabotage of nuclear weapons or special nuclear material (SNM), and other hostile acts that may cause adverse impacts on national security, the health and safety of employees, the public, or the environment. There are three separate and distinct SPO positions/job classifications, which are fully described in this CRD.
 - (3) Armed SPOs must be assigned to protect security areas that:

- (a) receive, use, process, or store Category I or II quantities of SNM (see DOE M 470.4-6, *Nuclear Material Control and Accountability*);
 - (b) manufacture, store, or test nuclear weapons, nuclear test devices, or complete nuclear assemblies;
 - (c) represent a target for sabotage (e.g., radiological or toxicological) reference DOE M 470.4-2, *Physical Protection*; and
 - (d) contain a unique capability in DOE that must be protected for purposes of program continuity or to preclude an unacceptable impact on national security, the health and safety of DOE and contractor employees, the public, or the environment when the need has been so designated by DOE line management.
- b. Pre-Employment Screening. Screening (e.g., employment references, criminal background, credit, medical, and physical fitness) must be conducted to select individuals with potential to qualify for PF positions.
- c. Job Analyses. Job analyses (JAs) (e.g., a list of common tasks required for PF assignments) must be prepared and reviewed annually (at least every 12 months) for positions directly related to protective operations. JAs must be used as basic input documents to local training requirements. JAs must address site-specific requirements for activities that have not been standardized and issued by the DOE National Training Center (NTC).
- d. Human Reliability Program. Human Reliability Program positions must be identified in accordance with 10 CFR Part 712 (see 10 CFR Part 712, *Human Reliability Program*) and approved by DOE line management. In addition to those categories of positions listed in 10 CFR Part 712.10(a)(1) through (3), armorers with unescorted access to PF firearms must be enrolled in the HRP.
- e. Training. See 10 CFR Part 1046, *Physical Protection of Security Interests*; DOE M 470.4-1, *Safeguards and Security Program Planning and Management*; and this CRD.
- f. Records. See 10 CFR Part 1046, *Physical Protection of Security Interests*, Schedule 18 of the General Records Schedule (GRS), or the DOE Records Schedules.
- g. Reporting Requirements. Supervisors in the PF command structure and the manager in charge of onsite PF operations must ensure that any suspected criminal violations are reported in accordance with DOE M 470.4-1, *Safeguards and Security Program Planning and Management*, and, where appropriate, DOE O 231.1A, *Environment, Safety and Health Reporting*. All contract protective force employees, must comply with DOE O 221.1A, *Reporting Fraud*,

Waste and Abuse and DOE O 221.2A, *Cooperation with the Office Of Inspector General*.

- h. Implementation. Contractors must obtain DOE line management approval for procedures to implement paragraphs 3a through 3c above and the Career Progression Plan outlined in Chapter III of this CRD, based on internal organization (e.g., personnel, human resources, training, and labor relations) and collective bargaining agreements in effect.
4. QUALIFICATION REQUIREMENTS. PF personnel must comply with the Departmental medical, physical fitness, and firearms qualifications and training requirements as appropriate in 10 CFR Part 1046, *Physical Protection of Security Interests*.
- a. Security Clearance.
 - (1) PF personnel must possess a security clearance commensurate with the highest level of classified information or matter to which they have, or potentially have, access. Security clearances must be obtained in accordance with DOE M 470.4-5, *Personnel Security*;
 - (2) SPOs must possess L or Q security clearances;
 - (3) SPOs with access to nuclear weapons, nuclear test devices, or complete nuclear assemblies; Category I and II quantities of SNM; fully automatic weapons; or who are assigned to offensive posts must possess Q security clearances; and
 - (4) All PF personnel with security clearances are subject to the Department's random drug testing requirements.
 - b. Medical, Physical Fitness, Firearms, and Training Standards.
 - (1) Security Officers. SOs must meet the training, qualification, and medical requirements in 10 CFR Part 1046, Subpart B, *Protective Force Personnel*.
 - (2) Security Police Officers. SPOs must meet the medical, physical fitness, firearms, and training and qualifications requirements in 10 CFR Part 1046, Subpart B, *Protective Force Personnel*.
 - (a) SPO-I. Physical fitness standard of a 0.5-mile run in 4 minutes and 40 seconds and a 40-yard prone-to-running dash in 8.5 seconds.
 - (b) SPO-II/III. Physical fitness standard of a 1-mile run in 8 minutes and 30 seconds and a 40-yard prone-to-running dash in 8 seconds.

- (3) Maintaining Physical Fitness Standards. Contractor PF personnel must maintain the physical fitness standards in 10 CFR Part 1046. Randomly selected SPOs will be required to demonstrate they meet physical fitness qualification standards during an inspection, survey, review, audit, or other situation as directed by DOE line management. Failure to meet the physical fitness standard will be treated as if the individual failed the first attempt during annual qualification. In the event of a failure, the requirements in 10 CFR 1046, Subpart B, *Protective Force Personnel* must be followed.
- (4) Confidentiality of Medical Information. The Department of Energy Designated Physician will notify protective force (PF) management of medical work restrictions. PF management must approve and implement site specific plans to ensure confidentiality of PF medical information. This plan must restrict access to only those with a need to know the information and must identify those individuals by organizational position or responsibility. The plan must adhere to all applicable laws and regulations, including but not limited to the Health Insurance Portability and Accountability Act, the Family Medical Leave Act and the Americans with Disabilities Act.

c. Special Skills Qualifications.

- (1) Site-specific conditions may justify requirements for PF personnel to possess qualifications for special skills (e.g., security helicopter operations, ascending and descending techniques, mechanical and explosive tactical entry techniques, CBW countermeasures, hostage negotiation, precision rifleman/forward observer team, communications, exercise controllers/evaluators, remotely operated weapons systems or alarm station monitoring).
- (2) Responsible managers must ensure that personnel assigned to these duties are trained, formally evaluated, and certified, if required, by an appropriate accrediting authority before performing those duties.
- (3) Certifications required by specific job functions (e.g., a Federal Aviation Administration license for pilots) must be kept current. The employing organization for each individual must maintain a record of qualification and/or certification.

d. Firearms.

- (1) No person will be authorized to carry a firearm as a PF officer until the individual is qualified in accordance with the approved firearms qualification standards. Approved DOE firearms qualifications courses that have gone through the official approval process established by the Office of Security Policy are located on the HSS/NTC websites

(www.hss.energy.gov and www.ntc.doe.gov). SPOs authorized to carry firearms must comply with the firearms requirements outlined in this CRD.

- (2) Each SPO must qualify with each firearm that is reasonably expected to be used during duty assignment on the qualification course indicated in the DOE-approved firearms qualification courses and any applicable approved site-specific supplemental qualification course.
 - (a) Initial firearms qualifications and semi-annual requalifications must be accomplished in accordance with requirements of 10 CFR Part 1046.
 - (b) Before any range activity, each SPO must be given a briefing on the basic principles of firearms safety. However, a firearms safety briefing is not required for each qualification course using the same firearm after the initial safety presentation for that firearm.
 - (c) Failure to qualify, as set forth in 10 CFR Part 1046, will result in suspension of the authority to carry firearms and make arrests. The remedial firearms training program will comply with 10 CFR Part 1046 as will any subsequent loss of SPO status due to failure to meet these standards.
 - 1 The total number of initial requalifications and remedial requalification attempts may not exceed four in each semiannual requalification cycle.
 - 2 Upon qualification in this final attempt, reinstatement may be effected where site-specific employment conditions, position availability, and procedures permit. Any subsequent application for rehire will require training as provided to any other initial applicant for an SPO position.
 - 3 The PF range master will designate, in writing, the firearms instructors who are authorized to certify the validity of the scores achieved during qualification attempts.
- (3) PF organizations that do not fire individually issued firearms during qualification must have written procedures authorizing the specific model and associated features of all firearms used. Contractors must obtain approval from DOE line management for these procedures.
- (4) Requalification may occur at any time during the requalification month. If an SPO does not requalify before or during the requalification month, the individual's authority to carry firearms and make arrests must be suspended until requalification is completed.

- (5) An SPO may be required to demonstrate the ability to meet qualification standards during an inspection, survey, review, audit, or other situation directed by DOE line management. Failure to meet the performance standard will be treated as if the individual failed the first attempt during semi-annual qualification. Procedures in paragraph 4d(2)(c) above must be followed in the event of a failure.

e. Authority to Carry Firearms.

- (1) The employing organization must maintain written documentation indicating each individual who is authorized to carry firearms and make arrests without warrant while performing official duties.
- (2) Firearms instructors who are not currently assigned SPO duties may carry firearms when performing their instructional duties if authorized by DOE line management. These instructors must pass the firearms qualification courses for assigned firearms and for firearms that are the subject of instruction.

5. CREDENTIALS AND SHIELDS. Credentials and shields are issued to qualified DOE contractor personnel to identify the bearer as having the authority to perform assigned official duties. The design of all S&S credentials and shields used by contractor PFs must be approved by the Chief Health, Safety and Security Officer, and where applicable, DOE line management.

a. Types of Credentials and Shields.

- (1) Contractor Security Credential. This credential is issued to DOE contractor employees conducting security interviews, investigations, inquiries, inspections, and/or surveys as official duties or functions.
- (2) Contractor Badges and Shields. This encompasses all contractor badges/shields that have been approved by the Chief Health, Safety and Security Officer. Each shield must bear a serial number imprinted on its face. The credential must bear the shield number.
- (3) SPO with Shield (Armed). This credential is issued to DOE contractor employees who require firearms/arrest authority as a function or duty. PFs wearing field-type uniforms may use cloth/embroidered-type shields on these uniforms. Issuance of a metal shield is left to the discretion of the cognizant security authority. These credentials are issued to the following:
 - (a) SPR SPO Credential with Shield (Armed). This credential is issued to SPR SPOs who require Federal firearms/arrest authority [i.e., pursuant to section 661 of the DOE Organization Act

(42 U.S.C. 7270a)] for protection of the SPR as a primary function or duty.

(b) SPO (Armed). This credential is issued to DOE contractor SPOs who require Federal firearms/arrest authority pursuant to section 161k of the Atomic Energy Act [42 U.S.C. 2201(k)] as a primary function or duty.

(4) Security Officers. SOs may be issued cloth/embroidered-type shields or metal police-type shields at the discretion of the DOE cognizant security authority.

b. Issuance of Credentials and Shields. Fulfillment of training and qualification requirements for the position or duties must be verified before issuing a credential or credential with shield to an individual. Credentials and shields for individuals who fail to maintain relevant training and qualification requirements must be revoked and retrieved.

(1) Credential and Shield Issuing Authority. The issuing authorities for the contractor security credential and the SPO with shield (armed) are the Director, Office of Headquarters Security Operations and the DOE cognizant security authority for their respective organizations.

(2) Reissuing Credentials. If an employee experiences a significant change in facial appearance that could hinder positive identification or undergoes a name change, a credential with a new photograph must be requested by the individual, the individual's supervisor, a security official, or PF management personnel.

(3) Blank Credential Stocks and Unissued Shields.

(a) The Director, Office of Headquarters Security Operations, must procure and maintain blank contractor identification credentials, basic security credentials, and SPO security credentials. Requests for blank credential stocks and unissued shields must be submitted, in writing, to the Director, Office of Headquarters Security Operations.

(b) SPR project office authorities must maintain an inventory of SPR blank credentials and shields.

(c) PF contractors must procure and maintain a sufficient supply of site-specific unissued SPO shields.

c. Termination of Use. Credentials and shields are the property of the Government and must be returned to the issuing office when an employee transfers, terminates, or otherwise no longer requires the credential or shield.

- d. Recovery of Security Credentials and Shields. Credentials and shields must be recovered at the final security checkpoint or earlier, and the individuals must be escorted from the site if circumstances or conditions indicate such action is needed. Recovered credentials must be destroyed unless they are being held as evidence in an ongoing security investigation. Recovered shields may be retained and reissued.
 - e. Accountability of Credentials and Shields.
 - (1) Records. Issuing offices must maintain records showing the disposition of credentials and shields. Such records must include the description and serial number of the item issued, date of issuance, name, organization, and date of destruction (Schedule 18 of the GRS applies).
 - (2) Lost Credentials and Shields. A record of missing credentials and shields must be maintained. Personnel and/or systems controlling access to security areas must be provided current information regarding missing credentials or shields in order to prevent their misuse. The loss or recovery of credentials or shields must be reported immediately to the issuing office, Federal and local law enforcement agency authorities, and the Chief Health, Safety and Security Officer.
 - (3) Storage of Blank Security Credentials and Unissued Shields. Blank credentials and unissued shields must be stored in a manner that ensures their protection against loss, theft, or unauthorized use.
6. ALLOCATION OF PERSONNEL RESOURCES.
- a. Location, Manning, and Scheduling.
 - (1) The location and manning of fixed and mobile posts must be determined using the GSP, local threat statements and VAs, SSPs, and appropriate DOE directives.
 - (2) PF posts and assignments must allow for the deployment of personnel and resources in a tactical posture.
 - (3) Selection of fixed posts should include consideration of nearby hazardous materials and the results of applicable emergency planning hazardous material quantitative assessments.
 - (4) PF personnel must be located, to the greatest extent possible, at target areas or in appropriate ready positions to ensure complete and successful response to a verified threat occurrence by denying, containing, interdicting, interrupting, and/or neutralizing threats within the required response times.

- (5) At TRF facilities, PF personnel must be relieved, where practicable, of non-essential routine duties to permit concentration on training and testing in support of their primary tactical mission.
 - (6) Work schedules for PF personnel must be developed and monitored on a site-specific basis to provide adequate relief, training time, balanced overtime, and sufficient time off to ensure on-duty personnel work at peak physical and mental effectiveness.
 - (7) At TRF facilities, training shifts or elements must be initiated to maximize individual and unit tactical training opportunities. The size of the training element will be determined by line management; it should be sufficient to support limited scope force-on-force training activities.
 - (8) PF work schedules must be consistent with existing collective bargaining agreements and contracts and should be based on the following guidelines, where appropriate:
 - (a) No more than 12 total hours per work day, excluding shift change and equipment issuing activities, should be scheduled.
 - (b) No more than 60 total hours per work week, excluding shift change and equipment issuing activities, should be scheduled.
- b. Supervision. Supervision of PF personnel must be provided to the extent required to ensure optimal performance of duties.
- (1) Shift Supervisory Requirements. There must be full-time supervision at sites where more than six PF personnel are assigned per shift.
 - (2) Other Supervision Means. Various means and devices, such as telephone or radio contact or contact by another supervisor who is physically closer to the post, may be used as supplements to supervision or, in the case of small facilities or remote areas, to supplant supervision to ensure that the necessary areas are patrolled and other security functions are performed.
 - (3) Post Inspections. Supervisors must physically inspect, or contact by telephone or radio, PF posts in accordance with 10 CFR Part 1046, Appendix B, B(7)(b)3.
 - (4) Tactical Performance Oversight. At TRF facilities, supervisors must monitor the tactical readiness of all PF personnel under their supervision. The supervisor must conduct frequent on-shift training events or drills to evaluate the effectiveness of PF tactical capabilities. All tests and associated results, including remediation as applicable, must be documented and available for management review.

- c. Unit Organization. At TRF facilities, the PF organizational structure must be configured into tactically cohesive units. Each unit must have appropriate operational command, control, and communication systems. Security Incident Response Plans must be developed around the tactical unit response concept rather than individual response positions. The tactical unit must promote maximum effectiveness in protecting the most valuable Departmental assets from an armed terrorist threat.

CHAPTER II – TRAINING

1. TRAINING AND QUALIFICATION.

- a. Training must be conducted in accordance with, by, and through a Department of Energy (DOE) National Training Center (NTC)-approved program to be conducted in accordance with the Training Approval Program (TAP) as required by DOE M 470.4-1, *Safeguards and Security Program Planning and Management*. Training must be provided to ensure performance of assigned functions and tasks under both normal and emergency conditions.
- b. Training requirements for each position are contained in their respective chapters within this Contractor Requirements Document (CRD).
 - (1) Contractors responsible for protective force (PF) personnel must establish a formal qualification program to meet qualification requirements that ensure PF members are competent to perform the tasks within their assigned responsibilities.
 - (2) The qualification requirements will be supported by a formal training program that develops and maintains the knowledge, skills, and abilities (KSAs) required to perform assigned tasks. The qualification and training programs will be based on criteria established by the DOE NTC as outlined in DOE M 470.4-1, *Safeguards and Security Program Planning and Management*; this CRD; and 10 Code of Federal Regulations (CFR) Part 1046, *Physical Protection of Security Interests*.
 - (3) The cognizant security authority must establish additional PF training criteria as needed by site-specific requirements.
 - (4) The DOE NTC will determine the NTC courses that may be conducted at field sites by assessing a site's capability to conduct training to ensure all applicable training objectives and requirements will be met.
 - (5) Such determination will be made using a standard evaluation system/format developed by the DOE NTC.
 - (6) Such certification will be valid for 3 years and is automatically revoked when it is determined that the onsite courses do not meet requisite training requirements. This determination may be made through various means [e.g., results from an annual site PF program certification/re-certification review, annual and/or special safeguards and security (S&S) surveys/self-assessment activities, or Office of Security Evaluations inspection]. The revocation will remain in effect until the site is found to be in compliance with the requirements.

2. PROGRAM REQUIREMENTS.

a. General. The formal training and qualification program must:

- (1) Be based on a valid and complete set of job tasks, with identified levels of skills and knowledge needed. KSAs necessary to competently perform the tasks associated with assigned PF duties must be identified based upon the JA applicable for each job assignment. PF personnel must demonstrate familiarity with, and knowledge of, the responsibilities identified in the JA for their assignment and must demonstrate proficiency in the skills and abilities necessary to perform required and assigned job tasks. All PF personnel must demonstrate the following:
 - (a) knowledge of, and ability to perform safely, routine and emergency duty requirements;
 - (b) operation of assigned equipment and vehicles;
 - (c) operation of communication equipment employed, including proficiency in accepted communication terminology, acronyms, and phonetics, and the methods for verifying operator identity of incoming signals and signaling duress;
 - (d) knowledge of, and the ability to apply, DOE directives, organization policies, plans, standard operating procedures, specific operational instructions, orders and procedures governing assigned routine and emergency duties;
 - (e) knowledge of Federal- and State-granted authority applicable to assigned activities and responsibilities between the PF and other law enforcement authorities; and
 - (f) knowledge of security practices and procedures, including the following, as applicable:
 - 1 access control procedures and operations including DOE security clearance and security badging requirements;
 - 2 DOE security area designations and related prohibited article restrictions;
 - 3 inspection techniques they may be responsible for using on persons, packages, and vehicles to which they may be subjected;
 - 4 operation of inspection equipment; e.g., X-ray, magnetometers, radiation detectors;

- 5 procedures for escorting personnel within security areas;
 - 6 implementation of plans, orders, and procedures to protect DOE interests during disruptive events;
 - 7 recognition of and storage locations for S&S interests they are responsible for protecting;
 - 8 responsibility and processes to report incidents, violations, and anomalous conditions;
 - 9 awareness of the types of, and threats posed by, weapons of mass destruction (WMD) and improvised explosive devices borne by vehicles/personnel; and
 - 10 use of assigned personal protective equipment.
- (2) Aim at achieving a well-defined level of competency; specifically, mission accomplishment and survival.
 - (3) Employ standardized lesson plans with clear performance objectives as a basis for instruction. Lesson plans in regular use must be reviewed for currency any time training requirements are changed and must be reviewed and/or revised for currency before training is conducted.
 - (4) Include frequent, performance-based, and realistic simulation testing to determine individual and small unit tactical skills and leadership and to certify job readiness.
 - (5) Be documented so individual and overall training status is easily accessible (individual training records must be retained until 1 year after an employee is terminated as a PF member unless other requirements specify a longer retention period).
 - (6) Consider the learning characteristics and entry-level competencies of trainees.
- b. Training Shifts/Elements. Tactical Response Force (TRF) facilities must establish training shifts or elements. The training shift/element must allow for training that emphasizes the PF's ability to defeat armed adversaries [i.e., focus should be on firearms training at the small unit level, small unit tactics, and team force-on-force (FoF) exercises].
 - c. Contingency Force Personnel. Due to the national security sensitivity of its various facilities, the Department is responsible for imposing measures that prevent disruptions in PF staffing that could subject sensitive facilities to periods of significant vulnerability to terrorist attack.

- (1) Any individual who has been qualified as a Security Police Officer (SPO)-I, -II, or -III may return to active status as part of a contingency force after completing prescribed refresher training for the assigned SPO level duties as described in this CRD. Formerly qualified SPO-IIIs may perform only SPO-I/II contingency duties, and SPO-IIs may perform SPO-I duties.
- (2) Before being assigned to contingency force duties, the SPO must successfully complete all required medical, human reliability program (HRP), physical fitness, and firearms (for assigned firearms) qualification requirements.

d. Returning Military Personnel.

- (1) Any individual previously qualified as an SPO-I/II/III who has been deployed to military active duty for up to 36 months may return to active status after completing prescribed refresher training for the assigned position as described in this CRD.
- (2) Before being reassigned to active status, the SPO must successfully complete all required medical, HRP, physical fitness, and firearms (for assigned firearms) qualification requirements, as applicable.

3. OPPOSITION FORCE TRAINING. Personnel participating in performance tests as Graded Security Protection (GSP) comparable adversary combatants will be trained in adversary capabilities tactics and techniques to challenge the ability of the PF to defeat an armed adversary.

4. WEAPONS QUALIFICATIONS.

- a. SPOs must qualify semi-annually (at least every 6 months) with all assigned weapons and special skills weapons as designated by job assignment using the DOE-approved firearms qualification courses.
- b. Where DOE firearms qualification courses do not exist for a weapons system (e.g., belt-fed machine gun, grenade launcher, aerial firing platform, etc.) that is required to address site specific concerns, both daylight and reduced lighting site specific supplemental qualification courses must be developed. These courses must include minimum scoring requirements constrained by time limits. With approval by the local DOE cognizant security authority, they will be submitted to the Chief Health, Safety and Security Officer, for review and approval. National Nuclear Security Administration sites will request approval of their site specific courses of fire from the Associate Administrator for Defense Nuclear Security who will coordinate with the Chief Health Safety and Security Officer, prior to approval.

5. SPECIAL SKILLS.

- a. Personnel assigned specialized responsibilities outside the scope of normal SO, SPO, and special response team (SRT) duties must successfully complete the appropriate basic, refresher, and periodic training.
 - (1) This training must be designed to enable the individual to achieve and maintain the level of skill and knowledge needed to competently perform the tasks associated with the specialized job responsibilities and to maintain mandated certification, if applicable. Such personnel include, but are not limited to, flight crews, instructors, armorers, Central Alarm Station operators, crisis negotiators, investigators, canine handlers, exercise controllers/evaluators, and law enforcement specialists.
 - (2) The scope of such duties and the type and intensity of such specialized training must be based on site-specific JAs and must be submitted to the DOE cognizant security authority for approval.
 - (3) When certification is required for special skill positions and the certification requirements have not been established by the NTC, site-specific certification procedures must be submitted to the DOE cognizant security authority for approval.
- b. Each crisis negotiator must have successfully completed a DOE cognizant security authority-approved crisis negotiation training course. At least once a year, crisis negotiation team members must be integrated into Tactical Response Force exercises. Members of crisis negotiation teams must be familiar with PF operations, including SRT tactics and operations, but do not need to be SPO-trained and certified.

6. PF SUPERVISORS. PF personnel who are assigned supervisory responsibilities must successfully complete the appropriate basic and annual training necessary to competently perform their supervisory responsibilities. The required tasks and expected levels of competency must be based on a site-specific JA and the specialized task areas listed in this CRD. In addition, supervisors located at TRF facilities who function as small unit tactical commanders must successfully complete a DOE cognizant security authority-approved tactical leadership training course. Each supervisor must successfully complete formal annual refresher training to ensure that duties and tasks associated with tactical unit command can be performed at optimal level.

7. INSTRUCTORS.

- a. General Requirements. Each instructor must possess the skills and knowledge necessary to instruct PF personnel in the requirements for protecting S&S interests. Persons assigned as full-time staff PF instructors must have completed the NTC-certified Basic SPO/TRF Training Program or equivalent training and either must have performed DOE PF-related duties or received site, facility, or

organizational on-the-job familiarization with the duties performed by personnel they will instruct. All such training/familiarization must be completed within one year of being assigned to instructor duties. Instructors must demonstrate knowledge of the responsibilities identified in the JA and proficiency in the skills and abilities necessary to perform the associated jobs. These include, but are not limited to the following:

- (1) knowledge of teaching methods and instructional techniques;
- (2) knowledge of assigned subject/topical areas for the level of instruction delivered;
- (3) ability to develop course objectives, lesson plans, training aids, and student evaluations; and
- (4) skill in presenting a complete instructional lesson plan/course.

All PF personnel who are assigned instructor duties must have current certification to the level of training delivered. At a minimum, each instructor assigned to deliver training must successfully complete the DOE NTC Basic Instructor Training (BIT) Course, as approved by the Office of Health, Safety and Security, or an equivalent recognized basic instructor course.

- b. Certification Requirements. To maintain certification, instructors must conduct at least two classes or two course iterations, or a combination of both, per calendar year. Documentation of these activities must be maintained in the individual's training record.
- c. Recertification. The following minimum PF instructor recertification requirements must be met.
 - (1) PF management must ensure that each instructor is evaluated for competency at least once every 36 months.
 - (2) The instructor evaluation must consist of verification of the following.
 - (a) Instructor knowledge of:
 - 1 Office of Health, Safety and Security-approved teaching methods and instructional techniques;
 - 2 applicable assigned subject/topical areas for the level of instruction delivered; and
 - 3 requirements for developing course objectives, lesson plans, training aids, and student evaluations.

NOTE: Verification of compliance with the requirements in paragraphs 7c(2)(a)1 and 2 above must consist of observation of instructor performance during actual curriculum delivery or by performance testing activities.

- (b) Skill in presenting a complete instructional lesson plan/course.
 - (c) Verification of instructor attendance in at least one professional development course approved by the cognizant security authority in the instructor's respective subject matter area (e.g., factory firearms instructor, diversionary devices instructor, or chemical biological weapon instructor) during the 36-month period.
- 8. FIREARMS INSTRUCTORS. Before initial assignment to duty as a firearms instructor, personnel must successfully complete the DOE Basic Firearms Instructor Course (FIC). Instructors for SPO-IIs and -IIIs must complete the Advanced FIC (AFIC).
 - a. Prerequisite Training. Before attending either the FIC or the AFIC, personnel must successfully:
 - (1) Complete the DOE BIT Course or an equivalent recognized basic instructor course;
 - (2) Demonstrate proficiency with an 80 percent score within two attempts on the DOE Day Handgun and Semi-Automatic Rifle Qualification Courses on the first day of the course;
 - (3) Demonstrate proficiency with an 80 percent score for SPO-II AFIC candidates and a 90 percent score for SPO-III AFIC candidates within two attempts on the TRF Combined Handgun/Rifle Qualification Course on the first day of the course; and
 - (4) Complete all applicable handgun and rifle Limited Scope Performance Tests (LSPTs) as contained in respective NTC firearms lesson plans with 100 percent accuracy.
 - b. Refresher Training. Each firearms instructor must successfully complete formal annual refresher training to maintain the level of competency required for the successful performance of tasks associated with firearms instructor responsibilities. The type and intensity of training must be based on a site-specific JA and be approved by the DOE cognizant security authority.
 - c. Recertification. The following DOE firearms instructor recertification requirements must be met:
 - (1) Pass a comprehensive, knowledge-based, site-specific evaluation on live-fire range operations every 12 months;

- (2) Complete LSPTs every 12 months with a score of 100 percent for each firearm system instructed;
 - (3) Conduct at least one site-specific safety briefing every 12 months; and
 - (4) Qualify every 12 months with a minimum score on the courses of fire commensurate with the level of training provided (80 percent for SPO-I/II instructors and 90 percent for SPO- III instructors); and be assigned to and conduct the duties of either a lead instructor, line instructor, or range safety officer twice annually (at least twice every 12 months).
9. INTERMEDIATE FORCE AND GROUND CONTROL INSTRUCTORS. Before initial assignment to duty as intermediate force instructors and ground control instructors, personnel must successfully complete the DOE Basic Intermediate Force Instructor Course (IFIC) and/or Ground Control Instructors Course (GCIC).
 - a. Prerequisites. Before attending the IFIC and GCIC courses, personnel must successfully:
 - (1) complete the DOE BIT course or an equivalent recognized basic instructor course; and
 - (2) meet medical/fitness requirements.
 - b. Refresher Training. Each intermediate force and ground control instructor must successfully complete formal annual refresher training to maintain the minimum level of competency required for the successful performance of tasks associated with intermediate force and ground control instructor responsibilities. The type and intensity of training must be based on a site-specific JA and be approved by the DOE cognizant security authority.
 - c. Recertification. The following DOE intermediate force instructor recertification requirements must be met.
 - (1) Pass a comprehensive knowledge-based, site-specific evaluation on the intermediate force operations every 24 months.
 - (2) Complete LSPTs every 12 months with a minimum score of 100 percent for each intermediate force technique instructed.
 - (3) Conduct at least one site-specific safety briefing every 12 months.
 - (4) Be assigned to and conduct the duties of either a lead instructor or an assistant instructor every 12 months.
10. ARMORERS. All sites, including the DOE NTC, must have (onsite, under contract offsite, or in association with another DOE site) an armorer with the knowledge, capability, and responsibility for inspecting, maintaining, and repairing all firearms

available for use. The armorer and all other personnel are prohibited from modifying the basic design of a firearm or any of the firearm's operating or safety components without specific written approval from the DOE Chief Health, Safety and Security Officer, or from the Associate Administrator for Defense Nuclear Security, in coordination with the Chief Health, Safety and Security Officer as applicable. Armorers must possess a Q security clearance and participate in the HRP before receiving unescorted access to weapons used in the protection of denial targets.

a. Certification. Before initial assignment to duty as a DOE armorer:

- (1) The DOE armorer must successfully complete the DOE Armorer Certification Course, as approved by the Office of Health, Safety and Security.
- (2) The DOE armorer should successfully complete a manufacturer's armorer course for the specific weapons systems employed for site use, where available.
- (3) The DOE armorer must successfully complete a manufacturer's or military armorer course for the specific weapons system(s) employed for site use when such courses are not delivered by the DOE NTC.
- (4) In addition, armorers must demonstrate proficiency in:
 - (a) conducting firearms safety inspections;
 - (b) performing minor repairs of basic firearms;
 - (c) assembling/disassembling the firearms used at the various sites;
 - (d) updating firearms maintenance records;
 - (e) rendering firearms safe, including confiscated firearms;
 - (f) knowing the minimum and maximum tolerances associated with safe operation of all firearms in inventory and available for use at each respective site; and
 - (g) identifying unapproved modifications to firearms.

b. Recertification. The following DOE armorer recertification requirements must be met.

- (1) The DOE NTC must evaluate each armorer for competency and recertification at least once every 3 years. NOTE: Verification of compliance with this requirement must consist of observation of armorer performance during actual duties and/or by performance testing activities,

and inspection of required armory firearms records and other applicable documentation.

- (2) The evaluation must consist of verification of armorer knowledge of all firearms in inventory and available for use on the site, in the following areas:

- (a) conducting firearms inspections;
- (b) performing required firearms repairs;
- (c) using written procedures and technical specifications;
- (d) updating firearms maintenance records;
- (e) maintaining firearms in a serviceably clean and good condition, free from unapproved modifications;
- (f) using proper tools necessary to perform required maintenance, repairs, and inspection duties;
- (g) using a proper tag-out system for firearms in need of repair and properly segregating tagged-out firearms;
- (h) adhering to separate storage requirements for live-firearms and engagement simulation systems firearms; and
- (i) having armorer currency in factory requirements for the specific weapons systems available for use onsite.

- c. Refresher Training. Each armorer must successfully complete formal refresher training, where applicable, to maintain the minimum level of competency required for the successful performance of tasks associated with site-specific armorer responsibilities. The type and intensity of training must be based on emerging and changing maintenance and repair technologies associated with site-specific employed firearms and developed, when applicable, by the DOE NTC in conjunction with firearms factory guidelines. Refresher training may be conducted during the DOE NTC armorer recertification and/or factory armorer recertification process.

11. TRAINING EXERCISES. Exercises and performance tests of various types must be included in the training process to meet the requirements of 10 CFR Part 1046, Appendix B, B(8). The types and frequency of training exercises must be based on the contractor training needs analysis submitted to and approved by the DOE cognizant security authority. The following elements must be included in the training exercise program.

- a. Tactical exercises involving each PF shift and each SRT shift on fixed sites must be conducted at least twice monthly for TRF facilities and monthly for other facilities.
 - (1) These exercises must be planned and conducted to provide site-specific training to the PF in preventing the success of potential adversarial acts defined in the GSP and the DOE- approved site threat statement.
 - (2) They may be of limited scope and may consist of team tactical movement in response to a site or facility-specific threat scenario and, for example, may be incorporated into alarm response and assessment performance tests.
 - (3) Tactical exercises do not necessarily involve FoF activity, although that is preferable.
 - (4) At least quarterly, each PF shift and each SRT shift at TRF facilities will conduct tactical exercises against GSP comparable adversary combatants. These quarterly exercises may be of limited scope and may be conducted in surrogate facilities; however, they should consist of FoF activity.
 - b. The DOE cognizant security authority must request the Federal Bureau of Investigation (FBI) and other Federal, State, and local law enforcement agencies that would assist the PF during a site security incident to participate in training exercises at least every 12 months in accordance with 10 CFR Part 1046, Appendix B, B(8)(c).
 - c. Reports of each training exercise, including all FoF exercises and summarizing results and problems areas, must be prepared for management review and to aid in planning PF activities, developing corrective actions, and analyzing training needs. Participation in FoF exercises must be noted in individual training records. Reports must be available for review by oversight organizations.
 - d. TRF sites and sites with radiological, chemical, or biological targets must plan and conduct an FoF training exercise involving a WMD scenario at least every 24 months. Table-top exercises may be alternated with FoF activities. Where possible, this exercise should involve joint interagency national-level participation (e.g., the FBI, Federal Emergency Management Agency, or State emergency management agencies, as applicable). The Office of Health, Safety and Security will serve as the liaison with national level agencies to promote their participation.
12. NON-DOE TRAINING COURSES. Contractors must obtain DOE cognizant security authority approval for attendance by PF personnel at non-DOE Government or private PF-related training courses. Such courses must have clearly defined learning

objectives and contribute to the job-related KSAs of the SO/SPO assigned to attend. Records of training provided at other Government or private facilities must be obtained and maintained (DOE M 470.4-1, *Safeguards and Security Program Planning and Management*).

CHAPTER III – PROTECTIVE FORCE ADMINISTRATION

1. GENERAL PROTECTIVE FORCE POSITIONS. Protective force (PF) positions include both armed and unarmed positions for the purpose of protecting Department of Energy (DOE) assets including facilities, personnel, sensitive materials, and other property against threats identified in DOE O 470.3B, *Graded Security Protection (GSP) Policy*.
 - a. Security officers (SOs) are unarmed contractor employees who conduct security duties at DOE facilities. SOs are not authorized to carry firearms and are not empowered with any arrest authority.
 - b. Security police officers (SPOs) are armed contractor employees who require firearms/arrest authority pursuant to section 161k. of the Atomic Energy Act [42 U.S.C. 2201(k)] or section 661 of the DOE Organization Act (42 U.S.C. 7270a) as an official function or duty.
 - c. SPOs are categorized according to a three-level system (SPO-I, -II, and -III) that tailors training requirements to assigned duties. Job analyses (JAs) must ensure that individual and unit tactical combat skills are included as part of assigned duties for SPOs located at Tactical Response Force (TRF) facilities. Contractors must obtain DOE cognizant security authority approval for JAs to ensure that the knowledge, skills, and abilities address the duties of each SPO job assignment and support the primary mission of successfully defeating the armed terrorist threat.
2. CAREER LONGEVITY PLAN. The career longevity plan is focused on supporting PF employees who must maintain medical and physical fitness standards required to field a TRF at facilities employing strategies that require recapture/recovery and fresh pursuit capabilities. The plan is intended as a tool to aid in selecting personnel from existing resources for less strenuous positions in support of implementing the DOE Tactical Doctrine prescribed in DOE M 470.4-1, *Safeguards and Security Program Planning and Management*. Local collective bargaining unit provisions and union seniority will govern the specific application of this tool.
 - a. Security Police Officer-II.
 - (1) To promote career longevity, SPO-II will be the entry level protective force position for new hires at TRF facilities. New hires will begin employment meeting the highest level of medical and physical fitness standards within the PF.
 - (2) The TRF-1 course will address all SPO-II tasks required to prepare them for duty.
 - (3) An SPO-II may staff an SPO-I post; however, an SPO-I may not staff an SPO-II post. SPO-IIs may apply for available SPO-I or SO vacancies.

- (4) Failure to maintain minimum firearms qualification scores or training does not qualify an SPO-II for consideration for an SPO-I or SO vacancy.
 - (5) Failure to maintain minimum firearms qualification scores or training will be grounds for removal from SPO status.
 - b. Security Police Officer-III.
 - (1) A person who has successfully completed TRF-1 training may then be eligible for selection to fill SPO-III vacancies.
 - (2) New employees may be hired to fill SPO-III vacancies directly; however, they must complete TRF-1 training before progressing to the SPO-III course (TRF-2).
 - (3) If personnel are being hired to fill an SPO-III vacancy, stipulations may be established and enforced regarding successful completion of both the TRF-1 and TRF-2 courses for continued retention.
 - (4) Once qualified as an SPO-III, personnel must maintain SPO-III qualifications unless they apply and are selected for an SPO-II vacancy.
 - (5) Failure to maintain minimum firearms qualification scores or training and the absence of an SPO-II vacancy for which they are qualified will be grounds for removal from SPO status.
 - (6) SPO-IIIs may apply for SPO-II, I, and SO vacancies.
 - c. Security Police Officer-I. At TRF facilities where SPO-I positions have been validated, they are recommended as career progression opportunities for SPOs who can no longer maintain SPO-II and SPO-III medical and physical fitness standards.
 - d. Security Officer. At TRF facilities where SO positions have been validated, they are recommended as career progression opportunities for SPOs who can no longer maintain SPO medical and physical fitness standards.
- 3. EQUIPMENT.
 - a. PFs must be equipped and provided with the necessary resources to effectively, efficiently, and safely perform both routine and emergency duties in daylight or under reduced visibility conditions.
 - b. Equipment, specifically weapons and communications systems, must be tailored to effectively combat and defeat adversaries identified in the GSP and site-specific threat guidance or as specified in the site security plan (SSP) under

all environmental and tactical conditions. Equipment must be available in sufficient quantities and properly maintained to support the PF mission.

4. FACILITIES.

a. Permanent Posts. Permanent (routine and emergency duty) PF posts that control access to TRF facilities must meet the following requirements.

- (1) Location. Access control posts must be located so the likely routes of adversary ingress and egress are clearly observable and protected routes or methods of approach are available to PF personnel.
- (2) Fighting Positions. Fighting positions must be constructed consistent with the vulnerability assessment (VA) as documented in the SSP.
- (3) Human Factors Requirements. The posts must provide adequate human engineering.
- (4) Exterior Construction. Exterior walls, windows, and doors must be constructed to meet requirements of DOE M 470.4-2, *Physical Protection*.
- (5) Lighting. Lighting must comply with requirements of DOE M 470.4-2, *Physical Protection*.
- (6) Vehicular Access Control. Where automated gates are used to control vehicular access to a security area, the gates and openings must meet the requirements of DOE M 470.4-2, *Physical Protection*.

b. Training Facilities.

- (1) Suitable facilities to support applicable PF activities must be provided and maintained based on mission-specific needs.
- (2) Training facilities must support realistic, high-intensity PF training and qualification programs. This includes facilities for (where applicable) weapons and physical fitness training, qualifications, and maintenance, special skills, and mission-specific training and qualifications.
- (3) Local, State, and Federal law enforcement agencies and Department of Defense/National Guard training facilities are acceptable alternatives to DOE-owned facilities as long as required DOE certifications and safety guidelines are maintained. In coordination with the PF contractor, a memorandum of understanding delineating such use must be completed by the DOE cognizant security authority and approved by DOE line management.

5. SUPERVISORS. PF line supervisors must show proficiency in the skills and abilities necessary to perform required assigned job tasks. In addition to the above, they also must show proficiency and demonstrate familiarity with the following:
 - a. Ability to exercise tactical unit leadership through the direction and deployment of protective force responders in the event of an armed terrorist attack; and
 - b. Ability to evaluate PF tactical performance as individuals and units, identify performance strengths and weaknesses, and ensure application of appropriate corrective action.
6. RESPONSE CATEGORIZATION. Medical and physical fitness requirements for each PF position are based on the expected level of physical exertion associated with security response duties. Duty assignments for each PF position, including supervision, must be clearly identified to ensure that assigned personnel are qualified to perform required duties. Response deployment must be consistent with facility-specific VAs as documented in the site's approved SSP. Three response categories have been established based on the duties outlined below. The following categorizations apply to TRF facilities.
 - a. Active Defense (Offensive Combatant – SPO-II & -III).
 - b. Static Defense (Defensive Combatant – SPO-I).
 - c. Response Support (Non-Combatant – SO).

CHAPTER IV – SECURITY OFFICERS

1. DUTIES/RESPONSE CATEGORY: RESPONSE SUPPORT.

- a. Assignments. Where practicable, unarmed security officers (SOs) should be used to perform administrative, access control, facility patrol, escort, alarm assessment, alarm monitoring, and dispatch duties and to report alarms. SOs will enforce safeguards and security (S&S) protection requirements to allow, as appropriate, armed protective force (PF) personnel to maintain focus on their primary mission of combating the armed terrorist threat.
- b. Knowledge, Skills, and Abilities.
 - (1) Contractors must obtain approval for job analyses (JAs) to determine the specific knowledge, skills, and abilities (KSAs) required to perform each job assignment from the Department of Energy (DOE) cognizant security authority.
 - (2) The JA must be reviewed annually (at least every 12 months) to ensure all KSAs are current and applicable for each job assignment. SOs must demonstrate familiarity with, and knowledge of, the responsibilities identified in the site-specific JA, in accordance with 10 CFR Part 1046, Appendix B, and must show proficiency in the skills and abilities necessary to perform required assigned job tasks and knowledge of post or patrol operations as identified in 10 CFR Part 1046, Appendix B and those contained in Chapter II of this Contractor Requirements Document (CRD).

2. TRAINING.

- a. Training Requirements. Before initial assignment to duty, each person must successfully complete the required basic training as approved by the Chief Health, Safety and Security Officer. Additional site-specific training requirements may be included. Site-specific requirements must be based on a site-specific JA and include SO task areas found in Chapter II of this CRD, as applicable. Contractors must obtain approval for site-specific JA and training requirements from the DOE cognizant security authority. The SO training program must include, but is not limited to, those items referenced in 10 CFR Part 1046, Appendix B, in addition to those contained in Chapter II of this CRD.
- b. Refresher Training. Each SO must successfully complete formal annual refresher training to maintain the level of competency required for the successful performance of tasks associated with job responsibilities.
- c. Remedial Training. Failure to achieve the required level of competency will result in the SO being placed in a remedial training program. The remedial

training program must be tailored to provide the necessary training to afford a reasonable opportunity to meet the level of competency required by the JA. Failure to demonstrate competency at the completion of the remedial program must result in loss of SO status.

- d. Exemption. Formal annual refresher training may be exempted when an SO satisfactorily demonstrates specific KSAs for which refresher training has been scheduled. Such exemptions must be documented.

3. EQUIPMENT.

- a. Uniforms. Contractor PF personnel must be distinctively uniformed while on duty and be identified with their function by appropriate emblems or badges. The uniform must enhance performance of both routine and emergency duties and must promote a professional image. SOs must wear uniforms that conform to site standards with respect to assigned duties and posts (e.g., SOs assigned to interior administrative posts may wear non-field-type uniforms, while SOs assigned to exterior posts may wear field-type uniforms).
- b. Duty Equipment. The equipment issued to PF personnel must be determined by assigned duties on a site-specific basis. At a minimum, the following duty equipment must be provided.
 - (1) Security Officers. Each SO must be assigned, and be required to carry while on duty, a portable radio with carrier and a flashlight with carrier. The issuance of additional equipment, such as intermediate force weapons, must be determined by assigned duties on a site-specific basis.
 - (2) Chemical Protective Equipment. To ensure appropriate analysis and implementation, deployment and use of chemical protective equipment must be documented in the Site Security Plan. The plan must document the rationale for equipment selection, deployment, and use of chemical protective equipment to address detection and response and to consider the results of any emergency planning hazardous material quantitative assessments. Contractors must obtain approval of PF procedures for the use of chemical protective equipment from the DOE cognizant security authority. Personnel assigned protective masks, and whose uncorrected distant vision in the better eye is less than 20/40, must be provided with corrective lens inserts that can be accommodated by the issued mask.
 - (3) Batteries. A sufficient number of batteries for equipment [e.g., radios, hand-held metal and special nuclear material transfriskers (detectors) and monitors, flashlights, cameras, and night vision devices] must be available

and maintained in a charged condition to support routine, emergency, and response operations.

- (4) Equipment Storage. Individual, special-purpose, and duty equipment must be stored and/or carried so it is readily available in sufficient numbers for use as intended according to approved PF response plans, post orders, general orders, and procedures. Adequate and secure storage space must be available for all individually carried equipment.
- (5) Equipment Maintenance. Equipment must be maintained in a serviceable condition in keeping with generally accepted practices and/or the manufacturer's recommendations for the particular type of equipment. Preventive maintenance must be conducted and records maintained.
- (6) Vehicles.
 - (a) Type. Vehicles must exhibit a degree of reliability commensurate with their intended function. Vehicles must enhance the efficiency, speed, and safety of both routine and emergency duties under all expected weather conditions. Vehicles must be of a type and size suitable for the intended use and, in the case of armored vehicles, offer assurance of continued operation and a safe level of protection to occupants under small arms fire, up to and including a North Atlantic Treaty Organization 7.62 millimeter full-metal jacket. Vehicles must be equipped with necessary emergency response equipment (e.g., warning lights, sirens, radios, and spotlights).
 - (b) Maintenance. Vehicles must be maintained in serviceable condition, with preventive maintenance performed at intervals that meet or exceed the manufacturer recommendations. Vehicle maintenance records must be maintained as long as the vehicle is used to support the PF mission.
 - (c) Inspection. Vehicles must be inspected at the beginning of each shift to ensure they are in safe, operating condition. At a minimum, the following must be inspected and found to meet safe operating requirements: horn; tires; lights, including emergency response lights, when applicable; and brakes, including parking brake.
- (7) Communications Equipment. Communications equipment must be designed to provide command and control in routine and emergency operations. Duress alarms must be provided at all PF posts. Duress alarm

requirements may be met through the use of either portable radios equipped with duress capabilities or fixed duress systems.

(8) Optical Devices/Corrective Lenses.

- (a) Eyeglasses worn by PF personnel must be made of safety glass and meet American National Standards Institute (ANSI) Z87.1 Standard.
- (b) SOs whose uncorrected distant vision in the better eye is less than 20/40 must carry an extra pair of eyeglasses or corrective lenses.

CHAPTER V – SECURITY POLICE OFFICERS I

1. DUTIES/RESPONSE CATEGORY: STATIC DEFENSE. Before initial assignment to independent duties, security police officer (SPO) candidates must be formally evaluated and certified in accordance with procedures based on site-specific requirements approved by Department of Energy (DOE) line management.
 - a. Assignments.
 - (1) Tactical Response Force (TRF) Facilities. Fixed fighting positions, armored vehicles with an expectation of employing the capabilities of the vehicle, towers, access control, alarm monitoring, dispatch, security checks, armed construction/administrative escort, and material/package inspections.
 - (2) Non-TRF Facilities. Fixed fighting positions, armored vehicles with an expectation of employing the capabilities of the vehicle, and foot patrols, alarm response and assessment, access control, alarm monitoring, dispatch, security checks, armed construction/administrative escort, and material/package inspections.
 - a. Qualifications. DOE standardized SPO-I training and site-specific training as identified by the site-specific job analysis (JA) in accordance with 10 CFR Part 1046.
 - b. Knowledge, Skills, and Abilities. The requirements for each SPO-I to demonstrate familiarity with, and knowledge of, the responsibilities identified in the applicable JA and proficiency in individual knowledge, skills, and abilities (KSAs) necessary to perform the job tasks include, but are not limited to, those identified for Security Officers (SOs); those identified in 10 CFR Part 1046, Appendix B, B(4)(b), and the following:
 - (1) knowledge of and ability to employ the tactics, techniques, and procedures (TTPs) necessary to engage and neutralize adversaries to include their characteristics, capabilities, weapons, and equipment as defined in DOE O 470.3B, *Graded Security Protection (GSP) Policy*, and local threat guidance;
 - (2) knowledge of and proficiency in the use and care of all weapons, including safety, required by duty assignment, to include weapons effects, capabilities, and the proper use of various types of ammunition;
 - (3) knowledge of and ability to apply DOE requirements for the use of deadly force and limited arrest authority;
 - (4) knowledge of and ability to apply general and site-specific rules of engagement for the application of deadly force;

- (5) knowledge of and ability to apply procedures and requirements for investigation and search of persons and property for evidence;
- (6) knowledge of and ability to apply procedures for recognition, seizure, and preservation of evidence;
- (7) knowledge of and proficiency in the methods of self defense, intermediate force options, detention, and arrest;
- (8) knowledge of and proficiency in the fundamentals of tactical leadership;
- (9) knowledge (or situational awareness) of and ability to recognize site-specific terrain or conditions that may be used by a potential adversary such as: key terrain, obstacles, likely avenues of approach, observation areas, and cover and concealment areas;
- (10) knowledge of and ability to apply procedures and requirements for post incident response and prisoner control; and
- (11) knowledge of and ability to perform emergency first-aid, e.g., self-treatment to stop bleeding, apply pressure bandage, etc.

2. TRAINING.

- a. Training Requirements. Before initial assignment to duty, each trainee must successfully complete the DOE Basic SPO Training Program (BSPOT), as approved by the Office of Health, Safety and Security. Additional site-specific training requirements must be included. Site-specific requirements must be based on site-specific JAs and must include SPO task areas found in 10 CFR Part 1046, as applicable. Contractors must obtain approval for site-specific JA and training programs from the DOE cognizant security authority. The SPO-I training program must include, but is not limited to, those items noted in 10 CFR Part 1046, Appendix B, the instruction identified for SOs in Chapter IV of this Contractor Requirements Document (CRD), and the following types of instruction.
 - (1) Firearms training, including safety, marksmanship, and manipulation skills, with all weapons reasonably expected to be employed.
 - (2) Orientation and standards of conduct.
 - (3) Physical fitness training.
 - (4) Facility operations familiarity.
 - (5) Nuclear materials control and accountability, as applicable.

- (6) Safety (e.g.; General Employee Radiological Training, environmental awareness, alarms and responses, etc.).
- (7) Legal requirements and responsibilities including use of deadly force, site-specific rules of engagement (see Appendix A of this CRD), limited arrest authority (see 10 CFR Part 1047, *Limited Arrest Authority and Use of Force by Protective Force Officers*, and 10 CFR Part 1049, *Limited Arrest Authority and Use of Force by Protective Force Officers of the SPR*), and fresh pursuit (see Appendix A).
 - (a) Procedures and requirements for investigations including the search of persons and property for evidence and recognition, seizure, and preservation of evidence.
 - (b) Post incident response actions such as crime scene preservation and prisoner control.
 - (c) Procedures for the application of the provisions of the Fourth and Fifth Amendments to the Constitution of the United States.
- (8) Tactical operations under both daylight and reduced light conditions that incorporate force-on-force exercises, engagement simulation systems, assigned tactical equipment, and the following types of instruction.
 - (a) Fundamentals of fire discipline.
 - (b) Decisional shooting techniques including shoot/no-shoot scenarios.
 - (c) TTPs for coordinating fire and the use of available cover with adjacent static elements.
 - (d) TTPs for coordinating, directing, and amassing fire upon a designated target (e.g., use of tracer ammunition, tactical lasers, sectoring, etc.) as applicable.
 - (e) TTPs for engaging adversary forces, which will be determined from the JA consistent with the vulnerability assessment and site security plan. The conditions for this training must replicate, to the maximum extent possible, the actual facilities and/or environment in which the SPO will be deployed.
 - (f) TTPs for employing assigned weapons in accordance with site-specific strategies and/or established security incident response plans (e.g., precision fire, grazing fire, suppressive fire, final protective fire, and use of interlocking fields of fire, etc.).
 - (g) TTPs for employing assigned weapons in order to facilitate a base of maneuver for responding elements.

- (h) TTPs for breaking contact and coordinating withdrawal to secondary defensive fighting positions.
- (9) Vehicle operations, including safety, routine, emergency, and pursuit operations, as applicable.
- (10) Operation of specialty vehicles, such as light armored vehicles, as applicable.
- (11) Post, patrol, and response operations including site-specific protection strategies, plans, post orders, general orders, policies, and procedures.
- (12) The GSP and potential adversaries' characteristics, tactics, and motives.
- (13) Actions required of first responders to incidents involving weapons of mass destruction (WMD).
- (14) Direct fire control measures.
- (15) Emergency first-aid, e.g., self-treatment to stop bleeding, apply pressure bandage, etc.
- (16) Prisoner control.
- (17) Tactical leadership.
- (18) Night vision devices (NVDs).

b. Refresher Training.

- (1) Formal Program. Except as stated in paragraph 2b(3) below, each SPO must successfully complete formal annual refresher training to maintain the level of competency required for the successful performance of tasks associated with job responsibilities. The formal program will incorporate intensive on-shift training administered by supervisors and/or training personnel and include extensive individual and small unit tactical performance testing. The type, intensity, frequency, and duration of training must be determined by a site-specific JA and approved by the DOE cognizant security authority.
- (2) Remedial Training. Failure to achieve the required level of competency will result in the SPO being placed in a remedial training program. The remedial training program must be tailored to provide the necessary training to afford a reasonable opportunity to meet the level of competency required by the JA. Failure to demonstrate competency at the completion of the remedial program must result in loss of SPO status.

- (3) Training Exemption. Except for firearms and physical fitness requirements and training in the areas of protection strategies, use of force, pursuit driving, individual and team tactics, and chemical biological weapons, portions of formal annual refresher training may be exempted when an SPO satisfactorily demonstrates a KSA for which refresher training has been scheduled. Such exemption(s) must be documented in the individual's training record.

c. Returning SPOs.

- (1) Any former SPO-I who has been out of active SPO status for less than 6 months may return to active status after completing limited refresher training for the assigned SPO-level duties. The scope of limited refresher training will be determined by evaluation of the SPOs skills by a PF instructor and approved by the cognizant PF Training Manager.
- (2) Any former SPO-I who has been out of active SPO status for more than 6 months but less than 12 months may return to active status after completing prescribed refresher training for the assigned SPO-level duties. The prescribed refresher training will be designed by a PF instructor and approved by the cognizant PF training manager. Documentation of testing activities will be maintained and available for review during DOE/National Nuclear Security Administration inspection activities.
- (3) Any former SPO-I who has been out of active SPO status for more than 12 months (unless on active military duty) may return to active status only after completing the entire DOE BSPOT course and site-specific requirements again as noted in this CRD.

3. EQUIPMENT.

- a. Uniforms. Contractor PF personnel must be distinctively uniformed while on duty and be identified with their function by appropriate emblems or badges. The uniform must enhance performance of both routine and emergency duties and must promote a professional image. Uniforms must conform to site standards that enhance SPOs' abilities to respond to and resolve security incidents.
- b. Duty Equipment. The equipment issued to PF personnel must be determined by assigned duties on a site-specific basis. At a minimum, the following duty equipment must be provided.
 - (1) Security Police Officer-I. Each SPO-I must be assigned, and be required to carry while on duty, a firearm and ammunition, an ammunition-carrying device of sufficient capacity, a portable radio with carrier, handcuffs (with case) or other restraining devices, an intermediate force weapon (with case, if applicable), and a flashlight with carrier. The issuance of any additional equipment items must be determined by assigned duties on a

site-specific basis. When worn, equipment must be secured to the SPO so that it is easily accessible and does not hamper tactical movement.

- (2) Alternative to Deadly Force. Armed PF personnel must be assigned equipment that provides an alternative (i.e., intermediate force), in the appropriate circumstances, to the use of deadly force (e.g., side-handle or collapsible baton or chemical agents).
- (3) Non-Lethal Area Weapons. Non-lethal area weapons such as chemical agents must be of the type commensurate with the intended use and must not pose danger to personnel or facilities beyond that required for the success of the PF mission. Chemical agents must not be kept in active inventory past their expiration dates.
- (4) Personal Protective Armor. Personal protective armor must be readily available for SPO-I, -II, and -III personnel. Protective armor must be worn by SPOs or be stationed or positioned so it can be quickly donned when needed without impacting response times. Protective armor for SPO-I personnel must provide at least Type III-A-level protection, as established by National Institute of Justice (NIJ) Standard 0101.04A (6/01). Protective armor for SPO-II and III personnel must provide at least Type III-level protection, as established by NIJ Standard 0101.04A.
- (5) Protective Masks. Protective masks must be available for armed SPO-I, -II, and -III personnel (i.e., they must be carried by personnel or be stationed or positioned so they can be donned within 14 seconds). Protective masks must be of a type that does not hinder performance of emergency duties, including accurate firing of all assigned firearms. In accordance with 29 CFR Part 1910.134, they must be rated for radiological/biological/chemical protection and individually fit tested.
- (6) Optical Devices/Corrective Lenses.
 - (a) Eyeglasses worn by PF personnel must be made of safety glass and meet the American National Standards Institute (ANSI) Z87.1 standard.
 - (b) SPOs whose uncorrected distant vision in the better eye is less than 20/40 must carry an extra pair of eyeglasses or corrective lenses.
- (7) Protective Mask Optical Inserts. Personnel assigned protective masks whose uncorrected distant vision in the better eye is less than 20/40 must be provided with corrective lens inserts that can be accommodated by the issued mask.
- (8) Observation Devices. Binoculars must be available for PF use to permit observation and detection of unauthorized activity and to aid in the

conduct of response operations both day and night. At TRF facilities or facilities possessing Category II special nuclear material (SNM), NVDs and/or thermal imaging devices compatible with weapon sighting systems must be available for PF use at those fixed and mobile posts as determined by post analysis to permit observation and detection of unauthorized activity and to aid in the conduct of response operations during reduced light conditions. As technology evolves, such equipment will be evaluated routinely for serviceability and upgraded, as required, to enhance detection and combat effectiveness.

(9) Communications Equipment.

(a) Basic Requirements. Communications equipment must be designed to provide command and control in routine and emergency operations. Duress alarms must be provided at all PF posts. Duress alarm requirements may be met through the use of either portable radios equipped with duress capabilities or fixed duress systems.

(b) Special Requirements.

1 TRF Facilities or Facilities Containing Category II Quantities of SNM. Fixed PF posts must have both normal telephone service and two-way radio communication with the central alarm station/secondary alarm station, and points from which backup forces may be dispatched. All PF response vehicles used for pursuit/response/recovery must be capable of communicating with supporting law enforcement agencies. PF communications at TRF facilities must be capable of operating in a secure communication mode that has been approved by the DOE cognizant security authority.

2 Tests. Daily tests of communication systems must be conducted. If equipped with duress capabilities, the duress system must be tested weekly. Fixed duress systems must also be tested weekly.

CHAPTER VI – SECURITY POLICE OFFICERS II

1. DUTIES/RESPONSE CATEGORY: ACTIVE DEFENSE.

- a. Assignments. Vehicle and foot patrols, mobile and mobile reserve response force with the primary mission of denying adversary access to targets.
- b. Qualifications. Department of Energy (DOE) standardized Security Police Officer (SPO)-I and -II training and site-specific training as identified by the site-specific job analysis (JA) in accordance with 10 Code of Federal Regulations (CFR) Part 1046.
- c. Knowledge, Skills, and Abilities. Each SPO-II must demonstrate familiarity with, and knowledge of, the responsibilities identified in the site-specific JA and those identified for SPO-Is. Additionally, each SPO-II must demonstrate familiarity and knowledge of the following:
 - (1) Knowledge of and ability to apply procedures and requirements for escorting sensitive material movements, such as nuclear weapons, components, and assemblies; special nuclear material; and/or other classified matter;
 - (2) Knowledge of and ability to perform individual and small unit/team tactics, techniques and procedures (TTPs) to respond to and assess alarm annunciations (or other indications of intrusion), and implement containment, denial, recapture, recovery, and pursuit strategies;
 - (3) Knowledge of and proficiency in the principles and application of small unit tactical leadership;
 - (4) Knowledge of and ability to apply procedures for responding to civil disturbances; and
 - (5) Knowledge of and proficiency in operating/employing special weapons and deploying from specialized vehicles.

2. TRAINING.

- a. Training Requirements. Before initial assignment to duty, each trainee must successfully complete the DOE Basic SPO Training Program contained within the Tactical Response Force I (TRF-I) training curricula, as approved by the Office of Health, Safety and Security. Additional site-specific training requirements must be included. Site-specific requirements must be based on site-specific JAs and must include SPO task areas found in this Contractor Requirement Document (CRD), as applicable. Contractors' site-specific JAs and training programs must be approved by the DOE cognizant security authority. The SPO-II training program must include, but is not limited to, those items noted in

10 CFR Part 1046, Appendix B, the instruction identified for Security Officers (SOs) and SPO-Is in this CRD and the following types of instruction:

- (1) Tactical operations training, including individual and small unit tactics under both daylight and low light conditions that incorporates force-on-force exercises, engagement simulation systems, and use of all assigned tactical equipment. Tactical training must also include, but not be limited to, the following types of instruction:
 - (a) Fire team/small unit TTPs for coordinating fire, movement, and the use of available cover;
 - (b) Fire team/small unit TTPs for coordinating, directing, and amassing fire on a designated target (e.g., use of tracer ammunition, tactical lasers, sectoring, etc.);
 - (c) Call for fire procedures to coordinate and deliver the maximum force to bear on a designated target/adversary at the optimum time and place as applicable;
 - (d) TTPs for firing weapons and responding from fixed positions and specialized vehicles (e.g., portable body bunkers, guard posts, elevated positions, vehicle turrets) and techniques for tactically dismounting vehicles;
 - (e) TTPs for both mounted and dismounted operations;
 - (f) Ambush/counter-ambush and patrol techniques;
 - (g) Counter-sniper operations; and
 - (h) Shoot-on-the-move.
- (2) Fundamentals and principles of Military Operations in Urban Terrain to include the following types of instruction:
 - (a) TTPs for responding to ambush and/or sniper attacks during patrol operations and/or onsite movements of critical assets, as applicable.
 - (b) Site-specific, timed tactical obstacle course that tests physical fitness and marksmanship skills.
- (3) Routine and emergency operation (to include applicable pursuit TTPs) of specialized or seasonal vehicles such as light armored vehicles, fast attack vehicles, snowmobiles, all-terrain vehicles, boats, etc., as applicable.

- (4) Use and deployment of diversionary devices, lethal explosive devices (e.g., fragmentation grenades), and non-lethal pyrotechnics such as parachute flares, as applicable.
- (5) Operation of night vision devices and other specialized equipment that has been incorporated into the site's protection strategy (e.g., tactical lasers, thermal imaging equipment, etc.).

b. Refresher Training.

- (1) Formal Program. The formal Refresher Training Program for SPO-IIs shall conform to the requirements for SPO-Is with the addition of SPO-II specific topics.
- (2) Remedial Training. Remedial Training Programs for SPO-IIs shall conform to the requirements for SPO-Is. Failure to demonstrate competency at the completion of the remedial program must result in loss of SPO-II status and may result in loss of SPO status.
- (3) Training Exemption. Training Exemption for SPO-IIs shall conform to the requirements for SPO-Is.
- (4) Returning Security Police Officers-I/II. Requirements for returning SPO-IIs shall conform to the requirements for SPO-Is.

- 3. EQUIPMENT. In addition to the equipment provided to SPO-Is, SPO-IIs must receive equipment as determined by assigned duties on a site-specific basis. When worn, equipment must be secured to the SPO so that it is easily accessible and does not hamper tactical movement.

CHAPTER VII – SECURITY POLICE OFFICERS III

1. DUTIES/RESPONSE CATEGORY: ACTIVE DEFENSE.

- a. Assignments. Tactical Response Force (TRF) Facilities. Exterior reconnaissance patrols, special response team (SRT) posts, activities and duties with the primary missions of recapture, recovery and pursuit.
- b. Security Police Officers-III Selection Criteria. Qualified Security Police Officers II (SPO-IIs) may volunteer and/or be selected for SPO-III duties; however, each individual must also meet specific selection criteria in order to be assigned as an SPO-III member. The number of times that a previously unsuccessful candidate may reapply for SPO-III selection, and the selection criteria, must be in writing and approved by the DOE cognizant security authority. Before being assigned to an SRT, candidates must meet the SPO-III standards as well as the following:
 - (1) Complete a formal evaluation and interview by site protective force (PF) management to determine their potential to successfully perform SPO-III duties and SRT missions;
 - (2) Be capable of performing the duties and completing the training requirements as specified in this Contractor Requirements Document (CRD);
 - (3) Successfully complete a timed-standard, site-specific tactical obstacle course;
 - (4) Successfully complete the DOE TRF-II course; and
 - (5) Successfully complete any additional site-specific training and qualification that may be required for job performance at a specific site or facility that is beyond the scope of initial SPO-III training.
- c. Qualifications. Department of Energy (DOE) standardized SPO-I, SPO-II, and SPO-III training and site-specific training as identified by the site-specific job analysis (JA). Physical fitness and firearms qualifications in accordance with 10 Code of Federal Regulations (CFR) Parts 1046 and 1047. The requirements for each SPO-III to demonstrate familiarity and knowledge of the responsibilities identified in the JA and proficiency in the individual and team knowledge, skills, and abilities (KSAs) necessary to perform the job tasks include, but are not limited to, those identified for SPO-IIs as listed above and the following:
 - (1) Ability to act as a member of a tactical special response team, or multiple fire teams, using tactics, techniques and procedures (TTPs) and force options necessary for denial, interdiction, interruption, and/or neutralization operations directed against an adversary and to support site-specific protection strategies;

- (2) Ability to qualify with and/or employ site-approved special weapons, TTPs, equipment, and vehicles necessary to protect the site or to engage, neutralize, and/or pursue an adversary;
- (3) Knowledge of and ability to perform tactical leadership duties associated with the command and control of PF response elements during a site emergency; and
- (4) Knowledge of and ability to apply site-specific plans, Security Incident Response Plans, target folders, PF doctrine, and TTPs necessary to assume tactical command and control of adjacent/support forces in an emergency.

2. TRAINING.

- a. Training Requirements. Contractors must obtain approval of site-specific JA and training programs from the DOE cognizant security authority. Additional site-specific training requirements must be included and be based on a site-specific JA. The SPO-III training program must include the requirements identified in 10 CFR Part 1046, Appendix, B for SPOs and the following:
 - (1) Live-fire shooting-on-the-move techniques, one-hand handgun manipulation and malfunction clearing techniques, semi- and full-automatic fire with appropriate firearms (where applicable), individual and team tactics in a live-fire shoot house (LFSH), and qualification with assigned duty weapons;
 - (2) Close Quarters Battle (CQB) training, including live-fire team operations in stronghold and emergency assaults under both day and night conditions in an LFSH;
 - (3) Small unit tactics, including team and individual movement techniques under both day and night conditions;
 - (4) Mobile and open-air assaults including live-fire team operations under both day and night conditions;
 - (5) A timed tactical obstacle course that emphasizes physical fitness and marksmanship skills;
 - (6) Decisional shooting techniques including shoot/no-shoot scenarios;
 - (7) Use and deployment of diversionary devices;
 - (8) Use of tactical equipment deployed in support of SRT operations (e.g., night-vision devices, range finders, global positioning systems, ladders, video systems, and ascending/descending systems); and
 - (9) Mechanical and ballistic breaching.

- b. Specialized Training. Team members may volunteer and/or be selected for specialized SPO-III duties for which the following requirements must be met.
 - (1) Precision Rifleman Forward Observer Team Training. Before initial assignment to duty as a Precision Rifleman Forward Observer Team (PRFOT) member, each assigned SPO-III must successfully complete the DOE PRFOT training course approved by the Office of Health, Safety and Security. Thereafter, on a quarterly basis, each PRFOT member must participate in live- and dry-fire proficiency training. Live- and dry-fire proficiency training must be integrated into and conducted in conjunction with SRT training via controlled use of force, tactical movement training, and night operations.
 - (2) Tactical Entry Specialist Training. Before initial assignment to Tactical Entry (TE) specialist duties, each SPO-III assigned must successfully complete the DOE Basic TE Course approved by the Office of Health, Safety and Security. Thereafter, each specialist must participate quarterly in proficiency training that includes mechanical entry techniques. Before conducting explosive TE operations, specialists must successfully complete an explosive TE course approved by the Office of Health, Safety and Security.
- c. Refresher Training.
 - (1) Formal Program.
 - (a) Except as stated in paragraph 2c(4) below, each SPO-III must successfully complete a formal annual refresher program to maintain the level of competency required for the successful performance of tasks associated with job responsibilities. The formal program will incorporate intensive on-shift training administered by supervisors and/or training personnel and include extensive individual and small unit tactical performance testing. The type, intensity, frequency, and duration of training must be determined by a site-specific JA and must be approved by the DOE cognizant security authority.
 - (b) After assignment to duties as a member of an SRT, an SPO-III must, at a minimum, train semiannually (at least every 6 months) in all of the following: decisional shooting, CQB, LFSH operations, tactical obstacle course, night operations, team tactical movement, and force options (i.e., open air, mobile, emergency, and stronghold assaults). Requirements for semi-annual maintenance training may be satisfied through combined training of two or more of these areas.

- (2) Remedial Training. Remedial training programs for SPO-IIIs shall conform to the requirements for SPO-Is. Failure to demonstrate competency at the completion of the remedial program must result in loss of SPO-III status and may result in loss of SPO status.
 - (3) Training Exemption. Portions of formal annual (at least every 12 months) refresher training may be exempted when a SPO-III satisfactorily demonstrates a KSA. Such exemption(s) must be documented in the individual's training record. The following requirements may not be exempted: firearms and physical fitness qualifications, protection strategies, force options, pursuit driving, individual and team tactics, special skills, CQB, and chemical biological weapon (CBW) training.
- d. Site SPO-III Training Certification. For a site to be authorized to conduct the DOE TRF-II course onsite, the DOE National Training Center (NTC) must determine and certify the site's capability to conduct the course and meet all applicable SPO-III training requirements. Such determination will be made by the NTC through the use of a standard evaluation system/format. Such certification will be valid for 3 years. This certification is automatically revoked when it has been determined that the onsite course does not meet requisite training requirements. The cancellation will remain in effect until the site is found to be in compliance with the requirements.
- e. SPO-III Returning to Active Status.
 - (1) Any former SPO-III who has been out of active SPO-III status for less than 6 months may return to active status after completing limited refresher training for assigned SPO-III duties.
 - (a) The scope of limited refresher training will be determined by evaluation of the SPO-III's skills by a SPO-III instructor and will be approved by the cognizant SRT commander in coordination with training management. The scope of limited refresher training must include the use of deadly force, rules of engagement, review of basic firearms training for assigned firearms, and site-specific assigned duties.
 - (b) Cognitive and performance tests will be designed and administered to ensure the SPO-III has met the required standards associated with all tasks necessary to effectively resume duties as a member of a unit. Documentation of testing activities will be maintained and available for review during DOE/National Nuclear Security Administration (NNSA) inspection activities.
 - (2) Any former SPO-III who has been out of active SPO-III status for more than 6 months but less than 12 months may return to active status after completing prescribed refresher training for assigned SPO-III duties. The

prescribed refresher training will be designed by an SRT instructor and will be approved by the cognizant SRT Commander in coordination with training management.

- (a) The scope of prescribed refresher training must include an overall review of the SPO-III training requirements in Chapter VII of this CRD and site-specific assigned duties. Cognitive and performance tests will be designed and administered to ensure the SPO-III has met the required standards associated with all tasks necessary to effectively resume duties as a member of a unit.
 - (b) Documentation of testing activities will be maintained and available for review during DOE/NNSA inspection activities.
- (3) Any former SPO-III who has been out of active SPO-III status for more than 12 months may return to active status only after completing the entire DOE SRT BQC and site-specific requirements again as noted in Chapter VII of this CRD.
 - (a) Before re-assignment to SPO-III duties, all requirements of 10 CFR Parts 1046 and 1047 must be met.
 - (b) The supervisor of any newly assigned SPO-III will evaluate the tactical performance of the SPO-III through individual and unit performance tests. The supervisor will provide guidance and instruction as necessary to ensure the SPO-III is effectively integrated into the unit and is capable of performing mission requirements.
- 3. EQUIPMENT. In addition to equipment provided to SPO-IIs, the equipment issued to SPO-III personnel must be determined by assigned duties on a site-specific basis. At a minimum, each SPO-III must be assigned a firearm and ammunition, an ammunition-carrying device of sufficient capacity, fire-resistant hood and gloves, a flashlight with carrier, goggles/eye protection, tactical boots, CBW mask with carrier, handcuffs with case and/or other restraining devices, and equipment designed to accommodate the duty functions (e.g., tactical vests).

CHAPTER VIII – SPECIAL RESPONSE TEAM

1. **PROGRAM REQUIREMENTS.** The mission of the special response team (SRT) is to resolve incidents that require force options that exceed the capability of security police officer (SPO)-I and -II personnel and/or existing physical security systems. The SRT must be capable of effective and ready response. The SRT must be trained and equipped to conduct interdiction, interruption, and neutralization operations and containment, denial, recapture, recovery, and pursuit strategies directed against an adversary.
 - a. An SRT is required at Tactical Response Force (TRF) facilities and for intra-site transport of denial targets.
 - b. A contractor request for authorization to deploy an SRT capability at a site or facility that does not meet requirements in paragraph 1a above must be approved by DOE line management with notification to the cognizant Departmental element. Approvals must be based on a site vulnerability assessment (VA) that documents the need for an SRT (e.g., a radiological/toxicological/sabotage target that could have adverse impact on national security, the health and safety of employees, the public, or the environment).
 - c. The SRT must be staffed with qualified and certified SPO-III personnel deployed as one or more dedicated teams with specialized weapons and equipment, operating from mobile tactical vehicles, as ground assault forces, or a combination of both.
2. **CONCEPT OF OPERATIONS.** An SRT must be capable of resolving adversary actions using force options (including, but not limited to, open-air, mobile, stronghold, and emergency assault using dynamic and covert techniques) and team tactics for interdiction, interruption, neutralization, containment, denial, recapture, recovery, and pursuit operations.
 - a. **Team Availability.** An SRT must be available at all times and must be dedicated to re-entry, recapture, recovery, and pursuit operations. The dedicated recapture/recovery element of the SRT must be established with resources beyond those required by the protective force (PF) for the protection of sensitive assets to ensure that recapture/recovery capabilities continue to exist in the event that a denial strategy fails.
 - b. **Plans.** SRT operations and tactical response must be documented in the site security plan (SSP).
 - c. **Team Composition.** Sites must consider the functional team positions listed below when developing and deploying an SRT. These positions must not be construed as the minimal composition of an SRT. The specific SRT composition, positions, staffing levels, and functional capabilities must be dependent on the SSP, site or facility mission, VA, protection strategies, and performance testing results. Team composition positions include:

- (1) assaulter;
 - (2) precision rifleman forward observer team (PRFOT) member;
 - (3) tactical entry (TE) specialist;
 - (4) assault leader; and
 - (5) team commander.
3. TRAINING. Before initial assignment to duties as a SRT member, an SPO must successfully complete the DOE Tactical Response Force II (TRF-II) training curricula, as approved by the Office of Health, Safety and Security. The formal training program for SPO-IIIs must be in compliance with this Contractor Requirements Document (CRD). Each instructor assigned to deliver the TRF-II course must successfully complete the DOE SRT Instructor Certification Course, as approved by the Office of Health, Safety and Security, and any other Office of Health, Safety and Security-approved courses for the level of instruction delivered (e.g., PRFOT Instructor and Live-Fire Shoot House Instructor Certification courses).
4. PROGRAM CERTIFICATION/RECERTIFICATION. SRT programs must be certified initially and recertified annually (at least every 12 months) by the DOE cognizant security authority. A program is considered certified/recertified when the site has completed the following validations.
 - a. All assigned SRT members have met the training requirements of Chapters II and VII of this CRD.
 - b. The DOE cognizant security authority has determined that the site SRT program is in compliance with this CRD and has forwarded documentation of the satisfactory completion of site certification/recertification to the cognizant Departmental element.
 - c. All of the above can be accomplished during the annual periodic safeguards and security survey (see DOE M 470.4-1, *Safeguards and Security Program Planning and Management*).
5. EQUIPMENT. The equipment issued to PF personnel must be determined by assigned duties on a site-specific basis. At a minimum, the following duty equipment must be provided.
 - a. Equipment. SRT equipment must be selected to facilitate the ability of the SRT to safely perform both normal and emergency response duties. In general, team equipment must be provided to facilitate and hasten a rapid response, be operable in all local weather conditions, allow for transfer of reliable communication and information, and assist in the detection of adversaries under all light conditions. Site-specific equipment relevant to meeting site-specific mission requirements must also be made available. PRFOT, TE specialists, SRT commanders, and

assault leaders each may require additional specialized equipment to meet mission requirements. Sites must ensure that all necessary specialized individual and team equipment needs are met and maintained.

- b. Tactical Vests. Tactical vests must be readily available for use by SRTs and other designated personnel. They must be designed to accommodate the duty functions of the wearer and enhance effectiveness.
- c. Communications. SRT communications must be separable from the rest of the system.

CHAPTER IX – FIREARMS TRAINING

1. REQUIREMENTS.

- a. Firearms training programs must be based on criteria established by the Department of Energy (DOE) National Training Center (NTC). Such training programs must contain attachments on specific site-developed firing range and on-duty (off-duty when applicable) safety information and must incorporate sections of the manufacturer operating manuals that are necessary to the safe operation, inspection, and maintenance of specific firearms.
- b. During firearms training, all personnel must have access to an instruction manual for each type of firearm with which they may be armed while on duty and must demonstrate both technical and practical knowledge of the contents of the manual governing the safe use of that firearm.
- c. Training records for personnel authorized to carry firearms must be available for review by appropriate safety and security personnel.
- d. All firearms training, qualification, practice, and test firing activities must be conducted by personnel who are certified by the NTC in the principles of operation for the specific weapon system on which training is provided. This certification is specific, and personnel must not conduct activities for which they have not been certified.
- e. Lesson plans for all firearms training must be available for review by appropriate safety and security personnel. Such lesson plans must incorporate safety in addition to other training objectives and task performance standards. The NTC must provide training on how to develop the categorical information to be contained in typical lesson plans.
 - (1) Lesson plans must include a safety briefing for all participants and authorized observers. The briefing must be conducted by personnel experienced in performing exercises and knowledgeable about the firearms to be used.
 - (2) Lesson plans must be written and include safety requirements for any course of fire.
- f. Standard Operating Procedures.
 - (1) All firearms training must be conducted in accordance with this Contractor Requirements Document (CRD) and local standard operating procedures (SOPs) developed in response to specific site needs and tactics as designated by the DOE cognizant security authority. SOPs must include detailed procedures emphasizing the safety of participants, observers, and bystanders and the use of personal protective equipment (PPE).

- (2) All SOPs must be reviewed and approved by appropriate contractor safety and protective force (PF) personnel at least annually (every 12 months) or more frequently if significant revisions are made in the training program. DOE cognizant security authority and safety personnel review and approve SOPs initially and whenever other than editorial changes are made.
- (3) The four general firearms safety rules.
 - (a) All firearms are always loaded.
 - (b) Never point a firearm at anything you are not willing to destroy.
 - (c) Keep your finger off the trigger until your sights are on the target.
 - (d) Be sure of your target.
- (4) Specific range safety rules.
 - (a) It is mandatory to use approved eye and ear protection and other PPE as required by the range safety officer.
 - (b) Unsafe conditions must be reported immediately to an instructor.
 - (c) A firearm may only be exchanged with another shooter under the direct supervision of an instructor.
 - (d) Firearms must not be left unattended or unsecured.
 - (e) Firearm loading and firing may commence only on command.
 - (f) Shooters are not permitted to talk during a firing activity except in reply to an instructor as a part of the activity or to shout "cease fire" in an unsafe situation.
 - (g) Until the firing line has been declared safe by the firearms instructor, shooters must not move past or bend over on the line.
 - (h) All shooters must be trained on what constitutes an unsafe condition and to shout "cease fire" when such a condition is observed.
 - (i) Smoking, eating, or drinking must be prohibited while shooting.
 - (j) Alcoholic beverages and drugs are prohibited on firing ranges. Shooters taking medication must report this fact to the firearms instructor before reporting to the firing line. The firearms instructor is responsible for determining whether a shooter is fit

based on the medication taken and whether it is safe for the shooter to use the range. A physician may be consulted if necessary.

- (k) Shooters must take precautions to prevent hot spent cartridge and gunshot residues from getting inside their clothing.
 - (l) When a training session is completed, each firearm must be physically examined by the shooter and by a designated range safety officer or qualified firearms instructor to ensure that it is unloaded and in safe condition before leaving the range. If the shooter is using a duty firearm on the range, he or she may reload that weapon at the range if returning directly to duty.
 - (m) Shooters must collect unexpended ammunition and return it to a firearms instructor.
 - (n) While a firearm is being cleaned, live ammunition must not be allowed in the cleaning area.
- (5) All firearms training and qualification requires instructor-to-shooter ratios with no more shooters than:
- (a) One instructor to one shooter.
 - 1 Any initial automatic firing (e.g., submachine gun or rifle).
 - 2 Any initial live-fire training of the machine gun (e.g., M60, M249, M240).
 - 3 Any explosive projectile (e.g., M79, M203, M72).
 - 4 Any advanced course of fire with any firearm involving movement of the shooter other than straight down range or with a fan of fire greater than 10 degrees.
 - 5 Any automatic fire training (e.g., submachine gun, rifle, or machine gun).
 - (b) One instructor to no more than four shooters for tactical response force (TRF) courses approved by the Office of Health, Safety and Security and conducted by the NTC or by sites certified to conduct NTC TRF courses.
 - (c) One instructor to four shooters for re-qualification with a submachine gun, rifle, or machine gun in automatic mode using controlled bursts of fire and for practice or training for personnel who have qualified on at least one Office of Health, Safety and Security-approved automatic course of fire.

- (d) Eight shooter to one instructor when firing in the semiautomatic mode (e.g., automatic rifle in semiautomatic mode, shotgun, semiautomatic rifle, and pistols), except during night firing and initial training, where the shooter to instructor ratio must not be more than four shooters to one instructor. When using an indoor range, whether daylight or simulated night fire, the shooter to instructor ratio may increase to five shooters to one instructor.
- (6) A range safety officer or an instructor with specific delineated responsibilities for range safety (e.g., to monitor the safety performance of the shooters and overall safety of the firing range) must be present during all firearms training and qualification activities.
 - (a) When the instructor-to-shooter ratio requires only one instructor on the firing line, he or she must be the lead instructor and may be assigned range safety responsibilities if approved by the range master.
 - (b) When the instructor-to-shooter ratio requires two or more instructors on the firing line, a lead instructor must preside over the firing activities (i.e., “calling the line”), who will not be assigned additional instructional duties or be included in the instructor-to-shooter ratio but may be assigned range safety responsibilities. To perform these activities, the lead instructor may be positioned either behind the firing line, in a booth, or in a tower, whichever location provides the greatest safety and control.
- g. All contractor organizations with employees using firearms in non-security-related activities must develop a program of firearms safety specific to those activities and submit it for review and approval to the DOE cognizant security authority. Specific written procedures must be developed and approved for any activity not addressed elsewhere in this CRD that involves the planned discharge of firearms, e.g., testing activities, competitive shooting matches, public hunting, or pest control.

2. BASIC TRAINING.

- a. Basic firearms safety training, demonstrated technical knowledge, and practical proficiency is required before firearms are permitted to be carried on duty. Safety training must be conducted semiannually (at least every 6 months), at which time safety proficiency must be demonstrated in order to retain weapon-carrying status.
- b. Basic firearms training must be conducted at a site approved by the DOE cognizant security authority.
- c. Basic firearms safety training must include the following:

- (1) General firearms safety orientation;
 - (2) Instructions on the capabilities of firearms and ammunition and their implications; and, where applicable, instructions on the hazards associated with the impact of bullets and other projectiles on nuclear explosives, nuclear weapons, explosives, and other possible items known to be on site that could result in a significant release of energy or toxic substances;
 - (3) Firearms safety information for each type of firearm required by duty assignment;
 - (4) Practice with the unloaded firearm in the teaching environment;
 - (5) Range safety procedures and demonstration of safe firing techniques on the range;
 - (6) Dry-firing techniques and hazards associated with dry firing;
 - (7) Handling of misfires;
 - (8) Detailed procedures on clearing, handling of malfunctions, inspecting, cleaning, loading, unloading, and other specific tasks related to each firearm for which the student receives training. This may include instruction and practice in assembly/disassembly but must not include repair, modification, or replacement of parts;
 - (9) Details of firearms accidents and how they could have been prevented; and
 - (10) The four general firearms safety rules.
3. ADVANCED TRAINING. The firearms safety portions of advanced firearms and of TRF firearms training must follow the same rules as paragraph 2c, above.
 4. RANGE OPERATIONS AND PROCEDURES.
 - a. Specific site range safety rules and regulations must be developed and implemented by the organization designated to be responsible for operating a live-fire range. Such rules and regulations must be formal, provide a disciplined approach to range operations, and include rules and regulations on pre- and post-firing range activities.
 - b. A risk analysis or a safety analysis report must be prepared on the facilities and the operations of each live-fire range. The report must be reviewed and approved at least annually by contractor safety personnel and the DOE cognizant security authority.

- c. Range safety rules must be conspicuously posted at the entrance to each DOE-controlled live-fire range or range complex.
- d. Before firing commences, a safety briefing must be conducted for all participants that will include the basic range safety rules, the capabilities of the firearms to be used, and the safe operating procedures for the course of fire to be undertaken.
- e. Dry-fire practice must be conducted only in an approved area under the direct supervision of a firearms instructor.
- f. A scarlet streamer must be prominently displayed at live-fire ranges at all times during daylight firing. The streamer must be replaced with a blinking or pulsating red light for night firing. These day and night range warning indicators must be visible to aircraft. Where live-fire operations may affect routine aircraft operations directly, the appropriate aviation control center must be notified.
- g. If professional medical personnel are not readily available, firearms instructors must be trained and currently qualified in cardiopulmonary resuscitation (CPR)/first aid. CPR/first aid training must be conducted by instructors certified by the American Red Cross or the American Heart Association. Specific training on the handling of gunshot wounds must be provided.
- h. Medical equipment must be available at a live-fire range as determined by the cognizant site physician or other authorized personnel.
- i. A DOE approved plan must be in place for handling, treating, and evacuating injured personnel through the use of an air ambulance or on-scene wheeled ambulance. Emergency response drills must be carried out annually (at least every 12 months) to test personnel preparedness in implementing the plan.
- j. Airborne lead monitoring must be conducted at all firing ranges in compliance with Occupational Safety and Health Administration lead standard, 29 Code of Federal Regulations (CFR) Part 1910.1025. The medical surveillance provisions of the lead standard must be established and implemented when measurements indicate that employees are, or may be exposed to, airborne lead concentrations that exceed the action level.
- k. Any employee involved in regular firearms training [e.g., instructors or security police officers (SPOs)] must be entered into a hearing conservation program (see 29 CFR 1910.95).
- l. A communications system with backup (i.e., telephone and/or two-way radio) must be available at each live-fire range.
- m. Live-fire ranges must be equipped with sufficient lighting to ensure safe nighttime firing exercises.

- n. Written and approved procedures for handling duds and misfires must be provided at all live-fire ranges.

5. LIVE-FIRE SHOOT HOUSE OPERATIONS.

a. Responsibilities.

- (1) Range Master. The range master is responsible for the safe operation and coordination of maintenance for the live-fire shoot house (LFSH) operations and all activities at the live-fire range.
- (2) Safety Officer. The safety officer is specifically responsible for safety during LFSH operations.
- (3) Lead Instructor. The lead instructor is responsible for the overall conduct of a specific course and must:
 - (a) Meet the requirements to support training to include targets, ammunition, medical support, support equipment, classrooms, and training aids;
 - (b) Ensure all participants are qualified to engage in LFSH activities;
 - (c) Ensure the required instructor-to-shooter ratio is met;
 - (d) Ensure everyone in the LFSH and on the elevated observation control platform (EOCP) during a live-fire exercise is wearing appropriate PPE;
 - (e) Ensure all participants have received a safety briefing; and
 - (f) Delegate and assign responsibilities to other instructors.
- (4) Instructor. All activities conducted within the LFSH, whether live- or dry-fire, will be under the direct supervision of a qualified instructor who will:
 - (a) position targets and bullet traps to prevent an errant round from crossing the path of another shooter's movement within the target room;
 - (b) blow the "stop" whistle and/or announce "cease fire" in the event of any observed safety violation;
 - (c) observe the loading and unloading of weapons;
 - (d) clear the LFSH of personnel before the exercise begins;

- (e) conduct demonstrations for students as appropriate;
- (f) ensure there is no debris, pooled water, or ice on the floor; and
- (g) supervise and control the issue, deployment, and disposal of all ammunition and diversionary devices used during training exercises.

(5) Shooters. A shooter is any training participant that enters the LFSH as a member of the entry team, regardless of whether the individual's weapon is loaded or unloaded. They must follow the directions of the instructors at all times.

(6) Observers. Observers must follow the established safety rules.

b. Operations.

(1) LFSH Safety Briefing. Shooters must receive a safety briefing before participating in training. The briefing must include:

- (a) the four general firearms safety rules;
- (b) specific range safety rules;
- (c) instructions to keep the weapon at the low ready unless engaging a target;
- (d) instructions to de-cock or safe the firearm as soon as offensive actions have stopped, or anytime the shooter plans to move a significant distance;
- (e) instructions to await further commands from the instructor when an operation has ended;
- (f) the fact that every participant is a safety officer;
- (g) instruction that when a whistle blast is heard and/or a verbal command of "cease fire" is given, the shooter is to freeze and keep the trigger finger straight along the frame of the weapon;
- (h) direction that weapons handling and muzzle discipline must be enforced;
- (i) information that a round that does not impact a bullet trap is a safety violation;
- (j) direction that the 1-meter rule must be enforced (i.e., A ROUND MUST NOT BE DISCHARGED if the shooter is within 1 meter of

the target or if the line of fire would pass within 1 meter of another shooter);

- (k) instruction not to shoot unless the shooter is certain that a shot is safe;
- (l) instruction that a shooter should not turn back after turning in the wrong direction (i.e., the shooter is committed to the new area of responsibility);
- (m) direction that the shooter should not exceed the area of responsibility;
- (n) instructions to exercise fire discipline using the fewest number of rounds to solve the problem; and
- (o) instructions to take appropriate action in the event of a malfunction.

(2) Safety Violations. Shooters must adhere to established safety policies and procedures at all times.

- (a) Shooters will be evaluated to determine causal factors for all safety violations.
- (b) At a minimum, shooters must be removed from training activities if safety policies or procedures are disregarded.
- (c) At a minimum, shooters must be removed from training and placed in remedial training if identified as repeat violators of safety policies.

(3) Qualification Requirements.

- (a) Before conducting training within the LFSH, instructors must have successfully completed TRF-II training, TRF-II Instructor Certification training, an LFSH written examination, limited scope performance tests, and 40 hours of assistant instructor duties within an LFSH.
- (b) Additional requirements include annual (within a 12-month period) completion of 20 hours of live-fire operations within the LFSH and semiannual completion (at least once every 6 months) of both the LFSH Qualification Test (TRF-II Course) and the respective DOE TRF Combined Handgun/Rifle Qualification Course with a minimum score of 90 percent.

- (c) For non-DOE users, a lead instructor from the user agency must be designated before that agency uses a DOE LFSH. Contractors must obtain approval of all instructor qualifications from the cognizant security authority, Federal or contractor, with oversight of LFSH operations.
 - (d) Prospective shooters in LFSH exercises must demonstrate proficient marksmanship skills of at least 90 percent accuracy on the respective DOE TRF Combined Handgun/Rifle Qualification Course.
 - (4) Instructor-to-Shooter Ratio. The instructor-to-shooter ratio is one instructor to four shooters plus a lead instructor/safety officer.
 - (5) Instructor Locations. At least one instructor must be positioned on the EOCP and one instructor on the floor during the conduct of live-fire operations. Instructors must be positioned to observe shooters' actions at all times.
 - (6) Weapons Allowed. Only weapons for which an LFSH has been certified may be used.
 - (7) Ammunition Allowed. Only ammunition approved for use by the range master may be used within the LFSH.
- c. Targets and Bullet Traps. Various types of targets may be used within the LFSH. Target placement must meet the requirements of this Section. A target or target system that fails these requirements may not be used within the LFSH. Targets should be placed on bullet traps so the maximum effective area of the trap is used to contain rounds to prevent rounds from penetrating the trap's construction joints.
 - (1) Three-Dimensional Targets. Three-dimensional targets may be used with the approval of the range master. Firing angles must be verified by the lead instructor to ensure rounds are contained within approved bullet traps or backstops.
 - (2) Bullet Traps. Bullet traps must be approved by the range master before use within the LFSH. Any bullet trap that appears to be in need of repair should not be used during live-fire training. Bullet traps must be angled at least 7 degrees from vertical to the potential shooting position and positioned so that a shooter cannot engage a target at less than a 60-degree horizontal angle. Blinders, obstructions, or other means may be used to obtain this angle limitation. Bullet traps and targets will not be positioned to allow a shooter to fire outside LFSH limitations.
- d. Diversionsary Devices.

- (1) Shooters must wear fire-resistant gloves during diversionary device deployment.
 - (2) Full-charge diversionary devices must not be deployed into occupied rooms or hallways.
 - (3) Functional reduced-charge diversionary devices may be deployed into occupied areas during training activities.
 - (4) Instructions on the approved procedures for the safe handling of dud diversionary devices will be provided to all participants and will be followed at all times.
 - e. Reduced Lighting Operations. For reduced lighting operations, ensure that:
 - (1) The LFSH lighting system is operational;
 - (2) The shooters' lighting systems are operational;
 - (3) Chemical light sticks or other effective means are available for identification of both shooters and instructors. Chemical lights for instructors must be a different color from those worn by shooters so instructors may be easily identified; and
 - (4) The assault is practiced during lighted conditions before conducting the assault under no- or low-light conditions.
 - f. Elevated Observation Control Platform. All LFSHs must be equipped with an EOCP to maintain positive observation of live-fire activities.
 - g. Personal Protective Equipment (PPE). All personnel using an LFSH must adhere to risk controls identified in LFSH training course risk analyses, to include PPE requirements.
 - h. Weapons Loading and Unloading. Weapons loading and unloading must be done under the supervision of an instructor at a specially designated area in the vicinity of the LFSH.
6. GENERAL INSTRUCTIONS FOR FIREARMS QUALIFICATION. The following general instructions must be followed during firearms qualification courses.
- a. Shooters must maintain silence on the line so they can hear and interpret range commands.
 - b. All range commands or questions to the line must be issued by the lead instructor.
 - c. Shooters must not move off the line or pick up any equipment or brass until the line is declared safe and the line is told to act by the lead instructor.

- d. Shooters on the line must commence firing on command only. Shooters must cease fire immediately when commanded to do so.
- e. A shooter on the line holding a firearm must always maintain the muzzle pointed downrange or in a depressed low ready position as directed by the lead instructor.
- f. Shooters must fire all rounds at the center of mass of the target presented to them, unless otherwise directed.
- g. Shooters must always wear approved sight and hearing protection.
- h. Shooters may touch the trigger only when the sights of the firearm are aligned with the target. Until then, the shooters must keep their trigger fingers extended straight alongside the receiver or frame.
- i. Shooters must not attempt to catch brass or to eject brass into collection containers.
- j. Shooters must reload using ammunition pouches, speed loaders, magazines, or magazine pouches that are provided and/or worn on duty. Pouches or carriers that require snaps or other closures must be in the snapped or closed position before initiation of a stage.
- k. The lead instructor must ensure the firing line is clear of debris (e.g., magazines, brass, and ammunition boxes) and equipment to prevent injury to shooters moving from one position or distance to another.
- l. If a shooter experiences a malfunction during a course, he or she must attempt to clear the malfunction using proper clearing methods. If the shooter properly clears the malfunction and the threat remains, the shooter will complete the course of fire. If the threat is no longer visible, an alibi is provided.
- m. If a shooter experiences a malfunction during a course and does not attempt to clear that malfunction using proper clearing methods, an alibi will not be provided.
- n. Shooters with an alibi must be allowed to complete a string.
- o. Adjustable sights on all non-individually assigned firearms must be set in a standard manner so all shooters know the point of impact and can make aiming adjustments quickly and consistently to permit accurate initial fire.
- p. The lead instructor may authorize firearms or magazines to be fully loaded, unless otherwise specified, for all stages/strings; however, the shooter must clear the chamber between stages when the next stage begins at a half load.

- q. Firearms shall be placed in a safe condition, e.g., selector lever placed on safe, mechanical safety engaged or de-cocked as appropriate, after every string unless otherwise directed by the lead instructor.
- r. Shooters must place a shoulder-fired firearm to the shoulder and align the sights with the target for every string unless the stage specifies another position (i.e., the low ready).
- s. When required, shooters must use only approved flashlights with a pressure switch that turns the flashlight on when pressed and off when released.
- t. When firing for qualification, SPOs according to SPO level, must wear all equipment required by this CRD and site-specific requirements for duty and tactical responses.

CHAPTER X – FIREARMS OPERATIONS

1. BASIC CONSIDERATIONS.

a. General.

- (1) Specific site policies and procedures covering the safe transportation, handling, use and storage of live ammunition, blank ammunition, chemical munitions, and pyrotechnic devices used in firearms operations must be developed.
- (2) Each Department of Energy (DOE) cognizant security authority must require that analyses be performed to determine what ammunition and firearms can be used safely.
- (3) All personnel covered by this Contractor Requirements Document (CRD) must be required to comply with the personal protective equipment and safety rules in effect at each workplace.
- (4) Duty firearms must be in serviceable condition at all times. Semiautomatic pistols must be carried with a round in the chamber. Other duty and auxiliary firearms configurations (loaded or unloaded) must be as specified by the DOE cognizant security authority.

b. Post and Patrol Activities.

- (1) Routine loading or clearing of firearms must take place only in an approved area or when the barrel of the firearm is in or pointing toward a bullet containment device. An approved procedure must be developed for loading and clearing firearms under field conditions when no bullet containment device is available.
- (2) Routine loading and clearing of all firearms must be witnessed by a supervisor or a designated DOE National Training Center (NTC)-certified firearms instructor.
- (3) If the presence of alcohol or drugs is detected on an individual, they must be denied the issuance of a firearm and/or disarmed and removed from duty.
- (4) All duty firearms must be carried in the manner approved by the DOE cognizant security authority. Unless otherwise stated, from check-in to check-out a handgun must be holstered, and a rifle, shotgun, or submachine gun must be carried on an appropriate sling with the muzzle pointed up or down, except when the firearm is designed to be carried in a different manner or operational conditions dictate otherwise. Firearms must not be carried with a finger on the trigger or inside the trigger guard.

- (5) When firearms are transported in vehicles, watercraft, or aircraft and are not carried by an individual, they must be mounted in an appropriate rack or container with the firing chamber empty. During normal operations, long guns (e.g., rifles, shotguns, submachine guns) must not be carried with a round in the firing chamber. Long guns must never be placed in post or vehicle racks or carriers with a round in the firing chamber.
- c. Firearms, Ammunition, Pyrotechnics, and Explosives. Firearms, ammunition, pyrotechnics, and explosives must be available in sufficient quantity to permit protective force (PF) personnel to act according to response plans. Firearms, ammunition, pyrotechnics, and explosives must be of a type suitable for the intended use, deployed in a manner commensurate with that use, and controlled in a manner consistent with DOE M 440.1-1A, *DOE Explosives Safety Manual*, and paragraph 3c(3) below. The firearms, ammunition, pyrotechnics, and explosives used must pose the minimum danger to personnel and facilities commensurate with the success of the PF mission. Firearms, ammunition, pyrotechnics, and explosives must be carried and transported safely and securely. Any discharge of a firearm for other than training purposes must be reported (See DOE M 470.4-1, *Safeguards and Security Program Planning and Management*).
- d. Sights. All unassigned firearms with adjustable sights must have the sights set in a manner to ensure that PF personnel who may use these firearms know the point of impact and can make point-of-aim adjustments quickly and consistently to permit accurate initial fire. For duty weapons sight adjustment and bullet impact must be verified semiannually (at least every 6 months) by live fire or using a sighting device that simulates bullet impact. Such sighting devices must be approved by the DOE cognizant security authority.
- e. Spare Firearms. Each site must demonstrate that there are sufficient spare firearms of each type deployed onsite to satisfy all contingency/response plans and training requirements.
- f. PF Firearms, Ammunition, and Explosives. Firearms, ammunition, and explosives used by PF must be based on consideration of DOE O 470.3B, *Graded Security Protection (GSP) Policy*, assigned missions, the Site Security Plan (SSP) and vulnerability assessment (VA), and approved by the DOE cognizant security authority. Use of explosives is addressed in DOE M 440.1-1A, *DOE Explosives Safety Manual*.
- g. Firearms Trigger Safety Locks.
 - (1) Trigger safety locks must be issued to any contractor employees issued firearms who are permitted, for any reason, to take the firearms offsite; and may not maintain continuous possession of the firearms.

- (2) A trigger safety lock must be installed and locked any time a firearm is taken offsite and out of the immediate physical possession or immediate control of the individual to whom the firearm was issued.
 - (3) Any firearm shipped or transported offsite (e.g., via Federal Express, in checked baggage, etc.) must be locked with a trigger safety lock or placed in a locked container. Firearms shipped in bulk must be secured in a locked or banded container. Firearms that cannot fire live ammunition [i.e., engagement simulation systems (ESSs) including dedicated blank-fire, multiple integrated laser engagement system and dye-marking cartridge (DMC) firearms] are not required to be individually locked with a trigger safety lock but must be secured in a locked or banded container.
- h. Firearms Modifications. Modifications to firearms must be conducted by a DOE-certified armorer.
- (1) Approved Modifications. Contractors must request and receive written approval from the DOE cognizant security authority before a DOE firearm (live-fire or ESSs firearm) may be modified. Modifications of the DOE Firearms Modification List (FML), as approved by the Office of Security Policy, may be made after the DOE cognizant security authority has granted approval. The current DOE-approved FML is maintained by the Office of Security Policy and located on the Health, Safety and Security (HSS)/NTC websites www.hss.energy.gov and www.ntc.doe.gov.
 - (2) Non-Approved Modifications.
 - (a) Contractor requests for modifications not on the FML must be submitted in writing to the Office of Security Policy with the following:
 - 1 a general description of the modification;
 - 2 the purpose/objective of the modification;
 - 3 a detailed, step-by-step description of the process used to make the modification, with mechanical and/or illustrative drawings;
 - 4 a description of the post-modification testing to be conducted; and
 - 5 the number of firearms to be modified.
 - (b) The request will be forwarded to the NTC for review by its armorer section. The NTC will provide written comments and/or a recommendation to the Office of Security Policy and the DOE cognizant security authority.

- (c) Upon review and concurrence, based on the NTC's recommendation, the modification may be approved by the DOE cognizant security authority. Once approved, the modification must be submitted to the Office of Security Policy for inclusion in the FML.

(3) ESS Firearms Modifications.

- (a) Contractors must not reactivate dedicated ESS firearms for live-fire usage without the approval of the DOE cognizant security authority.
- (b) If a factory "drop-in" kit is used to modify a firearm to use DMC, a DOE-certified armorer specifically trained in the installation of such a kit must conduct the modification.
- (c) Contractor must submit proposed modifications of ESS firearms to change their function in any way or to enhance their safety to the Office of Security Policy for approval through the cognizant security authority. The provisions of paragraph 1h(2), above, apply.
 - 1 Weapons with modifications that have not been approved in writing by the Office of Security Policy must not be issued for use.
 - 2 The current list of DOE-approved ESS firearms and modifications, "Firearms Modification List," is provided on the HSS/NTC websites at www.hss.energy.gov and www.ntc.doe.gov.
- (d) ESS firearm modifications include any changes made to a firearm system, magazine, clip, feeding assembly, or blank-fire adaptor.

2. AUTHORIZED FIREARMS. Commonality of firearms enhances the efficiency of standard and centralized training and enables inter-site assistance in the event of a security incident or other situation requiring supplemental or replacement forces.

a. The following weapons constitute DOE-authorized firearm systems:

- (1) handgun: semi-automatic, 9mm or greater.
- (2) duty rifle: M-16 family of rifles and variants, 5.56mm or greater.
- (3) shotgun: 12 gauge.
- (4) precision rifle: 7.62mm or greater.

- (5) 40mm grenade launcher: Military Model 203 and variants; multiple grenade launchers; Military Model 79 and variants.
 - (6) belt-fed machine guns: 5.56mm or greater.
 - b. Because multiple agencies and contracts are involved in a centralized procurement, where possible, the Office of Health, Safety and Security will coordinate the acquisition of weapons. Existing procurement contracts and Federal interagency support agreements will be used. Otherwise, the DOE cognizant security authority is responsible for coordinating the procurement of site weapons.
 - (1) Replacement of current inventories with authorized weapons is intended to occur as firearms become due for replacement.
 - (2) The firearms authorized in paragraph 2a, above, provide the needed capability for the majority of Departmental missions within site-specific conditions; however, operational, safety, or other requirements may dictate the need for an alternative firearm.
 - (3) Contractor deviations from or additions to this list must be submitted for approval by the Office of Health, Safety and Security, or the Associate Administrator for Defense Nuclear Security, as applicable. If unable to obtain any needed firearms through interagency agreements pursuant to the Economy Act, contractors will comply with the requirements of the Federal Acquisition Regulation, Subpart 6.3.
- 3. STORAGE OF FIREARMS, AMMUNITION, PYROTECHNICS, AND EXPLOSIVES. Firearms, ammunition, pyrotechnics, and explosives must be stored safely according to a security plan approved by the DOE cognizant security authority. They may be stored under the direct control of PF personnel. Alternatively, they may be stored in a vault-type room if an intrusion detection system is installed to detect penetration and the alarm response capability is such that unauthorized removal is unlikely.
 - a. Bulk Storage. Bulk quantities of ammunition, pyrotechnics, or explosives that are not used routinely, and/or are stored for long periods of time, must be stored in facilities that meet design criteria specified in DOE M 440.1-1A, *DOE Explosives Safety Manual*. These storage facilities must be located within a designated security area.
 - b. Storage Containers. Firearms, ammunition, pyrotechnics, and explosives must be stored in General Services Administration-approved firearms storage containers that are bolted or otherwise secured to the structure or under alarm coverage. Where the weight of the storage container would deter its removal, the requirement to bolt or secure it does not apply. Firearms that are not in such containers or under alarm coverage must be locked in racks, chained, or cabled to prevent unauthorized removal. Racks securing unattended firearms that are not

under alarm coverage must be designed to prevent removal via partial disassembly of the firearm.

- c. Storage of Ammunition. Applicable requirements for the storage of commonly used PF munitions can be found in DOE M 440.1-1A, *DOE Explosives Safety Manual* and in U.S. Department of Defense (DoD) 6055.9-STD, *DoD Ammunition and Explosives Safety Standards*.
 - (1) Storage Structures. Refer to DOE M 440.1-1A, *DOE Explosives Safety Manual* for guidance on design of structures for storing munitions.
 - (2) Hazard Class and Hazard Division. For the purpose of placarding, the United Nations Organization or the National Fire Protection Association hazard classification systems must be used.
 - (3) Storage of Small Arms Ammunition. Articles in Hazard Class/Division 1.4 and Storage Compatibility Group S are considered as inert for storage purposes and require only appropriate fire-protection requirements for distance separation as long as they are stored only with inert items or other 1.4 S items. This applies only if the Hazard Class/Division 1.4 and Storage Compatibility Group S articles remain in their original packaging containers. When stored with items in a Storage Compatibility Group other than S, normal quantity-distance requirements must be observed (see Chapter II, Section 17 of DOE M 440.1-1A, *DOE Explosives Safety Manual*). Live ammunition and ESS-related ammunition (i.e., blank fire, DMC, dummy rounds, etc.) must be stored separately. Separate storage could be placing live and ESS ammunition in separate, secured storage containers in the same location or storing them in separate locations.
- d. Firearms Storage.
 - (1) Firearms not identified for duty or contingency use and having a valid justification for retention must be stored in a manner that will prevent deterioration due to environmental conditions.
 - (2) Offsite storage of firearms must be specified and authorized by a DOE cognizant security authority.
 - (3) Dedicated ESS firearms must be stored separately from live firearms. Separate storage may be attained by placing live firearms and ESS firearms in separate, secured storage containers in the same location or by storing in separate locations.
- e. Approved Ammunition.
 - (1) Ammunition and explosives used by PF personnel must be based on consideration of DOE O 470.3B, *Graded Security Protection (GSP)*

Policy assigned missions, the SSP and VA, and approved by the DOE cognizant security authority.

- (2) Ammunition used for duty, live-fire training and qualification, ESS training and other non-lethal training must be of high quality and factory new. Reloaded, reprocessed, or military surplus ammunition must not be used. Ammunition must not be unboxed and placed in bulk containers.
 - f. On-Post Firearms, Ammunition, Pyrotechnics, and Explosives. Auxiliary firearms, ammunition, pyrotechnics, and explosives that are maintained at posts for use during response to security incidents must be under the direct control of, and readily accessible to, on-duty PF personnel. Firearms, ammunition, pyrotechnics, and explosives must be secured in such a manner that they are inaccessible to, and cannot be removed by, persons passing through or by the post.
 - g. Pre-positioned Pyrotechnics and Explosives. In support of PF response plans and strategies, limited quantities of pyrotechnics and explosives may be pre-positioned at approved locations (e.g., PF posts, response vehicles, etc.). Pre-positioned pyrotechnics and explosives must be kept in their original containers unless operational and response requirements dictate otherwise. These pyrotechnics and explosives must be readily accessible to authorized PF personnel and secured in such a manner that they are inaccessible to, and cannot be removed by, persons passing through, by, or in the post. PF personnel charged with the responsibility of employing and overseeing the storage of pyrotechnics and explosives must be trained in their use and storage (See DOE M 440.1-1A, *DOE Explosives Safety Manual*).
4. SAFE TRANSPORTATION AND HANDLING OF MUNITIONS.
- a. Transportation of Munitions.
 - (1) Transportation of munitions on public highways must be governed by DOT regulations [49 Code of Federal Regulations (CFR) Part 173, *Shippers—General Requirements for Shipments and Packaging*]. For transportation purposes only, munitions must be given DOT hazard class designations.
 - (2) Transportation of munitions onsite must be performed commensurate with the requirements contained in Chapter II, Section 16, of DOE M 440.1-1A, *DOE Explosives Safety Manual*. Munitions not in original DOT containers must be transported in containers specified in the above Manual.
 - (3) PF duty vehicles are authorized to transport the quantity of munitions needed to support approved contingency plans and to execute PF duties.

- (4) Whenever possible, support munitions required for defense against hostile forces should be pre-positioned in readily accessible magazines.
- (5) PF vehicles loaded with a combination of up to 25 pounds net explosive weight of Hazard Class/Division 1.1 and 1.2 munitions are exempt from explosives quantity-distance requirements when executing approved contingency plans or PF duties.
 - (a) Vehicles so loaded must not be used for administrative purposes.
 - (b) Vehicles so loaded must be separated from inhabited facilities and property lines by a minimum of 125 feet when temporarily out of PF service.
 - (c) Vehicles so loaded must be downloaded into properly sited magazines or approved facilities when parked for periods in excess of one PF shift.
- (6) Operation of explosives-loaded vehicles must be restricted to onsite locations unless involved in a pursuit role.
- (7) The explosives must be secured within the vehicle to prevent movement and to preclude unauthorized removal.
- (8) These vehicles must be downloaded into properly sited magazines or approved facilities before repair or maintenance.
- (9) Munitions in the vehicle must not be exposed to temperatures that exceed the criteria stated on the material safety data sheet or manufacturer's recommendation. Appropriate safety precautions will be taken to ensure munitions are not exposed to extreme temperatures.
- (10) PF personnel may be allowed to carry on their person Hazard Class/Division 1.1 and 1.2 munitions issued to them for use in the execution of approved contingency plans without regard to explosives quantity-distance requirements.

b. Handling of Munitions.

- (1) Munitions must be protected from abnormal stimuli or environments such as impact, shock, high temperatures, or open flames.
- (2) Smoking must be prohibited when handling, transporting, or storing munitions. Matches, lighters, other fire-, flame-, or spark-producing devices must not be taken into a munitions storage area; appropriate signs or markings must be posted at such areas.

5. FIREARMS AND AMMUNITION MAINTENANCE/INSPECTION. Firearms available for duty or contingency operations must be inspected by a DOE-certified armorer before initial use and at least every 6 months thereafter to determine their serviceability. Firearms must be cleaned and maintained in a manner that meets or exceeds the manufacturer's recommendations.
 - a. Authorization. An armorer certified by the NTC is the only individual authorized to perform the following firearms activities.
 - (1) Semiannual (at least every 6 months) inspections.
 - (2) Any firearms repair.
 - (3) Any firearms modification or component alteration.
 - (4) Any disassembly beyond the manufacturer's recommended "field strip" for cleaning purposes.
 - b. Inspection Criteria.
 - (1) All duty firearms and those used by training and/or qualifications must be inspected semiannually (at least every 6 months) by a DOE-certified armorer. Inspections must consist of a detailed disassembly of the firearm's components. The armorer must inspect the components for excessive wear, cracks, or breaks. In addition, the armorer must ensure the firearm meets all manufacturing tolerances relevant to the maintenance of that firearm guaranteeing safe and reliable firearm function. A bench function check will not constitute an inspection.
 - (2) The armorer must inspect and conduct test firings of a firearm following any unusual operation of, occurrence with, or functional repairs made to that firearm. Functional repairs are those that affect the safe operation or reliability of the firearm. Any firearm that has experienced an unusual operation must be tagged "out-of-service" and segregated from operational firearms until certified by the armorers as being safe to operate.
 - (3) The armorer must maintain accurate individual records for all firearms including manufacturer, model type or number, serial number, inspection dates, and the nature and date of any repair or modification. Records of any unusual occurrence and subsequent inspection/test firing must be maintained in accordance with prescribed authorized schedules.
 - (4) For safe operations, the minimum trigger pull for firearms must not be less than the requirement specified by the manufacturer.
 - (5) Stored firearms must be inspected before return to active inventory.

- (6) Duty ammunition must be exchanged for fresh ammunition annually (at least every 12 months) except where impractical due to the prohibitive costs for replacement ammunition (e.g., 40mm and armor piercing rounds). Duty ammunition is that which is loaded in a weapon or magazine.

c. Test Firing.

- (1) The armorer must coordinate test firing of any firearm following unusual operations or occurrences.
- (2) All firearms must be test-fired following the repair or replacement of components listed in the DOE *Armors' Technical Guide* that involve the functioning of the weapon. The need for test firing of firearms following other repairs must be according to local site standard operating procedures or left to the discretion of the armorer.

d. ESS Weapons.

- (1) Armors working on ESS weapon systems must familiarize themselves with all DOE documentation that deals with deploying the weapons. They must also know their site's specific rules pertaining to ESS weapon use.
- (2) Armors who work on ESS firearm systems must learn the various modifications on these firearms through NTC on-the-job training, training provided through the Armors Quality Panel, or both.
- (3) Only DOE-certified armors may install DMC conversion kits.
 - (a) DMC conversion kits must be installed and maintained according to the manufacturer's instructions.
 - (b) Before use, the armorer must ensure that the conversion kit is properly installed, the bore is free from fouling, and the components are in good working order.

6. PYROTECHNICS AND EXPLOSIVES INSPECTION. Pyrotechnics, explosives, and any associated equipment available for use during routine or contingency operations must be inspected by qualified PF personnel before each use and at least every 3 months to ensure they are properly stored, stable, and within current shelf-life and use requirements. Pyrotechnic and explosives inspections are further addressed in DOE M 440.1-1A, *DOE Explosives Safety Manual*.

7. INVENTORY OF FIREARMS, AMMUNITION, PYROTECHNICS, AND EXPLOSIVES. Firearms, ammunition, pyrotechnics, and explosives inventories must be maintained to allow efficient and effective arming and training of PF personnel.

- a. Live-Firearms Inventory. Due to the remote location of some training facilities, some site inventories may require live-fire weapons for training and qualification. Therefore, additional inventories of firearms may be maintained to support live firearms training activities. All issued firearms must be inventoried by a number count at the beginning of each shift. All firearms in storage must be inventoried by a number count weekly. An inventory of all firearms, listing the type of firearm, the manufacturer, and its serial number must be conducted monthly. Firearms that are not identified for duty or contingency use may be inventoried by container in the event a complete container inventory has been conducted previously and the container is secured by a serial-numbered security seal.
- b. Dedicated ESS Firearms Inventory. Departmental safety instructions require that firearms used for ESS activities be permanently modified and not routinely transferred between live and non-lethal uses. Additional inventories of dedicated ESS firearms may be maintained to support ESS training activities. Dedicated ESS firearms must be inventoried by a number count before and after each use. An inventory of dedicated ESS firearms listing the type of firearm, the manufacturer, and its serial number must be conducted monthly. ESS firearms that are not in continual use may be inventoried by container in the event a complete container inventory has been conducted previously and the container is secured by a serial-numbered security seal.
- c. Ammunition, Pyrotechnics, and Explosives Inventory. Ammunition must be inventoried annually (at least every 12 months). Pyrotechnics and explosives must be inventoried monthly. Pre-positioned pyrotechnics and explosives must be inventoried by a number count at the beginning of each shift. Pyrotechnics and explosives stored in bulk, which are not identified for duty or contingency use, may be inventoried by container if a complete container inventory has been conducted previously and the container is secured by a serial-numbered security seal.
- d. Inventory Shortages. After conducting a preliminary inquiry involving an indication of an unaccounted for, missing, or stolen firearm; any quantity of explosive; any live ammunition, .408 CheyTac caliber or larger (including 40mm HE/HEDP/TP); 100 rounds or more of ammunition smaller than .408 CheyTac caliber; or any pyrotechnic, ammunition, or training device not legal for civilian sale, purchase or use, PF management must immediately report such a shortage to the DOE cognizant security authority, who must report to the DOE Headquarters Operations Center within 24 hours. The DOE cognizant security authority must then prepare and transmit an Incident of Security Concern report (see DOE M 470.4-1, *Safeguards and Security Program Planning and Management*).

CHAPTER XI – FIREARMS QUALIFICATIONS

1. SCOPE.

- a. Firearms qualification courses located on the Health, Safety and Security (HSS)/National Training Center (NTC) www.hss.energy.gov and www.ntc.doe.gov are approved by the Chief Health, Safety and Security Officer for firearms qualification and requalification to ensure that protective force (PF) personnel are uniformly qualified with the firearms and munitions they are authorized to carry. The courses evaluate basic shooting skills with various authorized firearms. Additional requirements for firearms training and qualifications are set forth in 10 Code of Federal Regulations (CFR) Part 1046, *Physical Protection of Security Interests*, and this Contractor Requirements Document (CRD).
- b. The courses provide the specific implementation of 10 CFR Part 1046, *Physical Protection of Security Interests*, which requires PF personnel to have the level of skills and knowledge needed to perform all essential functions associated with PF job responsibilities. Site-specific conditions and the deployment of firearms may justify requirements for developing and implementing supplementary special firearms training and qualification courses (e.g., aerial firing platforms, executive protection, vehicle mounted firearms, fragmentation grenades).
- c. PF personnel will achieve high standards of marksmanship and proficiency in related shooting skills to successfully complete the firearms qualification courses. Periodic training must supplement all approved courses. Shooting skills are enhanced by training and testing knowledge, skills, and abilities (KSAs), as appropriate (e.g., firearms manipulation; target discrimination; the engagement of moving, multiple, and reactive targets; and shooting under stress). The firearms qualification courses located on the HSS/NTC websites may be used for training and must be used to determine whether PF personnel are qualified to be armed with a particular firearm.
- d. All firearms qualification courses must be conducted by firearms instructors certified by the NTC for instruction in the various firearms used during the specific courses (e.g., a submachine gun qualification course must be conducted by an instructor certified at the Advanced Firearms Systems Instructor Certification level).

2. REQUIREMENTS. Armed PF personnel must qualify semiannually (at least every 6 months) with assigned firearms on the applicable DOE firearms qualification courses.

a. Security Police Officer-Is.

- (1) SPO-Is assigned a handgun must, at a minimum, fire the DOE approved standard day and reduced lighting handgun qualification courses.

- (2) SPO-Is assigned a handgun and rifle must, at a minimum, fire the DOE approved standard day and reduced lighting handgun and rifle qualification courses.
 - b. Security Police Officer-IIs assigned a handgun and rifle must, at a minimum, fire the DOE approved standard Day Handgun and Day Rifle Qualification Courses or an approved day combined handgun/rifle qualification course; and the DOE approved standard Reduced Lighting Handgun and Rifle Qualification Courses.
 - c. Security Police Officer-IIIs.
 - (1) SPO-IIIs assigned a handgun and rifle must, at a minimum, fire the DOE approved standard Day Handgun and Day Rifle Qualification Courses, the SPO-III Day Combined Handgun and SPO-III Day Combined Sub-Machinegun (SMG)/Rifle Qualification Courses, or an approved day combined handgun/rifle qualification course; the DOE approved standard Reduced Lighting Handgun and Rifle Qualification Courses, and the live-fire shoot house (LFSH) Closed Door Skills Test Qualification Course.
 - (2) SPO-IIIs assigned a handgun, rifle, and precision rifle must, at a minimum, fire the DOE approved courses listed in paragraph 2c(1), above, and the Day and Reduced Lighting Precision Rifle Qualification Courses.
 - d. Other Firearms Courses. Consistent with local collective bargaining agreements and other site considerations, sites are authorized to substitute selected practical shooting courses from the DOE Approved Firearms Qualification Courses posted on the HSS/NTC websites, to be fired for qualification during one of the semi-annual qualification periods, in lieu of the standard, applicable firearms qualification courses. Sites should use the various other courses on the HSS/NTC websites for SPO firearms maintenance, refresher, and proficiency training.
3. REMEDIAL FIREARMS QUALIFICATION COURSE. The Remedial Firearms Qualification Course is designed to assist PF personnel who fail to qualify in a particular firearms qualification course. The course is scheduled as needed, includes daylight and reduced lighting range conditions, and is administered by DOE-certified firearms instructors. Firearms instructors review available firearms qualification documentation and focus instruction on previously identified problem areas for individual shooters while reinforcing the principles of marksmanship, firearms manipulation, and safety in accordance with approved instruction plans for PF personnel.
- a. Instructions for Remedial Firearms Qualification Course.
 - (1) The course must consist of two phases, each of which must be no more than 4 hours long. Phase I must address the basic fundamentals of marksmanship, beginning with dry-firing exercises, advancing to live-fire practice, and culminating in a qualification attempt. If the shooter fails the

Phase I qualification attempt, Phase II must address the shooting defects identified during Phase I and culminate in a second qualification attempt. Phase II will not be required if Phase I culminates in a successful qualification attempt.

- (2) Firearms instructors must provide one-on-one instruction, require correct demonstration of shooting techniques through dry-fire exercises before permitting live-fire practice, and carefully analyze all results with the shooter to remedy the identified problem(s).
- (3) Firearms instructors must document course progress to include identification of the shooter's problem(s), remedial action(s), and the number of rounds expended to correct the problem(s).
- (4) Firearms instructors must assist shooters to ensure the correct sighting of a firearm, if it is questioned; verify sighting, if required; and resolve any question before live-fire qualification practice.
- (5) Shooters must be permitted to slowly fire a specified number of rounds for live-fire qualification practice from the positions or employing the techniques determined to have occasioned the problems.
- (6) Shooters must be allowed to attempt the applicable firearms qualification course following the live-fire qualification practices with less than 4 hours of remedial training, subject to the concurrence of the shooter.
- (7) Shooters are required to attempt the applicable firearms qualification course in order to complete Phase I of this course.
- (8) Shooters are required to attempt the applicable firearms qualification course, following completion of each phase of Remedial Firearms Qualification Course.
- (9) The shooter must complete Phase II within 30 days of initial entry into the Remedial Firearms Qualification Course, if the shooter fails the applicable firearms qualification course during Phase I.
- (10) A shooter successfully completing the applicable firearms qualification course must be returned to a full duty status.
- (11) A shooter who fails to qualify after Phase II training loses his/her SPO status and must be disarmed, per the requirements of 10 CFR Part 1046, Appendix B, paragraph (9)j.

- b. Remedial Firearms Qualification Course. The applicable firearms qualification course must be conducted in accordance with this CRD and the DOE-approved firearms qualification courses. It must be preceded by the announcement, "This is a qualifying run for score."

4. REVIEW. The firearms qualification courses must be reviewed annually (at least every 12 months) by the DOE Firearms Policy Panel, which may recommend changes, as required. These recommendations will then be forwarded to the training managers working group and Training Advisory Committee for review and concurrence before entering the validation and approval stages. Contractors are encouraged to forward written recommendations for changes or comments, with sufficient detail for consideration, through their DOE cognizant security authorities to the Office of Security Policy.
5. VALIDATION PROCESS. Sites will be offered the opportunity to participate under the oversight of the DOE-NTC in the validation of courses of fire (COFs) that have been modified or newly developed. For purposes of validation, draft courses can be used in lieu of the current DOE-approved COFs that are to be replaced. PF personnel who complete the new courses successfully will be considered qualified as if they had completed the standard DOE COFs. Officers who do not successfully complete the new COFs will not be penalized and will be given the opportunity to qualify using the current approved DOE standard COFs. Resultant modifications will be made, and a phase-in period of one year for approved COFs (two semiannual requalification cycles) will be prescribed to permit sufficient opportunity for training to the new course.

CHAPTER XII – OPERATIONAL ASSURANCE

1. APPRAISALS/SELF-ASSESSMENTS. These types of security oversight practices can be used to support the oversight responsibilities outlined in Department of Energy (DOE) O 226.1A, *Implementation of Department of Energy Oversight Policy*.
 - a. Formal appraisals or self-assessments of the safety and health aspects of the safeguards and security program must include firearms safety and must be performed by line management annually (at least every 12 months).
[DOE O 440.1B, *Worker Protection Program for DOE (Including the National Nuclear Security Administration) Federal Employees*].
 - b. Contractors must conduct and document formal appraisals and self-assessments (i.e., annual program reviews and worksite appraisals and periodic surveillance).
 - c. Firearms safety assessments must be conducted by safety personnel or by a joint safety and protective force (PF) evaluation team.
 - d. Firearms safety assessments must cover procedures, responsibilities, and duty assignments within the firearms safety program to ensure that overall objectives and performance are being met.
 - e. Firearms safety assessments must include reviews of:
 - (1) records of unauthorized firearms discharges, investigations of such discharges, and the application of lessons learned;
 - (2) armorer's records of firearms inspections, malfunctions, and repairs;
 - (3) firearms documentation maintained by Federal or contractor environment, safety and health personnel to ensure that management decisions and actions to correct deficiencies have been completed and documented on time;
 - (4) PF weapons safety performance data, as compared with similar operations and programs in other agencies, to determine whether there are lessons to be learned or deficiencies that require corrective action;
 - (5) hazardous incidents involving firearms and associated equipment;
 - (6) safety tagout program for defective firearms;
 - (7) results of the airborne lead monitoring programs at firing ranges and of the testing programs for blood lead level changes and hearing loss;
 - (8) storage and handling of firearms, ammunition, and cleaning materials in armories;

- (9) high-risk activities such as loading, unloading, and exchanging firearms, to ensure the existence of proper accident prevention controls; and
 - (10) firearms training programs.
- 2. PROTECTIVE FORCES SAFETY COMMITTEE. Managers of DOE offices and contractors providing PF functions on, at, or for a DOE site must have a Protective Forces Safety Committee formally organized and chartered to assist management in providing safe PF activities.

**APPENDIX A – GUIDELINES FOR LEGAL AUTHORITY,
FRESH PURSUIT, AND RULES OF ENGAGEMENT**

1. LEGAL AUTHORITY, FRESH PURSUIT AND RULES OF ENGAGEMENT.

a. Applicable Legal Terms.

- (1) Felony. Any offense enumerated in Title 10 Code of Federal Regulations (CFR) Part 1047.4(a)(1)(i), or as defined in 10 CFR Part 1049, and any offense constituting a felony under the laws of the jurisdiction in which the facility is located and with respect to which a protective force (PF) officer would have arrest authority under 10 CFR Part 1047.4(d) and (e).
- (2) Fresh Pursuit. Pursuit (with or without a warrant) for the purpose of preventing the escape or effecting the arrest of any person who commits a misdemeanor or felony or is suspected of having committed a misdemeanor or felony. Fresh pursuit implies pursuit without unreasonable delay but need not be immediate pursuit. (Although fresh pursuit implies pursuit without unreasonable delay, to prevent the escape or to arrest fleeing suspected criminals who are in unauthorized control or possession of nuclear weapons, weapons components, and/or special nuclear material (SNM), such pursuit must be effected immediately).
- (3) In the Presence. The criminal act must have taken place in the physical presence of (under the observation of) the PF officer. A PF officer is authorized to make an arrest for covered misdemeanors and felonies if the offense is committed in the presence of the PF officer.
- (4) Jurisdictional Lines. For the purposes of these guidelines, these must include, but are not be limited to, the property lines of a Department of Energy (DOE) facility/site.
- (5) Misdemeanor. Any offense enumerated in 10 CFR Part 1047.4(a)(1)(ii), or as defined in 10 CFR Part 1049, and any offense constituting a misdemeanor under the laws of the jurisdiction in which the facility is located and with respect to which a PF officer would have arrest authority under 10 CFR Part 1047.4(d) and (e) or 10 Part CFR 1049.
- (6) PF Officer. As defined in 10 CFR Part 1047.3(g), any person authorized by DOE authority to carry firearms under section 161k. of the Atomic Energy Act of 1954, and as defined in 10 CFR Part 1049.3(e), any person authorized by DOE authority to carry firearms under section 661 of the DOE Organization Act.

NOTE: Although Security Officers are members of the protective force, they are not Protective Force Officers and do not have arrest authority pursuant to CFR requirements.

- (7) Reasonable Grounds to Believe. A PF officer is authorized to make an arrest for any felony covered under their limited arrest authority if the covered offense is committed in the presence of the PF officer or if the PF officer has reasonable grounds to believe (e.g., information from another PF or law enforcement officer, communications from a PF dispatcher or central alarm station operator) that a suspect had committed or was committing a felony.
- b. Arrest Authority. The authority for PF members to make arrests without warrant stems from two sources:
- (1) Section 161k. of the Atomic Energy Act of 1954 [42 U.S.C. 2201(k)] provides for the authority to carry weapons and make arrests in the protection of DOE assets. 10 CFR Part 1047.4 defines the specific offenses for which a PF officer may make an arrest under the limited arrest authority. PF personnel armed pursuant to this Act must understand the limits of the offenses covered under the limited arrest authority.
 - (2) Section 661 of the DOE Organization Act (42 U.S.C. 7270a) applies only to the Strategic Petroleum Reserve (SPR) and provides PF Officers authority to carry weapons and make arrests in the protection of DOE assets on the SPR. 10 CFR Part 1049 authorizes a PF Officer of the SPR to make apprehensions under the limited arrest authority. PF personnel armed pursuant to this Act must understand the limits of the offenses covered under the limited arrest authority.
- c. Executing an Arrest. When other Federal law enforcement agencies (LEAs) [e.g., Federal Bureau of Investigation (FBI), U.S. Marshal, or the Department of Energy's Office of Inspector General (OIG)] are involved with PF officers in the apprehension of a suspected criminal (regardless of whether on or off DOE property), PF officers must relinquish arresting authority to the other Federal LEAs.
- (1) When a suspected felon is apprehended (regardless of whether on or off DOE property), or when a suspected misdemeanor is apprehended on DOE property, the PF must immediately notify the appropriate U.S. Attorney's Office and escort the suspect to the nearest U.S. District Court or U.S. Magistrate for arraignment (unless otherwise directed by local Federal LEAs; e.g., the FBI, a U.S. Marshal, or the OIG). Under no circumstances should a suspected felon be removed to another jurisdiction without first being processed through the Federal criminal justice system where the suspected felon was apprehended.
 - (2) When State or other local LEAs are involved with PF officers in the offsite apprehension of a suspected criminal, the issue of which law enforcement official is in charge in order to effect an arrest is generally not a matter of policy but one of common sense dictated by the

circumstances. Such an assessment includes an evaluation of the expertise of those present, which agency has first established control, and the disruptive effect, if any, of transfer of control. The determination of which jurisdiction should make the arrest is, therefore, left to the discretion of the officers involved. To the extent practicable, guidelines addressing this issue should be prepared on a site-by-site basis in coordination with State and other local LEAs. Such guidelines must be included in the site-specific guidelines submitted to the Chief Health, Safety and Security Officer for approval.

- (3) PF officers must ensure that any Government property retrieved at the time of an apprehension or during a pursuit is properly secured and a chain of custody is established.
2. FRESH PURSUIT. The purpose of these guidelines, which have been approved by the U.S. Attorney General, is to set forth the procedures to be followed by DOE, Federal, and contractor PF personnel when pursuing suspected criminals across jurisdictional lines.
 - a. Policy. It is DOE policy to prevent the escape and to effect the arrest of fleeing suspected criminals in a safe and expeditious manner. The following procedures are intended to provide PF personnel with flexibility when in fresh pursuit of a fleeing suspected criminal. Each site must prepare site-specific guidelines that take into account the geography, equipment, and functions of the facility/site and that address the procedures that will be used to provide emergency notification to jurisdictions that may be entered in a fresh pursuit situation. The contractor must develop and submit these site-specific guidelines to the DOE cognizant security authority (CSA). The CSA must submit the guidelines through the cognizant Departmental element to the Chief Health, Safety and Security Officer, for approval.
 - b. Conditions. The following conditions apply to this appendix.
 - (1) Misdemeanors. A PF officer may engage in the fresh pursuit of a suspected misdemeanor across jurisdictional lines only if the alleged misdemeanor was committed, or is being committed, in his or her presence. If the alleged misdemeanor was not committed in the presence of a PF officer, PF officers must not pursue the suspected misdemeanor across jurisdictional lines. Instead, the PF officers must attempt to obtain a description of the suspected misdemeanor and a description and license tag number of any vehicle being used by the suspected misdemeanor, and must convey this information (in accordance with the specific notification procedures issued by DOE line management) to the State and other LEAs for the jurisdiction into which the suspected misdemeanor has fled.
 - (2) Felonies. PF officers may engage in the fresh pursuit of a suspected felon across jurisdictional lines if:

- (a) The alleged felony is being committed, or was committed, in the presence of a PF officer; and
- (b) Any PF officer has reasonable grounds to believe that the person pursued is committing, or has committed, the alleged felony.

c. Fresh Pursuit Procedures.

- (1) Responsibility. Responsibility for decisions with respect to fresh pursuit must follow the PF command structure. In making fresh pursuit decisions, PF officers must consider applicable Federal and State laws; Departmental directives, guidelines, and regulations; and PF plans, post orders (POs), general orders (GOs), guidelines, and training.
- (2) Safety Considerations. Safety is a primary consideration when engaged in fresh pursuit of a suspected criminal. In determining whether to pursue and the method and means of pursuit, a PF officer will weigh the seriousness of the alleged offense and the necessity for immediate apprehension against the risk of injury to himself/herself, other PF officers, and the public. If at any time during the pursuit the risk of injury to pursuing PF officers or the public surpasses the necessity for immediate apprehension, the pursuit must be terminated.
- (3) Use of Force. PF officers will use the minimum force necessary under the circumstances to apprehend a suspected criminal.
- (4) Jurisdictional Lines. Regulations in 10 CFR Parts 1047.6, 1047.7, 1049.6, and 1049.7 address the applicability of physical and/or deadly force in a fresh pursuit situation, regardless of whether jurisdictional lines have been crossed. Such use may include, as appropriate, firing at or from a moving vehicle, aircraft, or water craft; ramming and disabling pursued vehicles by precision immobilization techniques (PIT); and using tire deflating devices.
- (5) Hostages. If hostages are present in a pursuit situation in which recovery of SNM is involved, the safety and welfare of the hostages must be considered; however, due to the ramifications of unauthorized use of SNM to national security, the public, and the environment, the hostages' presence must not deter or impact immediate pursuit and recovery of the SNM.
- (6) Vehicular Pursuit.
 - (a) Vehicles used in fresh pursuit must be operated in as safe a manner as is practicable.

- (b) To the extent practicable, vehicles used must be marked and equipped with visual and audible emergency equipment.
 - (c) Vehicles occupied by non-PF personnel must not be used in fresh pursuit situations unless the situation mandates an immediate pursuit and the extreme circumstances prohibit the occupant's disembarkation.
 - (d) The number of pursuing vehicles that cross a jurisdictional line must be limited to that necessary to provide sufficient personnel to deal with the situation. Under no circumstance will the number of pursuing PF officers be such that the facility is left without sufficient security protection.
 - (e) There are inherent dangers associated with the use of roadblocks; thus, unless exigent circumstances mandate immediate apprehension of the suspected criminal (e.g., unauthorized control of SNM, possession of explosives), PF officers generally must not attempt roadblocks without the authorization of the appropriate law enforcement officials of the jurisdiction entered and must not use roadblocks to apprehend suspected misdemeanants. A roadblock must not be used without the concurrence of the supervisor of the pursuing PF officers.
 - (f) There are inherent dangers associated with the use of ramming/PIT and tire deflating devices; thus, unless exigent circumstances mandate immediate disabling of the suspect vehicle (e.g., unauthorized control of SNM, possession of explosives), PF officers generally must not attempt ramming/PIT or use tire deflation devices without the authorization of a PF supervisor. However, such authorization is not required when requesting such authorization may affect the timely termination of the pursuit. Ramming/PIT and tire deflation devices must not be used to apprehend suspected misdemeanants. Specific guidelines regarding the use of ramming/PIT and tire deflation devices in fresh pursuit situations must be included in the site-specific guidelines submitted to the Chief Health, Safety and Security Officer, for approval.
- (7) Aerial Assistance. Where DOE has aerial capability (e.g., helicopters, fixed-wing aircraft), specific guidelines regarding the use of aircraft in fresh pursuit situations, including pursuit, observation, reporting, and deployment of response forces, must be coordinated with appropriate State and other local officials. This information must be included in the site-specific guidelines submitted to the Chief Health, Safety and Security Officer for approval.

- (8) Water Craft Assistance. Where DOE has waterborne capability, specific guidelines regarding the use of water craft in fresh pursuit situations, including pursuit, observation, reporting, and deployment of response forces, must be coordinated with appropriate State and other local officials. This information must be included in the site-specific guidelines submitted to the Chief Health, Safety and Security Officer for approval.
- (9) Communications. At all times during a fresh pursuit situation, the PF officers involved must make every attempt practicable to maintain open communications and to relay as much information as possible to the PF dispatcher and/or PF chain of command.
 - (a) Upon the engagement of a fresh pursuit situation, the PF dispatcher must immediately notify supervisors in the PF command structure and the officer in charge of onsite PF operations.
 - (b) When it becomes apparent to the pursuing PF officers that jurisdictional lines might be crossed, this information must be transmitted immediately to the law enforcement authorities of the jurisdiction to be entered in accordance with the mission-specific emergency notification procedures. To the extent possible, such notification must include a description of the fleeing suspect and/or vehicle, the alleged criminal violation for which the suspect is being pursued, and the location and direction of travel of the suspect.
- (10) Coordination with Other Law Enforcement Agencies (LEAs). When other Federal, State or local LEAs with jurisdiction in the area into which the suspected criminal has fled join the pursuit, they must be primarily responsible for the continued pursuit.
 - (a) The PF dispatcher, supervisors in the PF command structure, and the officer in charge of onsite PF operations must coordinate the pursuit efforts of PF officers with other Federal, State, and/or other local LEAs who assume primary responsibility.
 - (b) PF officers participating in the pursuit must continue to participate in pursuit operations until otherwise instructed by the PF dispatcher, respective supervisors in the PF command structure, or the officer in charge of onsite PF operations.
 - (c) At least one PF officer unit must remain available to assist the other pursuing Federal or State and other local LEAs until the pursuit is concluded or otherwise terminated. That PF officer will thereafter provide such LEAs with all relevant information regarding the circumstances surrounding the incident.

3. GUIDELINES FOR RULES OF ENGAGEMENT.

- a. Purpose. The purpose of this section is to provide the DOE/National Nuclear Security Administration (NNSA) Headquarters and field elements guidance in developing the rules of engagement (ROEs) for use of deadly force as established in 10 CFR Part 1047.

DOE's Use of Deadly Force Policy, as set forth in 10 CFR Part 1047, defines the circumstances when deadly force is authorized; i.e., self-defense; serious offenses against persons; theft, sabotage, or unauthorized control of nuclear weapons, nuclear explosive devices, or special nuclear material; and apprehension. It also states, "Its use may be justified only under conditions of extreme necessity, *when all lesser means have failed or cannot reasonably be employed*" (emphasis added). DOE has determined that the C.F.R.'s concept of, "or cannot reasonably be employed," needs further site-specific amplification in the post September 11, 2001 environment. To ensure acceptable protection of critical assets, site-specific ROEs are needed that define the circumstances, e.g., location, time, and distance at each site when lesser means of force cannot reasonably be employed. ROEs must address the concept of hostile intent as described in this appendix.

- b. Rules of Engagement Guidelines. Each DOE site with forces having the mission of protecting nuclear weapons, SNM, and/or other hazardous material that may be used as a weapon of mass destruction must develop site-specific ROEs that incorporate the concept of hostile intent.

The determination of site-specific ROEs must consider the type of materials being protected, site geography, building construction, PF strength and capability, adversarial task times, adversarial characteristics as described in the current DOE O 470.3B, *Graded Security Protection (GSP) Policy*, and consequences of asset loss. ROEs must clearly state under what conditions the circumstances of hostile intent have been met. Depending on site-specific conditions, the circumstance of hostile intent may be met even if no shots have been fired.

Hostile intent may be indicated by the following factors, among others: a single intruder inside the perimeter intrusion detection assessment system to or in a protected area, exclusion area, and/or material access area; the presence of any number of armed intruders onsite; vehicles crashing or failing to stop at a gate; and/or a perceived aerial insertion of any number of intruders by helicopter or other methods.

The posting of perimeter signage that states, "Halt: Deadly Force is Authorized Beyond This Point" is authorized. If employed, signs must be posted at entrances and at such intervals along the perimeter of the property to ensure notification of persons about to enter. Signs must measure at least 11 by 14 inches (28 x 36 cm).

- c. Use of Directed Energy and Remotely Operated Weapons Systems. The potential use of new weapon systems, e.g., directed energy and remotely operated weapons systems, within DOE is consistent with 10 CFR Part 1047 and should be considered when formulating ROEs. It is DOE policy that a human being must make a conscious decision to employ all weapons systems capable of delivering deadly force before each operation of such equipment; i.e., fully automated use is not permitted.
- d. Approval. The completed ROEs must be submitted to the DOE cognizant security authority for review and approval. Upon approval of such ROEs, GOs and POs shall be updated to include site- and post-specific examples of likely scenarios where the use of deadly force may and may not be authorized.

APPENDIX B – PERFORMANCE TESTING

1. PERFORMANCE TESTS. All major protective force (PF) functions must be tested. Performance tests (PTs) must be used to realistically evaluate and verify the effectiveness of PF programs, identify needed training and provide training for personnel, identify areas requiring system improvements, validate implemented improvements, and motivate personnel. Such tests must adhere to the requirements found in Department of Energy (DOE) M 470.4-1, *Safeguards and Security Program Planning and Management*, and in this appendix. Information associated with performance testing may be classified, Unclassified Controlled Nuclear Information, or Official Use Only. The following are the major types of PF performance tests.
 - a. Limited Scope Performance Tests.
 - (1) Limited scope performance tests (LSPTs) will be either scheduled or unannounced. The tests must be used to determine the level of PF skill or capability or to verify different elements of the PF program. LSPTs must be conducted to realistically test any operation or procedure, verify the performance of a policy requirement, or verify possession of a requisite knowledge or skill to perform a specific task that falls within the scope of PF responsibility.
 - (2) The tests may involve large numbers of PF personnel working together or they may involve an individual or a small team. When individuals or small teams are tested, repetitions of the test may be conducted with each individual or team. Examples of these tests include individual and team tactical movement, defensive and offensive positioning, arrest and control techniques, building clearing, handling civil disturbances, containment operations, command and control activities, implementation of protection strategies, or any individual components of these activities.
 - (3) Any element of PF responsibility, as determined by site procedures and job analysis, may be tested. LSPTs may involve the use of dedicated engagement simulation systems (ESS) [e.g., multiple integrated laser engagement system (MILES)], dye-marking cartridge (DMC), blank-fire, or inert systems, and such use must meet the operational and safety requirements involving the conduct of force-on-force (FoF) exercises in paragraph 1c, below, where applicable.
 - b. Alarm Response and Assessment Performance Test.
 - (1) An alarm response and assessment performance test (ARAPT) is conducted with no prior notice to evaluate PF response to a specific location under alarm protection [e.g., a building, vault/vault-type room, or other area that has a site-specific security interest identified in the Site Security Plan (SSP)].

- (2) ARAPT scenarios must be based on simulated adversary actions consistent with DOE O 470.3B, *Graded Security Protection (GSP) Policy*, and site-specific vulnerability assessment (VA) results. The purpose of these tests is to evaluate PF readiness and response to alarm conditions. These tests must consider all aspects of response including communications, personal protective measures, equipment availability and serviceability, and any PF and facility coordination activities that may be necessary to mitigate a security incident.
- (3) ARAPTs must be coordinated with facility representatives and trusted agents (TAs) to ensure that safety requirements are fulfilled, security is not compromised, and operational disruption is minimized. When an ARAPT is initiated, responding PF personnel must be advised of the test. Handguns must be holstered, and any auxiliary weapon must not have a round in the chamber.

c. Validation Force-on-Force.

- (1) A validation FoF (VFoF) exercise is a major test of the overall effectiveness of all elements involved in response to a GSP and site-specific threats and is used also to validate site-specific protection strategies. VFoF exercises must be held at all facilities having an armed PF annually (at least every 12 months). See Table 1.
- (2) VFoF scenarios must include the parameters of the various adversary weapons, equipment, number of adversary personnel, and methodologies postulated in the GSP. Scenario content must be controlled on a strict need-to-know basis to foster realistic exercise activities and evaluation. Exercises must be planned, announced in advance to all participating parties, and conducted during specified time periods.
- (3) Personnel must be designated and briefed in advance to act as adversaries. At Tactical Response Force (TRF) facilities, Security Police Officers (SPOs) and other personnel participating in performance tests as GSP comparable adversary combatants will be trained in tactics to challenge the ability of the PF to defeat an armed adversary.
- (4) All weapons used by exercise participants must be dedicated ESS weapons. For this reason, if an exercise involves an operating facility as opposed to a test area, a "shadow force" of PF personnel must be deployed for protection of the safeguards and security (S&S) interests. Interface procedures, including rules of conduct for all participants, controller actions, exercise boundaries, and off-limit areas must be developed and documented. Procedures for communication between the simulated and shadow forces must be developed to ensure no compromise of S&S during the exercise. All exercise participants, controllers, and the Shadow Force must be briefed on the interface and communication procedures.

- d. Command Post Exercise.
 - (1) A command post exercise (CPX) is conducted to observe and evaluate a crisis management team's overall handling of a simulated safeguards and/or security event or a natural disaster incident. A CPX may involve a local emergency operations center (EOC) or multiple centers including the DOE Headquarters EOC.
 - (2) CPXs may be either announced or unannounced and may vary in scope and time as dictated by the purpose of the exercise. A security-related CPX must be based on the GSP and the site-specific threat. The CPX must be used to evaluate both tactical and technical assessments and decisions.
 - (3) Lines of authority, the interrelationship of various organizational components in crisis mitigation, and the timeliness of reporting and decision making must be considered in the overall evaluation. Facility and equipment availability must also be evaluated.
 - e. Command Field Exercise. A command field exercise (CFX) is an extension of a CPX and is conducted to test the interaction among various support organizations, site management, and the PF to a simulated incident. Procedures, tactical intelligence, communications, logistics, and the interfaces between Federal and contractor support systems must be tested during a CFX. Such exercises must be planned and announced in advance to all participating personnel. They may be combined with FoF exercises.
 - f. Joint Training Exercise. When a VA or PT indicates a need for outside agency support for the successful mitigation of a security incident and such support is properly documented in the SSP, the support expected from outside agencies must be covered by a formal cooperative agreement, e.g., memorandum of understanding (MOU). Joint training exercises (JTX) must be conducted annually (at least every 12 months) and consist of an FoF, CPX, or emergency management exercise with these agencies to determine the agencies' abilities and capabilities to respond to site threats as documented in the SSP and agreed to in the cooperative agreement. Annual exercises with outside agencies must include scenarios involving required site/facility protection strategies including recapture, recovery, and pursuit, as applicable. The frequency of testing outside resources beyond the annual FoF exercise requirement must be based on the degree of support anticipated and approved by the DOE cognizant security authority.
- 2. COORDINATION. When a CPX, CFX or JTX involves a demonstration of site-level emergency response capabilities, the development and conduct of the exercise must be coordinated with the appropriate site-level emergency management organizations.
 - 3. TESTING FREQUENCY. Performance testing must be conducted as stated in Table 1, Testing Frequency.

Table 1. Testing Frequency

Type of Performance Test	Minimum Performance Test Frequency
LSPT	At TRF facilities, LSPTs are conducted weekly. At all other facilities conducted as required.
ARAPT	TRF facilities: two/quarter/alarmed SNM locations and one/quarter at all other locations. All other facilities: one/quarter at all alarmed locations.
VFoF	One/year for all sites with armed PFs (additional requirements for Category I facilities are contained in DOE M 470.4-1, <i>Safeguards and Security Program Planning and Management</i>).
CPX	TRF facilities: one/year/site. All other facilities: one/year/site.
CFX	TRF facilities: one/year/site. All other facilities: one/year/site.
JTX	As required per SSP, one/year/site, as applicable.

NOTE: Annual requirements for VFoF, CPX, CFX, and JTX exercises may be combined when determined appropriate in SSPs. Requirements for ARAPTs may be satisfied through combined testing of multiple alarms in the same or proximate locations and required monthly PF shift and SPO-III shift training exercises.

4. PERFORMANCE TEST AND TRAINING ACTIVITIES PLANNING.

- a. PT and Training Activity Plans. The PT plan and training activity plan (or lesson plan, procedures, etc.) must define the scenario/activity and the exercise/training area in sufficient detail to allow a valid hazard assessment to be performed. The following additional information must be included in a PT/training plan involving the use of ESS, as applicable:
- (1) personnel safety and health requirements;
 - (2) vehicle safety;
 - (3) storage, handling, and the safe use of firearms, ammunition, and ESS equipment;
 - (4) facility security to include Shadow Force operations; and
 - (5) other applicable considerations that may be necessary as identified in the governing risk assessment(s).

NOTE: Where applicable, approved safety and ESS procedures may be referenced in the PT plan and training plan and are not required to be restated in their entirety unless required by local implementing procedures.

- b. Safeguards and Security Planning. As applicable, planning must address the following topics:
- (1) The specific element being tested to identify the specific element of the SSP training program, etc., being evaluated,
 - (2) The objectives of the test, e.g., to evaluate personnel, equipment, and systems against established requirements,
 - (3) The scenario designed to ensure that the objectives of the test are met. The adversary plan must be validated as credible by the DOE cognizant security authority and the TAs. This validation includes all aspects of conducting the attack,
 - (4) The applicable criteria to describe the standards for evaluation as derived from appropriate source documents,
 - (5) The specific safety considerations consisting of a safety plan that contains information derived from the risk assessment, the facility safety walk down, and specific safety requirements that may apply to the PT or training being conducted. General safety considerations may be addressed by referring to approved PT procedures on file,
 - (6) The specific S&S considerations to include information such as required compensatory measures that are in place during the PT,
 - (7) The test results documentation and after action reviews to include a summary of controller and evaluator information and conclusions derived from this information. A process must be in place to allow for after-action reviews by appropriate personnel as determined by the cognizant security authority, and
 - (8) A classification review of the PT plan, documentation of the PT results, and completion of an after-action report.
- c. Force-on-Force Exercise Plans. The following areas must be considered and included, as applicable, in the development of a typical FoF plan or for an LSPT involving the use of ESS.
- (1) Objectives. The objectives must be stated succinctly. This will consist of a concise statement of the goals, such as to evaluate against established requirements, to enhance preparedness through training, and/or to evaluate potential upgrades to systems or equipment.

(2) Scenario Description.

- (a) Describe the Threat Scenario. Define the target and the threat to provide an understanding of the nature of the exercise. Specific information in this area may be classified.
- (b) Describe the Facility(ies) Involved. Establish the exercise boundaries and provide clear indication of the exercise area, the facilities involved, and out-of-bounds areas/limits.
- (c) Define the Required Response. Describe the desired PF response to adversarial actions. This may entail citing the applicable existing response plan or a standing operating procedure. Specific information may be classified.
- (d) Establish the Schedule. Define PT initiation, time/date, and schedule of events. Specific information in this area may be classified.

(3) Test Methodology.

- (a) State how the exercise/validation will be conducted.
- (b) Identify the number of PT, exercise and/or event iterations to be conducted.
- (c) Identify required pre/post-exercise briefings (See example provided in paragraph 11 of this appendix).
- (d) Establish appropriate evaluation criteria (e.g., statistical model, test criteria, mathematical formulas, or methods, lesson plans, as applicable).

(4) Test Control. Identify exercise control measures.

- (a) Establish the PT control chain of command.
- (b) Describe controller responsibilities specific to the PT/exercise/scenario.
- (c) Explain use of TAs.
- (d) Describe non-participant (observer) controls.
- (e) Describe PT and emergency communications systems.
- (f) Describe accountability and control of ESS and live-fire firearms and ammunition.

(g) Describe the controls for the Shadow Force, if applicable.

(5) Resource Requirements. Identify resources necessary to control and conduct the exercise.

(a) Participants.

- 1 Shadow force.
- 2 Opposition force (OPFOR).
- 3 Fixed PF posts.
- 4 Special response team (SRT).
- 5 Mobile PF units.
- 6 Airborne PF units.
- 7 Waterborne PF units.
- 8 Canine units.
- 9 Local law enforcement agencies (LLEA) units.

(b) Logistics.

- 1 Equipment.
 - a Firearms.
 - b Vehicles.
 - c Communications.
- 2 Supplies.
- 3 Safety/health.

(6) Training Requirements.

- (a) Describe prerequisite training for PF, OPFOR, and role players (e.g., SPO-I, -II, or -III qualified, or scenario-specific training).
- (b) Describe prerequisite training required for controllers.

(7) Exercise Coordination Requirement. Describe all organization coordination requirements.

- (a) Continuation of operations.
 - 1 Shadow Force.
 - 2 Operations areas.
 - 3 Building/area occupancy.
- (b) Safety and health oversight and support.
 - 1 Emergency medical.
 - 2 Fire department.
 - 3 Radiation protection.
 - 4 Appropriate population notification.
- (c) Essential LLEAs.
- (d) OPFOR coordination.
 - 1 Arrange OPFOR team lodging, vehicle support, and other logistical requirements.
 - 2 Develop mission order for use in tactical planning.
 - 3 Develop scenario-based training schedule.
 - 4 Coordinate weapons effects for vehicles and/or structures that cannot be MILES-harnessed.
 - 5 Coordinate OPFOR controller assignments.
- (8) Compensatory Measures. Describe any compensatory measures required during the PT.
- (9) Safe Exercise Halt Procedures.
 - (a) Actual alarm response.
 - (b) Response into exercise area (treatment, handling, and evacuation of injured during actual emergencies and accidents).
 - 1 Operational anomalies.
 - 2 Administrative Hold.
 - 3 Exercise Freeze.

4 Weather.

(10) End of Exercise Accountability.

- (a) Personnel.
- (b) Firearms.
- (c) Equipment.

(11) Radiation Monitoring.

(12) Shadow Force.

- (a) Release and control.
- (b) Accountability before restart/resumption of exercise activity.

(13) Coordination and Approval. Review and sign off (concurrence), as applicable.

- (a) PF management.
- (b) Facility security officer.
- (c) Environment, safety and health (e.g., facility representative).
- (d) PF range master.
- (e) PF training manager.
- (f) DOE cognizant security authority.

(14) References. Identify any applicable site-specific procedures.

d. Performance Test Report. The PT report must address the following:

- (1) detailed results of the exercise, including evaluation of applicable criteria;
- (2) lessons learned; and
- (3) required corrective actions and/or mitigation factors to address identified vulnerabilities.

5. SAFETY. PTs must be conducted with the highest regard for the safety and health of personnel, protection of the environment, and protection of Government property. Specific safety considerations and requirements for conducting PTs are found in this appendix. Site-specific procedures addressing the conduct of PTs, the use of ESS, and safety considerations must be prepared by PF management, submitted to the DOE

cognizant security authority for review and approval, and incorporated into the site performance assurance program (see DOE M 470.4-1, *Safeguards and Security Program Planning and Management*).

6. COMMAND AND CONTROL.

- a. Command and Control System. A system of command and control must ensure that ESS safety and other requirements of this Contractor Requirements Document (CRD) are met and must maintain an environment free of the recognized risks associated with conducting certain PTs and training activities. The command and control system must ensure that ROE are followed; specific hazards and safety concerns, as identified in a risk assessment, are appropriately addressed; and exercise continuity is maintained. The command and control system is dependent on a contingent of personnel selected and specifically trained to control ESS PTs.
- b. Command and Control Responsibilities. The controller staff must be organized in a manner that facilitates the control of all affected locations and the control and coordination of all events to be initiated during the exercise. Individual controllers may have several duties assigned depending on where they are and what activities are occurring in their areas of responsibility. Their first and foremost responsibility is ensuring safety during exercise activities. This includes ensuring all participants adhere to the safety procedures and ROE. Event controllers at a particular exercise location are responsible for ensuring that prompt action is taken in accordance with established safety procedures to prevent accidents or unsafe conditions. Controllers are responsible for enforcing or implementing the following requirements during exercises.
 - (1) Conducting safety checks and inspections of all personnel under their control for live rounds or other prohibited ammunition in DMC/paint ball (DMC/PB) or MILES PTs/exercises. No DMC/PB rounds are allowed in MILES exercises unless using approved hybrid ESS weapons. Safety checks and inspections should also be conducted for other prohibited articles and for general safety. The results of these checks and inspections must be reported to the senior controller before initiation of the PT.
 - (2) Ensuring no live firearms or ammunition of any type are allowed within the ESS PT area, except those under the direct supervision of the shadow force controller.
 - (3) Ensuring PT participants and observers wear and use appropriate safety equipment.
 - (4) Ensuring that personnel under their control comply with the PT plan to include the ROE and the safety regulations.

- (5) Ensuring that ESS firearms handling and manipulation procedures comply, or are compatible, with procedures for live-fire training/operations.
 - (6) Terminating a specific activity or the entire PT if unsafe conditions or acts are observed.
 - (7) Ensuring the accountability of personnel and equipment at the termination of the PT and reporting the results to the senior controller and shadow force controller.
- c. Command and Control Positions. Every FoF PT and related activity must be regulated by controllers under the supervision of an exercise (or test) director, who is responsible for overall control of the PT. The exercise director must be supported by a senior controller, a safety controller, an ESS controller, a shadow force controller, and specific event controllers. These individuals must be trained to fulfill their responsibilities to ensure activities are undertaken safely.
- (1) Exercise Director. The exercise director is a senior Federal or contractor official charged with overall responsibility for the exercise, to include pre-planning activities, ensuring command and control during the exercise, and follow-up for any lessons learned. The exercise director:
 - (a) is responsible for ensuring that all appropriate safety and S&S measures are in place before the start of, and during, the exercise;
 - (b) is responsible for signaling the beginning and end of exercises and for guiding and supervising the other controllers;
 - (c) has final authority for exercise halts due to potential safety or S&S concerns; and
 - (d) should have a counterpart management official when operational facilities are the site of the exercise.
 - (2) Senior Controller. The senior controller reports directly to the exercise director and is responsible for coordinating, establishing, and supervising the exercise controller staff; identifying the number of personnel required to control the exercise; ensuring that appropriate controller training is conducted; and developing and implementing the concept of operation for the exercise director. The senior controller ensures:
 - (a) all controllers have attended onsite pre-exercise controller training and scenario orientation;
 - (b) a sufficient number of technically qualified controllers are available to support each exercise event;

- (c) all participant groups, as determined by the exercise director, are thoroughly briefed on their respective exercise scenarios, ROE, safety concerns, emergency procedures, medical response, munitions and firearms safety, and vehicle and personnel safety (see paragraph 11 in this appendix for an example of a pre-exercise briefing format); and
 - (d) exercise debriefings are conducted and documented:
 - 1 controllers understand their responsibilities in support of exercise documentation and
 - 2 controller debriefings are coordinated and documented; and
 - (e) OPFOR personnel from other sites, locations or agencies:
 - 1 receive training on site-specific procedures for ESS exercises, and safety and health protection and
 - 2 participate in safety walk downs of the exercise area as permissible and required.
- (3) Safety Controller. The safety controller is responsible for assessing the PT plan and ensuring that walkdowns of the exercise area and safety briefings are conducted. The safety controller also ensures that safety briefings specify the ROE, medical response, munitions and firearms safety, and vehicle and personnel safety. The safety controller provides support to the senior controller and must remain in contact with the senior controller at all times during the exercise. In addition, the safety controller:
- (a) assists the senior controller in the development and conduct of pre-PT controller training;
 - (b) ensures that adequate safety walkdowns are conducted to determine site suitability before the PT;
 - (c) ensures that identified controllers are required to go on each safety walkdown;
 - (d) verifies that all required personnel are present for each safety walkdown;
 - (e) conducts a safety walkdown of the PT area with the exercise director, senior controller, event controllers, shadow force controller, and other selected controllers (as appropriate) before the exercise; and

- (f) coordinates with emergency management personnel to ensure emergency medical and fire protection services will be present or on call for the duration of the PT.
- (4) ESS Controller. In PTs involving the use of ESS equipment, the ESS controller is responsible for:
- (a) issuing and accounting for all ESS firearms, weapons, and support equipment;
 - (b) inspecting all ESS ammunition to be used before issue;
 - (c) testing the ESS equipment for operability in conjunction with the firearm before PT commencement; and
 - (d) collecting all ESS firearms and ammunition, and pyrotechnics at the conclusion of the PT.
- (5) Shadow Force Controller. A shadow force controller, with the experience necessary to ensure that the shadow force responds as required to a real security incident that may occur during a PT, is a critical participant. The shadow force controller is responsible for ensuring:
- (a) voice communications are established and maintained with the senior controller throughout the course of the PT;
 - (b) all live firearms are maintained under his/her supervision and shadow force personnel do not come in contact with PT participants with ESS equipment; and
 - (c) that the shadow force knows the PT area and emergency response procedures. The shadow force must remain under direct supervision and control during the PT, and after coordination with the senior controller, will be released in the event of an actual alarm or other security incident in accordance with the approved PT plan.
- (6) OPFOR Controller. The OPFOR controller must possess sufficient tactical expertise, knowledge, and physical ability to ensure that his/her presence does not interfere with or hamper the actions of the OPFOR in completing planned scenario actions. The OPFOR Controller is responsible for ensuring:
- (a) voice communications are established and maintained with the senior controller throughout the course of the PT; and
 - (b) the OPFOR adheres to the ROE and planned scenarios actions.

- (7) Event Controllers. Event controllers report to the senior controller and are responsible for executing control over specific categories of PT activity, including one or more events. Event controllers are responsible for ensuring nonparticipating facility personnel in the PT area are aware that an exercise is to be conducted and that they are not to interfere with the flow of the exercise. Event controllers must ensure that all PT participants under their control:
- (a) are aware of procedures for halting a PT for safety reasons or for an actual emergency;
 - (b) are not in possession of any live firearms or ammunition;
 - (c) as applicable, have been provided with instruction on the hazards of light anti-tank weapon (LAW) simulators and any personnel using a LAW simulator have received comprehensive instruction on its usage before PT initiation;
 - (d) have operable communications equipment;
 - (e) are fully trained and qualified if assigned responsibilities to deploy hand-thrown pyrotechnics, flash-sound diversionary devices, and/or obscurants; and
 - (f) are instructed that full-charge flash-sound diversionary devices must not be deployed into occupied areas or rooms and that the minimum distance they may be deployed near personnel in open areas must be consistent with the specific pyrotechnic technical data sheet, Material Safety Data Sheet, but in no case less than 50 feet. Sub-charge flash-sound diversionary devices may be deployed into occupied areas or rooms with the approval of the appropriate safety organization.
- (8) Evaluators. Evaluators are PT observers who are responsible for recording the PT progress, actions of participants, and results of actions. Evaluator observations are used to determine exercise results. Controllers may also be tasked to conduct evaluation duties. Evaluators are responsible for stopping PT activities for safety reasons.
- (9) Trusted Agents. In preparing for and conducting a PT, it may be necessary to provide sensitive information to selected non-participants and participants regarding the occurrence and/or timing of events to coordinate realistic testing. Such individuals may be designated as TAs. The term is not normally applied to controllers, who may also possess the sensitive information (e.g., PT timing, planned events).

- (a) Role. The TA serves as a liaison between a simulated OPFOR and the PF being evaluated. PT planners must determine the number of TAs necessary.
- (b) Responsibilities. The TA works with the OPFOR commander to develop the PT scenarios. The TA identifies potential hazards in the PT area and works with the exercise director to establish recommended controls that minimize the likelihood of injuries/illnesses among PT participants. To successfully fulfill the role of TA, the individual must divulge as little information about the PT scenario as possible while ensuring that appropriate measures are taken to ensure the PT is conducted safely.
- (c) Selection Criteria. Individuals selected to serve as TAs must:
 - 1 have sufficient understanding of the PF's security posture, response plans, and capabilities to predict how the PF is likely to respond;
 - 2 be familiar with the GSP used in VAs and the SSP to assist the OPFOR in developing realistic scenarios;
 - 3 be familiar with the targeted facility to understand the safety implications of OPFOR activities;
 - 4 be capable of recognizing potential radiological, chemical, biological, explosive, occupational, and other hazards in the PT area;
 - 5 either have the safety and health skills to establish appropriate controls or be familiar with the evaluated site's organizational structure to obtain the necessary technical support (e.g., from the facility manager, safety professional, industrial hygienist, health physicist); and
 - 6 have the management support necessary to resolve issues that may cut across organizational lines of authority and responsibility.
- d. Controller and Evaluator Training. The command and control system depends on a contingent of personnel selected and specifically trained to control ESS PTs. In addition to being trained to oversee exercises, controllers must receive training commensurate with the scope, complexity, and special nature of the activity. Based on the nature and complexity of the PT, specific controllers may be required for the shadow force, ESS equipment issue and accountability, occupational safety and health, and special or high-risk activities (e.g., LAWs,

explosive breaching, pyrotechnics, rappelling, etc.). Evaluators must receive controller training in order to perform evaluation duties.

- (1) Formal Training. All personnel assigned controller or evaluator duties must receive formal documented training for the safe conduct of a PT. The controller and evaluator training program must be approved by the DOE cognizant security authority and must include the following topics.
 - (a) Controllers and evaluators.
 - 1 Purpose.
 - 2 Responsibilities.
 - 3 Duties.
 - (b) General knowledge requirements.
 - 1 ESS equipment/pyrotechnics.
 - 2 ESS weapons versus comparable live-fire weapons capabilities.
 - 3 Safety.
 - a Firearms.
 - b Vehicle use.
 - c Participants.
 - d Environment, Safety, and Health.
 - e Medical.
 - 4 Exercise plans.
 - a Schedules.
 - b Scenarios/scenario variables, as applicable.
 - c Required PF actions.
 - d OPFOR actions, as applicable.
 - e Required and assigned controller/evaluator actions, as applicable.

- f Role player actions, as applicable. Administrative Hold/Exercise Freeze or Termination.
- g ROE.
- h Communications.
- i Administration.
- j Security.

(2) PT Scenario-Specific Briefings. In addition to the formal training discussed above, controllers/evaluators must receive PT and scenario-specific briefings before each PT. These briefings must include:

- (a) individual specific tasks and responsibilities before PT initiation;
- (b) procedures for the following: exercise freeze, administrative hold, ROE for participants, vehicle safety, vehicle kills, explosives, firearms and ammunition, ESS, general safety, and actual emergencies and security incidents;
- (c) description and demonstration of the desired method for recording information about the events that transpire during the PT;
- (d) planned simulations/artificialities, how they will affect the PT, when they will be injected, and the procedures for formulating and introducing other simulations/artificialities, as needed, after PT initiation;
- (e) transportation arrangements for controllers, exercise participants, data collectors, and observers to the PT location and during PT activities;
- (f) purpose of the after-action meeting, the information that should be brought to the meeting, and the location for the meeting;
- (g) location for the issue and turn-in of equipment, accountability measures, and detailed instructions on the equipment required for each controller during the PT;
- (h) detailed description and demonstration of the radios the controllers operate during the PT and explanation of the importance of operating only on the channel and frequency specified in the communications plan;

- (i) detailed briefings and demonstrations, as appropriate, on each piece of ESS equipment to be used in the PT and how and where it will used;
- (j) maps depicting the route to the PT area and conducting a walk-down with all controllers/evaluators, as necessary;
- (k) PT emergency procedures;
- (l) guidelines for information control and established policies and procedures for the protection of PT-related classified information and unclassified controlled information; and
- (m) methodology for identifying controllers/evaluators and donning and wearing of any apparel to be used for identification purposes, as applicable; and directions to, and scheduled time(s) for, controller/evaluator meetings.

7. ENGAGEMENT SIMULATION SYSTEM.

- a. Scope. PTs must be used to realistically evaluate and verify the effectiveness of PF programs, identify and provide training for personnel, identify areas requiring improvements, validate implemented improvements, and motivate PF personnel. PFs must, through training, maintain competencies needed to perform assigned tasks required to fulfill the PF mission.
 - (1) ESS are primarily used to simulate conditions during PF PTs and training activities involving FoF and deadly force-related situations. The use of ESS allows data to be collected to evaluate PF performance in numerous areas, e.g., individual and team tactics, firearms proficiency, tactical movement, deadly force training, and ROE. ESS also provides a means to validate protection strategies and provide hands-on training to PF personnel. The requirements contained in this CRD pertain to the use of ESS during the conduct of PF PTs and training activities. In many cases, these requirements specifically address the conduct of FoF PTs; however, they must also be applied, as applicable, to PF LSPTs and training activities involving one-on-one and deadly force engagements.
 - (2) PF PTs and training activities must be conducted with the highest regard for the safety and health of personnel, protection of the environment, and protection of Government property. Safety issues must be considered from the inception to completion of these activities. DOE directives require that all applicable safety standards and requirements be met before conducting PTs and training activities involving the use of ESS and associated equipment.

- b. Types of ESS. There are six major types of ESS used within DOE for the conduct of simulated engagements during PF PTs and training activities.
- (1) Multiple Integrated Laser Engagement System. MILES consist of weapons-mounted laser transmitters and harness-mounted laser sensors placed on potential targets (e.g., personnel, vehicles, buildings) to enable accurate and realistic assessment of the effects of PF and adversary weapons fire. Examples of MILES firearms and weapons include handguns, rifles, machine guns, LAWs, and claymore mines. MILES are primarily used during PF FoF exercises and LSPTs.
 - (2) Marking Systems.
 - (a) Dye-marking cartridge (DMC) systems consist of specially modified duty handguns, submachine guns and rifles (using a replacement barrel) and non-lethal DMCs (a lightweight hollow plastic projectile that contains a colored, nontoxic marking compound) designed to allow for realistic decisional shooting situations during PF PTs and training activities.
 - (b) Paint Ball (PB) systems consist of paint guns, also called “markers,” that come in a variety of shapes and styles. They may be powered by carbon dioxide, nitrogen, or compressed air. The projectile, or paintball, is a round, thin-skinned gelatin capsule containing colored liquid. The liquid is non-toxic, non-caustic, water-soluble, biodegradable, and rinses out of clothing and off skin with mild soap and water.
 - (c) DMCs and PB rounds have very limited effective and maximum ranges. Thus, both systems are used typically during LSPTs and training activities to simulate close quarters battle (CQB) and decision shooting situations.
 - (3) Hybrid Dye-Marking Cartridge/ESS Firearm. A hybrid DMC/ESS firearm is a firearm that has been modified or designated by a DOE-certified armorer as a DMC weapon that feeds, fires, and functions DMC ammunition. The modification reduces the ability for a live round to chamber in the weapon. Additionally, the weapon is mounted with a MILES transmitter.
 - (4) Blank-Fire Systems. Blank-fire equipment consists of specially modified duty firearms (that cannot fire live ammunition or projectiles) and blank-fire cartridges (loaded with powder but containing no projectile) designed to provide realism during PTs and PF training on the use of deadly force and the escalation of the force continuum.

- (5) Inert Weapons Systems. Inert weapons systems consist of simulated firearms and weapons or actual firearms and weapons that have been rendered incapable of firing live or blank-fire ammunition. Inert weapons systems are typically used to simulate firearms and weapons during PF control and restraint training and LSPTs.
- (6) Airsoft Systems. Airsoft systems, sometimes referred to as soft air systems, consist of replica duty weapons that propel 6mm plastic or biodegradable BBs by means of either rechargeable batteries or Green Gas (HFC 143a). This system can also be modified to be used with the ESS equipment without the use of BBs. Airsoft weapons training systems can be used in virtually any work area. They will not accept live or blank rounds.
- (7) Other Types of ESS. Other types of ESS and associated equipment may be used during PF PT and training activities to simulate adversary and PF actions and real-world incidents. Pyrotechnics and smoke generators may be deployed to simulate fires and chemical agents. Hand-thrown smoke grenades may be used to cover adversary and PF tactics or to provide diversions. Practice or inert grenade systems can be used to simulate thrown explosives and can be followed up by flash/sound diversionary devices, air horns, and other devices to simulate explosions.

8. ENGAGEMENT SIMULATION SYSTEM SAFETY.

a. General Safety.

- (1) Safety is a major concern in any PT or training activity. Safety rules must be followed to minimize the potential for accidents/injuries during activities involving the use of ESS. Management, controllers, and participants must anticipate and react to unsafe situations. Realism must be achieved and safety must be considered in the actions of all participating personnel. Integrating realistic safety requirements into scenarios involving ESS enhances participant safety under both operational and ESS activities.
- (2) All PTs and training activities must be governed by plans and procedures that specifically address safety issues while remaining consistent with realistic evaluation and training. Risk assessments must include procedures for any materials, equipment, and/or operations that are identified as potential hazards during the conduct of any scenario. Safety plans must cover facility safety concerns specific to scenarios being conducted. Preparations must also be made to respond with appropriate medical assistance to situations that could occur.
- (3) ESS PTs and training activities must be regulated by controllers and instructors who have authority regarding safety. Controllers and

instructors are responsible for ensuring that all operations are conducted safely. Controllers, instructors, any participant, and/or any individual may stop an evaluation and/or training activity for safety reasons. Safety is paramount in exercise planning and execution.

- b. Participant Responsibilities. The following paragraphs specifically address safety-related considerations that impact exercise personnel and/or equipment; however, they apply to all ESS activities. Personnel acting as adversary/OPFOR team and response force members must be briefed as to their individual responsibilities to include:
- (1) avoiding hazardous areas;
 - (2) monitoring their own physical condition for signs of overexertion;
 - (3) watching for other participants who appear injured or otherwise are in need of assistance, and immediately ceasing ESS activities in order to render aid and notify a controller or instructor;
 - (4) reporting injuries, regardless of severity, to the nearest controller, instructor, or safety representative;
 - (5) handling and using all ESS firearms and weapons safely as though they were live-fire weapons;
 - (6) inspecting issued MILES weapons and blank ammunition to ensure that no live ammunition and the proper blank ammunition is present and that the MILES weapons and magazines, where used, are properly color-coded;
 - (7) inspecting issued DMC firearms and DMC ammunition to ensure that no live or blank-fire ammunition is present, and that the DMC firearms and magazines, where used, are properly color-coded;
 - (8) inspecting issued blank-fire firearms and blank ammunition to ensure that no live or DMC ammunition is present and that the blank-fire weapons, and magazines, where used, are properly color-coded;
 - (9) inspecting inert weapons to ensure that they are incapable of operation and to ensure that no ammunition is present and that they are properly color-coded;
 - (10) while conducting ESS activities, knowing what the participant should do in the event the PF Shadow Force is deployed and actions the Shadow Force will take;
 - (11) limiting physical contact, during an arrest scenario, to that force necessary for searching and handcuffing while refraining from violent physical contact;

- (12) refraining from attempts to disarm a participant by grabbing their firearm or person;
- (13) ascending or descending from elevated positions by ladder, stairway, or other safe method; jumping from elevated positions only if necessary and safe;
- (14) avoiding hot propellant gases vented from weapons systems; and
- (15) avoiding taking outdoor positions near the ESS Vehicle Hit Indicator System that contains an explosive charge.

(NOTE: The ESS Vehicle Hit Indicator System is designed to simulate and react to firearms fire. Blasts are vented upwards and usually do not present a hazard. Participants must be careful not to position themselves above or within 10 feet of the device while outside a vehicle.)

c. ESS Safety.

- (1) All firearms and weapons used in ESS exercises and training activities must be permanently modified and dedicated for ESS use only. The only permissible exceptions are the M-60, HK-21, FN M-249, and FN M-240 machine gun receivers. ESS modifications of these machine guns are limited to the barrel and feed tray, which gives them additional flexibility. ESS modifications must comply with this CRD.
- (2) With the exception of single-shot grenade launchers, MILES firearms must be equipped with approved blank fire adapters or blast deflectors.
- (3) Dedicated ESS firearms must not be reactivated for live-fire usage without the approval of the DOE cognizant security authority.
- (4) All MILES firearms must be equipped with live-round inhibiting devices or ported chambers, plus one or more additional engineered layers of safety, to prevent the accidental introduction of live rounds.
- (5) Only DMC firearms equipped with DMC conversion kits and DMC ammunition approved by the Office of Health, Safety and Security may be used. All DMC conversion kits must be designed to inhibit live rounds from being chambered. If a factory “drop-in” kit is used to modify a firearm to use DMC, a DOE-certified armorer specifically trained in the installation of such a kit must make the modification. DMC systems may be fired only at participants who are at least 1 meter away.
- (6) ESS firearms used in an exercise must be inspected by a DOE-certified armorer or firearms instructor before beginning the exercise, clearly marked as exercise firearms, closely controlled, and kept separate from

any firearms not associated with the exercise. Approved color coding markings are:

- (a) Orange for MILES and blank-fire firearms and magazines, clips, and belts (first link);
 - (b) Blue for DMC firearms and DMC magazines, clips, and belts (first link), speed loaders, and PB systems;
 - (c) Blue and orange for MILES/DMC hybrid firearms;
 - (d) Red for inert firearms and weapons; and
 - (e) Green for airsoft systems.
- (7) ESS firearms must not be loaded until authorized by a controller or instructor.
 - (8) Blank ammunition must not be used in tactical exercises except with ESS equipment.
 - (9) MILES firearms equipped with blank fire adapters or blast deflectors may be fired only at participants who are at least 10 feet away.
 - (10) Maintenance and adjustments to laser transmitters must be performed only by the supplier or by qualified site personnel approved by the supplier.
 - (11) ESS firearms must be cleaned after an exercise according to a site's Standard Operating Procedures and repaired or removed from service, if necessary.
 - (12) All ESS firearms must be inspected by a DOE-certified armorer and certified at least every 12 months. All engineered layers of safety incorporated in an ESS weapon also must be inspected. These inspections must be documented.

d. ESS Ammunition and Blank-Fire Adapters.

- (1) Only blank ammunition magazines, clips, and belts (first link) that have been distinctively color-coded orange and modified for use with an ESS firearm may be used. The ESS magazine, clip, or belt, when used in conjunction with a modified ESS firearm, must prevent the inadvertent feeding and chambering of a live round. Caution must be exercised because a live round can be placed in the lip of some firearm magazines.
- (2) Only DMC ammunition magazines, clips, and belts that have been distinctively color-coded may be used. Caution must be exercised because

a live round can be placed in a DMC magazine lip or in some cases a DMC magazine can be fully loaded with live ammunition.

- (3) Blank, DMC, airsoft, and PB ammunition must be stored separately from live ammunition and from each other, either in a different location or in a locked cabinet, and must be inspected before issuance by a controller or instructor.
- (4) Before each ESS PT and/or training activity and whenever new participants and or equipment are included:
 - (a) Each firearm and all ammunition must be inspected by the responsible ESS controller/instructor to ensure that only the proper ammunition and properly equipped ESS are in use; and
 - (b) At the beginning of each scenario, participants must inspect their firearms and person to ensure that only the proper exercise ammunition (e.g., blank ammunition for MILES and DMC/PB/airsoft ammunition for DMC/PB/airsoft exercises) and properly equipped MILES and/or DMC firearms/PB/airsoft systems are in use.
- (5) Manufacturers' recommendations for the shelf life of DMC and PB ammunition must be followed.
- (6) LAWs/rocket propelled grenades.
 - (a) LAWs/rocket propelled grenades (RPGs) must not be cocked until the target is identified. If the simulator is not fired at a given target but is anticipated to be fired at another target during the exercise, it must be returned to the uncocked position until the target is sighted. If the simulator is not fired, it must be returned to an unloaded/tube empty position before being turned in.
 - (b) LAWs/RPGs must be used only in designated areas.
 - (c) LAWs/RPGs must be used only for training purposes when exclusion distances and conditions are established as though an actual LAW was being fired. The exclusion distance for the LAW/RPG is 5 feet to either side and 30 feet to the rear.

e. Pyrotechnics, Flash-Sound Diversionary Devices, and Obscurants.

- (1) Pyrotechnics and explosive simulators must be consistent with the pyrotechnics list included in the DOE approved ammunitions list.
- (2) Participants must never pick up thrown pyrotechnics, flash sound diversionary devices, or chemical agents, even one that appears to be a

dud. Duds must be reported, as soon as possible after discovery, to the Senior Controller.

- (3) Written and approved procedures for handling duds and expended devices must be included in PT procedures and applicable lesson plans. These plans and procedures must follow the manufacturer's disposal recommendations or site-approved procedures and must be implemented by properly trained personnel.
- (4) Written and approved procedures for activities such as the wiring of pyrotechnics into vehicle electrical systems and the use of booby traps and trip wires must be included or referenced in PT plans/procedures. These activities must follow manufacturer's recommendations or site-approved procedures and must be conducted by properly trained personnel.
- (5) Smoke and obscurant generating pyrotechnics.
 - (a) Smoke and obscurant generating pyrotechnics may not be used indoors or in confined spaces.
 - (b) Planning for smoke use must address the possible effects on facilities, production processes, workers, and other parties (e.g., nearby roads and vehicle drivers, adjacent facilities and workers, air intake systems).
 - (c) Participants must avoid unnecessary exposures to smoke systems by staying upwind of the smoke, where possible; by avoiding entry to the smoke cloud; by limiting the time traversing the cloud; and by choosing routes involving the least densities of smoke consistent with the tactical objective. Full immersion in high-density smoke for extended periods shall be avoided where possible. If immersion cannot be avoided, respiratory protection must be used as defined in the risk analysis for the training, performance test, or FoF activity.
 - (d) Thrown smoke generators must be deployed by persons trained in their safe deployment methods and knowledgeable of their potential hazards.
 - (e) When thrown smoke generators and other pyrotechnics are deployed in training or testing activities, adequate firefighting equipment and persons knowledgeable in their use must be readily available.
 - (f) Pre-activity safety briefings must address the safety concerns related to the use of smokes and obscurants, the controls for the

deployment of smoke, and the safety controls established to control and limit personnel exposures.

- f. Vehicle Safety. The following requirements apply to the use of vehicles during an exercise.
 - (1) Vehicles must not be mounted or dismounted until after they come to a complete stop.
 - (2) All personnel in moving vehicles must wear seat belts at all times. Passengers may ride in the back of moving open vehicles provided that restraint devices are installed and used and they remain seated within the vehicle.
 - (3) Vehicle maneuvers (e.g., accelerations and decelerations, cruising, turns, etc.) must be made in accordance with local vehicle operating procedures.
 - (4) When a PT/training scenario requires a roadblock, it will be simulated by placing a blocking vehicle on the shoulder of the road and by ensuring that a controller is notified that a roadblock has been established. If the blocking vehicle's presence could effectively obstruct the roadway, the controller should not allow the vehicle being blocked to pass.
- g. Rules of Engagement. Specific ROE must be developed and documented for each FoF or man-on-man PT/training activity, as applicable.

9. MARKING SYSTEMS ACTIVITIES.

- a. General Requirements.
 - (1) All DMC/PB PTs must be monitored by a controller who is a National Training Center (NTC)-certified firearms instructor or has received specialized training.
 - (2) All DMC/PB training activities must be conducted by a NTC-certified firearms instructor.
 - (3) Instructor/controller-to-shooter ratios will be dictated by the type of training/PT scenario. Participants must be familiar with the DMC firearm/PB system to be used in the PT or training activity.
- b. Safety Considerations. In addition to the safety considerations described in previous sections, the following safety considerations specific to DMC and PB activities must be included in training or PT activities that use DMC/PB.
 - (1) DMC/PB ammunition velocity could exceed the American National Standards Institute (ANSI) Z87.1 standard, so protective eye wear must be

ANSI or weapon/ammunition manufacturers' specification whichever is more stringent.

- (2) All DMC/PB equipment must be maintained and tested in accordance with manufacturer specifications.
- (3) All DMC/PB personal protective equipment (PPE) must be visually inspected before each use.
- (4) Helmets with spring-loaded face shields must not be used during DMC or PB activities.
- (5) DMC/PB will not normally break vehicle glass that does not have defects or prior damage. However, if the glass is already cracked, a DMC/PB round may break it. Repeated or rapid fire on undamaged plastic or glass may cause breakage. DMC will dent most soft building materials including drywall, plywood, paneling, and hollow core doors; however, they will generally not penetrate them.
- (6) Wearing clothes with a tight-weave fabric, such as that in military-type/field uniforms or coveralls, is required to cover and protect any exposed skin.
- (7) If body armor is used, it must be dedicated for DMC/PB use only.
- (8) Testing of face and eye protection equipment by subjecting it to firing of DMC and PB projectiles from the actual DMC firearms or PB gun to be used is recommended. Testing must also include concentrated full automatic fire when such firearms are to be used. For information purposes, the manufacturer of the Avon protective mask recommends that outserts be used on the lenses of its masks when used in DMC/PB exercises.
- (9) DMC/PB systems must not be fired at personnel closer than 1 meter.
- (10) DMC ammunition must not be fired in standard, non-DMC-modified firearms because plastic cartridge components could stick in the bore, causing a safety hazard.
- (11) Blank ammunition must not be fired in DMC firearms due to potential hazards from muzzle gases and ejected material.
- (12) Face protection must provide protection from DMC/PB projectiles entering under the face mask when the wearer tilts his/her head back or looks upward.

c. Ammunition and Firearms Conversion Kits.

- (1) Only DMC firearms equipped with conversion kits, PB systems, and ammunition approved by the DOE cognizant security authority may be used.
- (2) All DMC/PB firearms must be distinctively color-coded blue.
- (3) All DMC firearms conversion kits must be designed to inhibit live rounds from being chambered.
- (4) DMC/PB ammunition must be used in accordance with the manufacturer's recommendations for storage conditions and shelf life. The marking compound in DMC/PB may solidify and harden in older ammunition. Poor marking performance may also be encountered with older DMC and PB ammunition. Personnel may have increased risk of potential injury from DMC/PB ammunition projectiles if the marking compound becomes hardened through age or is used in cold temperatures.

d. Personal Protective Equipment. A risk assessment must determine the type of PPE required for the specific PT/training activity being conducted.

- (1) The following PPE must be used when conducting training/PTs involving the use of DMC/PB during FoF and one-on-one engagements.
 - (a) Eye protection.
 - (b) Full face and head protection, which includes covered protection for the ears (i.e., helmets specifically designed for use with DMC or duty equipment that provides equivalent protection).
 - (c) Hand protection (gloves).
 - (d) Groin protection.
 - (e) Throat protection.
 - (f) Hearing protection (optional—unless diversionary devices are being used or exercise is conducted in an environment that requires noise protection). Sound levels generated by DMC/PB use are below Occupational Safety and Health Administration requirements that require hearing protection.
- (2) When conducting training/PTs involving the use of airsoft systems with BBs, the minimum PPE is the JT Spectra face shield or equivalent.

- e. Target Training. Training may be conducted using DMC/PB/airsoft systems to fire at training targets such as the DOE TQ-15, decisional targets, or other targets. Such training does not involve FoF or one-on-one activities.
 - (1) Use of DMC systems for shooting training targets must follow the requirements of this CRD and normal live-fire safety procedures. Sites must evaluate the need for numbers and types of controllers and other exercise personnel based on the specific location and training to be performed.
 - (2) Provisions of DMC/PB/airsoft training plans, controller staffing plans, procedures, and risk assessments must address protection of uninvolved persons. They include observers, plant workers, and others who might become exposed to hazards of DMC/PB/airsoft if training targets are to be used in areas where uninvolved persons could be exposed. Potential hazards must be addressed related to using DMC/PB/airsoft systems for PF PTs and training involving activities such as team movement, CQB, breaching training, room entries, live-fire shoot house, and officer survival activities.

10. RULES OF ENGAGEMENT.

- a. Safety. Safety is a major concern in any ESS PT, and training activity and safety rules must be followed to minimize the potential for accidents and injuries during these activities. Management, participants, and controllers must caution and prepare participants to anticipate and react to unsafe situations. Realism must be achieved and safety must be considered in the actions of all participating personnel. Preparations must also be made to react with appropriate levels of medical assistance to situations that could occur.
- b. Halting an ESS Activity. An ESS PT or training activity may be halted at any time for safety, emergency, real-time security events, or administrative reasons.
 - (1) Exercise Freeze. An Exercise Freeze is a command that is used to halt an exercise when it is necessary to correct safety-related problems or respond to an emergency.
 - (a) Any person observing a safety problem must announce, "Exercise Freeze."
 - (b) Controllers/Evaluators must relay the exercise freeze announcement throughout the PT area.
 - (c) Every participant must immediately freeze in place (i.e., stop at their locations and cease fire, movement, communication, and any other action) until the command "Resume Exercise" is given by the

exercise director or senior controller at the direction of the exercise director.

- (d) In the case of a real-time security event, the exercise cannot resume until all shadow force members return to their staging areas and the shadow force controller confirms with the exercise director that all shadow force members are properly staged.

- (2) Administrative Hold. The command “Administrative Hold” is used to halt an ESS PT when it is necessary to correct exercise problems of an administrative or procedural nature. The use of the command may be planned when it is necessary to put a temporary hold on activities to set the stage for continuation of the PT (e.g., change scenarios, operations shift change activities, etc.).

- (a) The effect of an administrative hold can be limited to a specific locations or activity in a PT or apply to the entire exercise.
- (b) The command “Administrative Hold” must not be called to correct safety problems or respond to emergencies.
- (c) Only a controller can administratively halt exercise activities. The controller will announce the hold in the affected area, and all participant activity in that area will immediately halt until the controller gives the command “Resume Exercise.”

c. Participants.

- (1) Pre-Exercise Activities.

- (a) All pre-exercise actions must be conducted in accordance with normal operating procedures. Participants must be closely monitored to ensure they do not use artificially generated factors to affect the outcome of the PT.
- (b) Participants must be familiar with the operation of issued ESS equipment.
- (c) Participants who will be using or handling pyrotechnics, diversionary devices, hazardous materials, or electrical or mechanical equipment must receive training in their proper use in accordance with current applicable requirements.
- (d) Before being assigned to act as hostages/role players, individuals must be asked if they are willing and capable of dealing with the isolation and demands of a hostage/barricade situation.

- (e) Participating non-DOE law enforcement and other emergency personnel must be instructed how to react in accordance with PT plans and safety and health requirements.
- (f) All players and participants must be physically capable of participating without undue risk of injury to themselves or others.

(2) Safety.

- (a) No attempt will be made to disarm a participant by forcibly taking an ESS weapon.
- (b) All ascents to, or descents from, elevated positions must be by ladder, stairs, or other approved methods.
- (c) No person acting in the role of a hostage may be abused.
- (d) Event Controllers must ensure all occupants of the facility are moved into a safe area during assault phases and are provided with appropriate PPE and safety equipment.

(3) Injuries.

- (a) All injuries must be reported immediately to the nearest controller. Anyone observing an injured or ill participant must immediately advise the nearest controller.
- (b) The command “Exercise Freeze” must be used in communications if a hostage role player or other participant becomes injured or ill. If a problem arises during hostage scenario events it must be brought to the attention of a controller immediately.

(4) Damages. Any damage to vehicles and equipment must be reported to a controller no later than the termination of the PT.

(5) Elimination.

- (a) Once eliminated under the ROE and/or per scenario-specific requirements, a participant must immediately cease fire, movement, communication, and all other actions. Location permitting, eliminated participants must be prone or seated, and weapons grounded to ensure they do not impact scenario/exercise actions. The responsible controller may remove an eliminated participant from the area for safety and operational reasons. Eliminated participants must remain in place until they are released by a controller.

- (b) Participants occupying vehicles must be instructed on the provisions for vehicle and vehicle occupant casualties including the number of allowed survivors based on the type of weapon hit(s) received.
- (c) No physical contact is allowed with eliminated participants except to search and secure (apply restraints) if applicable to the scenario. An eliminated OPFOR or PF participant may be approached to obtain radios or other equipment. ESS firearms and ammunition may be seized and used by other participants only when a controller is present to ensure that the seized ESS firearms and ammunition are used safely. The controller must ensure that the seized ESS weapon is returned to the participant to whom it is assigned for accountability purposes.
- (d) Persons deliberately attempting to circumvent the ROE or gain an unfair advantage by using any unrealistic tactic or action (e.g., covering MILES sensors, hiding behind false cover, removing headbands, etc.) will be immediately eliminated by a controller.

d. Vehicles.

(1) Safety.

- (a) Vehicles that will be used in the PT must be identified clearly as exercise vehicles. All participants are restricted from using vehicles other than those outfitted with ESS equipment and/or designated for PT use.
- (b) All vehicles must be operated safely. Drivers must observe all site requirements and applicable laws relating to vehicle operation. The wearing of safety belts is mandatory for all vehicle occupants. No vehicle will be operated off roadways unless necessary for scenario action and there has been prior approval by the responsible controller.
- (c) During scenario play depicting normal site operations, vehicles must be operated at posted site speed limits. During scenario play requiring emergency response, vehicles will be operated at speed limits delineated in approved PT plans and procedures. Vehicles responding to real-world site emergencies and security incidents during Exercise Freeze conditions will be operated at speed limits per approved response plans.
- (d) Except for normal passing, no vehicle may be driven closer to another vehicle than the distance permitted by the two-second rule.

Following a normal pass, the passing vehicle must immediately reduce speed to the approved speed limit.

- (e) There will be absolutely no attempt to use a vehicle to crash, block, or endanger another vehicle in any way unless the PT scenario or training activity specifically involves the use of Precision Immobilization Technique (PIT), vehicles in use are properly equipped to conduct PIT, and participants are utilizing proper PPE.
- (f) Impassable roadblocks will be indicated by placing yellow engineer tape, orange cones, flags, etc. on or across the roadway per approved PT plans/procedures.
- (g) Emergency vehicles are not part of the exercise unless equipped with ESS equipment.

- (2) Elimination. PT plans/procedures must include requirements to determine the elimination of exercise vehicles. Requirements should include the use of MILES vehicle hit indicator harnesses and controller calls.

e. Explosives and Pyrotechnics.

- (1) Organizations using explosives and pyrotechnics must provide safe operating procedures to the safety controller. These procedures must identify the hazards and required training, assess the risks, and establish the necessary safety requirements for the particular operation.
- (2) Explosives and pyrotechnics must be employed commensurate with the applicable requirements of DOE M 440.1-1A, *DOE Explosives Safety Manual*.
- (3) Pyrotechnics and explosives must be used by the OPFOR, SRTs, or other personnel only as authorized by the DOE cognizant security authority. Personnel must be trained in the use of deployed explosives and pyrotechnics and in the respective safety requirements. Quantities of, and locations for, explosives and pyrotechnics to be used during the PT must conform to approved response plans and be reviewed and approved by the senior controller and the safety controller before use.
- (4) ESS Pyrotechnics.
 - (a) Electrical explosives in an ESS explosive simulator device are directed upward and slightly to the rear of this device. The safety zone around these devices is 10 feet.
 - (b) Participants firing an ESS LAW/RPG must ensure that the area 30 feet behind and 5 feet to each side of the weapon is clear. Personnel in the exercise area must also be briefed to not approach

closer than 30 feet directly behind any participant firing a LAW/RPG. LAWs can be made safe by depressing the safety rod located on the top rear of the weapon.

- (c) Vehicle system electrical explosive charges are mounted on the opposite side from the color indicator light. Since these devices are usually mounted on the vehicle roof with the blast directed upward, they normally do not present a hazard. However, there may be selected special applications where the device is mounted on a vehicle bumper or hood. In these situations, participants must be careful not to position themselves above or within 10 feet of the explosive holder.

11. EXAMPLE FORMAT FOR A PRE-EXERCISE BRIEFING. Briefings must be tailored to specific PTs and to the participants. Specialized briefings may be necessary to ensure selected participants are aware of detailed information and/or requirements pertaining to a specific event or role. Responsible personnel must ensure that participants are provided the necessary briefing(s). This example list of items to be covered in a pre-exercise briefing is not meant to be all-inclusive for every PT or scenario.

- a. Scenarios – (need-to-know basis only)
- b. Assignments and Responsibilities
- c. Operational considerations
- d. Security
- e. Operations security
- f. Shadow force
- g. Communications requirements, procedures, and methods
- h. Safety
- i. Controllers
- j. Participants
- k. ESS equipment (firearms and other systems, ammunition, pre- and post-exercise requirements)
- l. Vehicles
- m. Risk assessment reports, hazards, and mitigating controls

- n. Actions to be taken in event of real world emergencies and/or the Shadow Force is deployed
- o. Questions and answers

APPENDIX C – CANINE PROGRAM

1. **PURPOSE.** Canine teams are assigned to Department of Energy (DOE) facilities to deter potential threats and may be involved in activities such as explosive detections, suspect apprehension, and contraband searches. A set of program standards must be developed, approved, implemented, enforced, and maintained to ensure canine programs are effective.
2. **REQUIREMENTS.**
 - a. Canine programs must be documented and approved and must include plans for operations, training and maintenance, canine kenneling and healthcare, and canine/handler team certification.
 - b. Canine/handler team certification plans must equal or exceed certification standards of a certified state or Federal Government law enforcement agency (LEA) canine program.
 - c. Contractor canine programs must be approved by the DOE cognizant security authority.
 - d. The handler's organization must maintain and update training, proficiency assessment, seizure, and/or deployment/utilization records for the canine team.
 - e. Canine programs under contracts/subcontracts with outside companies/organizations must meet the above requirements and must be approved by the local DOE cognizant security authority.
 - f. When sites use canine programs that rely upon other LEA to provide canine support, memorandums of agreement must be developed with those agencies, reviewed and updated at least annually, and approved by the local DOE cognizant security authority.

APPENDIX D – SECURITY HELICOPTER FLIGHT OPERATIONS

1. **PURPOSE.** The primary purpose for security helicopter flight operations is to provide timely and effective aerial response to a security incident. Department of Energy (DOE) security helicopters may be used for response force [i.e., protective force (PF), Special Response Team, and Federal, State, and local law enforcement agency personnel] transport, command, control, communications, surveillance, and as a firing platform when required.
2. **OPERATIONAL REQUIREMENTS.**
 - a. **General.** Helicopters employed in support of security operations provide an airborne dimension to response force capabilities against a threat posed by adversaries who may attempt theft or sabotage of nuclear weapons or special nuclear material (SNM) and/or sabotage of vital facilities and equipment. The decision to use security helicopters is based on site-specific considerations with concurrence of the cognizant DOE organization or Administrator, National Nuclear Security Administration (NNSA). Requirements for helicopter operations are covered in DOE O 440.2B, *Aviation Management and Safety*. Site-specific security helicopter operational mission requirements must be documented in a site-specific Aviation Implementation Plan (AIP). The AIP must be approved by the DOE cognizant security authority.
 - b. **Mission Readiness.** To meet mission requirements, a security helicopter must be fully operational and ready to respond to a security emergency with a 90 percent availability rate, excluding weather conditions.
 - c. **Emergency Security Helicopter Operations.** During a security incident, helicopters may be employed to transport, insert, and relocate response forces to and from the scene of a security incident or staging area as directed by the senior on-scene commander and/or by standard operating procedure. Additional emergency response functions must be fully documented in an AIP and may include, but are not limited to: directed fire; command, control, communications; surveillance; resupply; and support of facility/site protection strategies including recapture, recovery, and fresh pursuit operations.
 - d. **Routine Security Helicopter Operations.** Routine helicopter operations may include the following:
 - (1) Pilot proficiency, training, and testing program;
 - (2) Training for emergency response, tactical insertion of PF personnel, and observation and pursuit of airborne and ground intruders;
 - (3) Site surveillance, search, and observation;
 - (4) Transport of PF personnel;

- (5) Escort of convoys transporting SNM; and
 - (6) Command, control, and communications of ground security activities in routine operations.
 - e. Special Use of Security Helicopters. Such use must be based on site-specific mission requirements, which are approved by the DOE cognizant security authority and documented in an AIP.
3. RULES OF ENGAGEMENT IN USE OF HELICOPTERS AS FIRING PLATFORMS. Firing from a helicopter can be a viable and effective means of supporting security operations, and the AIP may incorporate aerial firing under the following conditions:
- a. Authority to include aerial firing in response plans must be granted only following development of site-specific rules of engagement that are consistent with DOE policy on the use of force.
 - b. Firing must be done only by specifically trained and qualified SRT personnel with weapons attached to gun mounts that provide field-of-fire limitations which protect the aircraft from self-inflicted damage.
 - c. A Safety Analysis Review (SAR) of aerial firing must be completed. The SAR must be reviewed for currency any time aerial firing requirements are changed, but at least every 12 months.
 - d. The technical and operational procedures and SAR for aerial firing must be submitted in writing to the cognizant DOE safety officer for approval.
 - e. DOE line management is the final approval authority at each site. Copies of the approved technical and operational procedures for aerial firing must be provided to the Senior DOE Aviation Management Official; the cognizant Departmental element or the Administrator, NNSA; and the Office of Health, Safety and Security.
 - f. Contractor site-specific aerial firing qualification and/or familiarization courses must be developed and submitted, through the DOE cognizant security authority to the Chief Health, Safety and Security Officer for review and approval.