

PROTECTIVE FORCE FIREARMS QUALIFICATION COURSES



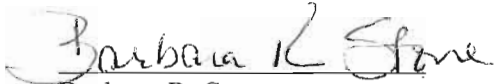
U.S. DEPARTMENT OF ENERGY
Office of Health, Safety and Security

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CERTIFICATION

This document contains the currently-approved protective force “Firearms Qualification Courses” referred to in DOE M 470.4-3A, *Contractor Protective Force*, and DOE M 470.4-8, *Federal Protective Force*. Two courses of fire pending official approval in accordance with 10 C.F.R. Part 1046, “Physical Protection of Security Interests,” are included.



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11/18/08
Date

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SECTION A – APPROVED FIREARMS QUALIFICATION COURSES

CHAPTER I. INTRODUCTION

1. SCOPE.
 - a. Firearms qualification courses described in this document are approved by the Chief, Office of Health, Safety and Security (HSS), for firearms qualification and requalification to ensure that protective force (PF) personnel are uniformly qualified with the firearms 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 (C.F.R.) Part 1046, “Physical Protection of Security Interests,” U.S. Department of Energy (DOE) Manual (M) 470.4-3A, *Contractor Protective Force*, and DOE M 470.4-8, *Federal Protective Force*. The courses provide the specific implementation of 10 C.F.R. Part 1046, which requires PF personnel to have the level of skills and knowledge needed to perform all essential functions associated with PF job responsibilities.
 - b. PF personnel will achieve high standards of marksmanship and proficiency in related shooting skills to successfully complete the firearms qualification courses. Shooting skills are enhanced by training and testing knowledge, skills, and abilities, as appropriate (e.g., firearms manipulation; target discrimination; the engagement of moving, multiple, and reactive targets; and shooting under stress).
2. CONTENT. This document devotes separate chapters to basic courses of fire for the following five types of firearms: handgun, rifle, shotgun, submachine gun (SMG), and light machine gun (LMG). Two specialized groups of courses: 1) precision rifle; and 2) live-fire shoot house (LFSH), are also addressed by separate chapters. All courses are executed under daylight conditions, but selected courses are also fired under reduced lighting conditions.
 - a. Appendix 1 provides information on courses that are pending approval.
 - b. Appendix 2 provides requirements for lighting standards and measurement techniques.
 - c. Appendix 3, as well as Chapter XI of DOE M 470.4-3A, *Contractor Protective Force*, and Chapter V of DOE M 470.4-8, *Federal Protective Force* set forth the remedial qualification course requirements.
 - d. Appendix 4 provides target specifications and scoring details and requirements.
 - e. Appendix 5 contains descriptions of scoring templates used during precision rifle qualification courses.

- f. Appendix 6 describes the practical shooting courses. Consistent with local collective bargaining agreements and other site considerations, sites are authorized to substitute selected practical shooting courses from Appendix 6 to be fired for qualification during one of the semi-annual (at least every 6 months) qualification periods in lieu of the standard, applicable firearms qualification courses.

NOTE: Courses of fire from Appendix 1 that are pending approval may be used also as alternatives for qualification during one of the semi-annual qualification periods in lieu of the standard, applicable firearms qualification courses.

CHAPTER II. DOE FIREARMS QUALIFICATION COURSE DEVELOPMENT PROCESS

1. PURPOSE. To describe the process by which U.S. Department of Energy (DOE) protective force (PF) firearms qualification courses are developed, reviewed, revised, validated, and approved.
2. SCOPE. The process described herein applies to all PF firearms policy development participants; notably, the staff of the DOE Office of Security Policy (HS-70), the DOE National Training Center (NTC) (HS-50), the DOE Firearms Policy Panel (FPP), the DOE Protective Forces Safety Committee (PFSC), the DOE Training Managers' Working Group (TMWG), the DOE Training Advisory Committee (TAC), and any Program Office or site firearms subject matter experts that desire to contribute to any phase of the process.
3. PROCESS.
 - a. The long-established review, design, and development process for qualification courses of fire (COFs) will continue to be followed; involving site firearms subject matter experts, training managers, the PFSC, the TAC, the NTC, program office representatives, and the Office of Security Policy.
 - b. As prescribed by DOE M 470.4-3A, *Contractor Protective Force*, PF COFs must be reviewed annually (at least every 12 months) by the DOE FPP, which may recommend changes, as required, in consultation with the PFSC. These recommendations will then be forwarded to the TMWG and then to the TAC for review and concurrence before entering the validation and approval stages.
 - c. Following the TMWG/TAC review and inclusion of any recommended modifications, the Director, HS-70, will disseminate instructions for the conduct of the validation phase.
 - d. Sites will be offered the opportunity to participate under the oversight of the DOE-NTC in the validation of 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.
 - e. PF personnel who complete a new course successfully will be considered qualified as if they had completed the standard DOE COF. Officers who do not successfully complete the new COF will not be penalized and will be given the opportunity to qualify using the current approved DOE standard COF.
 - f. Following analysis of the validation phase by the NTC, any resultant modifications to the COF will be made and a report submitted to the Director, HS-70. Final coordination of the recommended COFs with Departmental

Elements will be effected through the staffing of the NTC Validation Report preparatory to approval by the Chief Health, Safety and Security Officer.

- g. A phase-in period of one year for approved COFs (at least two semiannual requalification cycles) will be prescribed to permit sufficient opportunity for sites to train personnel to the new course.

4. ROLES.

a. DOE Firearms Policy Panel (FPP).

- (1) Consists of firearms subject matter experts representing sites with armed PFs and Headquarters Departmental Elements.
- (2) Reviews DOE Standardized Firearms Qualification COFs and recommends revisions if required.
- (3) Develops new COFs as needed and/or as recommended by members.
- (4) Coordinates recommendations for revisions or new COFs with the PFSC.

b. DOE Protective Forces Safety Committee (PFSC).

- (1) Consists of Federal safety professionals responsible for site or Department PF and firearms safety program oversight. May be augmented by site contractor safety professionals.
- (2) Consults with FPP to ensure that established safety requirements are considered in the development, review, and/or revision of DOE COFs.

c. DOE Training Managers' Working Group (TMWG).

- (1) Consists of Federal and contractor managers responsible for the administration or oversight of PF training programs.
- (2) Provides recommendations for COF development/revision to the FPP.
- (3) Reviews COF recommendations forwarded from the FPP.
- (4) Provides opinions/recommendations on COFs to the TAC.

d. DOE Training Advisory Committee (TAC).

- (1) Consists of senior Federal and contractor PF managers who act in an advisory capacity to the NTC.
- (2) Provides recommendations for COF development/revision to the FPP.

- (3) Reviews COF recommendations forwarded from the FPP through the TMWG.
 - (4) Provides opinions/recommendations on COFs to the Director, HS-70.
- e. DOE National Training Center (NTC).
- (1) Participates in FPP/PFSC deliberations.
 - (2) Moderates TMWG/TAC reviews.
 - (3) Oversees COF validation process, analyzes data, constructs report supporting included recommendations, and submits report to Director, HS-70.
- f. DOE Office of Security Policy.
- (1) Moderates FPP activities.
 - (2) Participates in TMWG/TAC review.
 - (3) Disseminates memorandum soliciting site participation in validation phase and monitors the process.
 - (4) Prepares recommendation for approval of new or revised COFs for submission to the Chief Health, Safety and Security Officer and staffs final validation reports through Departmental Elements.
- g. Chief Health, Safety and Security Officer.
- (1) Ensures that all affected parties have had the opportunity to participate in the COF development/review process through the FPP, PFSC, TMWG, TAC and/or Headquarters staffing.
 - (2) Approves DOE standardized firearms COFs in accordance with the authority conveyed by 10 C.F.R. 1046 and DOE O 470.4A, *Safeguards and Security Program*.

**CHAPTER III. GENERAL INSTRUCTIONS FOR
FIREARMS QUALIFICATION COURSES**

1. General instructions for contractor protective force firearms qualification courses are located in DOE M 470.4-3A, Chapters IX and XI.
2. General instructions for Federal protective force firearms qualification courses are located in DOE M 470.4-8, Chapters IV and V, and respective Annexes.
3. If, during any course of fire involving slung rifles or submachine guns, a firearms instructor issues the command to “let them hang,” the firearms will be suspended from the slings and remain untouched until the instructor provides further instructions.

CHAPTER IV. HANDGUN QUALIFICATION COURSES

1. INTRODUCTION. The handgun qualification courses evaluate shooters' marksmanship and firearm manipulation under daylight and reduced lighting conditions. The U.S. Department of Energy (DOE) Standard Target must be used for all stages and must be scored in accordance with Appendix 4 of this Section. Lighting standards for the Reduced Lighting Handgun Qualification Course are specified in Appendix 2 of this Section and must be followed strictly whenever a shooter is to be qualified.
2. INSTRUCTIONS FOR HANDGUN QUALIFICATION COURSES.
 - a. All general instructions for firearms qualification courses in Chapters IX and XI of DOE M 470.4-3A, *Contractor Protective Force*, and Chapters IV and V of DOE M 470.4-8, *Federal Protective Force*.
 - b. All draws will be from a snapped or secured holster. Shooters will start with their hands relaxed, hanging by their sides.
 - c. Shooters are to decock double-action semiautomatics before holstering.
 - d. Shooters authorized to carry a semiautomatic pistol while on duty will decock after each string, and the first round must be fired double-action if the pistol is equipped with a decocking device. If firing a revolver, all rounds will be fired double-action.
 - e. The kneeling position may incorporate support for the shooting hand, but at least one knee is to touch the ground. Other positions may incorporate support for the shooting hand as directed.
 - f. Shooters, when required to fire from either the right or left side of the barricade, are to use the barricade for cover. Shooters will also use the barricade as cover when reloading.
 - g. An approved flashlight is to be used during Stages II and III of the Reduced Lighting Handgun Qualification Course.
3. DAYLIGHT HANDGUN QUALIFICATION COURSE.

60 Total Rounds Points Needed to Qualify, 210 at 70% or 240 at 80%

Stage I

Technique: Immediate response to a lethal threat at a short distance.

Yard line: 3
Total rounds: 6

Targets: 1
Load with: 6 rounds
Strings: 3
Position: Standing
Procedure: String 1: Draw and fire 2 rounds within 3 seconds.
Strings 2, 3: Same as Stage I, String 1.

Stage II

Technique: Immediate response to a lethal threat at a short distance.

Yard line: 7
Total rounds: 6
Targets: 1
Load with: 6 rounds
Strings: 2
Position: Standing
Procedure: String 1: Draw and fire 2 rounds center of mass and 1 round at the head within 5 seconds.
String 2: Same as Stage II, String 1.

Stage III

Technique: Use of the weak hand in lieu of the strong hand to engage a lethal threat at a short distance. The shooter's strong arm will not be used for support. The strong hand will be relaxed and hanging by the shooter's side.

Yard line: 7
Total rounds: 6
Targets: 1
Load with: 6 rounds
Strings: 3
Position: Standing
Procedure: String 1: Begin with the handgun in the unsupported weak hand at the low ready. Fire 2 rounds within 4 seconds.
Strings 2, 3: Same as Stage III, String 1.

Stage IV

Technique: Immediate and continuing response to a lethal threat at a moderate distance and commencement of fire from the low ready.

Yard line: 10
Total rounds: 12
Targets: 1

Load with:	6 rounds
Strings:	5
Position:	Standing
Procedure:	String 1: Draw, fire 2 rounds within 4 seconds. Remain at the low ready.
	String 2: From the low ready, fire 2 rounds within 3 seconds.
	String 3: Draw, and fire 2 rounds. Reload and fire 2 rounds.
	Time limit: Revolver: 12 seconds
	Semiautomatic: 10 seconds
	String 4: Same as Stage IV, String 1.
	String 5: Same as Stage IV, String 2.

Stage V

Technique: Immediate and continuing response to a lethal threat at a moderate distance while moving to a more advantageous shooting position, reloading, and commencing fire from the low-ready.

Yard line:	15
Total rounds:	12
Targets:	1
Load with:	6 rounds
Strings:	5
Position:	Standing and kneeling
Procedure:	String 1: Draw, kneel, and fire 2 rounds within 5 seconds.
	String 2: Same as Stage V, String 1.
	String 3: From the standing position, draw and fire 2 rounds. Reload while assuming a kneeling position and fire 2 rounds.
	Time limit: Revolver: 14 seconds
	Semiautomatic: 12 seconds
	String 4: From the standing position, draw and fire 2 rounds within 5 seconds. Remain at the low ready.
	String 5: From the low-ready position, fire 2 rounds within 3 seconds.

Stage VI

Technique: Immediate and continuing response to a lethal threat at a moderate distance and use of a barricade for cover while firing from the left and right sides of the barricade in standing, kneeling, and prone positions and while reloading. Use of the barricade for support is optional.

Yard line:	25
Total rounds:	12
Targets:	1

Load with: 6 rounds
Strings: 5
Position: Standing, kneeling, and prone
Procedure: String 1: Draw, assume a standing left barricade position, and fire 2 rounds within 5 seconds.
String 2: Draw, assume a standing right barricade position, and fire 2 rounds within 5 seconds.
String 3: Draw, assume a kneeling left barricade position, and fire 2 rounds. Reload, move to a kneeling right barricade position, and fire 2 more rounds.
Time limit: Revolver: 15 seconds
Semiautomatic: 12 seconds
String 4: Draw, assume a prone position, and fire 2 rounds within 10 seconds.
String 5: Same as Stage VI, String 4.

Stage VII

Technique: Immediate response to a lethal threat at a long distance while using the standing, kneeling, and prone barricade positions (right or left barricade positions at shooter's option).

Yard line: 50
Total rounds: 6
Targets: 1
Load with: 6 rounds
Strings: 3
Position: Standing, kneeling, and prone
Procedure: String 1: Draw, assume a standing barricade position (shooter option of left or right side), and fire 2 rounds within 8 seconds.
String 2: Draw, assume kneeling barricade position (shooter option of left or right side), and fire 2 rounds within 10 seconds.
String 3: Draw, assume a prone position, and fire 2 rounds within 12 seconds.

4. REDUCED LIGHTING HANDGUN QUALIFICATION COURSE.

24 Total Rounds 84 Points at 70% or 96 Points at 80%

Stage I

Technique: Target identification, marksmanship, and firearm manipulation while engaging a lethal threat at a short distance.

Lighting standard: Dim light

Yard line:	7	
Total rounds:	12	
Targets:	1	
Load with:	6 rounds	
Strings:	5	
Position:	Standing	
Procedure:	String 1:	Draw, fire 2 rounds within 5 seconds, and assume a low-ready position.
	String 2:	From the low ready, fire 2 rounds within 3 seconds.
	String 3:	Draw and fire 2 rounds. Reload and fire 2 more rounds.
	Time limit:	Revolver: 12 seconds Semiautomatic: 10 seconds
	String 4:	Same as Stage I, String 1.
	String 5:	Same as Stage I, String 2.

Stage II

Technique: Use of the flashlight to enhance target identification and marksmanship while engaging a lethal threat at a short distance.

Lighting standard:	Dark	
Yard line:	7	
Total rounds:	6	
Targets:	1	
Load with:	6 rounds	
Strings:	3	
Position:	Standing	
Procedure:	String 1:	From the low ready with handgun and flashlight, fire 2 rounds within 4 seconds.
	Strings 2, 3:	Same as Stage II, String 1.

Stage III

Technique: Use of the flashlight to enhance target identification and marksmanship while engaging a lethal threat at a moderate distance.

Lighting standard:	Dark	
Yard line:	15	
Total rounds:	6	
Targets:	1	
Load with:	6 rounds	
Strings:	3	
Position:	Standing	
Procedure:	String 1:	From the low ready with handgun and flashlight, fire 2 rounds within 5 seconds.
	Strings 2, 3:	Same as Stage III, String 1.

5. SECURITY POLICE OFFICER (SPO)-III DAY COMBINED HANDGUN QUALIFICATION COURSE.

58 Total Rounds 261 Points at 90%

This course evaluates an SPO-III's marksmanship and manipulation skills in both stationary and shooting-on-the-move environments. This course combines all aspects of the current Daylight Handgun Qualification Course (see paragraph 3 above) and the current Handgun Shooting-on-the-Move Qualification Course in Chapter XI of this Section. The DOE Standard Target is used for all stages and scored in accordance with Appendix 4 of this Section.

Special instructions:

- a. All general instructions for firearms qualification courses in Chapters IX and XI of DOE M 470.4-3A, *Contractor Protective Force*, and Chapters IV and V of DOE M 470.4-8, *Federal Protective Force*, apply.
- b. All draws are from a snapped or secured holster. Shooters will start with their hands relaxed, hanging by their sides.
- c. Shooters will decock double-action semiautomatics before holstering.
- d. All movement stages will begin with the shooter in the low-ready position and the handgun in a full-load configuration.
- e. It is the shooter's responsibility to manage his or her ammunition. Shooters will be given an opportunity at the beginning of each stage to "make ready." The shooter may then tactically reload with a full magazine at his or her discretion. However, Stage VIII requires a mandatory lock-back; therefore, a 1-round magazine will be used.
- f. The kneeling position may incorporate support for the shooting hand, but at least one knee will touch the ground. Other positions may incorporate support for the shooting hand, as directed.
- g. Shooters, when required to fire from either the left or right side of the barricade, will use it for cover and may use it for support. Shooters will also use the barricade as cover when reloading.
- h. The rifle/submachine gun (SMG) will be carried by the shooters through the end of Stage IX, after which it will be racked at the direction of the instructors.
- i. Any rounds fired from a stationary position when they should have been fired on-the-move will be deducted at full value from the total score.

- j. SPO-III's firing this course for qualification will wear the equipment required for duty during tactical response situations.
- k. Shooters will wear an approved protective mask during Stage VII, VIII, and IX of this course.
- l. Targets will be scored at the completion of Stage IX (30 rounds) and Stage XII (28 rounds) in accordance with Appendix 4 of this Section.

NOTE: The SPO-III is required to fire the course while wearing an unloaded, slung rifle/SMG.

Stage I

Technique: Immediate response to a lethal threat at a short distance.

Yard line: 3
Total rounds: 4
Targets: 1
Load with: Full load
Strings: 2
Position: Stationary; standing
Procedure: String 1: Draw and fire 2 rounds center mass within 3 seconds.
String 2: Same as Stage I, String 1.

Stage II

Technique: Immediate response to a lethal threat at a short distance.

Yard line: 5
Total rounds: 6
Targets: 1
Load with: Full load
Strings: 2
Position: Stationary; standing
Procedure: String 1: Draw and fire 2 rounds center mass and 1 round to the head within 4 seconds.
String 2: Same as Stage II, String 1.

Stage III

Technique: Immediate response to a lethal threat at a moderate distance and commencement of fire from the low ready.

Yard line: 10
Total rounds: 2
Targets: 1
Load with: Full load

Strings: 1
Position: Stationary; standing
Procedure: String 1: Draw and fire 2 rounds center mass within seconds.

Stage IV

Technique: Response to a lethal threat at a short distance while moving and commencement of fire from the low ready.

Yard line: Start at 7; move to 3
Total rounds: 4
Targets: 1
Load with: Full load
Strings: 3
Position: Moving
Procedure: String 1: From the low ready, while moving, fire 1 round to the head within 3 seconds.
Strings 2-4: Same as Stage IV, String 1.

Stage V

Technique: Response to a lethal threat at a short distance using only the strong hand while moving and commencement of fire from the low ready.

Yard line: Start at 7; move to 3
Total rounds: 4
Targets: 1
Load with: Full load
Strings: 2
Position: Moving
Procedure: String 1: From the low ready, while moving, fire 2 rounds, strong hand only, center mass within 3 seconds.
String 2: Same as Stage V, String 1.

Stage VI

Technique: Response to a lethal threat at a short distance using only the weak hand while moving and commencement of fire from the low ready.

Yard line: Start at 7; move to 3
Total rounds: 4
Targets: 1
Load with: Full load
Strings: 2
Position: Moving
Procedure: String 1: From the low ready, while moving, fire 2 rounds, weak hand only, center mass, within 4 seconds.

String 2: Same as Stage V, String 1.

Stage VII

Technique: Response to a lethal threat at a short distance while moving and commencement of fire from the low ready while wearing a protective mask.

Yard line: Start at 7; move to 3
Total rounds: 6
Targets: 1
Load with: Full load
Strings: 2
Position: Moving; wearing a protective mask
Procedure: String 1: From the low ready, while moving, fire 2 rounds center mass and 1 round to the head within 4 seconds.
String 2: Same as Stage VII, String 1.

Stage VIII

Technique: Response to a lethal threat at a moderate to short distance while wearing a protective mask, moving, speed loading, and commencement of fire from the low ready.

Yard line: Start at 10; move to 2
Total rounds: 8 (2 magazines or speed loaders)
Targets: 1
Load with: 1-round chambered and a 1-round magazine inserted in the firearm (mandatory lock-back); carrying a fully loaded magazine
Strings: 2
Position: Moving
Procedure: String 1: From the low ready, while moving, fire 2 rounds center mass, reload, and fire 2 rounds center mass, while continuing to move within 7 seconds.
String 2: Same as Stage VIII, String 1.

Stage IX

Technique: Immediate response to a lethal threat at a moderate distance while wearing a protective mask.

Yard line: 10
Total rounds: 2
Targets: 1
Load with: Full load
Strings: 1
Position: Standing

Procedure: String 1: Draw, fire 2 rounds center mass within 4 seconds.

NOTE: Before continuing to next stage, the SPO-III will un-sling the rifle/SMG and place the rifle/SMG in a rack or ground it in a safe location.

Stage X

Technique: Immediate and continuing response to a lethal threat at a moderate distance while speed loading and moving to a more advantageous position.

Yard line: 15
Total rounds: 8
Targets: 1
Load with: Full load
Strings: 2
Position: Stationary; standing and kneeling
Procedure: String 1: Standing, draw and fire 2 rounds center mass. Speed reload while assuming a kneeling position, and fire 2 rounds center mass within 12 seconds.
 String 2: Same as Stage X, String 1.

Stage XI

Technique: Immediate and continuing response to a lethal threat at a moderate distance and use of a barricade for cover while firing from the left and right sides of the barricade in standing, kneeling, and prone positions and speed loading. Use of the weak hand for support is optional.

Yard line: 25
Total rounds: 10
Targets: 1
Load with: Full load
Strings: 4
Position: Stationary; standing, kneeling, and prone
Procedure: String 1: Draw, assume a standing left barricade position, and fire 2 rounds center mass within 5 seconds.
 String 2: Draw, assume a standing right barricade position, and fire 2 rounds center mass within 5 seconds.
 String 3: Draw, assume a kneeling left barricade position, and fire 2 rounds center mass. Speed reload, assume a kneeling right barricade position, and fire 2 rounds center mass within 14 seconds.
 String 4: Draw, assume a prone position, and fire 2 rounds center mass within 10 seconds.

CHAPTER V. RIFLE QUALIFICATION COURSES

1. INTRODUCTION. The courses of fire for the rifle, evaluate shooters' marksmanship and firearm manipulation under daylight and reduced lighting conditions. The U.S. Department of Energy (DOE) Standard Target must be used for all stages and scored in accordance with Appendix 4 of this Section. Lighting standards for the Reduced Lighting Rifle Qualification Course are specified in Appendix 2 of this Section and are to be followed strictly whenever a shooter is to be qualified.
2. INSTRUCTIONS FOR RIFLE QUALIFICATION COURSES.
 - a. All general instructions for firearms qualification courses in Chapters IX and XI of DOE M 470.4-3A, *Contractor Protective Force*, and Chapters IV and V of DOE M 470.4-8, *Federal Protective Force*, apply.
 - b. Rifle slings may be used but will remain loose until the command to commence firing for each string of fire (e.g., a hasty sling may be adopted after the command to commence firing).
 - c. Carbines authorized for duty may include 9mm, .45 caliber, and other bore sizing designed to fire handgun cartridges.
 - d. Security Police Officers (SPOs) armed for duty with a rifle or carbine capable of firing in the semiautomatic, full automatic, or 3-round burst mode will fire a qualification course for each setting.
 - e. All strings will start from the standing low-ready position, half-load configuration, and with the selector lever in the safe position unless specified otherwise.
 - f. Shooters are to place the selector lever to the safe position after every string.
3. DAYLIGHT SEMIAUTOMATIC RIFLE QUALIFICATION COURSE.

30 Total Rounds 105 points at 70% or 120 points at 80%

Stage I

Technique: Immediate response to a lethal threat at a moderate distance.

Yard line:	15
Total rounds:	6
Targets:	1
Load with:	1 magazine
Strings:	3

Position: Standing
Procedure: String 1: Charge, and fire 2 rounds within 4 seconds.
String 2: Full-load configuration, fire 2 rounds within 3 seconds.
String 3: Same as Stage I, String 2.

Stage II

Technique: Immediate response to a lethal threat at a moderate distance.

Yard line: 25
Total rounds: 6
Targets: 1
Load with: 1 magazine
Strings: 3
Position: Standing
Procedure: String 1: Charge, and fire 2 rounds within 5 seconds.
String 2: Full-load configuration, fire 2 rounds within 3 seconds.
String 3: Same as Stage II, String 2.

Stage III

Technique: Immediate response to a lethal threat at a moderate distance while moving to a more advantageous shooting position.

Yard line: 25
Total rounds: 6
Targets: 1
Load with: 1 magazine
Strings: 3
Position: Standing to kneeling
Procedure: String 1: From standing, assume a kneeling position while charging, and fire 2 rounds within 7 seconds.
String 2: From standing, full-load configuration, assume a kneeling position, and fire 2 rounds within 5 seconds.
String 3: Same as Stage III, String 2.

Stage IV

Technique: Immediate response to a lethal threat at a long distance while moving to a more advantageous shooting position.

Yard line: 50
Total rounds: 4

Targets: 1
Load with: 1 magazine
Strings: 2
Position: Standing to kneeling
Procedure: String 1: From standing, assume a kneeling position while charging, and fire 2 rounds within 9 seconds.
String 2: From standing, full-load configuration, assume a kneeling position, and fire 2 rounds within 7 seconds.

Stage V

Technique: Immediate and continuing response to a lethal threat at a long distance while moving to a more advantageous shooting position and reloading.

Yard line: 50
Total rounds: 4 (2 magazines, 2 rounds each)
Targets: 1
Load with: 1 magazine, 2 rounds
Strings: 1
Position: Standing to prone
Procedure: String 1: From standing, assume the prone position while charging, and fire 2 rounds. Reload and fire 2 rounds within 20 seconds.

Stage VI

Technique: Immediate and continuing response to a lethal threat at a long distance while moving to a more advantageous shooting position and reloading.

Yard line: 100
Total rounds: 4 (2 magazines, 2 rounds each)
Targets: 1
Load with: 1 magazine, 2 rounds
Strings: 1
Position: Standing to prone
Procedure: String 1: From standing, assume the prone position while charging, and fire 2 rounds. Reload and fire 2 rounds within 25 seconds.

4. REDUCED LIGHTING SEMIAUTOMATIC RIFLE QUALIFICATION COURSE.

20 Total Rounds 70 points at 70% or 80 points at 80%

Stage I

Technique: Immediate and continual response to a lethal threat at a short distance.

Lighting standard: Dim light
Yard line: 7
Total rounds: 8 (2 magazines, 4 rounds each)
Targets: 1
Load with: 1 magazine
Strings: 3
Position: Standing
Procedure: String 1: Charge, and fire 2 rounds within 4 seconds.
String 2: Full-load configuration, fire 2 rounds. Reload and fire 2 rounds within 15 seconds.
String 3: Full-load configuration, fire 2 rounds within 4 seconds.

Stage II

Technique: Immediate response to a lethal threat at a moderate distance while moving to a more advantageous shooting position.

Lighting standard: Dim light
NOTE: When conducting Stage II, if the rifle is equipped with an illuminating device, the stage is to be fired under the Dark Light Standard while using the illuminating device.

Yard line: 15
Total rounds: 6
Targets: 1
Load with: 1 magazine
Strings: 3
Position: Standing to kneeling
Procedure: String 1: From standing, assume a kneeling position while charging, and fire 2 rounds within 7 seconds.
String 2: From standing, full-load configuration, assume a kneeling position, and fire 2 rounds within 5 seconds.
String 3: Same as Stage II, String 2.

Stage III

Technique: Immediate response to a lethal threat at a moderate distance while moving to a more advantageous shooting position.

Lighting standard: Dim light
Yard line: 25
Total rounds: 6
Targets: 1
Load with: 1 magazine

Strings: 3
Positions: Standing to prone
Procedure: String 1: From standing, assume a prone position, while charging, and fire 2 rounds within 9 seconds.
String 2: From standing, full-load configuration, assume a prone position, and fire 2 rounds within 7 seconds.
String 3: Same as Stage III, String 2.

5. AUTOMATIC RIFLE QUALIFICATION COURSES.

a. Daylight 3-Round-Burst Qualification Course.

30 Total Rounds 105 points at 70% or 120 points at 80%

Stage I

Technique: Immediate response to a lethal threat at a short distance using a controlled burst of fire.

Yard line: 5
Total rounds: 6
Targets: 1
Load with: 1 magazine
Strings: 2
Position: Standing
Procedure: String 1: Charge, and fire one 3-round burst within 4 seconds.
String 2: Full-load configuration, fire one 3-round burst within 3 seconds.

Stage II

Technique: Immediate response to a lethal threat at a short distance using controlled bursts of fire.

Yard line: 5
Total rounds: 12
Targets: 1
Load with: 1 magazine
Strings: 2
Position: Standing
Procedure: String 1: Charge, and fire two 3-round bursts within 5 seconds.
String 2: Full-load configuration, fire two 3-round bursts within 4 seconds.

Stage III

Technique: Immediate response to a lethal threat at a short distance using a controlled burst of fire.

Yard line: 7
Total rounds: 6
Targets: 1
Load with: 1 magazine
Strings: 2
Position: Standing
Procedure: String 1: Charge, and fire one 3-round burst within 4 seconds.
String 2: Full-load configuration, fire one 3-round burst within 3 seconds.

Stage IV

Technique: Immediate response to a lethal threat at a moderate distance using a controlled burst of fire.

Yard line: 10
Total rounds: 6
Targets: 1
Load with: 1 magazine
Strings: 2
Position: Standing
Procedure: String 1: Charge, and fire one 3-round burst within 4 seconds.
String 2: Full-load configuration, fire one 3-round burst within 3 seconds.

b. Reduced Lighting 3-Round-Burst Qualification Course.

24 Total Rounds 84 points at 70% or 96 points at 80%

Stage I

Technique: Immediate response to a lethal threat at a short distance using a controlled burst of fire.

Lighting standard: Dim light
Yard line: 5
Total rounds: 6
Targets: 1
Load with: 1 magazine

Strings: 2
Position: Standing
Procedure: String 1: Charge, and fire one 3-round burst within 4 seconds.
String 2: Full-load configuration, fire one 3-round burst within 3 seconds.

Stage II

Technique: Immediate response to a lethal threat at a short distance using controlled bursts of fire.

Lighting standard: Dim light
Yard line: 5
Total rounds: 6
Targets: 1
Load with: 1 magazine
Strings: 1
Position: Standing
Procedure: String 1: Charge, and fire two 3-round bursts within 5 seconds.

Stage III

Technique: Immediate response to a lethal threat at a short distance using a controlled burst of fire.

Lighting standard: Dim light
Yard line: 7
Total rounds: 6
Targets: 1
Load with: 1 magazine
Strings: 2
Position: Standing
Procedure: String 1: Charge, and fire one 3-round burst within 4 seconds.
String 2: Full-load configuration, fire one 3-round burst within 4 seconds.

Stage IV

Technique: Immediate response to a lethal threat at a moderate distance using a controlled burst of fire.

Lighting standard: Dim light

NOTE: When conducting Stage IV, if the rifle is equipped with an illuminating device, the stage is to be fired under the Dark Light Standard while using the illuminating device.

Yard line: 10
Total rounds: 6
Targets: 1
Load with: 1 magazine
Strings: 2
Position: Standing
Procedure: String 1: Charge, and fire one 3-round burst within 4 seconds.
String 2: Full-load configuration, fire one 3-round burst within 4 seconds.

c. Daylight Full Automatic Qualification Course.

30 Total Rounds 105 points at 70% or 120 points at 80%

Stage I

Technique: Immediate response to a lethal threat at a short distance using controlled bursts of fire.

Yard line: 5
Total rounds: 12
Targets: 1
Load with: 1 magazine
Strings: 3
Position: Standing
Procedure: String 1: Charge, and fire two 2-round bursts within 5 seconds.
String 2: Full-load configuration, fire two 2-round bursts within 4 seconds.
String 3: Full-load configuration, fire two 2-round bursts within 4 seconds.

Stage II

Technique: Immediate response to a lethal threat at a short distance using controlled bursts of fire.

Yard line: 7
Total rounds: 12
Targets: 1

Load with: 1 magazine
Strings: 3
Position: Standing
Procedure: String 1: Charge, and fire two 2-round bursts within 5 seconds.
String 2: Full-load configuration, fire two 2-round bursts within 4 seconds.
String 3: Full-load configuration, fire two 2-round bursts within 4 seconds.

Stage III

Technique: Immediate response to a lethal threat at a moderate distance using a controlled burst of fire.

Yard line: 10
Total rounds: 6
Targets: 1
Load with: 1 magazine
Strings: 3
Position: Standing
Procedure: String 1: Charge, and fire one 2-round burst within 4 seconds.
String 2: Full-load configuration, fire one 2-round burst within 3 seconds.
String 3: Same as Stage III, String 2.

d. Reduced Lighting Full Automatic Qualification Course.

24 Total Rounds 84 points at 70% or 96 points at 80%

Stage I

Technique: Immediate response to a lethal threat at a short distance using controlled bursts of fire.

Lighting standard: Dim light
Yard line: 5
Total rounds: 8
Targets: 1
Load with: 1 magazine
Strings: 2
Position: Standing
Procedure: String 1: Charge, and fire two 2-round bursts within 5 seconds.

String 2: Full-load configuration, fire two 2-round bursts within 4 seconds.

Stage II

Technique: Immediate response to a lethal threat at a short distance using controlled bursts of fire.

Lighting standard: Dim light
Yard line: 7
Total rounds: 8
Targets: 1
Load with: 1 magazine
Strings: 2
Position: Standing
Procedure: String 1: Charge, and fire two 2-round bursts within 5 seconds.
String 2: Full-load configuration, fire two 2-round bursts within 4 seconds.

Stage III

Technique: Immediate response to a lethal threat at a moderate distance using controlled bursts of fire.

Lighting standard: Dim light
NOTE: When conducting Stage III, if the rifle is equipped with an illuminating device, the stage is to be fired under the Dark Light Standard while using the illuminating device.
Yard line: 10
Total rounds: 8
Targets: 1
Load with: 1 magazine
Strings: 2
Position: Standing
Procedure: String 1: Charge, and fire two 2-round bursts within 5 seconds.
String 2: Full-load configuration, fire two 2-round bursts within 4 seconds.

6. DAYLIGHT SPO-III COMBINED RIFLE/SMG QUALIFICATION COURSE.

84 Total Rounds 378 Points at 90%

NOTE: This course is to evaluate an SPO-IIIs marksmanship and manipulation skills in both stationary and shooting on the move environments. This course combines all aspects of the current Daylight Rifle/Submachine Gun (SMG) Qualification Course (Chapter VII of this Section) and the current SMG Shooting-on-the-Move Qualification Course (Chapter XI of this Section). The DOE Standard Target will be used for all stages and scored in accordance with Appendix 4 of this Section. A minimum score of 90 percent is required for qualification.

This course is designed to address the skills necessary for SPO-III personnel in a variety of situations, from response to close quarters battle (CQB). In the event that a site has chosen to equip its Special Response Team (SRT) with a rifle with full and/or semiautomatic fire capabilities instead of a SMG for CQB operations, this Qualification Course will still be used to assess the shooters' skills. When such rifles are capable of semiautomatic fire only, the applicable procedure for Stages I, III, IV, V, and VI will be utilized semiautomatic only. The required scoring percentages will be maintained.
Special instructions:

- a. The rifle/SMG will be in the full-load configuration, in a low-ready position, and with the selector lever in the safe position at the beginning of each stage.
- b. Shooters are to manipulate the selector lever to the appropriate firing position at the beginning of each stage.
- c. Shooters are to place the selector lever in the safe position after every stage.
- d. Shooters will use the rifle/SMG sling for each string, with the weak hand gripping the hand guard inside the sling.
- e. The handgun will be secured in the holster in a full-load condition as stipulated by site-specific duty requirements.
- f. SPO-III's firing this course for qualification will wear the equipment required for duty during tactical response situations.
- g. Shooters will wear an approved protective mask during Stages V, VI, and VII of this course.
- h. Any rounds fired from a stationary position when they should have been fired on-the-move will be deducted at full value from the total score.
- i. In the event that site specific firearms allow for semiautomatic fire only, stages requiring automatic fire may be fired on semiautomatic. In such cases when a 2 round burst is required, 1 shot will be fired on semi-auto and the number of rounds required for each auto stage will be adjusted accordingly. However, the minimum qualification score will be no less than 90 percent of the maximum score.

- j. Targets will be scored at the completion of Stage IV (36 rounds on automatic, or 22 rounds on semiautomatic) and Stage XI (48 rounds on automatic or 38 rounds on semiautomatic).

Stage I

Technique: Immediate response to a lethal threat at a short distance using controlled bursts of fire in the automatic mode.

Yard line: 5
Total rounds: 12
Targets: 1
Load with: Full load
Strings: 2
Position: Stationary; standing
Procedure: String 1: Manipulate the selector lever to the automatic mode, fire two 2-round bursts center mass followed by one 2-round burst to the head within 3 seconds.
String 2: Same as Stage I, String 1.

Stage II

Technique: Response to a lethal threat at a short distance while moving and firing in the semiautomatic mode.

Yard line: Start at 7; move to 3
Total rounds: 2
Targets: 1
Load with: Full load
Strings: 2
Position: Moving
Procedure: String 1: Manipulate the selector lever to the semiautomatic mode, move while firing 1 round to the head within 3 seconds.
String 2: Same as Stage II, String 1.

Stage III

Technique: Response to a lethal threat at a short distance, while moving, and using controlled bursts of fire in the automatic mode.

Yard line: Start at 7; move to 3
Total rounds: 12
Load with: Full load
Strings: 2
Position: Moving

Stage VI

Technique: Response to a lethal threat at a moderate to short distance while moving and using controlled bursts of fire in the automatic mode while wearing a protective mask.

Yard line: Start at 10; move to 5
Total rounds: 8
Targets: 1
Load with: Full load
Strings: 2
Position: Moving; wearing a protective mask
Procedure: String 1: Manipulate the selector lever to the automatic mode, move while firing two 2-round bursts to center mass within 4 seconds.
String 2: Same as Stage VI, String 1.

Stage VII

Technique: Immediate response to a lethal threat at a moderate distance while firing on semiautomatic mode and wearing a protective mask.

Yard line: 10
Total rounds: 4
Targets: 1
Load with: Full load
Strings: 2
Position: Stationary; standing and wearing a protective mask.
Procedure: String 1: Manipulate the selector lever to the semiautomatic mode, fire 2 rounds center mass within 3 seconds.
String 2: Same as Stage VII, String 1.

Stage VIII

Technique: Immediate response to a lethal threat at a moderate distance while moving to a more advantageous shooting position and firing in the semiautomatic mode.

Yard line: 15
Total rounds: 4
Targets: 1
Load with: Full load
Strings: 2
Position: Stationary; standing to kneeling.
Procedure: String 1: Begin in the standing position and manipulate the selector lever to the semiautomatic mode, assume a

String 2: kneeling position, and fire 2 rounds center mass within 4 seconds.
Same as Stage VIII, String 1.

Stage IX

Technique: Immediate and continuing response to a lethal threat at a moderate distance while reloading and moving to a more advantageous position and firing in the semiautomatic mode.

Yard line: 25
Total rounds: 8
Targets: 1
Load with: Full load
Strings: 2
Position: Stationary; standing and kneeling
Procedure: String 1: Begin in the standing position, manipulate the selector lever to the semiautomatic mode, fire 2 rounds center mass, speed reload, move to a kneeling position, and fire 2 rounds center mass within 12 seconds.
String 2: Same as Stage IX, String 1.

Stage X

Technique: Immediate response to a lethal threat at a long distance in the semiautomatic mode firing from a kneeling barricade and prone position.

Yard line: 50
Total rounds: 8
Targets: 1
Load with: Full load
Strings: 4
Position: Stationary; kneeling barricade and prone
Procedure: String 1: Begin in the standing position, manipulate the selector lever to the semiautomatic mode, move to a kneeling barricade position, and fire 2 rounds center mass within 6 seconds.
NOTE: The barricade will be used for cover and may be used for support in the kneeling position. Right-handed shooters will fire from the right-side barricade, and left-handed shooters will fire from the left-side barricade.
String 2: Same as Stage X, String 1.

- String 3: Begin in the standing position with the selector lever set on semiautomatic mode, move to a prone position, and fire 2 rounds center mass within 8 seconds.
- String 4: Same as Stage X, String 3.

Stage XI

Technique: Immediate and continual response to a lethal threat at a long distance, while moving to a more advantageous shooting position, shooting in the semiautomatic mode, and reloading.

- Yard line: 100
- Total rounds: 4
- Targets: 1
- Load with: Full load
- Strings: 1
- Position: Stationary; prone
- Procedure: String 1: Begin in the standing position, manipulate the selector lever to the semiautomatic mode, move to a prone position, and fire 2 rounds center mass. Reload and fire 2 rounds center mass within 20 seconds.

Stage II

Technique: Immediate and continual response to a lethal threat at a moderate distance, while changing shooting position and reloading, using an alternate method to load.

Yard line: 15
Total rounds: 4
Targets: 1
Load with: 2 rounds in the magazine tube
Strings: 1
Position: Standing to kneeling
Procedure: String 1: Charge, and fire 2 rounds from a standing position. While assuming the kneeling position, load 1 round through the ejection port and close the action, load 1 round in the magazine tube, and fire 2 rounds within 15 seconds.

Stage III

Technique: Immediate response to a lethal threat at a moderate distance while moving to a more advantageous shooting position.

Yard line: 25
Total rounds: 2
Targets: 1
Load with: 2 rounds in the magazine tube
Strings: 1
Position: Standing to kneeling
Procedure: String 1: Charge and fire 1 round from a standing position; kneel and fire 1 round within 6 seconds.

4. REDUCED LIGHTING SHOTGUN QUALIFICATION COURSE.

10 Total Rounds If 9 pellets per round, 63 points at 70% or 72 points at 80%
 If 12 pellets per round, 84 points at 70% or 96 points at 80%

The Reduced Lighting Shotgun Qualification Course is fired using the Dim Light Standard. It consists of three stages that are identical to the Daylight Shotgun Qualification Course.

NOTE: When conducting Stage I, if the shotgun is equipped with an illuminating device, the stage is to be fired under the Dark Light Standard while using the illuminating device.

CHAPTER VII. SUBMACHINE GUN QUALIFICATION COURSES

1. INTRODUCTION. The submachine gun (SMG) courses evaluate shooters' marksmanship and firearm manipulation under daylight and reduced lighting conditions. The U.S. Department of Energy (DOE) Standard Target must be used for all stages and scored in accordance with Appendix 4 of this Section. The lighting standards for the Reduced Lighting SMG Qualification Course specified in Appendix 2 of this Section will be followed strictly whenever a shooter is to be qualified.

NOTE: The courses address the skills necessary for close quarters battle (CQB) situations. Sites that have chosen semiautomatic and/or full automatic rifles for CQB situations will use this course to assess shooters' skills. When such rifles are capable of semiautomatic fire only, strings of fire (e.g., 1 round to replace the 2-round burst) and scoring will be modified appropriately, where indicated. Required SMG qualification scoring percentages will be maintained.

2. INSTRUCTIONS FOR SUBMACHINE GUN QUALIFICATION COURSES.

- a. All general instructions for firearms qualification courses in Chapters IX and XI of DOE M 470.4-3A, *Contractor Protective Force*, and Chapters IV and V of DOE M 470.4-8, *Federal Protective Force*, apply.
- b. The SMG will be at full-load, at the low-ready position, and with the selector lever in the safe position at the beginning of each string.
- c. Shooters will use the SMG sling for each string with the weak hand gripping the forearm inside the sling.
- d. Shooters will place the selector lever in the safe position after every stage.

3. DAYLIGHT SUBMACHINE GUN QUALIFICATION COURSE.

60 Total Rounds 210 points at 70% or 240 at 80%

Stage I

Technique: Immediate response to a lethal threat at a short distance using controlled bursts of fire in the automatic mode.

Yard line:	3
Total rounds:	8
Targets:	1
Load with:	1 magazine
Strings:	2
Position:	Standing

Procedure: String 1: Manipulate the selector lever to automatic, and fire two 2-round bursts within 2 seconds.
 String 2: Same as Stage I, String 1.

Stage II

Technique: Immediate response to a lethal threat at a short distance using controlled bursts of fire in the automatic mode.

Yard line: 5
Total rounds: 12
Targets: 1
Load with: 1 magazine
Strings: 2
Position: Standing
Procedure: String 1: Manipulate the selector lever to automatic, fire two 2-round bursts center of mass, followed by a 2-round burst to the head within 3 seconds.
 String 2: Same as Stage II, String 1.

Stage III

Technique: Immediate response to a lethal threat at a short distance using controlled bursts of fire in the semiautomatic mode.

Yard line: 5
Total rounds: 6
Targets: 1
Load with: 1 magazine
Strings: 2
Position: Standing
Procedure: String 1: Manipulate the selector lever to semiautomatic, fire 2 rounds center of mass and 1 round to the head within 3 seconds.
 String 2: Same as Stage III, String I.

Stage IV

Technique: Immediate response to a lethal threat at a short distance using controlled bursts of fire in the automatic mode and continuing to fire after reloading.

Yard line: 7
Total rounds: 8 (2 magazines, 4 rounds each)
Targets: 1
Load with: 1 magazine
String: 1

Position: Standing
Procedure: String 1: Manipulate the selector lever to automatic, fire two 2-round bursts, reload, and fire two 2-round bursts within 10 seconds.

Stage V

Technique: Immediate response to a lethal threat at a short distance using controlled bursts of fire in the semiautomatic mode.

Yard line: 7
Total rounds: 4
Targets: 1
Load with: 1 magazine
Strings: 2
Position: Standing
Procedure: String 1: Manipulate the selector lever to semiautomatic, and fire 2 rounds within 2 seconds.
String 2: Same as Stage V, String 1

Stage VI

Technique: Immediate response to a lethal threat at a moderate distance using controlled bursts of fire in the automatic mode.

Yard line: 10
Total rounds: 8
Targets: 1
Load with: 1 magazine
Strings: 2
Position: Standing
Procedure: String 1: Manipulate the selector lever to automatic, and fire two 2-round bursts within 3 seconds.
String 2: Same as Stage VI, String 1.

Stage VII

Technique: Immediate response to a lethal threat at a moderate distance using the semiautomatic mode.

Yard line: 15
Total rounds: 6
Targets: 1
Load with: 1 magazine
Strings: 6
Position: Standing

Procedure: String 1: Manipulate the selector lever to semiautomatic, and fire 1 round to the head within 3 seconds.
Strings 2-6 Same as Stage VII, String 1.

Stage VIII

Technique: Immediate response to a lethal threat at a moderate distance while moving to a more advantageous shooting position, using the semiautomatic mode.

Yard line: 25
Total rounds: 4
Targets: 1
Load with: 1 magazine
Strings: 2
Position: Standing to kneeling
Procedure: String 1: Begin in standing position, manipulate the selector lever to semiautomatic, kneel, and fire 2 rounds within 4 seconds.
String 2: Same as Stage VIII, String 1.

Stage IX

Technique: Immediate response to a lethal threat at long distance while moving to a more advantageous shooting position, using the semiautomatic mode.

Yard line: 50
Total rounds: 4
Targets: 1
Load with: 1 magazine
Strings: 2
Position: Standing to prone
Procedures: String 1: Begin in a standing position, manipulate the selector, lever to semiautomatic, assume a prone position, and fire 2 rounds within 6 seconds.
String 2: Same as Stage IX, String 1.

4. REDUCED LIGHTING SUBMACHINE GUN QUALIFICATION COURSE.

30 Total Rounds 105 points at 70% or 120 points at 80%

Stage I

Technique: Immediate response to a lethal threat at a short distance using the automatic mode.

Lighting standard: Dim light

Yard line: 5
Total rounds: 6
Targets: 1
Load with: 1 magazine
Strings: 1
Position: Standing
Procedure: String 1: Manipulate the selector lever to automatic, fire two 2-round bursts center of mass, followed by a 2-round burst to the head within 3 seconds.

Stage II

Technique: Immediate response to a lethal threat at a short distance using the semiautomatic mode.

Lighting standard: Dim light
NOTE: When conducting Stage II, if the SMG is equipped with an illuminating device, the stage is to be fired under the Dark Light Standard while using the illuminating device.

Yard line: 5
Total rounds: 6
Targets: 1
Load with: 1 magazine
Strings: 2
Position: Standing
Procedure: String 1: Manipulate the selector lever to semiautomatic, fire 2 rounds center of mass and 1 round to the head within 3 seconds.
String 2: Same as Stage II, String 1.

Stage III

Technique: Immediate response to a lethal threat at a short distance using the semiautomatic mode and continuing to fire after reloading.

Lighting standard: Dim light
Yard line: 7
Total rounds: 4 (2 magazines, 2 rounds in each)
Targets: 1
Load with: 1 magazine
Strings: 1
Position: Standing
Procedure: String 1: Manipulate the selector lever to semiautomatic, fire 2 rounds, reload, and fire 2 rounds within 10 seconds.

Stage IV

Technique: Immediate response to a lethal threat at a short distance using the semiautomatic mode.

Lighting standard: Dim light
NOTE: When conducting Stage IV, if the SMG is equipped with an illuminating device, the stage is to be fired under the Dark Light Standard while using the illuminating device.

Yard line: 7
Total rounds: 4
Targets: 1
Load with: 1 magazine
Strings: 2
Position: Standing
Procedure: String 1: Manipulate the selector lever to semiautomatic, and fire 2 rounds within 2 seconds.
String 2: Same as Stage IV, String 1.

Stage V

Technique: Immediate response to a lethal threat at a moderate distance, while moving to a more advantageous shooting position, using the semiautomatic mode.

Lighting standard: Dim light
Yard line: 15
Total rounds: 6
Targets: 1
Load with: 1 magazine
Strings: 3
Position: Standing to kneeling
Procedure: String 1: Begin standing, manipulate the selector lever to semiautomatic, kneel, and fire 2 rounds within 4 seconds.
Strings 2, 3: Same as Stage V, String 1.

Stage VI

Technique: Immediate response to a lethal threat at a moderate distance, while moving to a more advantageous shooting position, using the semiautomatic mode.

Lighting standard: Dim light
Yard line: 25
Total rounds: 4
Targets: 1
Load with: 1 magazine

Strings: 2
Position: Standing to prone
Procedure: String 1: Begin standing, manipulate with selector lever to semiautomatic, assume a prone position, and fire 2 rounds within 6 seconds.
String 2: Same as Stage VI, String 1.

CHAPTER VIII. LIGHT MACHINE GUN QUALIFICATION COURSES

1. **INTRODUCTION.** Courses for the light machine gun (LMG) evaluate and test a gunner's marksmanship and firearm manipulation under daylight conditions for the authorized LMG assigned to that gunner. Distances will be measured in meters. Standard military 10-meter targets will be used for all stages and scored in accordance with Appendix 4 of this Section.

2. **INSTRUCTIONS FOR LIGHT MACHINE GUN QUALIFICATION COURSES.**
 - a. All general instructions for firearms qualification courses in Chapters IX and XI of DOE M 470.4-3A, *Contractor Protective Force*, and Chapters IV and V of DOE M 470.4-8, *Federal Protective Force*, apply.
 - b. Firearms instructors will ensure gunners achieve a correct half-load condition during stages requiring that condition.
 - c. A malfunctioning LMG will be replaced immediately if it is apparent that general malfunction clearing procedures will not remedy the problem.
 - d. On M-60s, the gunner will ease the bolt forward during assembly, disassembly, and function check to prevent damage to the feed tray assembly and operating-rod assembly. A gunner must not close the feed tray cover with the bolt forward to avoid damage to parts of the feed tray cover and the bolt.
 - e. On Heckler and Koch (HK) LMGs, the gunner will perform the function check without an ammunition box mounted.
 - f. On HKs in the half-load configuration, the gunner will ensure a round is present over the cartridge feed lever before closing the belt-feed unit.
 - g. For both the M-60 and the HK, a gunner will qualify in the LMG Manipulation Qualification Course before being allowed to fire the LMG Qualification Course.

3. **FULL AUTOMATIC LIGHT MACHINE GUN QUALIFICATION COURSES.**

- a. **M-60 Manipulation Qualification Course.**

41 Total Rounds Manipulation Test only; no firing for points (including one dummy round)

Stage I

Technique: Clear the M-60 following procedures.

Meter line: 10

Total rounds: 0
Targets: 0
Load with: 0
Strings: 0
Position: Prone
M-60 condition: Cleared with the selector lever in the safe position, the bolt forward, and the feed tray cover closed.
Procedure: The gunner is to complete the following, in order, without a time limit:
(1) ensure the selector lever is in the safe position;
(2) raise the feed tray cover and feed tray simultaneously; inspect/remove links or ammunition;
(3) move the selector lever to the fire position;
(4) pull the cocking handle to the rear, with the palm facing up, to lock the bolt in its rear position. Return the cocking handle to the forward position and move the selector lever to the safe position;
(5) check the feed tray, receiver group, and chamber to ensure they are clear;
(6) lower the feed tray and close the feed tray cover, move selector lever to the fire position, pull the cocking handle to the rear, and pull the trigger while manually easing the bolt forward; and
(7) move the selector lever to the safe position.

Stage II

Technique: Conduct an M-60 function check following procedures.

Meter line: 10
Total rounds: 0
Targets: 0
Load with: 0
Strings: 0
Position: Prone
M-60 condition: Cleared with the selector lever in the safe position, the bolt forward, and the feed tray cover closed.
Procedure: The gunner is to complete the following, in order, without a time limit:
(1) ensure the selector lever is in the safe position;
(2) raise the feed tray cover and feed tray simultaneously; inspect/remove links or ammunition;

- (3) move the selector lever to the fire position;
- (4) pull the cocking handle to the rear, with the palm facing up, to lock the bolt in its rear position. Return the cocking handle to the forward position and move the selector lever to the safe position;
- (5) check the feed tray, receiver group, and chamber to ensure they are clear;
- (6) lower the feed tray and close the feed tray cover, move selector lever to the fire position, pull the cocking handle to the rear, and pull the trigger while manually easing the bolt forward; and
- (7) move the selector lever to the safe position.

Stage III

Technique: Load and zero the M-60 following procedures.

- Meter line: 10
Total rounds: 6
Targets: 2
Load with: 1 round
Strings: 1
Position: Prone
M-60 condition: Cleared with the selector lever in the safe position, the bolt forward, and the feed tray cover closed.
- Procedure: The gunner is to complete the following, in order, without time limit:
- (1) set the rear sight at 500 M and zero windage;
 - (2) load 1 round;
 - (3) position the body and grip the M-60 for firing;
 - (4) obtain sight alignment and sight picture; fire 1 round on target A1;
 - (5) repeat steps (2), (3), and (4) for each round fired;
 - (6) locate the center of the shot group;
 - (7) calculate and apply sight corrections;
 - (8) fire 1 round on target A1;
 - (9) calculate and apply sight corrections;
 - (10) fire 1 round on target A1;
 - (11) calculate and apply sight corrections;
 - (12) fire 1 confirming round on target A2;
 - (13) adjust range plate scale to read 500 m;
 - (14) raise the feed tray cover and feed tray simultaneously; and

(15) clear.

Stage IV

Technique: Load the M-60 and engage a specified target.

- Meter line: 10
Total rounds: 6
Targets: 1
Load with: 6 rounds
Strings: 1
Position: Prone
M-60 condition: Cleared and zeroed with the selector lever in the safe position, the bolt forward, and the feed tray cover closed.
Procedure: The gunner is to complete the following, in order, without a time limit:
- (1) move the selector lever to the fire position;
 - (2) pull the cocking handle to the rear, with the palm facing up, to lock the bolt in its rear position, and return the cocking handle to the forward position;
 - (3) move the selector lever to the safe position;
 - (4) raise the feed tray cover and feed tray simultaneously; ensure that the feed tray, receiver group, and chamber are clear;
 - (5) place the first round of belt in the feed tray groove, double link leading and the open side of links down;
 - (6) ensure that the first round remains in the tray groove, lower the feed tray, and close the feed tray cover while holding the belt up, approximately 6 rounds from the loading end;
 - (7) move the selector lever to the fire position;
 - (8) engage target A3 with a 6-round burst achieving at least 2 hits;
 - (9) raise the feed tray cover and the feed tray simultaneously; and
 - (10) clear.

Stage V

Technique: Load the M-60 to a half-load condition and manipulate to a full load before engaging a specified target.

- Meter line: 10
Total rounds: 6

Targets: 1
Load with: 6 rounds
Strings: 1
Position: Prone
M-60 condition: Half loaded and zeroed with the selector lever in the safe position, the bolt forward, and the feed tray cover closed.
Procedure: The gunner is to complete the following, in order, without a time limit:
(1) bring to a full load;
(2) engage target A4 with a 6-round burst, achieving at least 2 hits;
(3) raise the feed tray cover and feed tray simultaneously; and
(4) clear.

Stage VI

Technique: Load the M-60 to a full load and reload while engaging specified targets.

Meter line: 10
Total rounds: 12 (two 6-round belts)
Targets: 2
Load with: 6 rounds
Strings: 1
Position: Prone
M-60 condition: Cleared and zeroed with the selector lever in the safe position, the bolt forward, and the feed tray cover open.
Procedure: The gunner is to complete the following, in order, without a time limit:
(1) full load with one 6-round belt;
(2) engage target A5 with a 6-round burst achieving at least 2 hits;
(3) reload;
(4) engage target A6 with a 6-round burst achieving at least 2 hits;
(5) raise the feed tray cover and feed tray simultaneously; and
(6) clear.

Stage VII

Technique: Load the M-60 to a half-load condition, manipulate to a full load, and apply immediate action while engaging specified targets.

Meter line: 10

Total rounds: 12 plus 1 dummy round
Targets: 2
Load with: 12 plus 1 dummy round placed between the 4th and 8th round
Strings: 1
Position: Prone
M-60 condition: Half loaded and zeroed with the selector lever in the safe position.
Procedure: The gunner is to complete the following, in order, without a time limit:
(1) bring to a full load;
(2) engage target A7 with a 6-round burst and target A8 with a 6-round burst achieving at least 2 hits per target;
(3) complete immediate action within 10 seconds when required;
(4) raise the feed tray cover and feed tray simultaneously; and
(5) clear.

b. M-60 Qualification Course.

49 Total Rounds 168 points at 70% or 192 points at 80% (including one dummy round)

Stage I

Technique: Clear the M-60 following procedures.

Meter line: 10
Total rounds: 0
Targets: 0
Load with: 0
Strings: 0
Position: Prone
M-60 condition: Cleared with the selector lever in the safe position, the bolt forward, and the feed tray cover closed.
Procedure: Within 40 seconds, the gunner is to complete the following, in order:
(1) ensure the selector lever is in the safe position;
(2) raise the feed tray cover and feed tray simultaneously; inspect/remove links or ammunition;
(3) move the selector lever to the fire position;

- (4) pull the cocking handle to the rear, with the palm facing up, to lock the bolt in its rear position, return the cocking handle to the forward position, and move the selector lever to the safe position;
- (5) check the feed tray, receiver group, and chamber to ensure they are clear;
- (6) close the feed tray cover, move the selector lever to the fire position, pull the locking handle to the rear, and pull the trigger while manually easing the bolt forward; and
- (7) move the selector lever to the safe position.

Stage II

Technique: Conduct an M-60 function check following procedures.

- Meter line: 10
Total rounds: 0
Targets: 0
Load with: 0
Strings: 0
Position: Prone
M-60 condition: Cleared with the selector lever in the safe position, the bolt forward, and the feed tray cover closed.
Procedure: Within 40 seconds, the gunner is to complete the following, in order:
- (1) move the selector lever to the fire position;
 - (2) pull the cocking handle to the rear, with the palm facing up, to lock the bolt in its rear position, and return the cocking handle to the forward position;
 - (3) move the selector lever to the safe position;
 - (4) while holding the cocking handle to the rear, pull the trigger (should not fire);
 - (5) move the selector lever to the fire position;
 - (6) while holding the cocking handle, pull the trigger and ease the bolt forward manually; and
 - (7) move the selector lever to the safe position.

Stage III

Technique: Load the M-60 to a half-load condition, manipulate to a full load, reload, and apply immediate action while engaging specified targets.

- Meter line: 10

- Total rounds: 48 plus 1 dummy round (2 belts: a 24-round and a 25-round with dummy between 6th and 18th round)
- Targets: 8
- Load with: 24-round belt
- Strings: 1
- M-60 condition: Half loaded (24-round belt) and zeroed with the selector lever in the safe position.
- Procedure: Within 2 minutes, the gunner is to complete the following, in order:
- (1) bring to full load;
 - (2) engage targets B5, B6, B7, and B8 with one burst each, in any order;
 - (3) reload with the 25-round belt;
 - (4) engage targets B1, B2, B3, and B4 with one burst each, in any order;
 - (5) complete immediate action within 10 seconds when required;
 - (6) raise the feed tray cover and feed tray simultaneously;
 - (7) clear;
 - (8) each target must sustain at least 2 hits;
 - (9) only 9 bursts may be fired (8 bursts with live rounds and 1 burst with a dummy round); and
 - (10) time will stop at completion of burst 9.

4. SELECTIVE FIRE LIGHT MACHINE GUN QUALIFICATION COURSES.

a. HK Manipulation Qualification Course.

41 Total Rounds Manipulation Test only; no firing for points (including one dummy round)

Stage I

Technique: Clear the HK 21/23E LMG.

Meter line: 10

Total rounds: 0

Targets: 0

Load with: 0

Strings: 0

Position: Prone

HK condition: Cleared with the selector lever in the safe position, the bolt forward, and the belt-feed unit closed.

- Procedure: The gunner is to complete the following, in order, without a time limit:
- (1) ensure the selector lever is in the safe position;
 - (2) swing down the belt-feed unit and visually ensure that no ammunition or spent links are in the belt-feed unit; and
 - (3) lock the cocking handle to the rear and visually check for ammunition in the chamber.

Stage II

Technique: Conduct an HK function check following procedures.

- Meter line: 10
Total rounds: 0
Targets: 0
Load with: 0
Strings: 0
Position: Prone
HK condition: Cleared with the selector lever in the safe position, the bolt forward, and the belt-feed unit closed.
- Procedure: The gunner is to complete the following, in order, without a time limit:
- (1) ensure the firearm is clear, per Stage I;
 - (2) check for unrestricted motion of the cocking lever;
 - (3) cock;
 - (4) with the selector lever in the safe position, pull the trigger (should not fire);
 - (5) move the selector lever to semiautomatic; pull and hold the trigger to the rear (the hammer should fall);
 - (6) keep the trigger to the rear and cock, release the trigger (the sear should audibly engage), and pull the trigger (the hammer should fall);
 - (7) cock;
 - (8) move the selector lever to the 3-round-burst position, pull the trigger, and hold to the rear (the hammer should fall), pull the cocking lever back, let it go slowly forward, and use the forward assist to seat the bolt (the hammer should fall again and the trigger should now move freely);
 - (9) move the selector lever to the full automatic position and repeat steps (7) and (8);

- (10) check the sprocket wheel in the belt-feed unit (should rotate easily in the clockwise direction and lock up in the counterclockwise direction); and
- (11) inspect the HK's underside and cock it several times (the sprocket should visually rotate every time the firearm is cocked).

Stage III

Technique: Load and zero the HK following procedures.

- Meter line: 10
- Total rounds: 4
- Targets: 2
- Load with: 4 rounds
- Strings: 1
- Position: Prone
- HK condition: Cleared with the selector lever in the safe position, the bolt forward, and the belt-feed unit closed.
- Procedure: String 1: The gunner is to complete the following, in order, without a time limit:
 - (1) load;
 - (2) obtain the correct position and grip;
 - (3) set sights at 600 M and zero windage;
 - (4) obtain sight alignment and sight picture on target A1;
 - (5) fire 3 single rounds;
 - (6) locate the center of the group;
 - (7) calculate and apply sight corrections, if necessary;
 - (8) fire a confirming round on target A2;
 - (9) adjust the range plate scale to read 600 m; and
 - (10) clear.

Stage IV

Technique: Load the HK and engage a specified target.

- Meter line: 10
- Total rounds: 6
- Targets: 1
- Load with: 6 rounds
- Strings: 1
- Position: Prone

- HK condition: Cleared and zeroed with the selector lever in the safe position, the bolt forward, and the belt-feed unit open.
- Procedure: String 1: The gunner is to complete the following, in order, without a time limit:
- (1) insert the belt with the first round resting against the cartridge stop on the belt-feed unit;
 - (2) move the cartridge guide down until it engages the belt feed unit;
 - (3) swivel belt-feed unit upward until the catch lever engages (the HK is now half loaded);
 - (4) bring to full load;
 - (5) move the selector lever to the 3-round-burst position;
 - (6) engage target A3 with two 3-round bursts; and
 - (7) clear.

Stage V

Technique: Bring the HK from a half-load to a full-load condition, and engage a specified target.

- Meter line: 10
- Total rounds: 6
- Targets: 1
- Load with: 6 rounds
- Strings: 1
- Position: Prone
- HK condition: Half loaded and zeroed with the selector lever in the safe position.
- Procedure: String 1: The gunner is to complete the following, in order, without a time limit:
- (1) bring to a full load;
 - (2) engage target A4 with two 3-round bursts achieving a minimum of two hits; and
 - (3) clear.

Stage VI

Technique: Load the HK and engage specified targets while reloading.

- Meter line: 10
- Total rounds: 12 (two 6-round belts)
- Targets: 2
- Load with: 6 rounds
- Strings: 1
- Position: Prone

HK condition: Cleared and zeroed with the selector lever in the safe position, the bolt forward, and the belt-feed unit open.

Procedure: String 1: The gunner is to complete the following, in order, without a time limit:

- (1) full load with one 6-round belt;
- (2) engage target A5 with two 3-round bursts;
- (3) reload;
- (4) engage target A6 with two 3-round bursts;
- (5) each target must sustain at least 2 hits; and
- (6) clear.

Stage VII

Technique: Bring the HK from half-load to full-load condition, and engage specified targets while applying immediate action.

Meter line: 10
Total rounds: 12 plus 1 dummy round
Targets: 2
Load with: 12 rounds and dummy round between 4th and 8th round.
Strings: 1
Position: Prone
HK condition: Half loaded and zeroed with selector lever in the safe position.

Procedure: String 1: The gunner is to complete the following, in order, without a time limit:

- (1) bring to a full load;
- (2) engage target A7 with two 3-round bursts and target A8 with two 3-round bursts;
- (3) complete immediate action within 10 seconds when required;
- (4) each target must sustain at least 2 hits; and
- (5) clear.

b. HK Qualification Course.

49 Total Rounds 168 Points at 70% or 192 Points at 80% (including one dummy round)

Stage I

Technique: Clear the HK following procedures.

Meter line: 10
Total rounds: 0
Targets: 0

Load with: 0
Strings: 0
Position: Prone
HK condition: Cleared with the selector lever in the safe position, the bolt forward, and the belt-feed unit closed.
Procedure: Within 40 seconds, the gunner is to complete the following, in order:
(1) ensure the selector lever is in the safe position;
(2) swing down the belt-feed unit and visually check to ensure no ammunition or spent links are in it; and
(3) lock the cocking handle to the rear and visually check for ammunition in the chamber.

Stage II

Technique: Conduct an HK function check following procedures.

Meter line: 10
Total rounds: 0
Targets: 0
Load with: 0
Strings: 0
Position: Prone
HK condition: Cleared with the selector lever in the safe position, the bolt forward, and the belt-feed unit closed.
Procedure: Within 40 seconds, the gunner is to complete the following, in order:
(1) ensure the HK is clear;
(2) check for unrestricted motion of the cocking lever;
(3) cock;
(4) with the selector lever in the safe position, pull the trigger (should not fire);
(5) move the selector lever to semiautomatic; pull and hold the trigger to the rear (the hammer should fall);
(6) holding the trigger to the rear, cock, release the trigger (engagement of the sear should be heard), and pull the trigger (the hammer should fall);
(7) cock;
(8) move the selector lever to the 3-round-burst position, pull and hold the trigger to the rear (the hammer should fall), pull the cocking lever

- back, and let it go slowly forward, use the forward assist to seat the bolt (the hammer should fall again and the trigger should now move freely);
- (9) move the selector lever to the full automatic position and repeat steps (7) and (8);
 - (10) check the sprocket wheel in the belt-feed unit (should rotate easily in the clockwise direction and lock up in counterclockwise direction); and
 - (11) inspect the HK's underside and cock several times (the sprocket should visually rotate every time the HK is cocked).

Stage III

Technique: Bring the HK from half load to full load, and engage specified targets while reloading and applying immediate action.

- Meter line: 10
Total rounds: 48 plus 1 dummy round (2 belts: (1) a 24-round and (2) a 25-round with dummy between 6th and 18th round)
Targets: 8
Load with: 24-round belt
Strings: 1
Position: Prone
HK condition: Half loaded (with 24-round belt) and zeroed with the selector lever in the safe position.
- Procedure: String 1: Within 2 minutes, the gunner is to complete the following, in order.
- (1) bring to a full load;
 - (2) engage targets B5, B6, B7, and B8 with two 3-round bursts each, in any order;
 - (3) reload with 25-round belt;
 - (4) engage targets B1, B2, B3, and B4 with two 3-round bursts each, in any order;
 - (5) complete immediate action within 10 seconds when required; and
 - (6) clear.

NOTE: Only 17 bursts will be fired and each target should sustain at least 2 hits. Time stops after completing burst #17.

CHAPTER IX. PRECISION RIFLE QUALIFICATION COURSES

1. INTRODUCTION. The Precision Rifle Qualification Courses evaluate a shooter's marksmanship with, and manipulation of, a bolt action or semiautomatic precision rifle equipped with a scope, at various distances while engaging stationary and moving targets. An observer/spotter accompanies the shooter during the stages to assist the shooter with the identification and evaluation of the target. The U.S. Department of Energy (DOE) Standard Target must be used for all stages and scored in accordance with Appendix 4 of this Section.
2. INSTRUCTIONS FOR PRECISION RIFLE QUALIFICATION COURSES.
 - a. All general instructions for firearms qualification courses in Chapters IX and XI of DOE M 470.4-3A, *Contractor Protective Force*, and Chapters IV and V of DOE M 470.4-8, *Federal Protective Force*, apply.
 - b. Shooters will begin all stages, except Stage I of the Day Precision Rifle Qualification Course, with the rifle in a full-load condition.
 - c. Shooters will use rifles authorized for duty and equipped with slings and scopes. The rifles may be equipped with an attached support such as a bi-pod.
 - d. Shooters will ensure rifles are in a safe condition at the conclusion of each string.
 - e. Shooters are to engage moving targets, which traverse the range at a speed of 4 to 6 feet per second, and be exposed for firing for a minimum of 4 and a maximum of 6 seconds while moving, or available for firing for 3 seconds when they are stopped.
 - f. Shooters will fail the course if a hit is confirmed in a prohibited strike zone.
 - g. The cold, clean barrel requirement in Stage I will be met by a rifle taken to the range in its duty-ready condition. Sight adjustments may be made at any time; however, no sighting rounds may be fired. If sight adjustments are necessary after the first stage has been fired, sighting shots may be fired; however, the score for the first shot in Stage I will be for the record.
 - h. Shooters will wear the uniform and equipment authorized for duty and required for an actual tactical response.
 - i. Shooters may employ slings in the full support position ("slung-up") when required to be sighted on the target prior to the command to fire.

- j. Shooters will use the provided barricades for cover and may use them for support when firing. Sitting-position barricades are to be approximately 24 inches high, and kneeling-position barricades be approximately 32 inches high.

3. DAYLIGHT PRECISION RIFLE QUALIFICATION COURSE.

16 Total Rounds 64 points at 80%

Stage I

Technique: Tactical response to a long-distance threat after moving into position and using a rifle with a cold, clean barrel to obtain a precision first shot.

Yard line: Start at 150, run to 100
Total rounds: 1
Targets: 1
Load with: 1 round
Strings: 1
Position: Shooter's choice
Procedure: String 1: Begin with a clean rifle, cold barrel, in the half-load configuration, 1 round loaded into the magazine. Run to the 100-yard line with the rifle in a tactical carry position, assume a position of choice, chamber, and fire 1 round to target's head within 26 seconds.

Stage II

Technique: Tactical response to a lethal threat at a moderate distance while using cover.

Yard line: 50
Total rounds: 2
Targets: 1
Load with: 2 rounds
Strings: 1
Position: Kneeling/barricade
Procedure: String 1: Begin sighted on the target, in full-load configuration, and fire 2 rounds to the center of mass within 4 seconds.

Stage III

Technique: Tactical response to a lethal threat at a moderate distance while using cover and initiating fire according to a countdown while maintaining a correct sight picture.

Yard line: 50

Total rounds: 2
Targets: 1
Load with: 2 rounds
Strings: 2
Position: Kneeling/barricade
Procedure: String 1: Begin sighted on the target in a full-load configuration and listen to range countdown (“Standby – 5, 4, 3, 2, 1”). Fire 1 round to the target’s head on the count of 2 within 1 second. On the count of 1, the target will face away if turning is possible.
String 2: Same as Stage III, String 1.

Stage IV

Technique: Tactical response to a lethal threat at a long distance and initiating fire according to a countdown while maintaining a correct sight picture.

Yard line: 100
Total rounds: 2
Targets: 1
Load with: 2 rounds
Strings: 2
Position: Shooter’s choice
Procedure: String 1: Begin sighted on the target in a full-load configuration and listen to range countdown (“Standby – 5, 4, 3, 2, 1”). Fire 1 round to the target’s head on the count of 2 within 1 second. On the count of 1, the target will face away if turning is possible.
String 2: Same as Stage IV, String 1.

Stage V

Technique: Tactical response to a moving lethal threat at a long distance.

Yard line: 200
Total rounds: 2
Targets: 1
Load with: 2 rounds
Strings: 1
Position: Shooter’s choice
Procedure: String 1: Begin sighted in towards a concealed target in a full-load configuration. When the target is exposed, fire 2 rounds to the center of mass within 6 seconds.

Stage VI

Technique: Tactical response to a threat at a long distance under severe time constraint.

Yard line: 200
Total rounds: 1
Target: 1
Load with: 1 round
Strings: 1
Position: Shooter's choice
Procedure: String 1: Begin sighted in on an exposed target in a full-load configuration and listen for range instruction, "Standby, Ready, Fire." Fire 1 round to the center mass on the command of "Fire." The target will turn 1 second after the command to "Fire" is given if turning is possible.

Stage VII

Technique: Tactical response to a lethal threat at an extended long distance.

Yard line: 300
Total rounds: 2
Targets: 1
Load with: 2 rounds
Strings: 1
Position: Shooter's choice
Procedure: String 1: Begin sighted in toward a concealed target in a full-load configuration. When the target is exposed, fire 2 rounds to the center of mass in 8 seconds.

Stage VIII

Technique: Tactical response to a moving lethal threat at a long distance while using cover. The target will be the reduced target, as outlined in Appendix 4 of this Section.

Yard line: 50
Total rounds: 2
Targets: 1
Load with: 2 rounds
Strings: 2
Position: Kneeling/barricade
Procedure: String 1: Begin looking for a moving target while sighted in toward the concealed target, in a full-load configuration. When the target moves and is exposed, fire 1 round to the center mass while the

target continues to move, from left to right or right to left.
String 2: Same as Stage VIII, String 1; however, the target must be engaged while moving in the opposite direction as String 1.

Stage IX

Technique: Tactical response to a moving lethal threat located at a long distance but not constantly moving. The target used will be the reduced target, as outlined in Appendix 4 of this Section.

Yard line: 100
Total rounds: 2
Targets: 1
Load with: 2 rounds
Strings: 1
Position: Shooter's choice
Procedure: String 1: Begin looking for a moving target while sighted in toward the concealed target in a full-load configuration. When the target moves and is exposed, fire 2 rounds to the center mass. The target will stop a total of 4 times while moving from left to right or right to left.

4. REDUCED LIGHTING PRECISION RIFLE QUALIFICATION COURSE.

10 Total Rounds 40 points at 80%

Stage I

Technique: Tactical response to a lethal threat at a long distance using a rifle with a cold, clean barrel to obtain a precision first shot.

Lighting standard: Dim light
Yard line: 100
Total Rounds: 2
Targets: 1
Load with: 2 rounds
Strings: 1
Position: Shooter's choice
Procedure: String 1: Begin sighted in on the target with a clean rifle, cold barrel, full-load configuration and listen for range instruction, "Standby, Ready, Fire." Fire 1 round to the target's head on the command of

“Fire.” Immediately after the shot, fire 1 round to the target’s center mass within 5 seconds.

Stage II

Technique: Tactical response to a lethal threat at a long distance while using cover.

Lighting standard: Dark
Yard line: 50
Total Rounds: 2
Targets: 1
Load with: 2 rounds
Strings: 1
Position: Kneeling/supported
Procedure: String 1: Begin sighted on target, full-load configuration, and fire 2 rounds to the center of mass within 5 seconds.

Stage III

Technique: Tactical response to a lethal threat at a long distance while using cover and initiating fire according to a coordinated countdown while maintaining a correct sight picture.

Lighting standard: Dark
Yard line: 50
Total rounds: 2
Targets: 1
Load with: 2 rounds
Strings: 2
Position: Kneeling/supported
Procedure: String 1: Begin sighted on target, in full-load configuration, and listen to range countdown (“Standby – 5, 4, 3, 2, 1”). Fire 1 round to the target’s head on count of 2 within 1 second.
String 2: Same as Stage III, String 1.

Stage IV

Technique: Tactical response to a lethal threat at a long distance while using cover and initiating fire according to a coordinated countdown while maintaining a correct sight picture.

Lighting standard: Dim light
Yard line: 100
Total rounds: 2
Targets: 1

Load with: 2 rounds
Strings: 2
Position: Shooter's choice
Procedure: String 1: Begin sighted on the target, full-load configuration, listen to range countdown ("Standby – 5, 4, 3, 2, 1"). Fire 1 round to the target's head on the count of 2 within 1 second.
String 2: Same as Stage IV, String 1.

Stage V

Technique: Tactical response to a distant lethal threat at a long distance.

Lighting standard: Dim light
Yard line: 200
Total rounds: 2
Targets: 1
Load with: 2 rounds
Strings: 1
Position: Shooter's choice
Procedure: String 1: Begin sighted on the target in a full-load configuration, and fire 2 rounds to the center of mass within 8 seconds.

CHAPTER X. LIVE-FIRE SHOOT HOUSE QUALIFICATION COURSES

1. **INTRODUCTION.** There are two live-fire shoot house (LFSH) qualification courses, the Open Doors Skills Test (ODST) and the Closed Doors Skills Test (CDST). The ODST evaluates the basic fundamentals of room-clearing procedures, while the CDST evaluates all encompassing areas of stronghold assaults. During the CDST, the student will be evaluated as point assaulter, on the proper positioning in relationship to closed and open doors, and deployment of diversionary devices(s). In both tests, one student will be evaluated at a time. Rifles capable of fully automatic fire will be employed only in the semiautomatic mode in the LFSH.
 - a. The LFSH ODST qualification course is used in the U.S. Department of Energy (DOE)-approved Security Police Officer (SPO)-III Basic Qualification Course (BQC) as a pass/fail evaluation measure of a candidate SPO-III's skills in LFSH operations conducted in Week Three of the BQC.
 - b. The LFSH CDST qualification course is used in the SPO-III BQC in Week Four as the final pass/fail evaluation of a candidate SPO-III's marksmanship, firearms manipulation, decision-making ability, and tactical entry skills. The LFSH CDST is the required semi-annual LFSH qualification course for incumbent SPO-IIIs.
 - c. The LFSH course elements simulate realistic requirements during dynamic engagements with lethal adversaries delineated in the Design Basis Threat (DBT). The shooter is accompanied, throughout the courses, by a certified SPO-III or SPO-III Instructor, whose skills have been verified by the LFSH Instructor. The SPO-III/SPO-III Instructor acts as the shooter's team member to enhance realism. Additionally, a Control Instructor follows the shooter to control the shooter's execution of the course and movements. The Instructor-in-Charge is stationed in an elevated observation/control platform to oversee and control the entire course. Together, the two instructors and the SPO-III/SPO-III Instructor provide complete observation, positive control, and detailed evaluation of the shooter. Target descriptions and scoring instructions are set forth in Appendix 4 of this Section. The LFSH Qualification Course differs from other firearms qualification courses because it consists of only one stage.
 - d. Only one shooter is evaluated (participates) at a time during the conduct of the LFSH Qualification Courses.
 - e. NOTE: These courses are designed to address the skills necessary for close quarters battle (CQB) situations. In the event that a site has chosen to equip its SPO-IIIs with a rifle that has full and/or semiautomatic fire capabilities instead of a submachine gun (SMG) for CQB operations, the LFSH Qualification Courses must still be used to assess shooters' skills. Required LFSH qualification scoring percentages must be maintained.

2. INSTRUCTIONS FOR LFSH QUALIFICATION COURSES.

- a. All general instructions for firearms qualification courses in Chapters IX and XI of DOE M 470.4-3A, *Contractor Protective Force*, and Chapters IV and V of DOE M 470.4-8, *Federal Protective Force*, apply, except for clearing malfunctions, which requires a transition from the SMG/rifle to the handgun.
- b. The course will be administered by instructors who have successfully completed the SPO-III Instructor Certification Course conducted by the DOE National Training Center (NTC) and be implemented in accordance with the requirements and procedures established within the SPO-III Certification Program.
- c. The course will be fired only when the Instructor-in-Charge, the Control Instructor, and the SPO-III (or SPO-III Instructor) accompanying the shooter are all present and in their respective assigned positions.
- d. All shooters will receive, in addition to the general firearms/range safety briefing, a specific LFSH Qualification Course Safety Briefing focusing on particular course requirements.
- e. Shooters will be SPO-IIIs or SPO-IIs undergoing SPO-III training.
- f. The shooter will begin the course on the first command to “Execute.”
- g. The shooter will be evaluated and scored on correct performance of required course procedures and completion of the course within the site-specific time limit.
- h. Shooters may accumulate up to 5 procedural errors and must complete the course within the specified time or less, in order to qualify.
- i. The time limit for the ODSST will be determined and validated by the physical characteristics of the site’s LFSH (e.g., the NTC’s LFSH time limit is 45 seconds).
- j. The time limit for the CDST will be determined and validated by the physical characteristics of the site’s LFSH.
- k. The shooter will fail the course for any one of the following reasons (with the opportunity to retest):
 - (1) failing to clear a room in the prescribed order;
 - (2) rounds on a target with a prohibited strike anywhere other than the head, when head shots only are required;
 - (3) missing the silhouette of the picture target but impacting the bullet trap;

- (4) failing to engage a “shoot” target;
 - (5) exceeding the course time limit;
 - (6) dropping a loaded firearm to the ground;
 - (7) allowing a SMG/rifle to be slung/hung in a condition so that by pressing the trigger the weapon fires;
 - (8) accumulating more than five procedural errors;
 - (9) shooting at a “no-shoot” target;
 - (10) causing a round to print within or cut the prohibited strike zone on a “shoot” target (hostage target); and/or
 - (11) demonstrating a blatant disregard for safety.
- l. For ODST only, a shooter experiencing a malfunction of the SMG/rifle will transition to the handgun immediately and complete the course, even if the malfunction occurs before the mandatory transition point.
 - m. Appropriate targets will be engaged while on the move.
 - n. The shooter will transition from the SMG/rifle to the handgun during the ODST.
3. LFSH COURSES LAYOUT REQUIREMENTS. The LFSH layout must allow for variations for entry points (doors opening in and out), target placement, and room configuration to preclude repetitiveness and memorization of the course. The following layout requirements must be in place for the LFSH Qualification Courses to be conducted:
- a. three separate rooms for entry, of which one must be on the opposite side of the hall from the other two; the CDST should incorporate two closed doors and one open door;
 - b. at least two targets that do not present a lethal threat (“no-shoot” target);
 - c. for the ODST there should be five targets presenting lethal threats (“shoot” targets), of which two require firing rounds to the head of the target (one for the SMG and one for the handgun); for the CDST there should be one hallway target as well as three shoot targets, one of which require firing rounds to the head of the target (hostage holder);
 - d. in each room, at least three ballistic walls allowing a 180 degree area for firing;

- e. there must be at least three different LFSH layouts incorporating different “shoot” and “no-shoot” target placements, and where possible, incorporating different entry points and room configurations.

NOTE: The LFSH Qualification Course must not be conducted on the same layout during consecutive semi-annual qualification attempts.

4. LFSH QUALIFICATION COURSES.

a. Open Door Skills Test.

Technique: Tactical response to lethal threats requiring constant movement, precision marksmanship, correct firearm manipulation, demonstration of correct room-clearing procedures, and target identification.

Yard line:	Distances to targets may vary
Total rounds:	17 full automatic (SMG only) 9 semiautomatic (rifle or SMG)
Targets:	5 shoot targets and at least 2 no-shoot targets
Time limit:	Calculated by distance traveled in feet, divided by 3, which equals the maximum time, in seconds, allowed.
Strings:	4
Position:	Standing, using equipment authorized for duty during a tactical response
Procedure:	For full automatic firearms:
Load with:	SMG with 1 magazine of 16 rounds; handgun in full-load configuration
String 1:	Begin in a standing position with the handgun holstered. Carry the SMG in a full-load condition at the low-ready position, and set the selector lever to the safe position. Move to and enter Room 1 (e.g., door opening in), clear the room correctly while engaging targets appropriately (safety lever will be moved to the appropriate position to engage targets and returned to the safe position when the firearm is returned to the low-ready position), announce status and intention, and exit Room 1.
String 2:	Continue movement to Room 2 (e.g., door opening in), enter, and repeat procedures as in String 1.
String 3:	Upon exiting Room 2 en route to Room 3 (e.g., door opening out), engage hallway target until shooter experiences a malfunction. The shooter will then safely transition to the handgun and proceed to Room 3.
String 4:	Continue movement to Room 3, enter, and clear the room while engaging targets appropriately with the

handgun. Announce status, as directed, clear and holster a safe handgun, clear the SMG, set the selector lever in the safe position, and await instruction. Timing will stop upon firing the last round in Room 3.

- Procedure: For semiautomatic firearms:
- Load with: SMG/rifle with 1 magazine of 8 rounds; handgun in full-load configuration
- String 1: Begin in a standing position with the handgun holstered. Carry the SMG/rifle in a full-load condition at the low-ready position and set the selector lever to the safe position. Move to and enter Room 1, clear the room correctly while engaging targets appropriately (safety lever will be moved to the appropriate position to engage targets and returned to the safe position when the firearm is returned to the low-ready position), announce status and intention, and exit Room 1.
- String 2: Continue movement to Room 2, enter, and repeat procedures as in String 1.
- String 3: Upon exiting Room 2 en route to Room 3, engage hallway target until shooter experiences a malfunction. The shooter will then safely transition to the handgun and proceed to Room 3.
- String 4: Continue movement to Room 3, enter, and clear the room while engaging targets appropriately with the handgun. Announce status, as directed, clear and holster a safe handgun, clear the SMG/rifle, set the selector lever in the safe position, and await instruction. Timing will stop upon firing the last round in Room 3.

b. Closed Door Skills Test

Technique: Tactical response to lethal threats requiring constant movement, precision marksmanship, correct firearm manipulation, demonstration of correct room-clearing procedures, and target identification while utilizing diversionary devices with closed and open doors.

- Yard Line: Distances to target may vary
- Total Rounds: 20 full automatic fire (SMG only)
10 semiautomatic fire (SMG or rifle)
- Targets: 4 shoot targets and 2 no shoot targets
- Time limit: Site determined
- Strings: 4

- Position: Standing, using equipment authorized for duty during a tactical response
- Procedure: For full automatic firearms
- Load with: SMG in a full load with a full magazine, handgun in a full load configuration.
- String 1: Begin in a standing position with the handgun holstered. Carry the SMG in a full-load condition at the low-ready position and the selector lever in the safe position. Upon the command of “execute,” move down the hallway announcing upcoming danger areas. While moving down the hallway, appropriately engage the hallway shoot target.
- String 2: Move to Room 1, set up on the door properly, and act as cover while the SPO-III instructor deploys a diversionary device. Enter Room 1 first, correctly clearing the room, and engage targets appropriately (safety lever will be moved to the appropriate position to engage targets and returned to the safe position when the firearm is returned to the low-ready position). Announce status and intention and proceed to Room 2 (the SPO-III Instructor will be the first out of the room).
- String 3: At Room 2, the SPO-III instructor will set up as cover on the door. Deploy a diversionary device properly into Room 2. Enter Room 2 as the second assaulter, correctly clear the room, and engage targets appropriately (safety lever must be moved to the appropriate position to engage targets and returned to the safe position when the firearm is returned to the low-ready position). Announce status and intention and proceed to Room 3 (the SPO-III instructor will be the last one out of Room 2).
- String 4: At Room 3, set up as cover on the open door while the SPO III instructor deploys a diversionary device into Room 3. Enter Room 3 first, correctly clearing the room and engage targets appropriately (safety lever will be moved to the appropriate position to engage targets and returned to the safe position when the firearm is returned to the low-ready position).
- Note: If a malfunction is experienced, transition to the handgun, and finish the string of fire. Prior to leaving the room, perform a tactical reload with the handgun, clear the malfunction in the rifle, and

continue the course with the rifle as the primary weapon.

- Procedure: For semiautomatic firearms
- Load with: SMG/rifle in a full load with a full magazine, handgun in a full-load configuration.
- String 1: Begin in a standing position with the handgun holstered. Carry the SMG/rifle in a full-load condition at the low-ready position and the selector lever in the safe position. Upon the command of “execute,” move down the hallway announcing upcoming danger areas. While moving down the hallway, appropriately engage the hallway shoot target.
- String 2: Move to Room 1, set up on the door properly, and act as cover while the SPO-III instructor deploys a diversionary device. Enter Room 1 first, correctly clearing the room and engage targets appropriately (safety lever will be moved to the appropriate position to engage targets and returned to the safe position when the firearm is returned to the low-ready position). Announce status and intention and proceed to Room 2 (the SPO-III Instructor will be the first out of the room).
- String 3: At Room 2, the SPO-III instructor will set up as cover on the door. Deploy a diversionary device properly into Room 2. Enter Room 2 as the second assaulter, correctly clear the room, and engage targets appropriately (safety lever will be moved to the appropriate position to engage targets and returned to the safe position when the firearm is returned to the low-ready position). Announce status and intention and proceed to Room 3 (the SPO-III instructor will be the last one out of Room 2).
- String 4: At Room 3, set up as cover on the open door while the SPO-III instructor deploys a diversionary device into Room 3. Enter Room 3 first, correctly clearing the room and engage targets appropriately (safety lever will be moved to the appropriate position to engage targets and returned to the safe position when the firearm is returned to the low-ready position).
- Note: If a malfunction is experienced, transition to the handgun and finish the string of fire. Prior to

leaving the room, perform a tactical reload with the handgun, clear the malfunction in the rifle, and continue the course with the rifle as the primary weapon.

CHAPTER XI. SHOOTING-ON-THE-MOVE QUALIFICATION COURSES

1. **INTRODUCTION.** The Shooting-on-the-Move Qualification Courses evaluate a shooter's marksmanship and manipulation skills while moving in a tactical environment under daylight conditions. The U.S. Department of Energy (DOE) Standard Target must be used for all stages and scored in accordance with Appendix 4 of this Section.

NOTE: These courses are designed to address the skills necessary for close quarters battle (CQB) situations. In the event that a site has chosen to equip its Security Police Officer (SPO)-III's with a rifle with full and/or semiautomatic fire capabilities instead of an SMG for CQB operations, the Shooting-on-the-Move Submachine Gun (SMG) Qualification Course must still be used to assess shooters' skills. When such rifles are capable of semiautomatic fire only, the applicable procedure for Stages II, IV, and V of the Shooting-on-the-Move SMG Qualification Course must be utilized. Required SMG qualification scoring percentages must be maintained.

2. **INSTRUCTIONS FOR SHOOTING-ON-THE-MOVE QUALIFICATION COURSES.**
 - a. All general instructions for firearms qualification courses in Chapters IX and XI of DOE M 470.4-3A, *Contractor Protective Force*, and Chapters IV and V of DOE M 470.4-8, *Federal Protective Force*, apply., except for Stage V of the SMG/Rifle Shooting-on-the-Move qualification course. Shooters, who experience a malfunction, will continue to move, transition to the handgun, cover the target, and wait until the end of the string for a firearms instructor to make a determination (e.g., an alibi).
 - b. Shooters must be qualified in the Daylight Handgun and Daylight SMG Qualification Courses before they may participate in the corresponding Shooting-on-the-Move Qualification Course.
 - c. Shooters must ensure that their firearms are in a full-load condition at the beginning of each stage of fire, except for the following:
 - (1) shooters armed with a revolver must load 2 rounds into the cylinder in a position to ensure the initial rotation will fire the first round when a stage requires speed loading;
 - (2) shooters armed with a semiautomatic handgun must load 2 rounds with 1 chambered and 1 in the magazine (full-load condition) when a stage requires speed loading;
 - (3) shooters must begin the stage that requires a transition to the handgun as a backup with the handgun holstered in a full-load condition;

- (4) SPO-IIIs must fire these courses for qualification wearing the equipment required for duty during tactical response situations;
- (5) shooters must use an approved protective mask during Stages I and II of the Shooting-on-the-Move Handgun and SMG Qualification Courses;
- (6) shooters must fire all rounds on-the-move, as required. Rounds fired from a stationary position when they should be fired on-the-move will be deducted, at full value, from the total score; and
- (7) shooters, when applicable, must maintain the SMG/rifle on their person while firing the Shooting-on-the-Move Handgun Qualification Course.

3. SHOOTING-ON-THE-MOVE HANDGUN QUALIFICATION COURSE.

40 Total Rounds 190 Points at 90%

Stage I

Technique: Immediate response to a lethal threat at a moderate distance while wearing a protective mask.

Yard line: 10
Total rounds: 6
Targets: 1
Load with: Full load
Strings: 3
Position: Standing and wearing a protective mask
Procedure: String 1: Draw and fire 2 rounds within 3 seconds.
 Strings 2, 3: Same as Stage I, String 1.

Stage II

Technique: Response to a lethal threat at a short distance while moving, wearing a protective mask.

Yard line: Start at 7; move to 3.
Total rounds: 6
Targets: 1
Load with: Full load
Strings: 2
Position: Moving and wearing a protective mask
Procedure: String 1: From the low ready, move while firing 2 rounds center of mass and 1 round to the head within 4 seconds.
 String 2: Same as Stage II, String 1.

Stage III

Technique: Response to a lethal threat at a moderate distance while moving.

Yard line: Start at 15; move to 10
Total rounds: 6
Targets: 1
Load with: Full load
Strings: 3
Position: Moving
Procedure: String 1: From the low ready, move while firing 2 rounds within 3 seconds.
Strings 2, 3: Same as Stage III, String 1.

Stage IV

Technique: Response to a lethal threat at a moderate to short distance while moving and speed loading.

Yard line: Start at 10; move to 2
Total rounds: 8 (2 magazines or speed loaders)
Targets: 1
Load with: Semiautomatic: a round chambered and a magazine inserted with one round (to induce slide lock back); carry one fully loaded magazine (mandatory lock back).
Revolver: cylinder loaded with 2 rounds; carry one fully loaded speed loader.
Strings: 2
Position: Moving
Procedure: String 1: From the low ready, move while firing 2 rounds; reload and fire 2 rounds while moving within 7 seconds for semiautomatic and 10 seconds for revolver.
String 2: Same as Stage IV, String 1.

Stage V

Technique: Response to a lethal threat at a short distance while moving.

Yard line: Start at 7; move to 3
Total rounds: 4
Targets: 1
Load with: Full load
Strings: 4
Position: Moving

Procedure: String 1: From the low ready, move while firing 1 round within 3 seconds to target's head.
Strings 2-4: Same as Stage V, String 1.

Stage VI

Technique: Response to a lethal threat at a short distance using only the strong hand while moving.

Yard line: Start at 7; move to 3
Total rounds: 6
Targets: 1
Load with: Full load
Strings: 3
Position: Moving using only the strong hand
Procedure: String 1: From the low ready, strong hand only, move while firing 2 rounds within 3 seconds.
Strings 2, 3: Same as Stage VI, String 1.

Stage VII

Technique: Response to a lethal threat at a short distance using only the weak hand while moving.

Yard line: Start at 7; move to 3
Total rounds: 4
Targets: 1
Load with: Full-load
Strings: 2
Position: Moving using only weak hand
Procedure: String 1: From the low ready, weak hand only, move while firing 2 rounds within 3 seconds.
String 2: Same as Stage VII, String 1.

4. SHOOTING-ON-THE-MOVE SMG/RIFLE QUALIFICATION COURSE.

NOTE: Selected stages of this course are broken down into specific requirements for firing firearms with both full automatic and semiautomatic fire capabilities and for firing firearms with only semiautomatic fire capabilities. Shooters utilizing firearms with full-automatic capabilities, when firing stages requiring the selector switch to be set to the full-automatic position, are not required to also fire the same stage with the selector switch set to the semiautomatic position.

40 Total Rounds 180 Points at 90% for full automatic or 126 Points at 90% for full-automatic or semiautomatic 28 for semiautomatic

Stage I

Technique: Response to a lethal threat at a moderate distance using the standing offhand and wearing a protective mask.

Yard line: 25
Total rounds: 4
Targets: 1
Load with: Full load
Strings: 2
Position: Standing off-hand and wearing a protective mask
Procedure: String 1: Begin with the selector lever set to the semiautomatic position, and fire 2 rounds within 5 seconds.
String 2: Same as Stage I, String 1.

Stage II

Technique: Response to a lethal threat at a moderate to short distance while moving and wearing a protective mask.

Yard line: Start at 10; move to 5
Total rounds: 8 for full-automatic fire or 4 for semiautomatic fire
Targets: 1
Load with: Full load
Strings: 2
Position: Moving and wearing a protective mask
Procedure: For full-automatic firearms:
String 1: Begin with the selector lever set to the full 2-round bursts within 3 seconds.
String 2: Same as Stage II, String 1.

For semiautomatic firearms:
String 1: Begin with the selector lever set to the semiautomatic position and move while firing 2 rounds within 3 seconds.
String 2: Same as Stage II, String 1.

Stage III

Technique: Response to a lethal threat at a moderate to short distance while moving with semiautomatic fire.

Yard line: Start at 10; move to 5
Total rounds: 6
Targets: 1

Load with:	Full load
Strings:	2
Position:	Moving
Procedure:	String 1: Begin with the selector lever set to the semiautomatic position and move while firing 2 rounds to the center of mass and 1 round to the head within 4 seconds.
	String 2: Same as Stage III, String 1.

Stage IV

Technique: Response to a lethal threat at a short distance while moving with automatic fire.

Yard line:	Start at 7; move to 3
Total rounds:	12 for full-automatic fire or 6 for semiautomatic fire
Load with:	Full load
Strings:	2
Position:	Moving
Procedure:	For full-automatic firearms:
	String 1: Begin with the selector lever set to the automatic position and move while firing two 2-round bursts to the center of mass and one 2-round burst to the head within 4 seconds.
	String 2: Same as Stage IV, String 1.
	For semiautomatic firearms:
	String 1: Begin with the selector lever set to the semiautomatic position and move while firing 2 rounds to the center of mass and 1 round to the head within 4 seconds.
	String 2: Same as Stage IV, String 1.

Stage V

Technique: Response to a lethal threat at a moderate to short distance while moving, transitioning from the SMG to the handgun.

Yard line:	Start at 10; move to 2
Total rounds:	10 for automatic fire or 8 for semiautomatic fire
Targets:	1
Load with:	For full-automatic firearms, 1 magazine with 2 rounds; handgun, full-load. For semiautomatic firearms, 1 magazine with 1 round; handgun, full load
Strings:	2

- Position: Moving
- Procedure: For full-automatic firearms:
- String 1: Begin with the selector lever set to full-automatic position and the handgun holstered, move while firing one 2-round burst to center of mass, attempt to fire second 2-round burst to center of mass, transition to the handgun, fire 2 rounds to center of mass, and 1 round to the head within 8 seconds.
- String 2: Same as Stage V, String 1.
- For semiautomatic firearms:
- String 1: Begin with the selector lever set to semiautomatic position and the handgun holstered, move while firing 1 round to center of mass, attempt to fire the second round to center of mass, transition to the handgun, and fire 2 rounds to center of mass and 1 round to the head within 8 seconds.
- String 2: Same as Stage V, String 1.

APPENDIX 1. QUALIFICATION COURSES PENDING APPROVAL

CHAPTER I. PENDING DAY HANDGUN QUALIFICATION COURSE

1. **INTRODUCTION.** This handgun qualification course evaluates the marksmanship and firearm manipulation capabilities of SPO-Is under daylight conditions. The U.S. Department of Energy (DOE) Standard Target will be used for all stages and scored in accordance with Appendix 4 of this Section. A minimum score of 80% is required for qualification.
2. **INSTRUCTIONS FOR HANDGUN QUALIFICATION COURSES.**
 - a. All general instructions for firearms qualification courses in Chapters IX and XI of DOE M 470.4-3A, *Contractor Protective Force*, and Chapters IV and V of DOE M 470.4-8, *Federal Protective Force*, apply.
 - b. All draws will be from a snapped or secured holster. Shooters will start with their hands relaxed, hanging by their sides.
 - c. Shooters will de-cock double-action semiautomatics before holstering.
 - d. Shooters authorized to carry a semiautomatic pistol while on duty will de-cock after each string, and the first round be fired double-action if the pistol is equipped with a de-cocking device. If firing a revolver, all rounds will be fired double-action.
 - e. The kneeling position may incorporate support for the shooting hand, but at least one knee will touch the ground. Other positions may incorporate support for the shooting hand as directed.
 - f. Shooters, when required to fire from either the right or left side of the barricade, will use the barricade for cover. Shooters will also use the barricade as cover when reloading.
 - g. Shooters will wear an approved protective mask during Stage V.
 - h. An approved flashlight will be used during Stages II and III of the Reduced Lighting Handgun Qualification Course.
 - i. Shooters are responsible for managing their ammunition. Shooters will be given the opportunity at the beginning of each stage to “make ready.” The shooter may then reload with a full magazine or speedloader at his or her discretion, unless a mandatory reload is required.
 - j. If, within a string of fire there is a mandatory reload, that weapon should be configured in a manner that the shooter will induce a lock- back.

Stage IV

Technique: Use of the strong hand only to engage a lethal threat at a short distance. The shooter's weak arm will not be used for support. The weak hand will be relaxed and hanging by the shooter's side. The weapon will be holstered at the beginning of each string of fire.

Yard line: 7
Total Rounds: 6
Targets: 1
Strings: 3
Position: Standing, handgun full load, holstered
Procedure: String 1: Begin with the handgun in the holster, full load. Draw strong hand only and fire 2 rounds center mass within 5 seconds.
Strings 2, 3: Same as Stage IV, String 1.

Stage V

Technique: Immediate and continuing response to a lethal threat at a moderate distance and commencing fire from the low-ready position while wearing a protective mask.

Yard line: 10
Total rounds: 12
Targets: 1
Strings: 5
Position: Standing; wearing a protective mask, handgun full load, holstered
Procedure: String 1: Draw fire 2 rounds center mass within 4 Seconds remain at the low-ready position.
String 2: From the low-ready position, fire 2 rounds center mass within 3 seconds.
String 3: Draw and fire 2 rounds center mass. Reload and fire 2 rounds center mass.
Time limit: Revolver: 12 seconds
Semiautomatic: 10 seconds
String 4: Same as Stage IV, String 1.
String 5: Same as Stage IV, String 2.

Stage VI

Technique: Immediate and continuing response to a lethal threat at a moderate distance while moving to a more advantageous shooting position, reloading, and commencing fire from the low-ready position.

Yard line: 15
Total rounds: 12

Targets:	1
Strings:	5
Position:	Standing, handgun full load, holstered
Procedure:	String 1: Draw, kneel, and fire 2 rounds center mass within 5 seconds.
	String 2: Same as Stage VI, String 1.
	String 3: From the standing position, draw and fire 2 rounds center mass. Reload while assuming a kneeling position and fire 2 rounds center mass.
	Time limit: Revolver: 14 seconds Semiautomatic: 12 seconds
	String 4: From the standing position, draw and fire 2 rounds center mass within 5 seconds. Remain at the low-ready.
	String 5: From the low-ready position, fire 2 rounds center mass within 3 seconds.

Stage VII

Technique: Immediate and continuing response to a lethal threat at a moderate distance and use of a barricade for cover while firing from the left and right sides of the barricade in standing, kneeling, and prone positions and while reloading. Use of the barricade for support is optional.

Yard line:	25
Total rounds:	12
Targets:	1
Strings:	5
Position:	Standing, handgun full load, holstered
Procedure:	String 1: Draw, assume a standing left side barricade position, and fire 2 rounds center mass within 5 seconds.
	String 2: Draw, assume a standing right side barricade position, and fire 2 rounds center mass within 5 seconds.
	String 3: Draw, assume a kneeling left side barricade position, and fire 2 rounds center mass. Reload, move to a kneeling right side barricade position, and fire 2 rounds center mass.
	Time limit: Revolver: 15 seconds Semiautomatic: 12 seconds
	String 4: Draw, assume a prone position, and fire 2 rounds center mass within 10 seconds.
	String 5: Same as Stage VII, String 4.

CHAPTER II. PENDING TACTICAL RESPONSE FORCE COMBINED HANDGUN/RIFLE QUALIFICATION COURSE

1. INTRODUCTION. This course is to evaluate the Tactical Response Force (TRF) Officer's (SPO-II and SPO-III) marksmanship and manipulation skills in both stationary and shooting-on-the-move environments in daylight conditions. The U.S. Department of Energy (DOE) Standard Target must be used for all stages and scored in accordance with Appendix 4 of this Section. As a minimum, targets will be changed out as prescribed within this qualification, but may be changed more frequently if deemed necessary by the instructor staff. SPO IIs are required to shoot a minimum score of 80%, and SPO IIIs are required to shoot a minimum of 90% for qualification.
2. INSTRUCTIONS FOR COMBINED QUALIFICATION COURSE.
 - a. All general instructions for firearms qualification courses in Chapters IX and XI of DOE M 470.4-3A, *Contractor Protective Force*, and Chapters IV and V of DOE M 470.4-8, *Federal Protective Force*, apply.
 - b. During rifle/submachine gun (SMG) stages, the rifle/SMG will be in the proper load configuration, in a low-ready position, and with the selector lever in the safe position at the beginning of each stage.
 - c. Shooters will manipulate the selector lever to the appropriate firing position at the beginning of each stage.
 - d. Shooters will place the selector lever in the safe position after every stage.
 - e. Shooters will use the rifle/SMG sling for each string with the weak hand gripping the hand guard inside the sling.
 - f. The handgun will be secured in the holster in a full-load condition as stipulated by site-specific duty requirements.
 - g. All draws will be from a snapped or secure holster. Shooters will start with their hands relaxed, hanging by their sides.
 - h. Shooters will de-cock double action semiautomatics before holstering.
 - i. Shooters are responsible for managing their ammunition. Shooters will be given the opportunity at the beginning of each stage to "make ready." The shooter may then reload with a full magazine or speedloader at his or her discretion, unless a mandatory reload is required.
 - j. If, within a string of fire there is a mandatory reload, that weapon should be configured in a manner that the shooter will induce a lock- back.

Stage III

Technique: Immediate response to a lethal threat at close distance using barricade for cover.

Yard line: 50
Total Rounds: 12 rifle
Target: 1
Strings: 2
Position: Standing, protective mask donned, rifle slung, half load.
Procedure: String 1: Move to cover (at least one step), shoot 2 rounds center mass standing, 2 rounds center mass kneeling, 2 rounds center mass prone.
String 2: Same as Stage III, String 1.
Time limit: 25 seconds.

Stage IV

Technique: Immediate response to lethal threat at close distance using barricade for cover.

Yard line: 25
Total Rounds: 6 rifle
Target: 1
Strings: 1
Position: Standing, protective mask donned, rifle at low-ready, full load, on safe.
Procedure: String 1: Move to cover (at least one step), shoot 2 rounds center mass standing, shoot 2 rounds center mass kneeling, shoot 2 rounds center mass prone.
Time limit: 15 seconds.

Stage V

Technique: Response to a lethal threat at close distance while shooting-on-the-move.

Yard line: 15
Total Rounds: 4 rifle
Target: 1
Strings: 2
Position: Standing, mask donned, rifle low-ready, full load, on safe.
Procedure: String 1: While moving to 10-yard line, fire 2 rounds center mass.
String 2: Same as Stage V, String 1.
Time limit: 5 seconds.

Stage VI

Technique: Response to a lethal threat at close distance, shooting-on-the-move, and transitioning to secondary weapon.

Yard line: 15
Total Rounds: 2 rifle, 4 handgun
Target: 1
Strings: 2
Position: Standing, mask donned, rifle low-ready, full load with 1 round (mandatory lock-back), on safe.
Procedure: String 1: While moving to 7-yard line, attempt to fire 2 rounds center mass (rifle); transition to handgun and fire 2 rounds center mass.
String 2: Same as Stage VI, String 1.
Time limit: 8 seconds.

Stage VII

Technique: Response to a lethal threat at close distance, shooting-on-the-move.

Yard line: 7
Total Rounds: 3 rifle
Target: 1
Strings: 3
Position: Standing, mask donned, rifle low-ready, full load, on safe.
Procedure: String 1: While moving to 3-yard line, fire 1 round to the head.
String 2: Same as Stage VII, String 1.
String 3: Same as Stage VII, String 2.
Time limit: 3 seconds.

Score Targets: Score targets, 37 rifle rounds and 4 handgun rounds, target change required.

Stage VIII

Technique: Immediate response to a lethal threat at close distance from behind barricade.

Yard line: 25
Total Rounds: 2 handgun
Target: 1
Strings: 1
Position: Standing, handgun holstered, rifle racked or grounded.
Procedure: String 1: Draw, fire 2 rounds center mass standing left side barricade.

Time limit: 5 seconds.

Stage IX

Technique: Immediate response to a lethal threat at close distance from behind barricade.

Yard line: 25
Total Rounds: 2 handgun
Target: 1
Strings: 1
Position: Standing, handgun holstered, rifle racked or grounded.
Procedure: String 1: Draw, fire 2 rounds center mass standing right side
barricade.
Time limit: 5 seconds.

Stage X

Technique: Immediate response to a lethal threat at close distance from behind barricade.

Yard line: 25
Total Rounds: 2 handgun
Target: 1
Strings: 1
Position: Standing, handgun holstered, rifle racked or grounded.
Procedure: String 1: Standing to kneeling, fire 2 rounds center mass
kneeling (left or right) side barricade.
Time limit: 7 seconds.

Stage XI

Technique: Immediate response to a lethal threat at close distance from behind barricade.

Yard line: 25
Total Rounds: 2 handgun
Target: 1
Strings: 1
Position: Standing, handgun holstered, rifle racked or grounded.
Procedure: String 1: Standing to prone, fire 2 rounds center mass prone
(left or right) side barricade.
Time limit: 8 seconds.

Score Targets: Score targets, 8 handgun rounds, target change required.

Stage XII

Technique: Response to a lethal threat at close distance, shooting-on-the-move and transitioning to secondary weapon.

Yard line: 15
Total Rounds: 2 rifle, 4 handgun
Target: 1
Strings: 2
Position: Standing, rifle low-ready, full load with 1 round (mandatory lock-back), on safe.
Procedure: String 1: While moving to 7-yard line, attempt to fire 2 rounds center mass (rifle); transition to handgun and fire 2 rounds center mass.
String 2: Same as Stage XII, String 1.
Time limit: 8 seconds.

Stage XIII

Technique: Response to a lethal threat at close distance while shooting-on-the-move.

Yard line: 10
Total Rounds: 6 rifle
Target: 1
Strings: 2
Position: Standing, rifle low-ready, full load, on safe.
Procedure: String 1: While moving to 3-yard line, fire 2 rounds center mass and 1 round to the head.
String 2: Same as Stage XIII, String 1.
Time limit: 4 seconds.

Stage XIV

Technique: Response to a lethal threat at close distance, shooting-on-the-move and reloading.

Yard line: 10
Total Rounds: 8 handgun
Target: 1
Strings: 2
Position: Standing, rifle slung unloaded, handgun holstered, full load with 2 rounds (mandatory lock-back).
Procedure: String 1: Draw, while moving to 3-yard line, shoot 2 rounds center mass, reload, and shoot 2 rounds center mass.
String 2: Same as Stage XIV, String 1.
Time limit: 8 seconds.

Stage XV

Technique: Response to a lethal threat at close distance while shooting-on-the-move using strong hand only.

Yard line: 7
Total Rounds: 4 handgun
Target: 1
Strings: 2
Position: Standing, rifle slung unloaded, handgun full load at low-ready, strong hand only.
Procedure: String 1: While moving to the 3-yard line, fire 2 rounds center mass strong hand only.
String 2: Same as Stage XV, String 1.
Time limit: 4 seconds.

Stage XVI

Technique: Response to a lethal threat at close distance while shooting-on-the-move using support hand only.

Yard line: 7
Total Rounds: 4 handgun
Target: 1
Strings: 2
Position: Standing, rifle slung unloaded, handgun full load at the low-ready, support hand only.
Procedure: String 1: While moving to the 3-yard line, fire 2 rounds center mass support hand only.
String 2: Same as Stage XVI, String 1.
Time limit: 4 seconds,

Stage XVII

Technique: Response to a lethal threat at close distance while shooting-on-the-move.

Yard line: 7
Total Rounds: 3 handgun
Target: 1
Strings: 3
Position: Standing, rifle slung unloaded, handgun full load holstered.
Procedure: String 1: Draw while moving to the 3-yard line, fire 1 round to the head.
String 2: Same as Stage XVII, String 1.
String 3: Same as Stage XVII, String 2.
Time limit: 4 seconds

Score Targets: Score targets, 8 rifle rounds and 23 handgun rounds.

APPENDIX 2. REDUCED LIGHTING STANDARDS AND MEASUREMENTS FOR FIREARMS QUALIFICATION COURSES

1. INTRODUCTION. Two reduced lighting standards are used in certain U.S. Department of Energy (DOE) firearms qualification courses. The need for reduced lighting standards is established by:
 - a. ensuring that all reduced light qualification courses are conducted in a consistent manner;
 - b. providing, as realistically as possible, reduced lighting conditions that protective force (PF) personnel may experience at exterior security posts and other less illuminated areas on a facility;
 - c. allowing for a consistent condition in which PF personnel are required to use a flashlight to satisfactorily identify and engage a perceived threat;
 - d. meeting the above requirements while providing sufficient illumination for safe skills evaluation and instructor control.

2. LIGHTING STANDARDS.
 - a. Dim Light. The Dim Light Standard equates approximately to a measurement of 0.2-foot candles.
 - b. Dark Light. The Dark Standard equals the measurement of less than 0.2-foot candles. The use of a flashlight system is mandatory during qualification course stages fired at the Dark Standard.

3. LIGHTING STANDARDS MEASUREMENT AND APPLICATION. Both lighting standards will be determined by using a calibrated light meter and taking light measurements from the target face while directing the receptor portion of the meter toward the light source. Ensure that the body does not shield any light source from the receptor to guarantee an accurate measurement. Normal Dim Light and Dark Light Standards measurements may be exceeded, provided the cause of the excess is due solely to a natural condition (e.g., moonlight or starlight). However, no reduced lighting qualification course may be fired if a measurement exceeds 0.2-foot candles due to dawn, dusk, or artificial illumination.

APPENDIX 3. REMEDIAL FIREARMS QUALIFICATION COURSE

1. **INTRODUCTION.** The purpose of the Remedial Firearms Qualification Course is to assist protective force (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 U.S. Department of Energy (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.
2. **INSTRUCTIONS FOR REMEDIAL FIREARMS QUALIFICATION COURSE.**
 - a. The course consists of two phases, each of which is no more than 4 hours long. Phase I addresses the basic fundamentals of marksmanship beginning with dry-firing exercises, advancing to live-fire practice, and culminating in a qualification attempt. Should the shooter fail the Phase I qualification attempt, Phase II will address the shooting defect(s) 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.
 - b. Firearms instructors provide one-on-one instruction, perform 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).
 - c. Firearms instructors 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).
 - d. Firearms instructors assist shooters to ensure the correct sighting of a firearm, should it be questioned; verify sighting, if required; and resolve any question before live-fire qualification practice.
 - e. Shooters are permitted to slowly fire a specified number of rounds for live-fire qualification practice from the position(s) or employing the technique(s) determined to have occasioned the problem(s).
 - f. Shooters are 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.
 - g. Shooters are to attempt the applicable firearms qualification course in order to complete Phase I of this course.

- h. Shooters are to attempt the applicable firearms qualification course following completion of each phase of the Remedial Firearms Qualification Course.
 - i. The shooter will 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.
 - j. A shooter who successfully completes the applicable firearms qualification course is to be returned to a full duty status.
 - k. A shooter who fails to qualify after Phase II training loses his/her Security Police Officer (SPO) status and will be disarmed, per the requirements of 10 *Code of Federal Regulations* (C.F.R.), Part 1046, Appendix B, paragraph (9)j.
3. REMEDIAL FIREARMS QUALIFICATION COURSE. The applicable firearms qualification course will be conducted in accordance with this document. It is to be preceded by the announcement, "This is a qualification run for score."

APPENDIX 4. TARGETS AND SCORING FOR DOE FIREARMS QUALIFICATION COURSES

1. INTRODUCTION. Target descriptions and scoring methods for different firearms and qualification courses are set forth below.
2. TARGETS.
 - a. The U.S. Department of Energy (DOE) Standard Target will be used for all firearms qualification courses except the Light Machine Gun (LMG) and Live-Fire Shoot House (LFSH) Qualification Courses. This target closely replicates an average-sized human form and provides scoring rings for center of mass and head shots, contrast to assist sighting, and a line 8 inches below the top of the head (neckline). The target design accommodates adaptation to varying courses.
 - b. A reduced-sized DOE Standard Target is available to simulate firing from 50 yards and 100 yards when actually firing from the 25-yard and 50-yard lines, respectively. This reduced target is scored the same way as the full-size target.
 - c. The Standard Military 10-Meter Target is used for LMG Qualification Courses.
 - d. The LFSH Qualification Course requires picture targets that replicate or accommodate the center of mass and head scoring areas/scoring rings of a DOE Standard Target. Should the picture targets not display the required center of mass and head scoring rings, the scoring templates in Appendix 5 of this Section must be used to replicate the standard scoring area.
3. INSTRUCTIONS FOR SCORING DOE STANDARD TARGET. Regardless of size, targets will be scored as follows.
 - a. Handgun, Rifle, Submachine Gun (SMG).
 - (1) Center of mass scoring ring, when specified by the course:
 - (a) a projectile print within or cutting the inner ring is 5 points;
 - (b) a projectile print between the inner and outer ring is 4 points; and
 - (c) a projectile print outside the outer ring but within or cutting the silhouette is 3 points.
 - (2) Head scoring ring, when specified by the course:
 - (a) a projectile print within or cutting the scoring ring is 5 points;

- (b) a projectile print outside the scoring ring, but within or cutting the silhouette, provided it is at the neck line, is 3 points; and
 - (c) a projectile failing to print within or cut the head silhouette at the neckline is 0 points.
 - (3) Other considerations:
 - (a) A projectile cutting the line of a higher ring value receives the higher value;
 - (b) when course procedures permit and head shots are required, attempted head shots should be marked before progressing to the next stage; and
 - (c) the initial edge of impact determines the value of a projectile that strikes a target, making a slashing cut, as the target is turning.
 - b. Shotgun. When the DOE Standard Target is scored for the Shotgun Qualification Courses, any projectile printing on or cutting the silhouette of the human form will be 1 point.
 - c. Precision Rifle. When the DOE Standard Target is scored for the Precision Rifle Qualification Courses, the following rules apply.
 - (1) Head:
 - (a) use the head scoring template in Appendix 5 of this Section to score the head shot holes;
 - (b) a projectile print within or cutting the inner ring is 5 points;
 - (c) a projectile print within or cutting the middle ring is 4 points;
 - (d) a projectile print within or cutting the outer ring is 2 points; and
 - (e) a projectile print outside the outer ring is 0 points.
 - (2) Center of mass:
 - (a) use the center of mass scoring template in Appendix 5 of this Section to score the center of mass shot holes;
 - (b) a projectile print within or cutting the inner ring is 5 points;
 - (c) a projectile print within or cutting the middle ring is 4 points;

- (d) a projectile print within or cutting the outer ring is 2 points; and
 - (e) a projectile print outside the outer ring is 0 points.
 - (3) Disqualification:
 - (a) a projectile failing to print on the silhouette constitutes an automatic failure; and
 - (b) during Stages VIII and IX of the Daylight Precision Rifle Qualification Course, a projectile failing to print on the reduced strike zone constitutes an automatic failure.
- 4. INSTRUCTIONS FOR SCORING STANDARD MILITARY TARGET. Targets used for LMG Qualification Courses use only the tombstone scoring area, which will be scored as follows:
 - a. a projectile print within or cutting the tombstone scoring area is 5 points; and
 - b. a projectile print outside the tombstone scoring area is 0 points.
- 5. INSTRUCTIONS FOR SCORING LFSH TARGETS.

Total rounds: 17 (automatic) - 8 (semiautomatic).

Scoring hits, misses, and disqualifiers.

 - (1) Picture target presenting a lethal threat or a “shoot” target.
 - (a) A projectile that prints within or cuts the scoring rings of the center of mass or head will be a hit if it does not print within or cut a prohibited strike zone.
 - (b) A projectile printing within or cutting a prohibited strike zone is a disqualifier.
 - (c) A projectile printing anywhere on the silhouette, but not within or cutting a scoring ring and not within or cutting a prohibited strike zone, will be scored as a miss. For a target that should be engaged with rounds to the head only, any projectile printing within or cutting the standard center of mass scoring area will be scored as a miss.
 - (d) A projectile failing to print anywhere on the target or its backing is a disqualifier.

- (e) Picture target presenting no lethal threat or a “no-shoot” target.
 - 1 Any projectile directed at the target, whether the projectile fails to print or prints anywhere on the picture or target backing, is a disqualifier.
- (f) Hallway picture target presenting a lethal threat.
 - 1 A projectile printing anywhere within the outline of the human form pictured will be scored as a hit.
 - 2 A projectile printing anywhere outside the outline of the human form, including on the target backing, will be scored as a miss.
- (2) Scoring procedural errors. One procedural error will be assessed for each occurrence of the following:
 - (a) failure to maintain a constant speed (pace) throughout the course, which permits the accurate engagement of “shoot” targets;
 - (b) failure to engage appropriate targets on the move;
 - (c) failure to perform the correct crossover maneuver in a room;
 - (d) failure to maintain the correct low-ready position when required (i.e., acquiring a sight picture when the firearm should be in the low-ready position);
 - (e) failure to transition to the handgun without hesitation whenever a transition is required;
 - (f) failure to correctly engage “shoot” targets masked by a prohibited strike zone with the appropriate number of presses. The SMG/rifle, fired on automatic, requires two presses and four hits to the center mass and one press and two hits to the head. The SMG/rifle, fired on semiautomatic, requires two presses and two hits to center mass and one press one hit to the head. The handgun requires one press and one hit to the head;
 - (g) expending more than two rounds in a single burst of fire with the SMG/rifle, while firing on automatic;
 - (h) failure to set up on the appropriate side of an open door or failing to correctly perform all associated actions for the given door situation;

- (i) failure to set up on the appropriate side of a closed door or failing to correctly perform all associated actions for the given door situation;
- (j) failure to deploy a diversionary device from the appropriate side of a door or failing to perform all associated device deployment actions for the given door situation;
- (k) failure to conduct the appropriate door entry technique (criss-cross or button-hook) for the given door situation;
- (l) failure to correctly move through a door without hesitation;
- (m) failure to immediately clear and move to the near corner;
- (n) failure to run the second wall;
- (o) failure to correctly clear the room to the center;
- (p) failure to correctly announce status and intention; and/or
- (q) failure to properly demonstrate correct point man actions and target engagement requirements.

NOTE: Shooters accumulating more than five procedural errors will fail to qualify.

6. QUALIFYING SCORES AND REQUIREMENTS.

a. Handgun (All Handgun Qualification Courses except Shooting-on-the-Move).

(1) Daylight.

Total rounds:	60	
Qualification requirements:	70 percent:	FO, FA, SA, SPO-I and -II
	80 percent:	Federal Agent Special Response Force (SRF), SPO- III
Maximum points:	300	
Minimum points:	(210 = 70 percent), (240 = 80 percent)	

(2) Reduced lighting.

Total rounds:	24	
Qualification requirements:	70 percent:	FO, FA, SA, SPO-I and -II
	80 percent:	SRF, SPO-III

Maximum points: 120
Minimum points: (84 = 70 percent), (96 = 80 percent)

(3) SRF and SPO-III daylight combined handgun.

Total rounds: 58
Qualification requirements: 90 percent: SRF, SPO-III
Maximum points: 290
Minimum points: 261

b. Rifle (All Rifle Qualification Courses except the Precision Rifle Qualification Courses).

(1) Semiautomatic.

(a) Daylight.

Total rounds: 30
Qualification requirements: 70 percent: FO, FA, SA, SPO-and SPO-II
80 percent: SRF, SPO-III
Maximum points: 150
Minimum points: (105 = 70 percent), (120 = 80 percent)

(b) Reduced lighting.

Total rounds: 20
Qualification requirements: 70 percent: FO, FA, SA, SPO-I and SPO-II
80 percent: SRF, SPO-III
Maximum points: 100
Minimum points: (70 = 70 percent), (80 = 80 percent)

(2) Automatic.

(a) Daylight.

Total rounds: 30
Qualification requirements: 70 percent: FO, FA, SA, SPO-I and SPO-II
80 percent: SRF, SPO-III
Maximum points: 150

Minimum points: (105 = 70 percent), (120 = 80 percent)

(b) Reduced lighting.

Total rounds: 24

Qualification requirements: 70 percent: FO, FA, SA, SPO-I and SPO-II

80 percent: SRF, SPO-III

Maximum points: 120

Minimum points: (84 = 70 percent), (96 = 80 percent)

(3) SRF and SPO-III Daylight Combined Rifle/SMG.

Total rounds: 84 (Automatic)
60 (Semiautomatic)

Qualification requirements: 90 percent

Maximum points: 420 (Automatic)
300 (Semiautomatic)

Minimum points: 378 (Automatic)
270 (Semiautomatic)

c. Shotgun (Daylight and Reduced Lighting).

(1) 9 projectiles (pellets) per round.

Total rounds: 10

Qualification requirements: 70 percent: FO, FA, SA, SPO-I and SPO-II

80 percent: SRF, SPO-III

Maximum points: 90

Minimum points: (63 = 70 percent), (72 = 80 percent)

(2) 12 projectiles (pellets) per round.

Total rounds: 10

Qualification requirements: 70 percent: FO, FA, SA, SPO-I and SPO-II

80 percent: SRF, SPO-III

Maximum points: 120

Minimum points: (84 = 70 percent), (96 = 80 percent)

(3) Slug.

Total rounds: 5
Qualification requirements: 70 percent: FO, FA, SA, SPO-I and SPO-II
80 percent: SRF, SPO-III
Maximum points: 5
Minimum points: (3 = 70 percent), (4 = 80 percent)

d. SMG.

(1) Daylight.

Total rounds: 60
Qualification requirements: 70 percent: FO, FA, SA, SPO-I and SPO-II
80 percent: SRF, SPO-III
Maximum points: 300
Minimum points: (210 = 70 percent), (240 = 80 percent)

(2) Reduced lighting.

Total rounds: 30
Qualification requirements: 70 percent: FO, FA, SA, SPO-I and SPO-II
80 percent: SRF, SPO-III
Maximum points: 150
Minimum points: (105 = 70 percent), (120 = 80 percent)

e. LMG.

Total rounds: 49 (including 1 dummy round)
Qualification requirements: 70 percent: FO, FA, SA, SPO-I and SPO-II
80 percent: SRF, SPO-III
Maximum points: 240
Minimum points: (168 = 70 percent), (192 = 80 percent)

f. Shooting-on-the-Move.

(1) Handgun.

Total rounds: 40
Qualification requirements: 90 percent: FO, FA, SA, SRF, SPO-III
Maximum points: 200

- (2) SMG/rifle.
- Minimum points: (180 = 90 percent)
- Total rounds: 40 (Automatic)
28 (Semiautomatic)
- Qualification requirements: 90 percent: FO, FA, SA, SRF, SPO-III
- Maximum points: 200 (Automatic)
140 (Semiautomatic)
- Minimum points: (180=90 percent) (Automatic)
(126=90 percent) (Semiautomatic)

g. Precision Rifle.

- (1) Daylight.
- Total rounds: 16
- Qualification requirements: 80 percent: FO, FA, SA, SRF, SPO-III
- Maximum points: 80
- Minimum points: (64 = 80 percent)
- (2) Reduced lighting.
- Total rounds: 10
- Qualification requirements: 80 percent: FO, FA, SA, SRF, SPO-III
- Maximum points: 50
- Minimum points: (40 = 80 percent)

**APPENDIX 5. PRECISION RIFLE QUALIFICATION COURSE
SCORING TEMPLATES**

1. HEAD SCORING TEMPLATE. The Head Scoring Template for the Precision Rifle Qualification Courses consists of three concentric rings placed within the existing circle scoring area in the head of the U.S. Department of Energy (DOE) Standard Target (see Figure 1).
 - a. The first (outermost) ring of the scoring template is approximately 0.75 inch wide with a point value of 2.
 - b. The second (inner) ring of the scoring template is approximately 0.75 inch with a point value of 4.
 - c. The innermost circle of the scoring template is approximately 1.75 inches in diameter with a point value of 5.

2. CENTER OF MASS SCORING TEMPLATE. The Center of Mass Scoring Template for the Precision Rifle Qualification Courses consists of an inner scoring ring/area (the same shape as the center mass section of the DOE Standard Target) placed inside the existing center mass section of the DOE Standard Target (see Figure 2).
 - a. The inner scoring ring measures approximately 6 inches horizontally and 8 inches vertically.
 - b. The scoring template is positioned in the center of the center mass area approximately 1.75 inches from the left and right sides of the center mass area, and approximately 1.5 inches from the top and bottom of the center mass area.
 - c. The area outside the center mass area has a point value of 2.
 - d. The second (inner) area on the scoring template has a point value of 4.
 - e. The innermost area of the scoring template has a point value of 5.

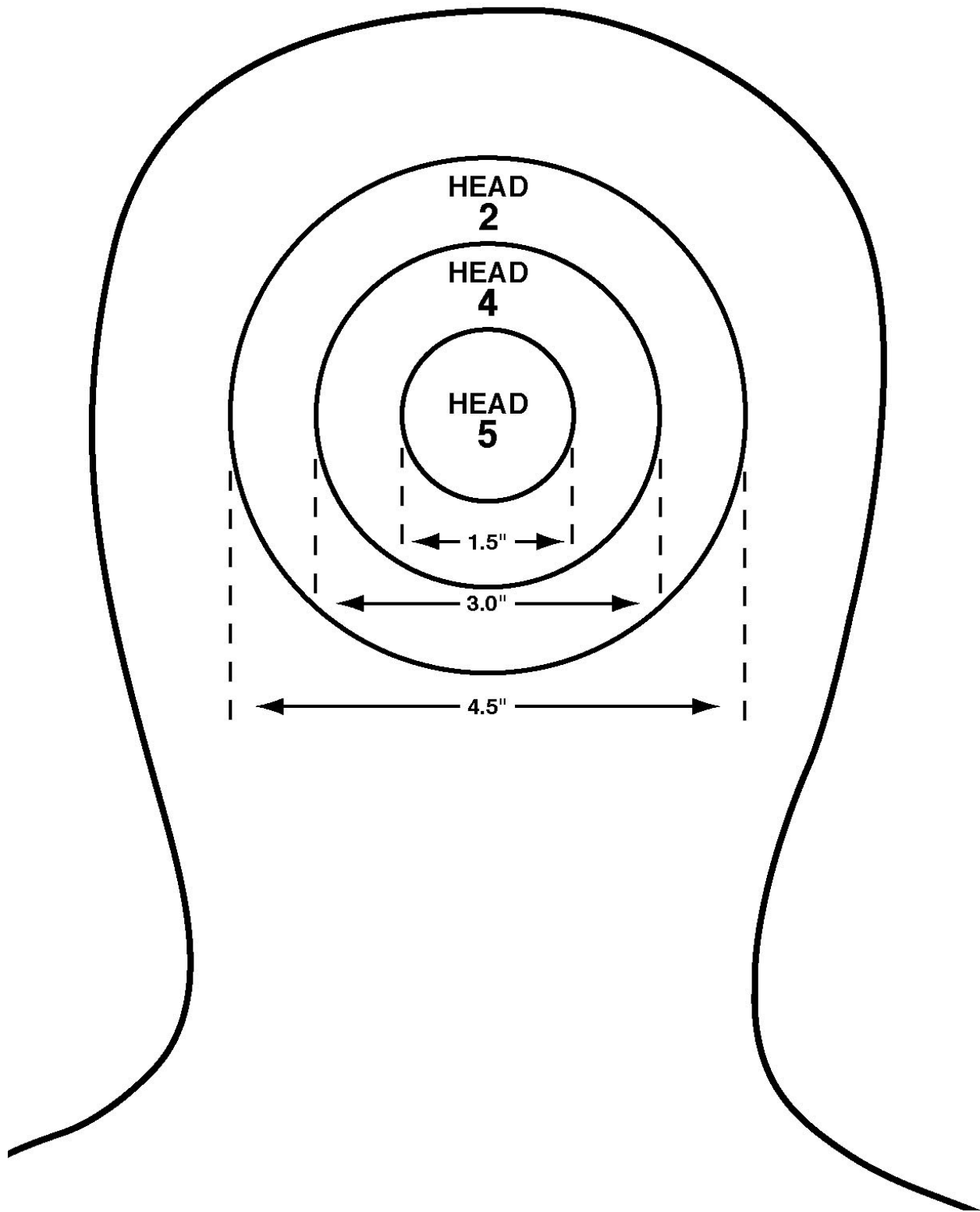


Figure 1. Head Scoring Template

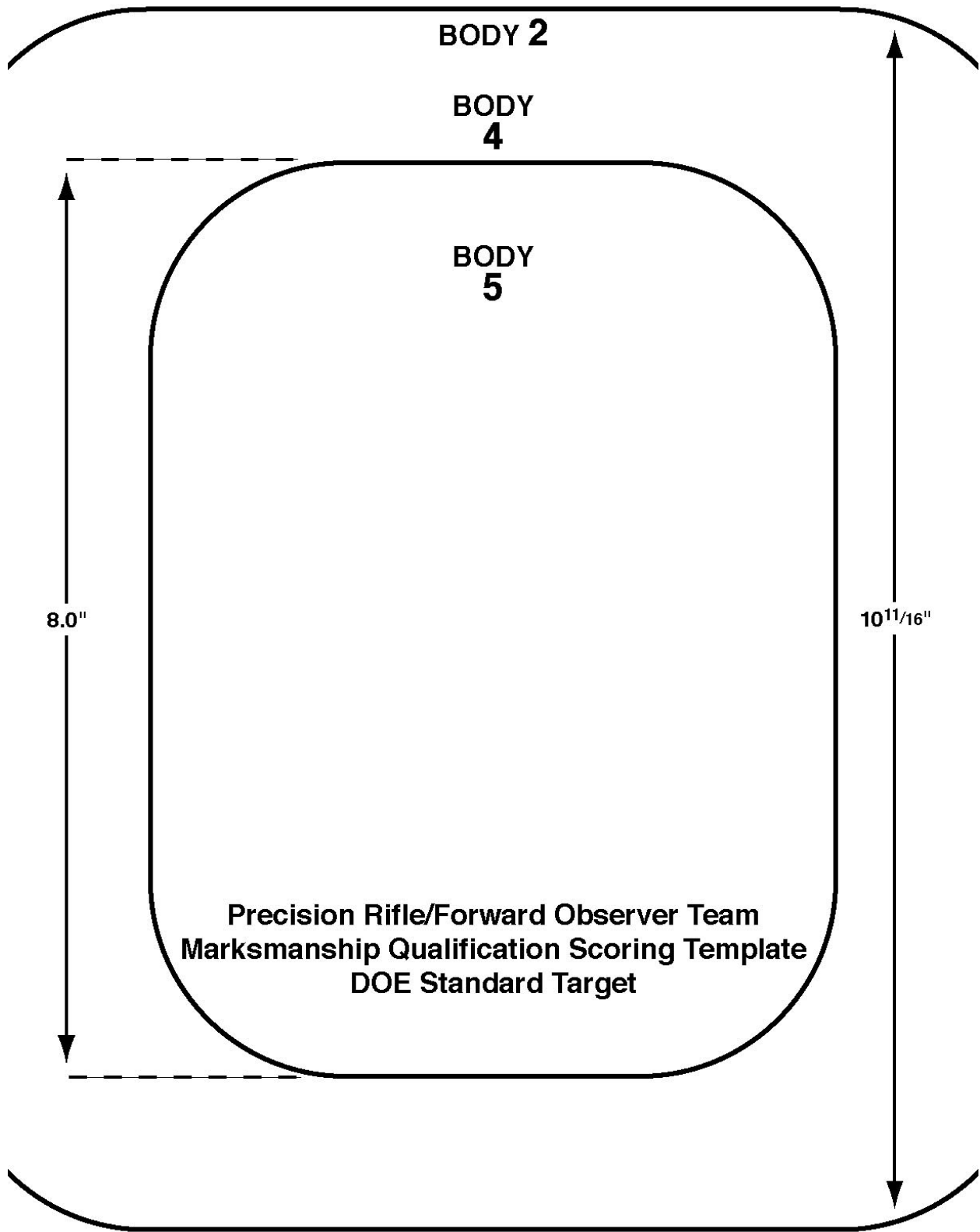


Figure 2. Center of Mass Scoring Template

APPENDIX 6. PRACTICAL SHOOTING COURSES

1. **INTRODUCTION.** The practical shooting courses described in this Appendix are additional non-mandatory qualification courses designed to exercise and evaluate a shooter's ability to perform required marksmanship fundamentals while experiencing stress from doing non-routine tasks (e.g., tactically moving, pivoting, engaging multiple targets, using available cover, and firing after donning a protective mask).
 - a. The cognizant security authority determines its own specific tactical requirements (i.e., barrier/fence climbing, and specific no-shoot areas/devices) and incorporates them, if feasible, into these courses. These courses include specific criteria for conduct of the course; however, since range facilities differ from site to site, the courses may be modified to accommodate the safety requirements for each range. Modifications to each course are to be the minimum required to perform the course safely in accordance with the established site range Risk Analysis Report (RAR).
 - b. The practical courses emphasize shooting skills relating to shooter movement, multiple targets, and target identification. These courses address a need to increase the realism of training by requiring armed protective force (PF) personnel to move, shoot, reload, take cover, communicate, and use equipment such as masks and night vision goggles in situations that simulate actual security emergencies.
 - c. Consistent with local collective bargaining agreements and other site considerations, cognizant security authorities are authorized to substitute selected practical shooting courses to be fired for qualification during one of the semi-annual qualifications periods, in lieu of the standard, applicable firearms qualification courses. Should a cognizant security authority voluntarily choose to use these courses, the requirements below must be met.
 - (1) Annually (at least every 12 months), each armed PF member will be required to qualify on the appropriate standard Daylight and Reduced Lighting courses contained in this document, for his or her assigned firearms.
 - (2) For the other required semi-annual (at least every 6 months) qualification, each armed PF member will fire three of the practical courses, two Daylight and one Reduced Lighting, for his or her assigned firearm. Failure to qualify on a practical shooting qualification course will result in a short remedial training session covering specific techniques. One additional attempt to qualify will be provided following the remedial training session. In the event that the PF member fails the second attempt, the standard qualification course, Daylight or Reduced Lighting,

whichever is applicable, will be used in its entirety to determine qualification.

- d. The particular targets used in each course will also be dictated by range facilities and Safety Analysis Reviews. If a cognizant security authority deviates from any specified target (i.e., paper instead of steel) then the scoring will be changed to reflect the target engagement requirements (i.e., steel targets are hit once; paper targets are hit either twice or there is a failure drill).
2. **PRACTICAL SHOOTING COURSE ADJUSTMENTS.** The practical shooting courses may be modified to introduce a firearm malfunction during the course of fire. If malfunctions are introduced into a timed course, an additional amount of time will be added to compensate for the malfunction.
 - a. If, during any course of fire, a shooter experiences a malfunction and attempts to clear or clears the malfunction, the shooter should be allowed to continue the course of fire. If the malfunction is such that the shooter requires assistance to clear it, the shooter will be allowed to repeat the course.
 - b. The courses may be conducted as individual courses of fire or may be combined to test various skills required for a PF member to be successful against a lethal threat. The individual mission generally will dictate which of these courses are most appropriate to test individual skills and abilities.
 3. **PRACTICAL SHOOTING COURSE SAFETY.** The practical shooting courses will be conducted in accordance with all firearms safety instructions or notes contained in this document, U.S. Department of Energy (DOE) Order 440.1B, *Worker Protection Program for DOE (Including the National Nuclear Security Administration) Federal Employees* and such site-specific safety instructions as may apply. Limitations on range use contained in the range risk analysis must be observed, and all practical shooting courses will be conducted with the required instructor-to-shooter ratio. For all practical shooting courses, the firearm will be loaded and carried in the standard duty configuration.
 - a. **Shooting on the Move.**
 - (1) Walking surfaces on the range will be kept as free as practicable of slipping and tripping hazards. Participants will wear duty footwear.
 - (2) Muzzle control is especially critical during shooting on the move. Instructors will ensure that the shooter keeps the muzzle pointed in a safe direction at all times.
 - (3) The trigger finger must stay off the trigger until the sights are on the target.
 - b. **Shooting at Moving Targets.**

- (1) Courses of fire using moving targets will be designed so the limitations of authorized fans of fire are not exceeded.
 - (2) Moving targets will be positioned so that they are not available to the shooter when the line of fire would exceed the authorized fan of fire.
- c. Deploying from Vehicles.
- (1) Muzzle control is especially critical when deploying from vehicles. Instructors will ensure that the shooter keeps the muzzle pointed in a safe direction at all times.
 - (2) Instructors will ensure that the shooter does not place the trigger finger on the trigger until the sights are on the target.
 - (3) Walking surfaces on the range will be kept as free as practicable of slipping and tripping hazards.
- d. Shooter Movement Safety.
- (1) Students will receive the standard firearms safety briefing.
 - (2) A description of the course to be fired will be shown and explained in detail.
 - (3) Students will walk through the stages of the course and range instructors will explain each position of fire.
 - (4) Persons other than the shooter and range instructors will remain in a designated area to the rear of the course.
 - (5) Students will load initially on command of the range instructor.
 - (6) Stages of fire that require reloading will be without command while students maintain the firearm safely and pointing downrange.
 - (7) Students will move from position to position with the firearm holstered or the firearm on safe, finger off the trigger, unless the course dictates firing at a target while moving.
 - (8) Firearms will be fired only after the student is in position and ready to engage a designated target.
4. DOE PRACTICAL SHOOTING COURSES. The following describes each of the courses. Schematics of the layouts are provided at the end of this Appendix.
- a. Course Number 1.

- (1) Objective. This course is designed to evaluate and test the shooter's ability to demonstrate the proper method to draw the handgun, engage multiple targets, and properly reload.
- (2) Safety. Safety precautions pertaining to this course of fire will be in accordance with site-specific firearms safety procedures.
- (3) Course Description.
 - (a) The shooter will load and holster the handgun and make ready for live fire.
 - (b) On command, the shooter will draw and engage each target with one round each, reload, and engage each target again with one round each.
 - (c) Upon completion of the course of fire, the shooter will make the firearm safe.
- (4) Options. This course may be run during dim-light or dark-light conditions. For the type of firearm, the use of site-specific protective equipment (i.e., respirator or body armor) will be at the discretion of the range master. Under dark-light conditions flashlights will be in the ready position with the handgun holstered.
- (5) Scoring.
 - (a) If the DOE-15 target is used, the inner ring is 5 points, the middle ring is 4 points, and the outer ring is 3 points.
 - (b) If the National Rifle Association (NRA) B-27 target is used, hits inside the 8 ring are 5 points, hits inside the 7 ring are 4 points, and hits on the silhouette outside the 7 ring are 3 points.
 - (c) If the International Practical Shooting Confederation (IPSC) target is used, hits inside the A zone are 5 points, hits inside the C zone are 4 points, and hits inside the B or D zones are 3 points.
 - (d) Maximum rounds: 12
 - (e) Maximum score: 60
 - (f) Minimum score: 70 percent = 42;
80 percent = 48
 - (g) Maximum time: 18 seconds – pistol
20 seconds – revolver

b. Course Number 2.

- (1) Objective. This course is designed to evaluate and test the shooter's ability to properly execute the failure drill with the handgun.
- (2) Safety. Safety precautions pertaining to this course of fire will be in accordance with site-specific firearms safety procedures.
- (3) Course Description.
 - (a) The shooter will load and holster the handgun.
 - (b) On command, from Box A, the shooter will draw and fire the standard defensive response (two presses center mass) on each target followed by a failure drill (one press to the head) on each target.
 - (c) The shooter will reload and holster after each course of fire.
 - (d) This course of fire will be fired three times by each shooter.
 - (e) Upon completion of the last course of fire, the shooter will make the firearm safe.
- (4) Options. This course may be run during dim or dark-light conditions. The type of firearm and the use of site-specific protective equipment (i.e., respirator or body armor) will be at the discretion of the range master. Under dark-light conditions flashlights will be in the ready position with the handgun holstered.
- (5) Scoring.
 - (a) If the DOE-15 target is used, hits inside the inner ring are 5 points, the middle ring are 4 points, and the outer ring are 3 points.
 - (b) If the NRA B-27 target is used, hits inside the 8 ring are 5 points, inside the 7 ring are 4 points, and hits on the silhouette outside the 7 ring are 3 points.
 - (c) If the IPSC target is used, hits inside the A zone are 5 points, hits inside the C zone are 4 points, and hits inside the B or D zones are 3 points.
 - (d) Maximum rounds: 18
 - (e) Maximum score: 90

- (f) Minimum score: 70 percent = 63; 80 percent = 72
- (g) Maximum time: 12 seconds per iteration

c. Course Number 3.

- (1) Objective. This course is designed to evaluate and test the shooter's ability to fire with the weak hand.
- (2) Safety. Safety precautions pertaining to this course of fire will be in accordance with site-specific firearms safety procedures.
- (3) Course Description.
 - (a) The shooter will load and holster the handgun.
 - (b) On command, from Box A, the shooter will draw and transfer the firearm to the weak hand and assume a low-ready position.
 - (c) On command, the shooter will engage each target with 1 round each using the weak hand.
 - (d) After engaging each target with 1 round, the shooter will return to the low-ready position.
 - (e) The shooter will repeat this drill 4 times and fire a total of 12 rounds, reloading as necessary.
 - (f) Upon completion of the course of fire, the shooter will make the firearm safe.
- (4) Options. This course may be run during dim-light conditions but may not be fired under dark-light conditions. The type of firearm and the use of site-specific protective equipment (i.e., respirator or body armor) will be at the discretion of the range master.
- (5) Scoring.
 - (a) If the DOE-15 target is used, hits inside the inner ring are 5 points, the middle ring are 4 points, and the outer ring are 3 points.
 - (b) If the NRA B-27 target is used, hits inside the 8 ring are 5 points, inside the 7 ring are 4 points, and hits on the silhouette outside the 7 ring are 3 points.

- (c) If the IPSC target is used, hits inside the A zone are 5 points, hits inside the C zone are 4 points, and hits inside the B or D zone are 3 points.
 - (d) Maximum rounds: 12
 - (e) Maximum score: 60
 - (f) Minimum score: 70 percent = 42; 80 percent = 48
 - (g) Maximum time: 6 seconds per iteration
- d. Course Number 4.
- (1) Objective. This course is designed to evaluate and test the shooter's ability to demonstrate the proper kneeling and prone firing positions.
 - (2) Safety. Safety precautions pertaining to this course of fire will be in accordance with site-specific firearms safety procedures.
 - (3) Course Description.
 - (a) The shooter will load and holster the handgun and make ready for live fire.
 - (b) The shooter will begin seated in a vehicle with firearm holstered, door closed, seat belt secured, and hands on the steering wheel. The shooter may also start in a start box 20 yards from the low wall.
 - (c) On command, the shooter will dismount from the vehicle, run to the low wall, assume kneeling position, and engage targets T1 and T2 with two rounds each, using proper cover.
 - (d) The shooter will then assume the prone position and engage target T3 with two rounds.
 - (e) After completion of the course, the shooter will make the firearm safe.
 - (4) Scoring.
 - (a) If the DOE-15 target is used, hits inside the inner ring are 5 points, the middle ring are 4 points, and the outer ring are 3 points.

- (b) If the NRA B-27 target is used, hits inside the 8 ring are 5 points, inside the 7 ring are 4 points, and hits on the silhouette outside the 7 ring are 3 points.
 - (c) If the IPSC target is used, hits inside the A zone are 5 points, hits inside the C zone are 4 points, and hits inside the B or D zones are 3 points.
 - (d) Maximum rounds: 6
 - (e) Maximum score: 30
 - (f) Minimum score: 70 percent = 21; 80 percent = 24
 - (g) Maximum time: 24 seconds (20 seconds if a box is used)
- e. Course Number 5.
- (1) Objective. This course is designed to evaluate and test the shooter's ability to present the firearm to the targets and accurately engage each target while utilizing cover from the selected barricade position.
 - (2) Safety. Safety precautions pertaining to this course of fire will be in accordance with site-specific firearms safety procedures.
 - (3) Course Description.
 - (a) The shooter will load and holster the handgun.
 - (b) The shooter begins in Box A, standing and facing the targets with hands relaxed at the shooter's sides.
 - (c) On command, the shooter will draw and engage targets T1, T2, and T3 with one round each. The shooter will then move to Box B, ensuring the trigger finger is outside the trigger guard and alongside the frame. The shooter will ensure the muzzle is pointed downrange during all movement. Reloading will be done as needed throughout the course.
 - (d) At Box B, the shooter will engage targets T4, T5, and T6 with one round each from either side of the barricade. The shooter will use the barricade as cover.
 - (e) The shooter will then move to Box C, and will engage targets T7 and T8 with two rounds each. The shooter will use the barricade as cover while firing through the 1-foot top port.

- (4) Options. This course may be run during dim-light conditions. For the type of firearm, the use of site-specific protective equipment (i.e., respirator or body armor) will be at the discretion of the range master.
 - (5) Scoring.
 - (a) If the DOE-15 target is used, hits inside the inner ring are 5 points, the middle ring are 4 points, and the outer ring are 3 points.
 - (b) If the NRA B-27 target is used, hits in the 8 ring are 5 points, hits inside the 7 ring are 4 points, and hits on the silhouette outside the 7 ring are 3 points.
 - (c) If the IPSC target is used, hits inside the A zone are 5 points, hits inside the C zone are 4 points, and hits inside the B or D zone are 3 points.
 - (d) Maximum rounds: 10
 - (e) Maximum score: 50
 - (f) Minimum score: 70 percent = 35; 80 percent = 40
 - (g) Maximum time: 40 seconds
 - (h) Engagement of friendly (no-shoot) targets is an automatic failure.
- f. Course Number 6.
- (1) Objective. This course is designed to evaluate and test the shooter's ability to pivot, draw, and engage multiple targets.
 - (2) Safety. Safety precautions pertaining to this course of fire will be in accordance with site-specific firearms safety procedures.
 - (3) Course Description.
 - (a) The shooter will load and holster the firearm.
 - (b) The shooter will begin in Box A with his or her back to the targets.
 - (c) On command, the shooter will pivot and face the targets, draw the firearm, and engage targets T1, T2, and T3 with one round, each. The shooter will reload and holster.
 - (d) This course will be fired twice.

- (e) After completion of the course, the shooter will make the firearm safe.
- (4) Options. This course may be run during dim and dark-light conditions. For the type of firearm, the use of site-specific protective equipment (i.e., respirator or body armor) will be at the discretion of the range master. Under dark-light conditions flashlights will be in the ready position with the handgun holstered.
- (5) Scoring.
 - (a) If the DOE-15 target is used, hits inside the inner ring are 5 points, the middle ring are 4 points, and the outer ring are 3 points.
 - (b) If the NRA B-27 target is used, hits inside the 8 ring are 5 points, inside the 7 ring are 4 points, and hits on the silhouette outside the 7 ring are 3 points.
 - (c) If the IPSC target is used, hits inside the A zone are 5 points, hits in the C zone are 4 points, and hits inside the B or D zones are 3 points.
 - (d) Minimum rounds: 6
 - (e) Maximum score: 30
 - (f) Minimum score: 70 percent = 21; 80 percent = 24
 - (g) Maximum time: 6 seconds
- g. Course Number 7.
 - (1) Objective. This course is designed to evaluate and test the shooter's ability to draw and engage targets from the prone firing position.
 - (2) Safety. Safety precautions pertaining to this course of fire will be in accordance with site-specific firearms safety procedures.
 - (3) Course Description.
 - (a) On command, the shooter will load and holster the handgun.
 - (b) The shooter will start facing the targets.
 - (c) On command, the shooter will draw, go to the prone position, and engage all targets through the lower window in the barricade.

- (d) The shooter will engage targets T1-T4 with one round, each.
- (e) The shooter will reload and holster after each course of fire.
- (f) This course of fire will be fired twice by each shooter.
- (g) After completion of the course, the shooter will make the firearm safe.

(4) Scoring.

- (a) If the DOE-15 target is used, hits inside the inner ring are 5 points, the middle ring are 4 points, and the outer ring are 3 points.
- (b) If the NRA B-27 target is used, hits inside the 8 ring are 5 points, inside the 7 ring are 4 points, and hits on the silhouette outside the 7 ring are 3 points.
- (c) If the IPSC target is used, hits inside the A zone are 5 points, hits inside the C zone are 4 points, and hits inside the B or D zones are 3 points.
- (d) Maximum rounds: 8
- (e) Maximum score: 40
- (f) Minimum score: 70 percent = 28; 80 percent = 32
- (g) Maximum time: 20 seconds
- (h) Engagement of friendly (no-shoot) targets is an automatic failure.

h. Course Number 8.

- (1) Objective. This course is designed to evaluate and test the shooter's ability to engage multiple targets, move obstacles, and reload firearms.
- (2) Safety. Safety precautions pertaining to this course of fire will be in accordance with site-specific firearms safety procedures.
- (3) Course Description.
 - (a) The shooter will load and holster the firearm.
 - (b) The shooter will be positioned 20 yards from the doorway.

- (c) On command, the shooter will run to the open doorway and knock or push the no-shoot target out of the way with his or her weak hand.
 - (d) The shooter will then draw and engage targets T1 through T4 with one round, each. The shooter must conduct a speed reload before engaging target T4. This speed reload may be conducted at any time between targets T1 and T4. The shooter must use the door frame as a barricade or as cover.
 - (e) The shooter will not enter the doorway.
 - (f) This course will be fired twice.
 - (g) After the completion of the course of fire, the shooter will make the firearm safe.
- (4) Options. This course may be run during low-light conditions. For the type of firearm, the use of site-specific protective equipment (i.e., respirator or body armor) will be at the discretion of the range master.
- (5) Scoring.
- (a) If the DOE-15 target is used, hits inside the inner ring are 5 points, the middle ring are 4 points, and the outer ring are 3 points.
 - (b) If the NRA B-27 target is used, hits inside the 8 ring are 5 points, inside the 7 ring are 4 points, and hits on the silhouette outside the 7 ring are 3 points.
 - (c) If the IPSC target is used, hits inside the A zone are 5 points, hits inside the C zone are 4 points, and hits inside B or D zone are 3 points.
 - (d) Maximum rounds: 8
 - (e) Maximum score: 40
 - (f) Minimum score: 70 percent = 28; 80 percent = 32
 - (g) Maximum time: 16 seconds
- i. Course Number 9.
- (1) Objective. This course is designed to evaluate and test the shooter's ability to effectively use a barricade for cover and demonstrate the proper standing and kneeling barricade positions.

- (2) Safety. Safety precautions pertaining to this course of fire will be in accordance with site-specific firearms safety procedures.
- (3) Course Description.
 - (a) On command, the shooter will load the handgun with the prescribed site duty load and holster.
 - (b) The shooter will begin this course 50 feet from the barricade.
 - (c) On command, the shooter will run to Box A and draw the firearm.
 - (d) The shooter will engage targets T1, T2, and T3 from Position 1, the right-side standing barricade position, with one round, each.
 - (e) The shooter will then move to Position 2, the right-side kneeling barricade, and engage T1, T2, and T3 with one round each.
 - (f) The shooter will then reload and move to Position 3, left-hand standing position, and engage targets T1, T2, and T3 with one round, each.
 - (g) The shooter will then move to Position 4, left-hand kneeling position, and engage targets T1, T2, and T3 with one round, each.
 - (h) After completion of the course, the shooter will make the firearm safe.
- (4) Options. This course may be run during dim-light conditions. The type of firearm and the use of site-specific protective equipment (i.e., respirator or body armor) will be at the discretion of the range master.
- (5) Scoring.
 - (a) If the DOE-15 target is used, hits inside the inner ring are 5 points, the middle ring are 4 points, and the outer ring are 3 points.
 - (b) If the NRA B-27 target is used, hits inside the 8 ring are 5 points, inside the 7 ring are 4 points, and hits on the silhouette outside the 7 ring are 3 points.
 - (c) If the IPSC target is used, hits inside the A zone are 5 points, hits inside the C zone are 4 points, and hits inside the B or D zones are 3 points.
 - (d) Maximum rounds: 12

- (e) Maximum score: 60
- (f) Minimum score: 70 percent = 42; 80 percent = 48
- (g) Maximum time: 35 seconds
- (h) Engagement of friendly (no-shoot) targets is an automatic failure.

j. Course Number 10.

- (1) Objective. This course is designed to evaluate and test the shooter's ability to draw, identify, and engage hostile targets accurately with either hand.
- (2) Safety. Safety precautions pertaining to this course of fire will be in accordance with site-specific firearms safety procedures.
- (3) Course Description.
 - (a) The shooter will load and holster the handgun.
 - (b) The shooter will start at Box A. On command, the shooter will draw and engage targets T1, T2, and T3 with the strong hand only, in any order, with one round, each. The shooter will then reload and engage targets T1, T2, and T3 with the weak hand only, in any order, with one round, each.
 - (c) This course will be fired twice by each shooter.
 - (d) After completion of the course of fire, the shooter will make the handgun safe.
- (4) Options. This course may be run during dim-light conditions. The type of firearm and the use of site-specific protective equipment (i.e., respirator or body armor) will be at the discretion of the range master.
- (5) Scoring.
 - (a) If the DOE-15 target is used, hits inside the inner ring are 5 points, the middle ring are 4 points, and the outer ring are 3 points.
 - (b) If the NRA B-27 target is used, hits inside the 8 ring are 5 points, inside the 7 ring are 4 points, and hits on the silhouette outside the 7 ring are 3 points.

- (c) If the IPSC target is used, hits inside the A zone are 5 points, hits inside the C zone are 4 points, and hits inside the B or D zones are 3 points.
 - (d) Maximum rounds: 12
 - (e) Maximum score: 60
 - (f) Minimum score: 70 percent = 42; 80 percent = 48
 - (g) Maximum time: 15 seconds
 - (h) Engagement of friendly (no-shoot) targets is an automatic failure.
- k. Course Number 11.
- (1) Objective. This course is designed to evaluate and test the shooter's ability to draw and engage targets accurately with the strong and weak hand.
 - (2) Safety. Safety precautions pertaining to this course of fire will be in accordance with site-specific firearms safety procedures.
 - (3) Course Description.
 - (a) The shooter will load and holster the handgun.
 - (b) The shooter will start at the 25-yard line and on command assume a kneeling position and engage each target with one round.
 - (c) The shooter will then move to the 15-yard line and engage each target with one round, reload and engage each target with one more round. The shooter will reload.
 - (d) The shooter will then move to the 10-yard line and engage targets T1, T2, and T3 with one round, each.
 - (e) The shooter will then move to the 7-yard line, switch to the weak hand, and engage targets T1, T2, and T3 with one round, each.
 - (f) Each shooter will fire this course twice.
 - (g) After completion of the course of fire, the shooter will make the firearm safe.

- (4) Options. This course may be run during dim-light conditions. The type of firearm and the use of site-specific protective equipment (i.e., respirator or body armor) will be at the discretion of the range master.
- (5) Scoring.
 - (a) If the DOE-15 target is used, hits inside the inner ring are 5 points, the middle ring are 4 points, and the outer ring are 3 points.
 - (b) If the NRA B-27 target is used, hits inside the 8 ring are 5 points, hits inside the 7 ring are 4 points, and hits on the silhouette outside the 7 ring are 3 points.
 - (c) If the IPSC target is used, hits inside the A zone are 5 points, hits inside the C zone are 4 points, and hits inside the B or D zones are 3 points.
 - (d) Minimum rounds: 30
 - (e) Maximum score: 150
 - (f) Minimum score: 70 percent = 105; 80 percent = 120
 - (g) Maximum Time: 45 seconds

I. Course Number 12.

- (1) Objective. This course is designed to evaluate and test the shooter's ability to engage decision making targets accurately and to engage each target while shooting on the move.
- (2) Safety. Safety precautions pertaining to this course of fire will be in accordance with site-specific firearms safety procedures.
- (3) Course Description.
 - (a) The shooter will load and holster the handgun.
 - (b) The shooter will start in Box A, and, on command, the shooter will draw and engage targets T1, T2, and T3 with one round, each.
 - (c) Shooter will move along the charge line and engage targets T4, T5, and T6 with one round, each, reloading as necessary.
 - (d) The shooter will move to Box B and engage targets T7 and T8 with the standard defensive response, followed by a failure drill.

- (e) After engaging targets T7 and T8, the shooter will make the firearm safe.
- (4) Options. This course may be run during dim-light conditions. The type of firearm and use of site-specific protective equipment (i.e., respirator or body armor) will be at the discretion of the range master.
- (5) Scoring.
 - (a) If the DOE-15 target is used, hits inside the inner ring are 5 points, the middle ring are 4 points, and the outer ring are 3 points.
 - (b) If the NRA B-27 target is used, hits inside the 8 ring are 5 points, hits inside the 7 ring are 4 points, and hits on the silhouette outside the 7 ring are 3 points.
 - (c) If the IPSC target is used, hits inside the A zone are 5 points, hits inside the C zone are 4 points, and hits inside the B or D zones are 3 points.
 - (d) Maximum rounds: 12
 - (e) Maximum score: 60
 - (f) Minimum score: 70 percent = 63; 80 percent = 48
 - (g) Maximum time: 30 seconds
- m. Course Number 13.
 - (1) Objective. This course is designed to evaluate and test the shooter's ability to identify and engage hostile targets.
 - (2) Safety. Safety precautions pertaining to this course of fire will be in accordance with site-specific firearms safety procedures.
 - (3) Course Description.
 - (a) The shooter will load and holster the handgun.
 - (b) The shooter begins in Box A. On command, the shooter will draw and engage targets T1 and T2 with two rounds each.
 - (c) Keeping the finger off the trigger, straight alongside the frame, firearm in a low-ready position, and pointed downrange, the shooter will move to Box B and engage target T3 with two rounds. The shooter will reload as necessary.

- (d) The shooter then moves to Box C and engages target T4 with two rounds.
- (e) After completion of the course, the shooter will make the firearm safe.
- (4) Options. This course may be run during dim-light and dark-light conditions. The type of firearm and the use of site-specific protective equipment (i.e., respirator or body armor) will be at the discretion of the range master.
- (5) Scoring.
 - (a) If the DOE-15 target is used, hits inside the inner ring are 5 points, the middle ring are 4 points, and the outer ring are 3 points.
 - (b) If the NRA B-27 target is used, hits inside the 8 ring are 5 points, hits inside the 7 ring are 4 points, and hits on the silhouette outside the 7 ring are 3 points.
 - (c) The IPSC target is used, hits inside the A zone are 5 points, hits inside the C zone are 4 points, and hits inside the B or D zones are 3 points.
 - (d) Maximum rounds: 8
 - (e) Maximum score: 40
 - (f) Minimum score: 70 percent = 28; 80 percent = 32
 - (g) Maximum time: 20 seconds
 - (h) Engagement of friendly (no-shoot) targets is an automatic failure.
- n. Course Number 14.
 - (1) Objective. This course is designed to evaluate and test the shooter's ability to draw, fire accurately, and conduct a speed reload.
 - (2) Safety. Safety precautions pertaining to this course of fire will be in accordance with site-specific firearms safety procedures.
 - (3) Course Description.
 - (a) The shooter will load and holster the handgun.

- (b) The shooter will begin in Box A. On command, the shooter will draw and engage targets T1, T2, and T3 with one round, each.
 - (c) After engaging target T3 with 1 round, the shooter will move to Box B.
 - (d) At Box B, the shooter will assume a kneeling position and engage targets T4, T5, and T6 with one round, each and conduct a speed reload while moving to Position C.
 - (e) After moving to Position C, the shooter will engage targets T7, T8, and T9 with one round, each.
 - (f) This course will be fired twice by each shooter.
 - (g) After the completion of the course of fire, the shooter will make the firearm safe.
- (4) Options. This course may be run during low-light conditions. For the type of firearm, the use of site-specific protective equipment (i.e., respirator or body armor) will be at the discretion of the instructor.
- (5) Scoring.
- (a) If the DOE-15 target is used, hits inside the inner ring are 5 points, the middle ring are 4 points, and the outer ring 3 points.
 - (b) If the NRA B-27 target is used, hits inside the 8 ring are 5 points, hits inside the 7 ring are 4 points, and hits on the silhouette outside the 7 ring are 3 points.
 - (c) If the IPSC target is used, hits inside the A zone are 5 points, hits inside the C zone are 4 points, and hits in the B or D zones are 3 points.
 - (d) Maximum rounds: 18
 - (e) Maximum score: 90
 - (f) Minimum score: 70 percent = 63; 80 percent = 72
 - (g) Maximum time: 25 seconds
- o. Course Number 15.
- (1) Objective. This course is designed to evaluate and test the shooter's ability to engage a moving target.

- (2) Safety. Safety precautions pertaining to this course of fire will be in accordance with site-specific firearms safety procedures.
- (3) Course Description.
 - (a) The shooter will load and holster the handgun.
 - (b) The shooter will begin in Box A.
 - (c) The shooter will be instructed that when the target begins to move left or right, he or she will draw the firearm and engage the target, firing a minimum of two rounds. The shooter will holster when the target is no longer visible.
 - (d) Each shooter will fire this course three times.
 - (e) After firing six rounds, the shooter will make the firearm safe.
 - (f) The target must not be exposed for more than 6 seconds.
- (4) Options. This course may be run during dim-light and dark-light conditions. The type of firearm and the use of site-specific protective equipment (i.e., respirator or body armor) will be at the discretion of the range master.
- (5) Scoring.
 - (a) If the DOE-15 target is used, hits in the inner ring count 5 points, middle ring 4 points and outer ring 3 points.
 - (b) If the NRA B-27 target is used, hits in the 8 ring and in count 5 points, inside the 7 ring 4 points, and hits on the silhouette outside the 7 ring count 3 points.
 - (c) If the IPSC target is used, hits inside the A zone count 5 points, hits in the C zone count 4 points, hits in B or D zone count 3 points.
 - (d) Maximum rounds: 6
 - (e) Maximum score: 30 points
 - (f) Minimum score: 70 percent = 21; 80 percent = 24
 - (g) Maximum time: 6 seconds per iteration

- (1) Objective. This course is designed to evaluate and test the shooter's ability to transition to an alternate firearm.
- (2) Safety. Safety precautions pertaining to this course of fire will be in accordance with site-specific firearms safety procedures.
- (3) Course Description.
 - (a) The shooter will make ready for live-fire training with a handgun and duty long gun. The duty long gun will be in the half-load configuration with a four-round magazine.
 - (b) On command, the shooter will engage targets T1 and T2 with the long gun with two rounds, each.
 - (c) The shooter will attempt to engage target T3 with the long gun, which should be empty. The shooter should identify the malfunction and transition to the handgun, engaging target T3 with the standard defensive response, followed by a failure drill.
 - (d) After engaging target T3, the shooter will make the firearms safe.
- (4) Options. This course may be run during dim-light conditions. The type of firearm and the use of site-specific protective equipment (i.e., respirator or body armor) will be at the discretion of the range master.
- (5) Scoring.
 - (a) If the DOE-15 target is used, hits inside the inner ring are 5 points, the middle ring are 4 points, and the outer ring are 3 points.
 - (b) If the NRA B-27 target is used, hits inside the 8 ring are 5 points, hits inside the 7 ring are 4 points, and hits on the silhouette outside the 7 ring are 3 points.
 - (c) If the IPSC target is used, hits inside the A zone are 5 points, hits inside the C zone are 4 points, and hits inside the B or D zones are 3 points.
 - (d) Maximum rounds: 7
 - (e) Maximum score: 35
 - (f) Minimum score: 70 percent = 22; 80 percent = 28
 - (g) Maximum time: 22 seconds

q. Course Number 17.

- (1) Objective. This course is designed to evaluate and test the shooter's ability to properly identify and engage targets in dark-light conditions using proper flashlight techniques.
- (2) Safety. Safety precautions pertaining to this course of fire will be in accordance with site-specific firearms safety procedures.
- (3) Course Description.
 - (a) The shooter will load the firearm with a duty load and assume a flashlight low-ready position.
 - (b) On command, the shooter will start in Box A, turn on the flashlight, and identify and engage target T1 with two rounds. Doors may be used in line or as shown.
 - (c) Shooter will then move to Position B, in flashlight low-ready. Once in Position B, the shooter will identify and engage targets T2 and T3 with two rounds, each.
 - (d) After firing, the shooter will make the firearm safe.
- (4) Options. This course may be run during dark-light conditions. The type of firearm and the use of site-specific protective equipment (i.e., respirator or body armor) will be at the discretion of the range master.
- (5) Scoring.
 - (a) If the DOE-15 target is used, hits inside the inner ring are 5 points, the middle ring are 4 points, and the outer ring are 3 points.
 - (b) If the NRA B-27 target is used, hits inside the 8 ring are 5 points, inside the 7 ring are 4 points, and hits on the silhouette outside the 7 ring are 3 points.
 - (c) If the IPSC target is used, hits inside the A zone are 5 points, hits inside the C zone are 4 points, and hits inside the B or D zones are 3 points.
 - (d) Maximum rounds: 6
 - (e) Maximum score: 30
 - (f) Minimum score: 70 percent = 21; 80 percent = 24

(g) Maximum time: 20 seconds

r. Course Number 18.

- (1) Objective. This course is designed to evaluate and test the shooter's ability to safely deploy from a vehicle; fire from the kneeling, prone, and standing firing positions; properly utilize cover and concealment; react to a firearms malfunction; and transition from long gun to handgun.
- (2) Safety. Safety precautions pertaining to this course of fire will be in accordance with site-specific firearms safety procedures.
- (3) Course Description.
 - (a) The shooter will load and holster the handgun. The shooter will then half load a long gun with an eight-round magazine.
 - (b) The shooter will begin seated in a vehicle with the long gun in the rack or in the normal duty transport position. Both hands will be on the steering wheel with the door shut.
 - (c) On command, the shooter will exit the vehicle. Using the vehicle as cover, the shooter will engage targets T1 and T2, with 2 rounds each from 50 yards.
 - (d) After engaging targets T1 and T2, the shooter will move to Position B, assume a prone firing position and engage target T3 with two rounds.
 - (e) The shooter will then move to Position C and engage target T4 with two rounds from the kneeling position.
 - (f) After engaging target T4, the long gun should be empty. The shooter will move to Position D and attempt to engage target T5. The shooter should identify the malfunction and transition to the handgun (they may sling or ground the long gun). The shooter will then engage targets T5 and T6 with the standard defensive response followed by a failure drill.
 - (g) After completion of the course, the shooter will make the firearms safe.
- (4) Options. This course may be run during dim-light conditions. The type of firearm and the use of site-specific protective equipment (i.e., respirator or body armor) will be at the discretion of the range master.

(5) Scoring.

- (a) If the DOE-15 target is used, hits inside the inner ring are 5 points, the middle ring are 4 points, and the outer ring are 3 points.
- (b) If the NRA B-27 target is used, hits inside the 8 ring are 5 points, inside the 7 ring are 4 points, and hits on the silhouette outside the 7 ring are 3 points.
- (c) If the IPSC target is used, hits inside the A zone are 5 points, hits inside the C zone are 4 points, and hits inside the B or D zones are 3 points.
- (d) Maximum rounds: 14
- (e) Maximum score: 70
- (f) Minimum score: 70 percent = 49; 80 percent = 56
- (g) Maximum time: 75 seconds

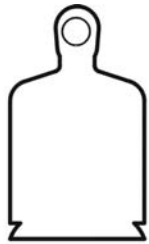
s. Course Number 19.

- (1) Objective. This course is designed to evaluate and test the shooter's ability to reload, transition from long gun to handgun, and shoot from both the left and right barricade positions.
- (2) Safety. Safety precautions pertaining to this course of fire will be in accordance with site-specific firearms safety procedures.
- (3) Course Description.
 - (a) The shooter will load and holster the handgun, half load a long gun, and make ready for live fire.
 - (b) The shooter will begin seated at a table. The long gun will be in a rack.
 - (c) On command, the shooter will rise, remove the long gun from the rack, and run 40 yards to Position A.
 - (d) At Position A, the shooter will engage targets T1, T2, and T3 with one round, each, reload, and engage targets T4 and T5 with two rounds, each.
 - (e) The shooter will then make the long gun safe, ground or sling it, and move to Position B.

- (f) At Position B, the shooter will don the respirator, draw the handgun, and engage targets T6, T7, and T8 with one round, each from the standing right-side barricade position.
 - (g) The shooter will move to left side kneeling barricade and engage target T9 with two rounds.
 - (h) The shooter will then make the firearms safe and holster the handgun.
- (4) Options. This course may be run during dim-light conditions. The type of firearm and the use of site-specific protective equipment (i.e., respirator or body armor) will be at the discretion of the range master.
- (5) Scoring.
- (a) If the DOE-15 target is used, hits inside the inner ring are 5 points, the middle ring are 4 points, and the outer ring are 3 points.
 - (b) If the NRA B-27 target is used, hits inside the 8 ring are 5 points, inside the 7 ring are 4 points, and hits on the silhouette outside the 7 ring are 3 points.
 - (c) If the IPSC target is used, hits inside the A zone are 5 points, hits inside the C zone are 4 points, and hits inside the B or D zones are 3 points.
 - (d) Maximum rounds: 12
 - (e) Maximum score: 60
 - (f) Minimum score: 70 percent = 42; 80 percent = 48
 - (g) Maximum time: 75 seconds
- t. Course Number 20.
- (1) Objective. This course is designed to evaluate and test the shooter's ability to engage shoot/no-shoot targets, perform speed reload, clear malfunctions, and carry firearms safely.
 - (2) Safety. Safety precautions pertaining to this course of fire will be in accordance with site-specific firearms safety procedures.
 - (3) Course Description.

- (a) The shooter will load and holster the handgun. He/she will then load two long gun magazines with six rounds, each, and half load a duty long gun with one of the six-round magazines.
 - (b) The shooter begins at Position A, and, on command, engages targets T1, T2, T3, T4, and T5 in any order, with one round each. Then the shooter will place one additional round on each target, reloading as necessary.
 - (c) The shooter will make the long gun safe, move to Position B, and engage targets T6, T7, T8, and T9 with one round, each, in any order. After the second round, the long gun should be empty, at which time the shooter should identify the malfunction, make the firearm safe, and either sling it or ground it. The shooter should transition to the handgun and continue the engagement by following up with one additional round on each target.
 - (d) The shooter will then come to the low-ready, move to Position C, and engage targets T10, T11, T12, and T13 with one round each, followed by one additional round per target.
 - (e) The shooter will then clear and holster a safe firearm.
- (4) Options. This course may be run during dim-light conditions. The type firearm, and the use of site-specific protective equipment (i.e., respirator or body armor) will be at the discretion of the range master.
- (5) Scoring.
- (a) If the DOE-15 target is used, hits inside the inner ring are 5 points, the middle ring are 4 points, and the outer ring are 3 points.
 - (b) If the NRA B-27 target is used, hits inside the 8 ring are 5 points, inside the 7 ring are 4 points, and hits on the silhouette outside the 7 ring are 3 points.
 - (c) If the IPSC target is used, hits inside the A zone are 5 points, hits inside the C zone are 4 points, and hits inside the B or D zones are 3 points.
 - (d) Maximum rounds: 26
 - (e) Maximum score: 130
 - (f) Minimum score: 70 percent = 91; 80 percent = 104

(g) Maximum time: 90 seconds



DOE Target 15 (other targets may be substituted)



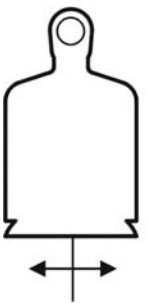
Any black filled box indicates a shooting box. Boxes may be labeled alphabetically.



No shoot target (any x indicates a No Shoot target)



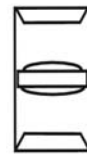
Fault Lines



Moving Target



Barricade



Vehicle



Cross Tie



Trash Can



} Black Area indicates the No Shoot area

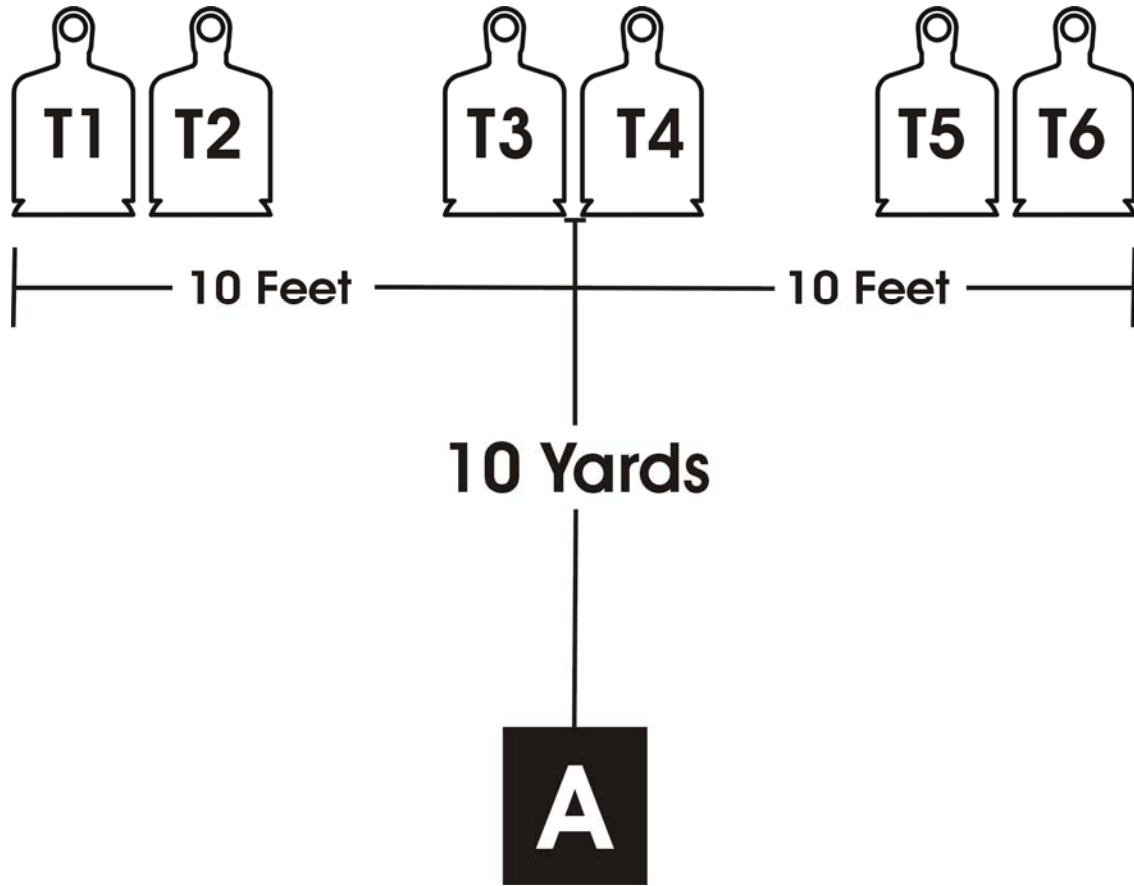


Cone

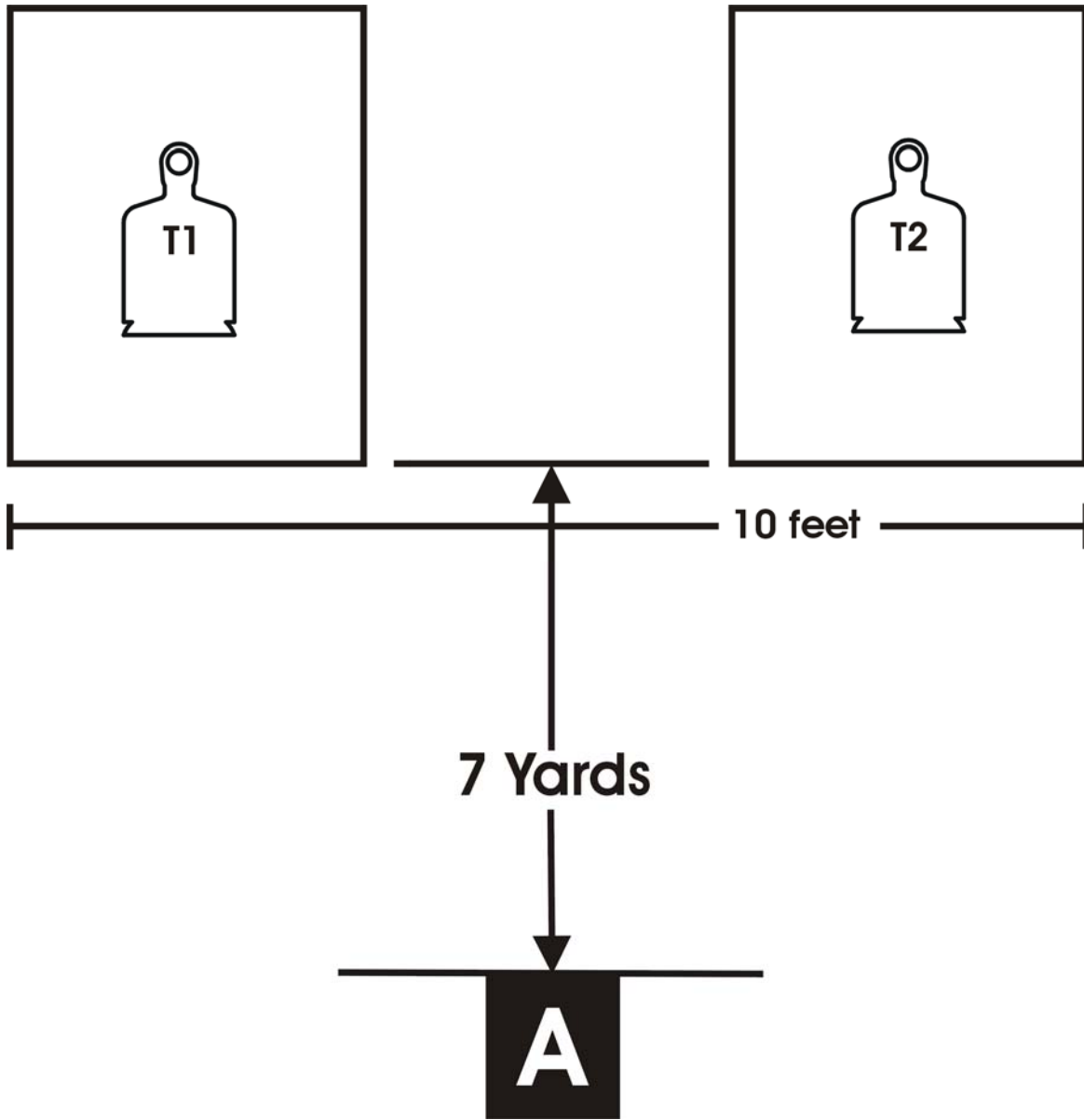


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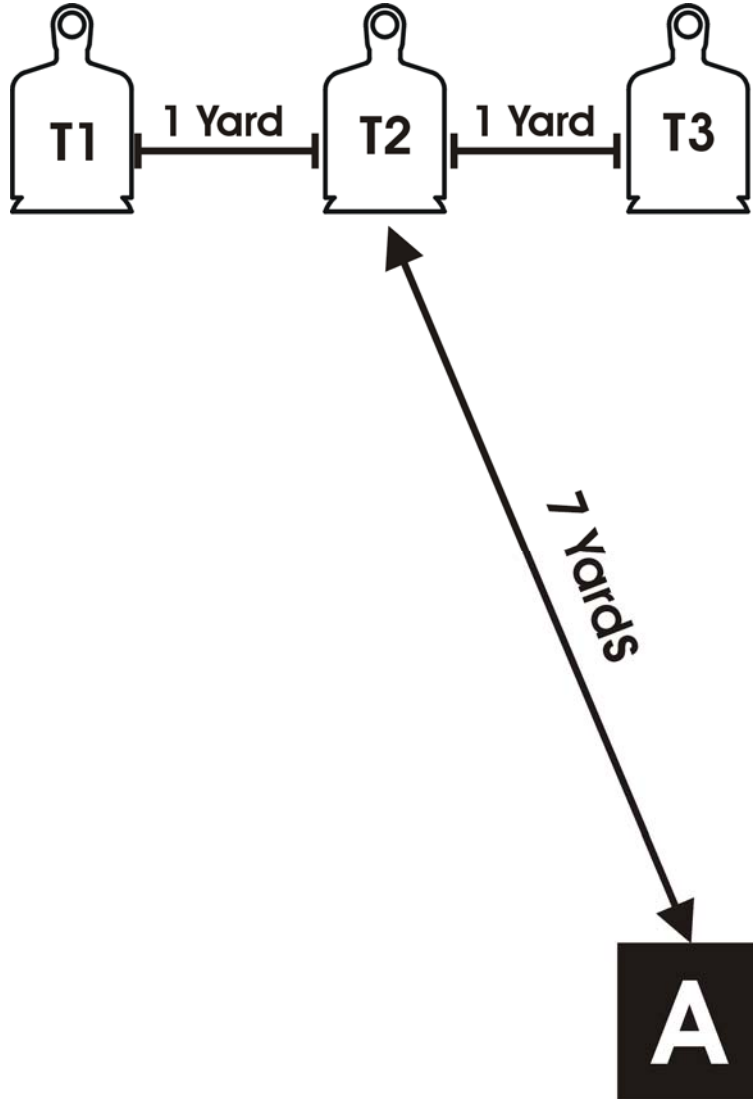
DOE Practical Shooting Courses Diagrams



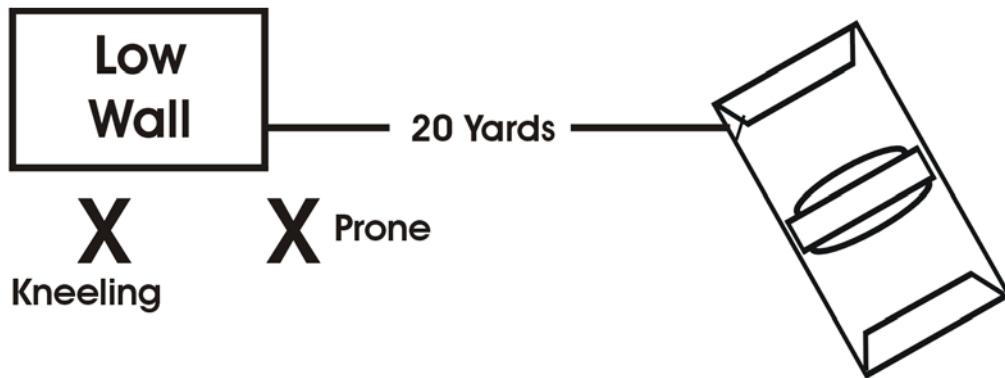
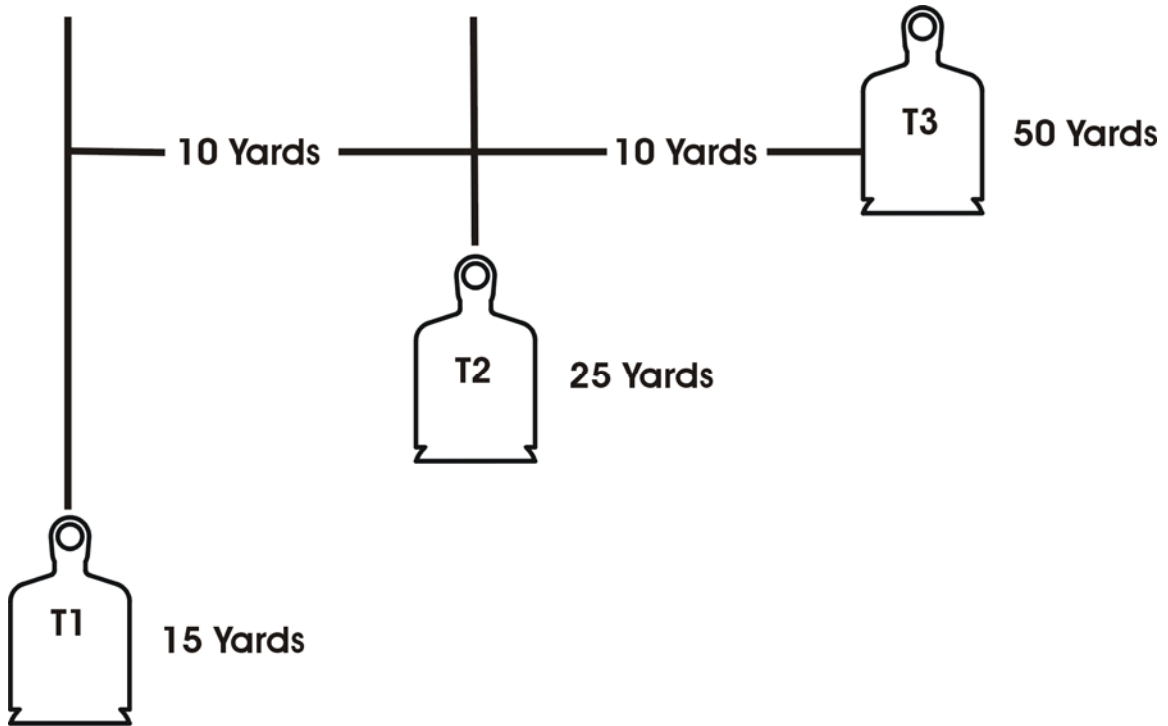
Practical Course Number 1



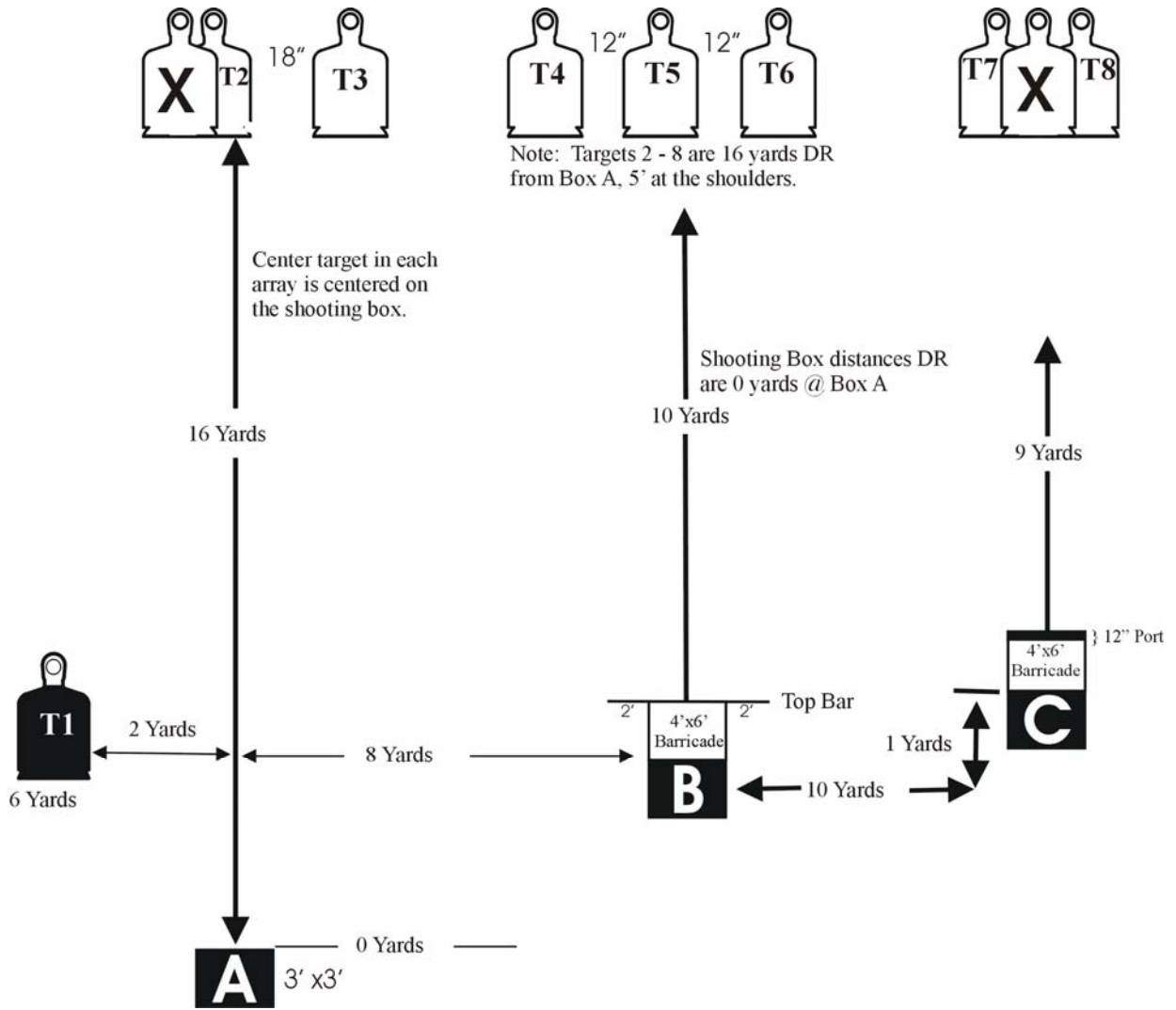
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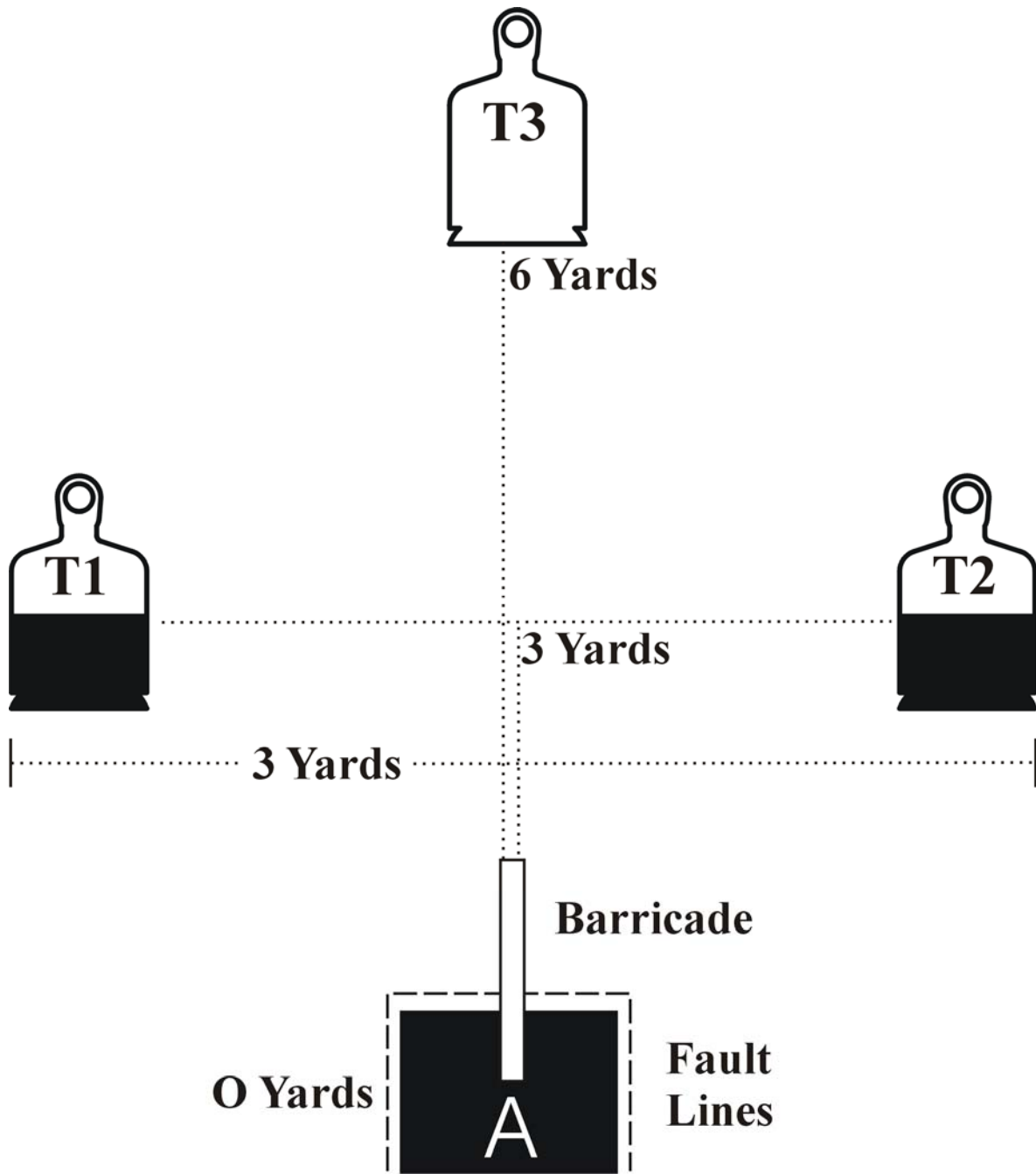
Practical Course Number 3



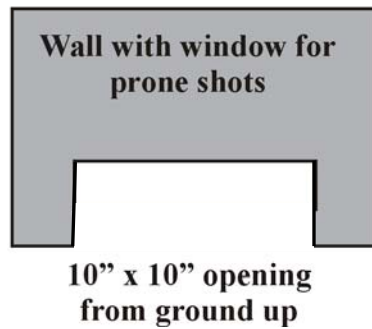
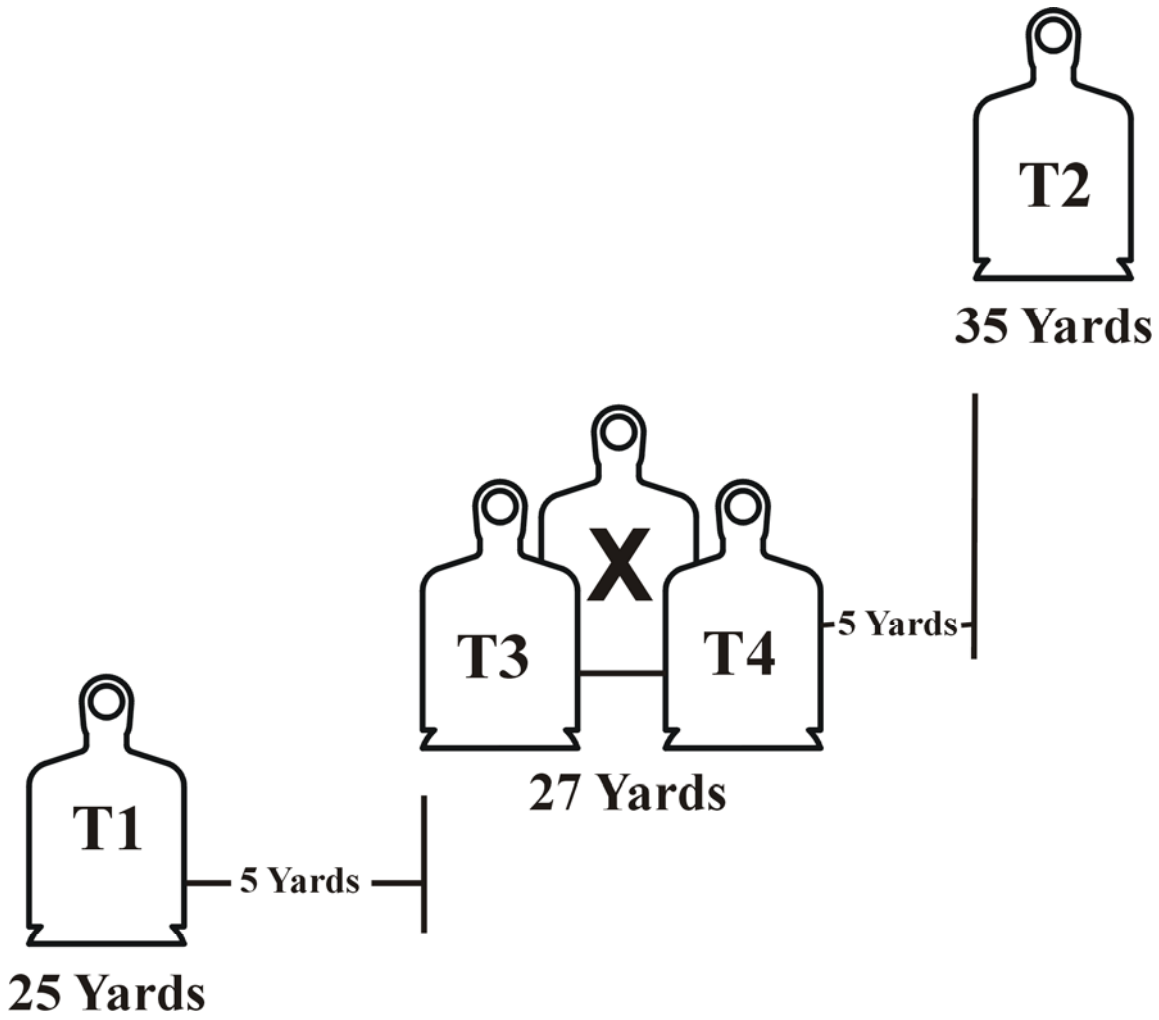
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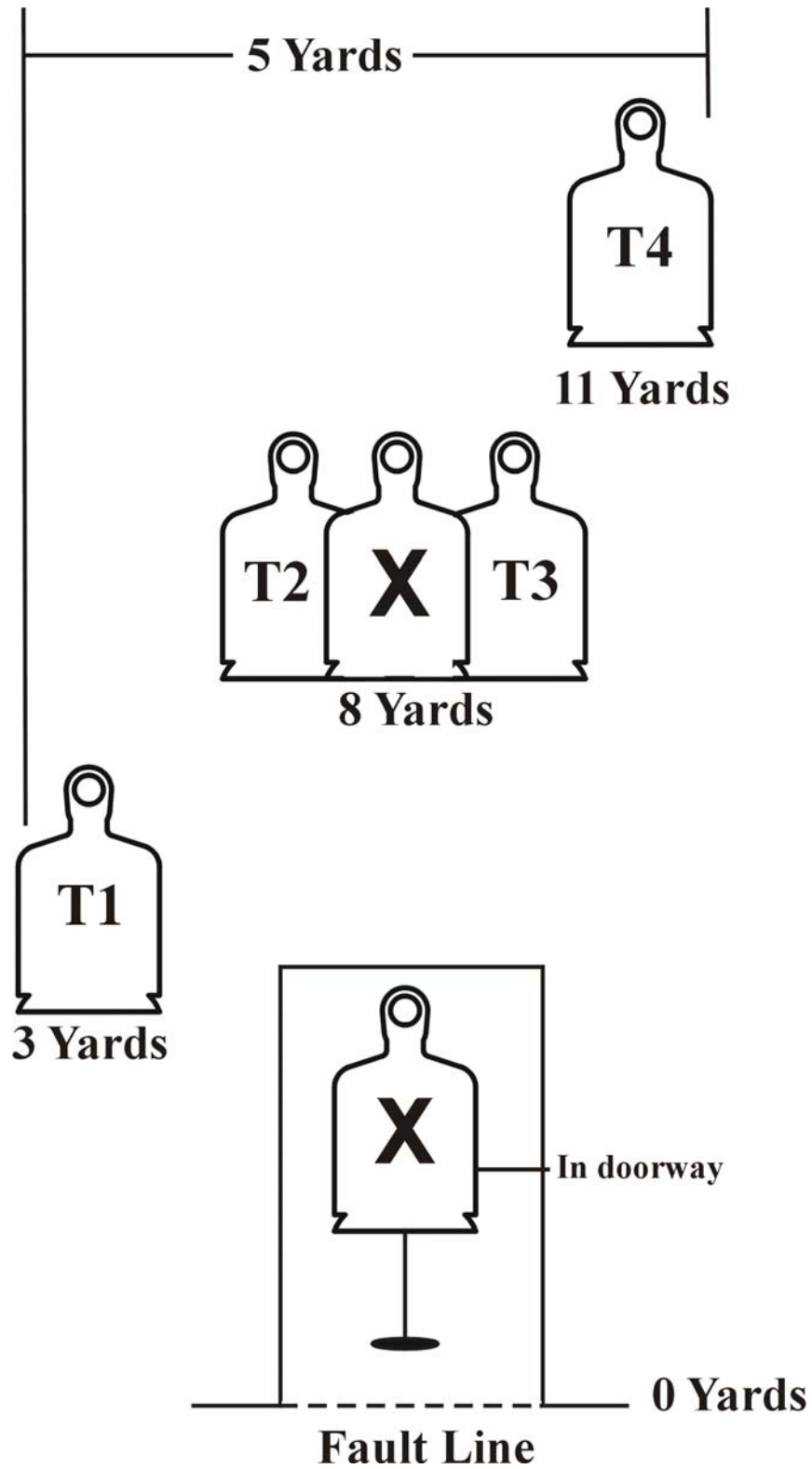
Practical Course Number 5



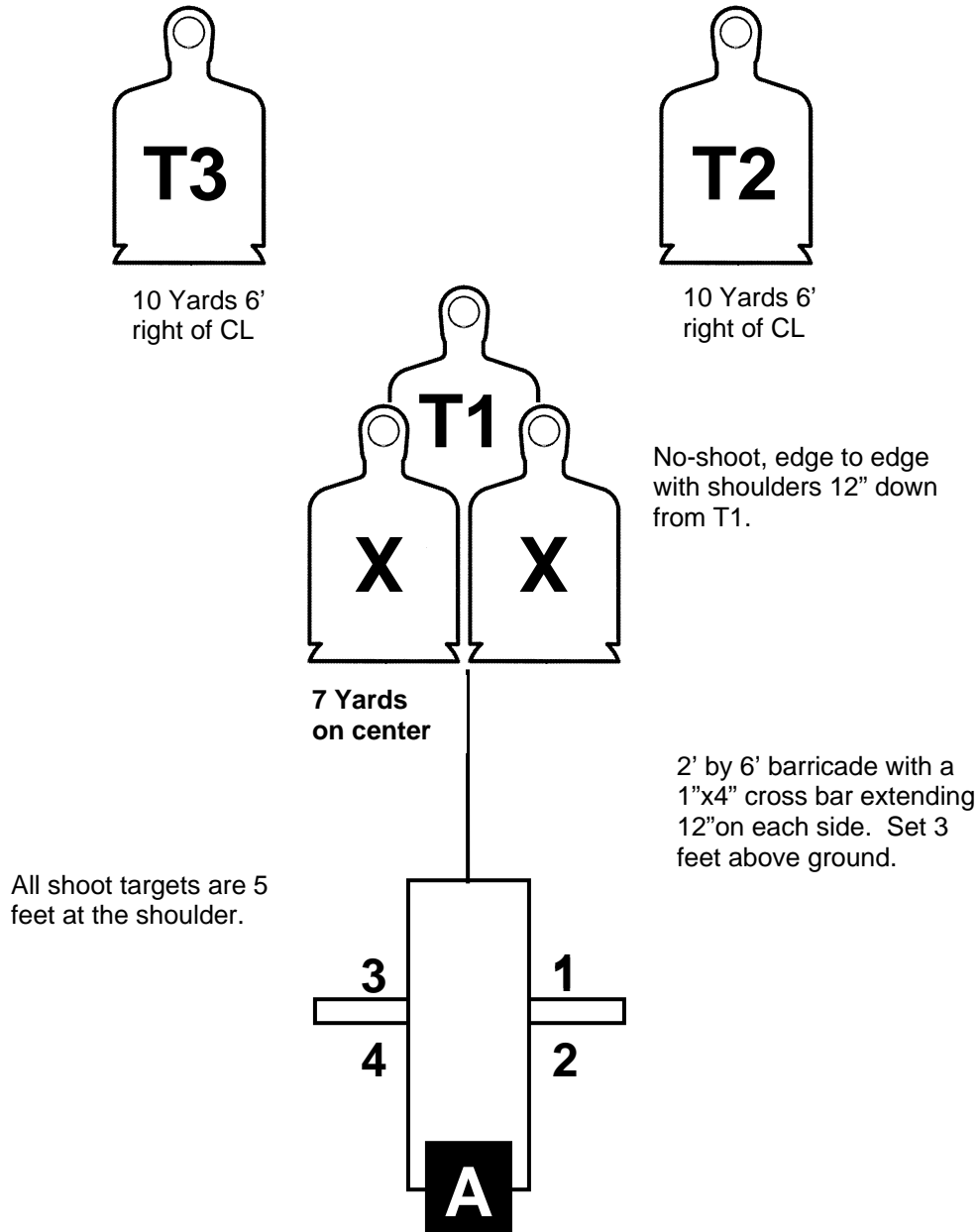
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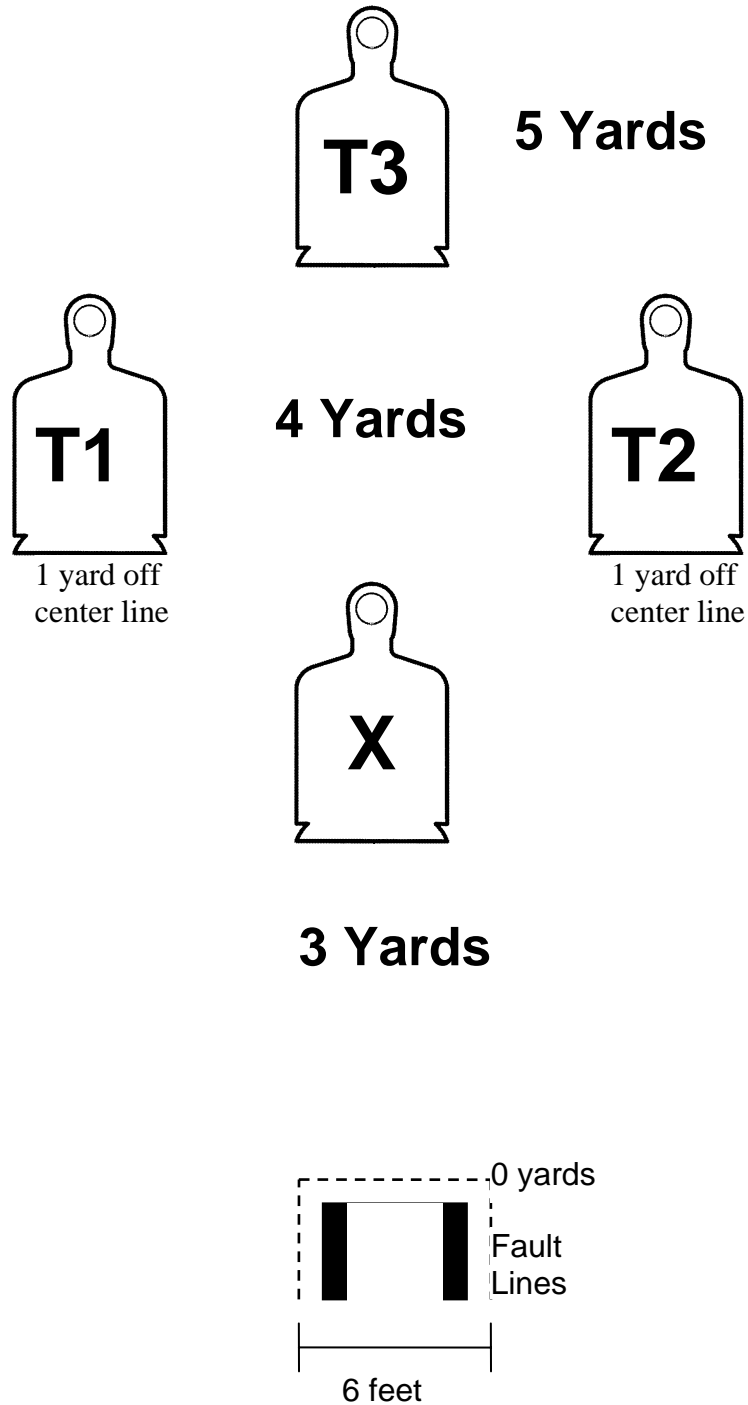
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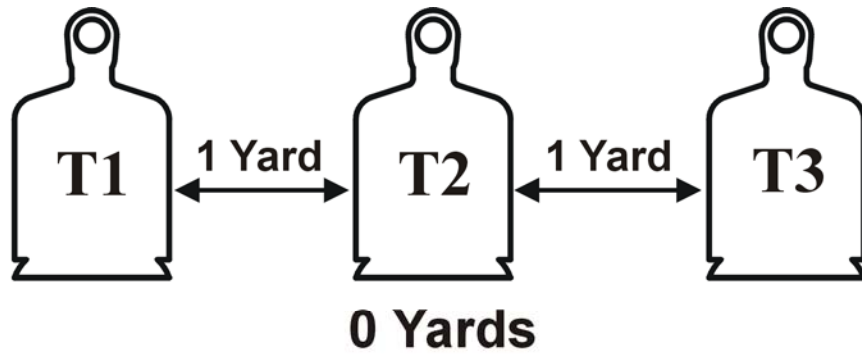
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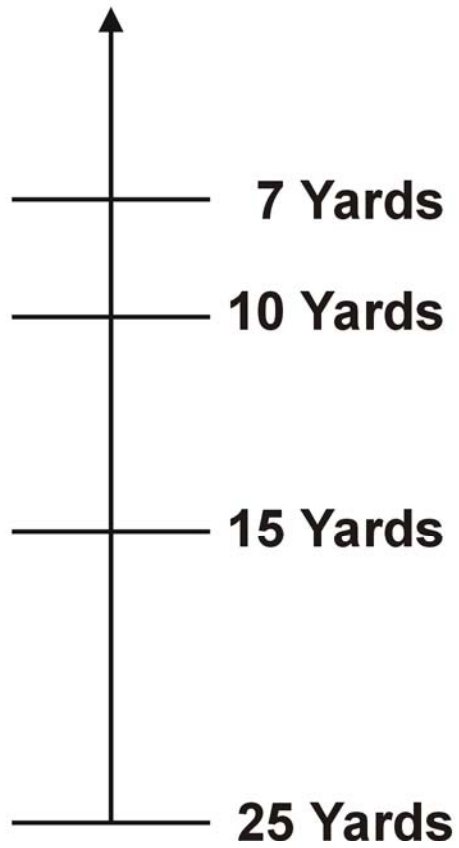
Practical Course Number 9



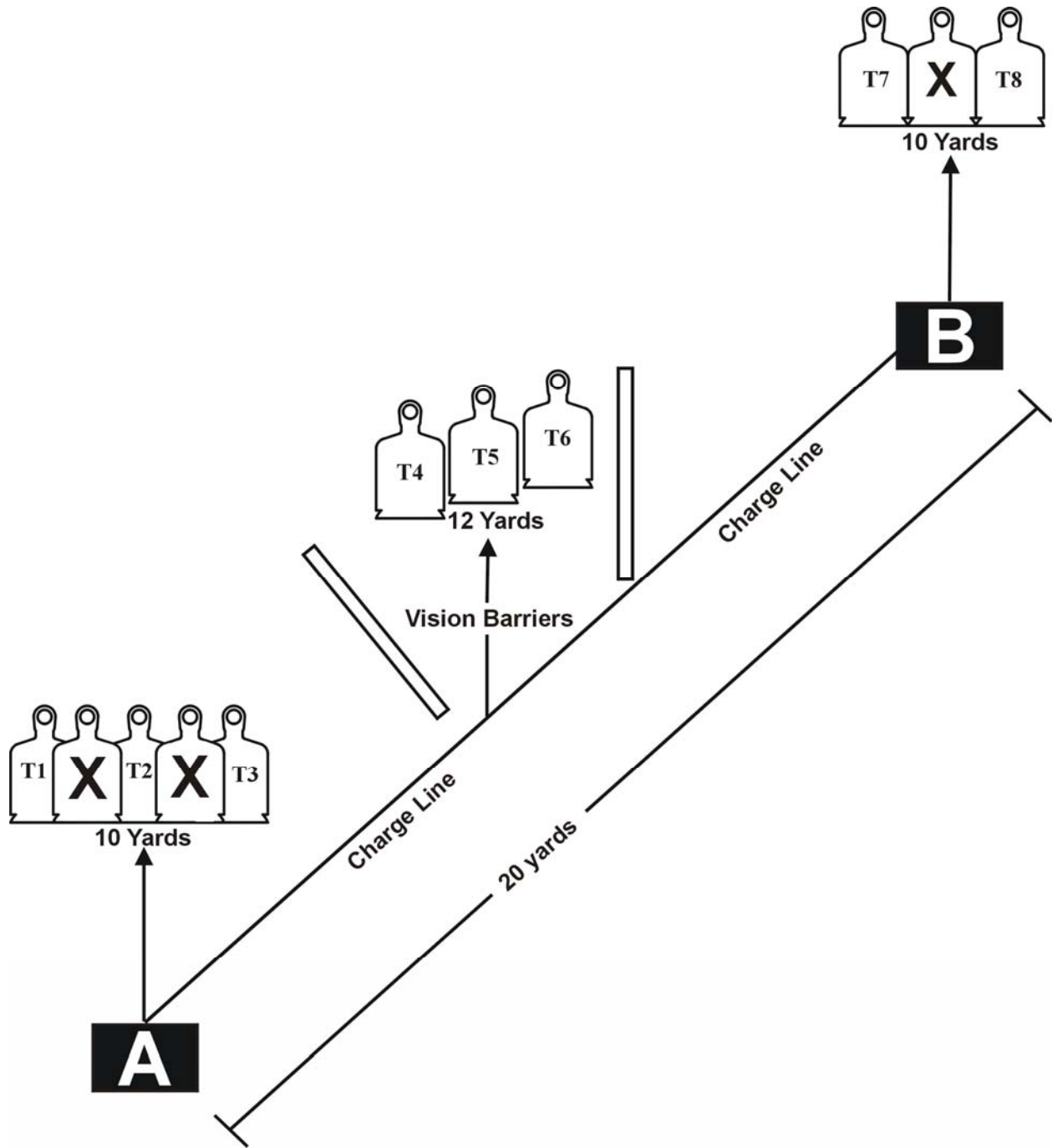
Practical Course Number 10



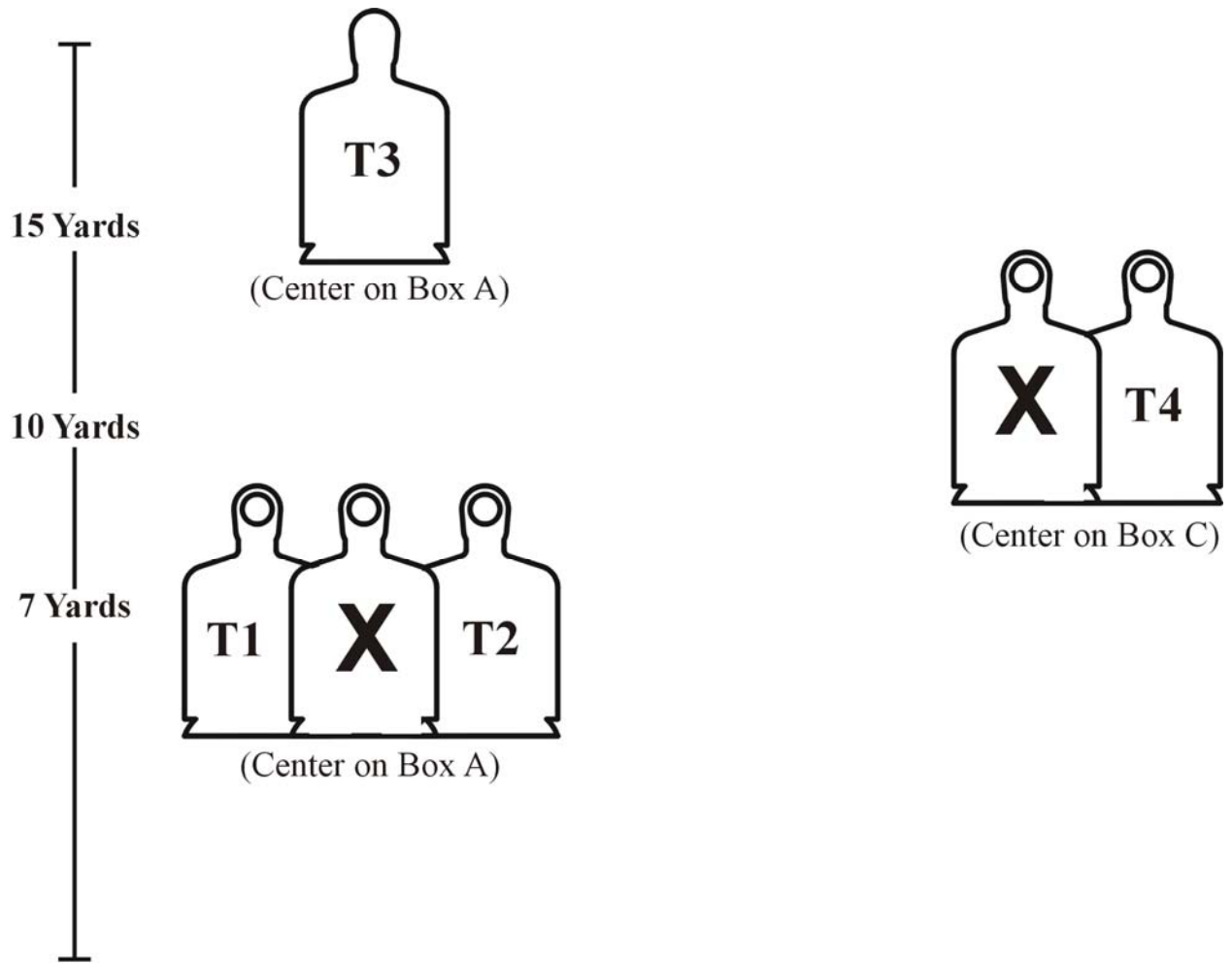
Targets are at 5' at shoulder and spaced 1 yard apart. T2 is centered on yard lines.



Practical Course Number 11

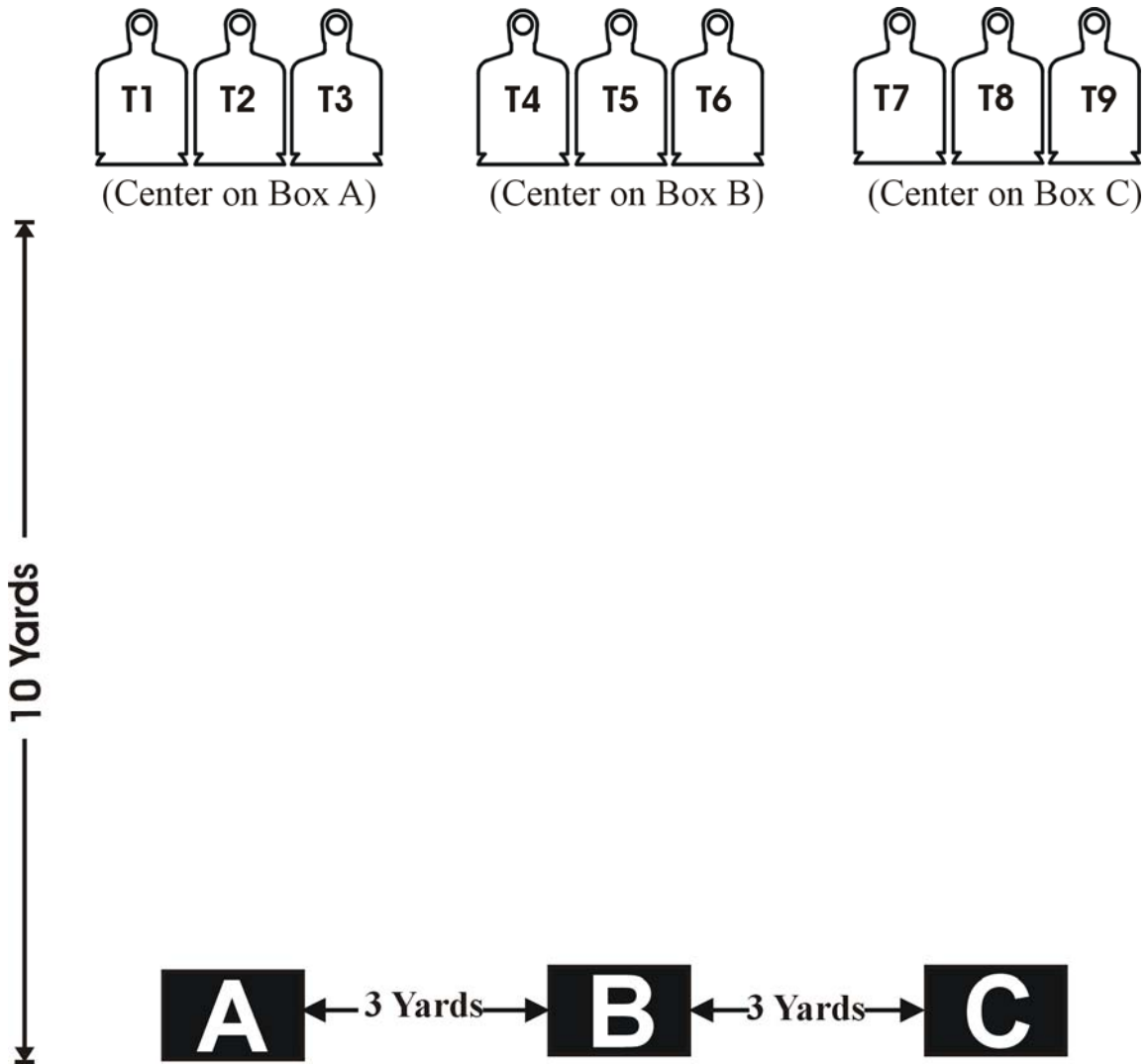


Practical Course Number 12



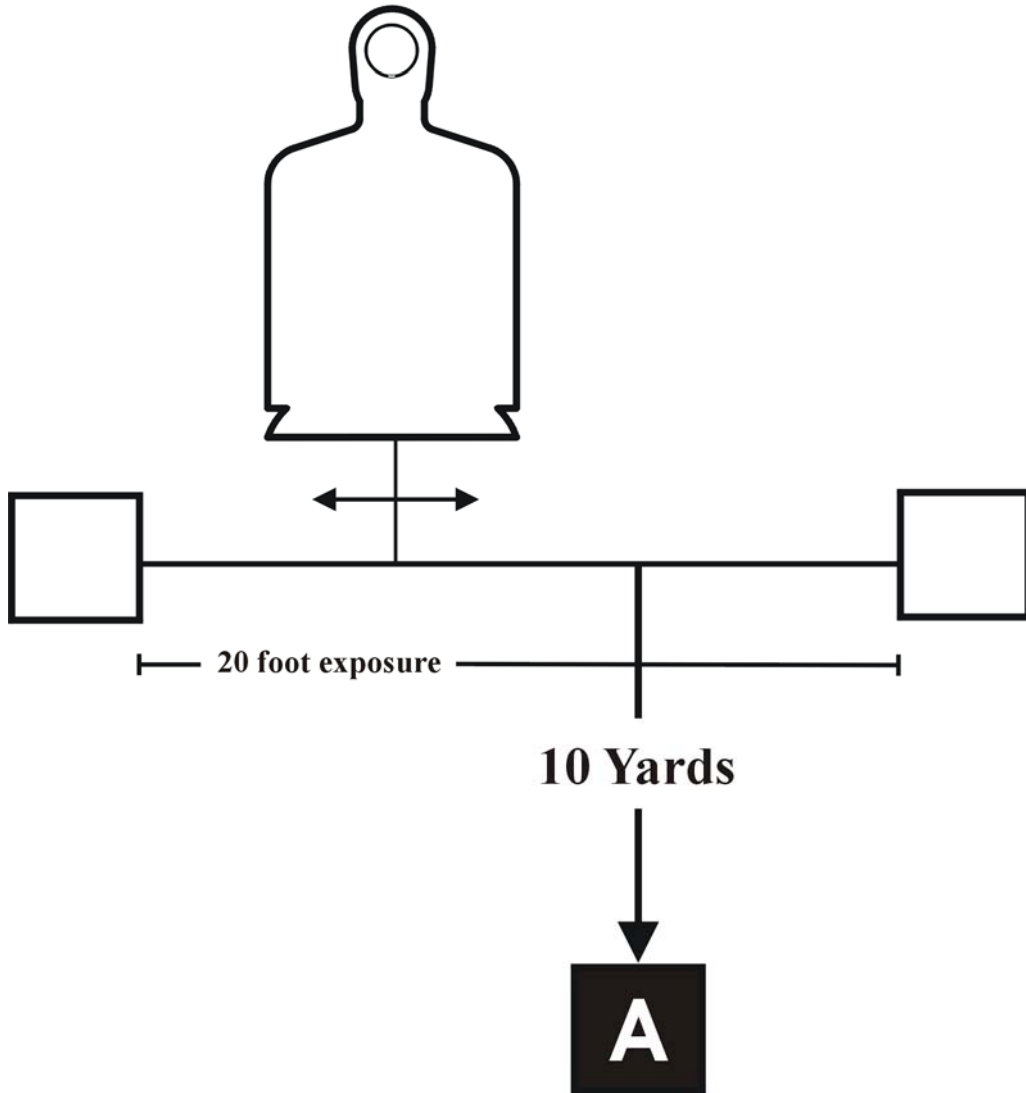
Box Size
3' x 3'

Practical Course Number 13

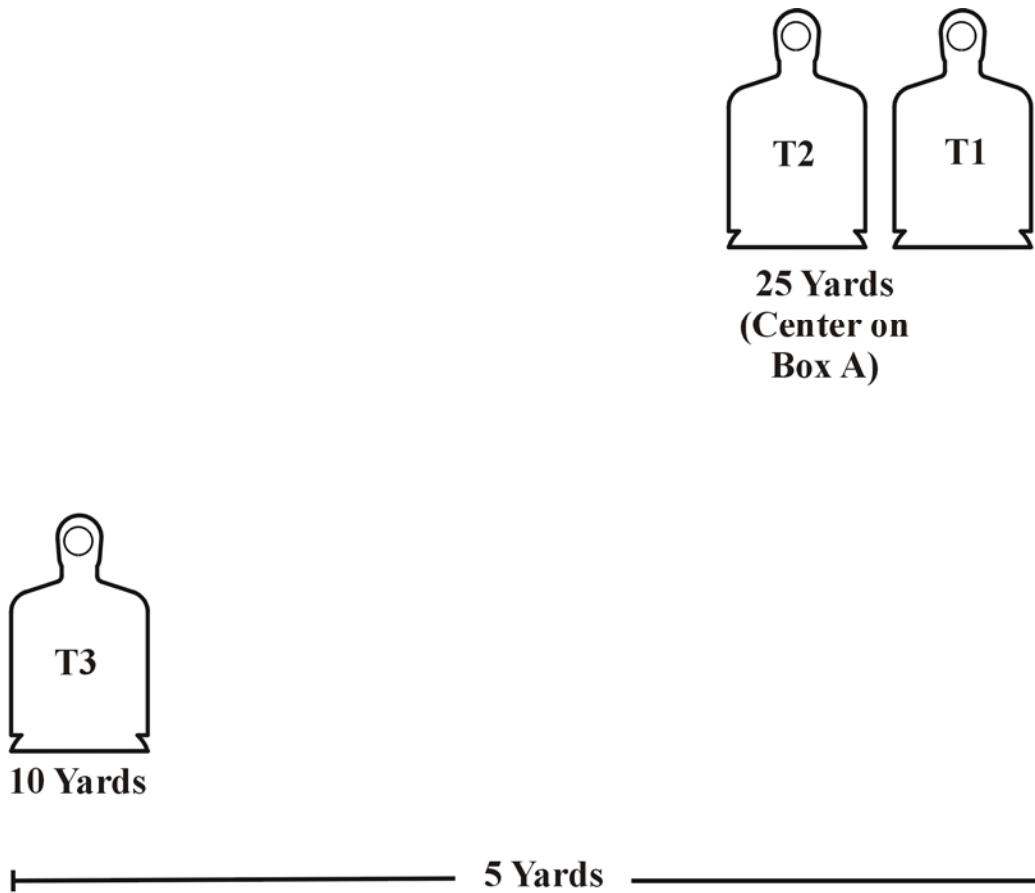


Practical Course Number 14

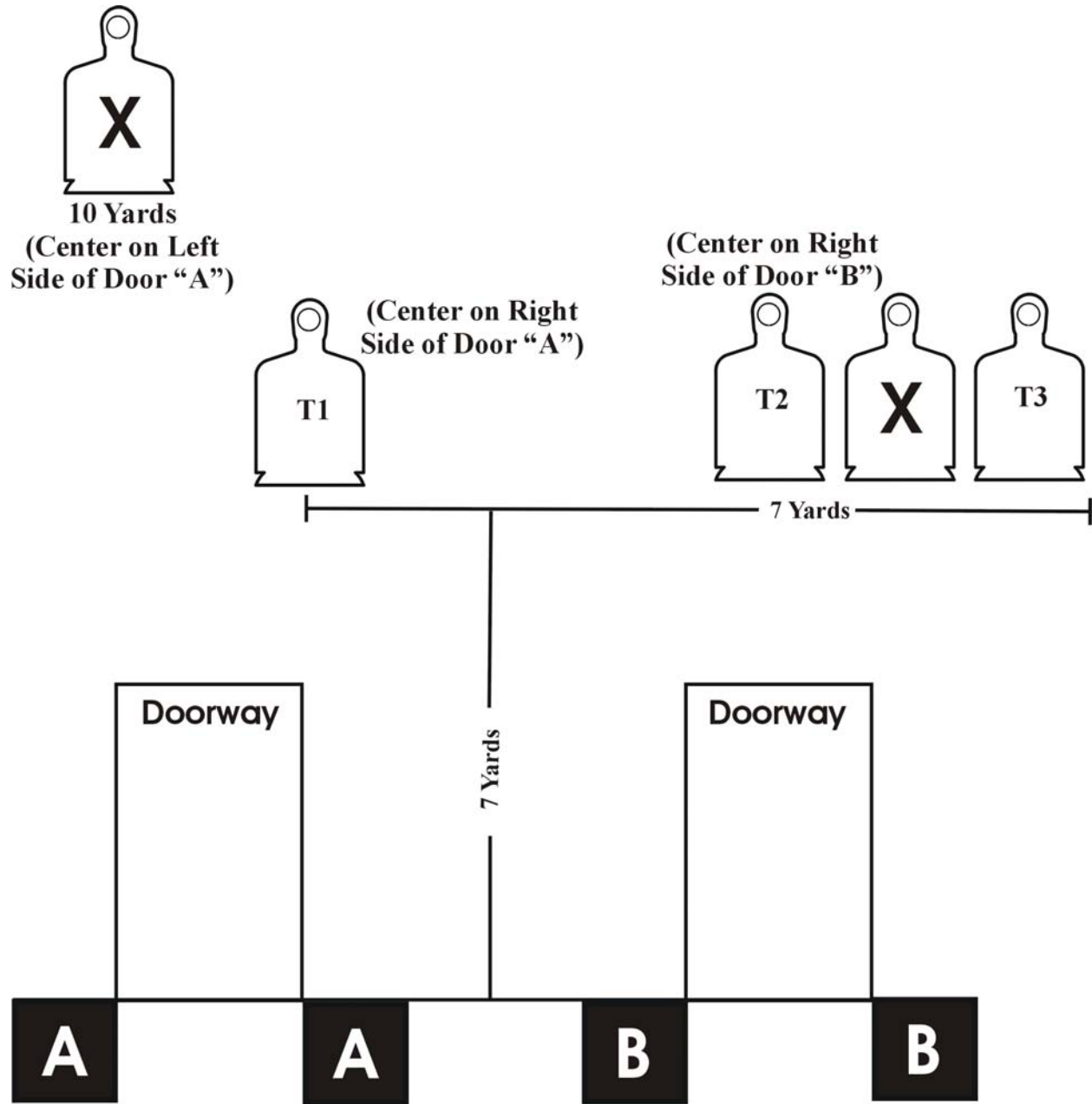
Running Man Target



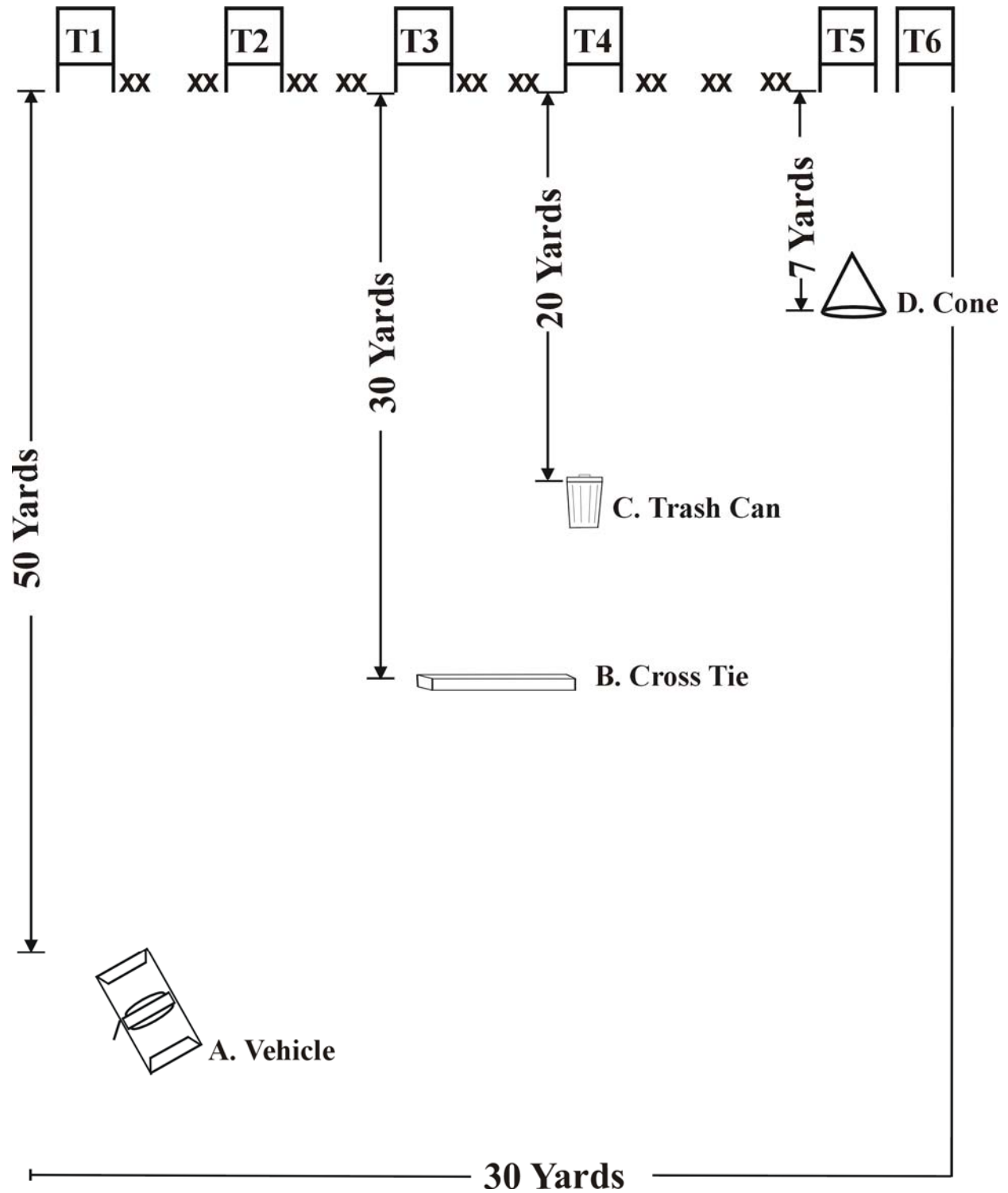
Practical Course Number 15



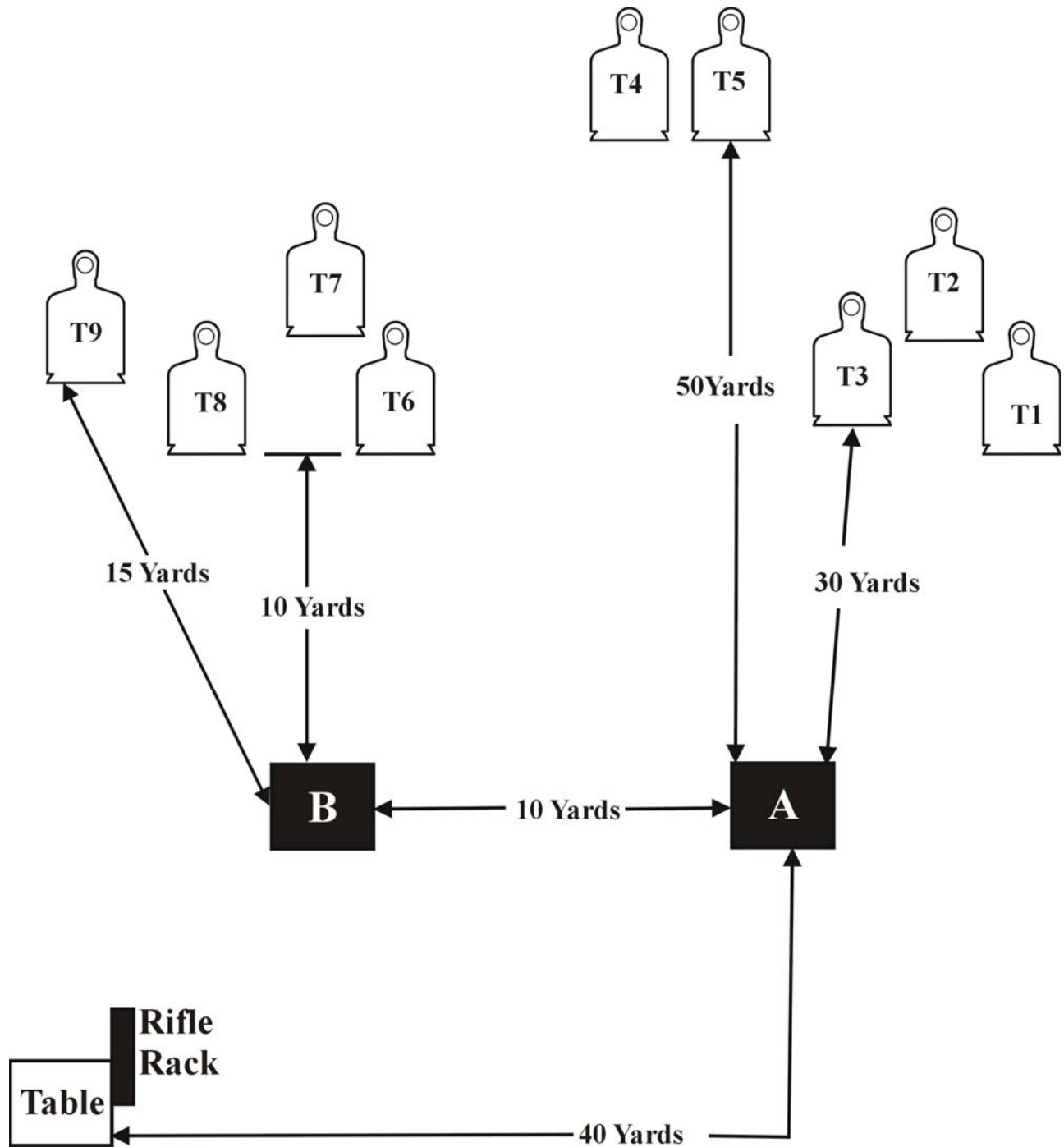
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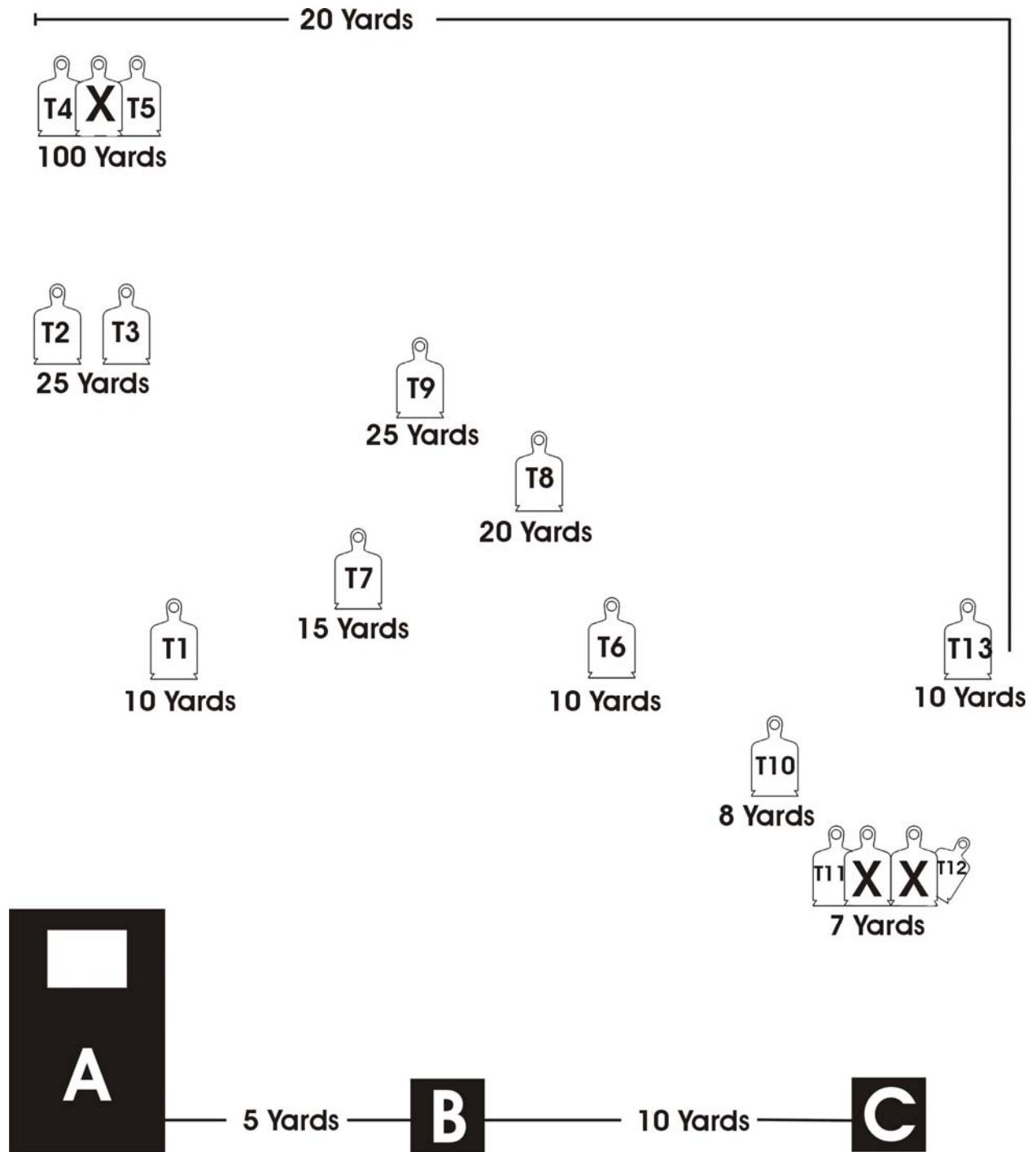
Practical Course Number 17



Practical Course Number 18



Practical Course Number 19



Practical Course Number 20

SECTION B – USE OF STEEL TARGETS

1. PURPOSE. This Section contains design criteria and deployment of steel targets on U.S. Department of Energy (DOE) live-fire ranges for use in planning new facilities and major rehabilitation of existing facilities.
2. GENERAL. The design and method of deployment of steel targets are approved by the range master. Lesson plans required for all training will include information on how to conduct the training safely by conducting a documented risk analysis of the training activity. A sample risk analysis for shooting steel targets is provided in Appendix 1 of this Section and some examples of types of steel targets are contained in Appendix 2.
 - a. Steel Target Design and Construction.
 - (1) The following fundamentals should be considered in steel target design and construction.
 - (a) Safety. Targets will be capable of withstanding direct fire and either containing the effects or directing them in a safe, predictable direction.
 - (b) Simplicity. Simple designs generally function more reliably than complex designs. Targets that rely on gravity and/or kinetic energy to function are preferable to targets powered by electricity, pneumatics, or hydraulics.
 - (c) Durability. The training environment subjects the targets to extreme weather conditions, rough handling, and repeated impacts by high-energy projectiles. The design and construction of the steel target should maximize reliable functioning under all normal operating conditions.
 - (2) Steel Target Hazards and Precautions.
 - (a) Instructors or range personnel at the firing line should position themselves directly behind the shooter or in such a manner to be able to observe and control the shooter safely.
 - (b) The shooter must shoot as straight “downrange” as is practical, because shooting steel at an angle increases the danger of ricochets and directs the fragments primarily in one direction.
 - (c) A minimum of 4 inches of material should be placed at the base of all steel targets to absorb fragments and to prevent ricocheting towards the shooter.

- (d) Safe use of steel targets also requires studying the angles and fabrication concepts of the structural supports for the target and ensuring that projectile fragments and/or ricochets will be safely directed away from the firing line.
 - (e) Steel targets will be checked for function and condition before and after a qualification/training activity or at any time damage is suspected.
 - (f) Firearms instructors continuously observe the results of firing on steel targets, particularly checking for any splatter back to the firing line area or any other areas used by personnel. If splatter is observed, firing will be halted immediately and the cause corrected before firing is resumed.
- (3) The following guidelines will be used to select the appropriate steel for target surfaces.
- (a) Steel plate with a minimum of 200 Brinell Hardness (BHN) is intended for light handgun cartridge use. Only all-lead light target ammunition for calibers .22 through .38 may be fired at 200 BHN steel.
 - (b) NOTE: High-velocity service ammunition should not be used on 200 BHN steel.
 - (c) Steel plate with a minimum of 400 BHN is intended for heavy use from handguns and shotguns firing duty or training ammunition.
 - (d) NOTE: Shotgun slugs or rifle ammunition should not be used on 400 BHN steel.
 - (e) Steel plate with a minimum of 500 BHN is intended for heavy use from handguns, shotguns, and rifles firing duty or training ammunition.
 - (f) NOTE: Steel plate with more than 540 BHN is too brittle to be suitable for use as steel targets.
 - (g) NOTE: Armor-piercing ammunition must not be used on any type of steel plate or target regardless of the steel's hardness unless that target has been relegated to long-range use in accordance with an approved risk analysis.

- (4) The ballistic properties of the weapon system (the firearm and the ammunition) must be thoroughly understood and considered, coupled with the training objective, when determining the appropriateness of steel plate.

b. Structural Supports for Steel Targets.

- (1) Support structures should be located where they are not likely to be struck by projectiles or splatter, be designed to direct ricochets or splatter downrange, or be protected by deflectors that direct ricochets or splatter downrange. Structural supports must be shielded by a material (i.e., sandbags) capable of absorbing direct fire and splatter.
- (2) Steel targets and their structural support systems may tilt toward or away from the firing line directing the splatter into the ground near the target or downrange away from the firing line.

c. Target Condition.

- (1) Steel targets will be examined for deterioration (i.e., dimpling or cratering; concave or convex warping; cracks, joints and/or holes in the target surface) prior to and after every use and at any time during use that damage is suspected.
- (2) A deteriorated target should be removed from use or relegated to long-range use that has been approved through a risk analysis.
- (3) Steel targets used for close-range work that have one dimple or crater must be regarded as a hazard. Targets that contain dimples larger than 1/16 inch in depth should be removed from use. They can be repaired by using the proper techniques.
- (4) Concave Bowing.
 - (a) Targets that bow more than 10 degrees should not be used. Instructors may use the following calculation to determine target bow. A straight edge is placed on the face of a steel target ensuring contact at the top and bottom of the target. The point on the target face that affords the maximum air space bowing away from the straight edge is determined, and this distance is then measured. The formula to determine the maximum allowable depth of the bow for any specific length is: half the length of bowed portion of target x tangent 10 degrees = allowable depth. (Tangent 10 degrees = .17632). See Figures 1 and 2 for an illustration of the measurement procedure.

- (b) The target should not be used if the space between the straight edge and the face of the target exceeds the following examples:

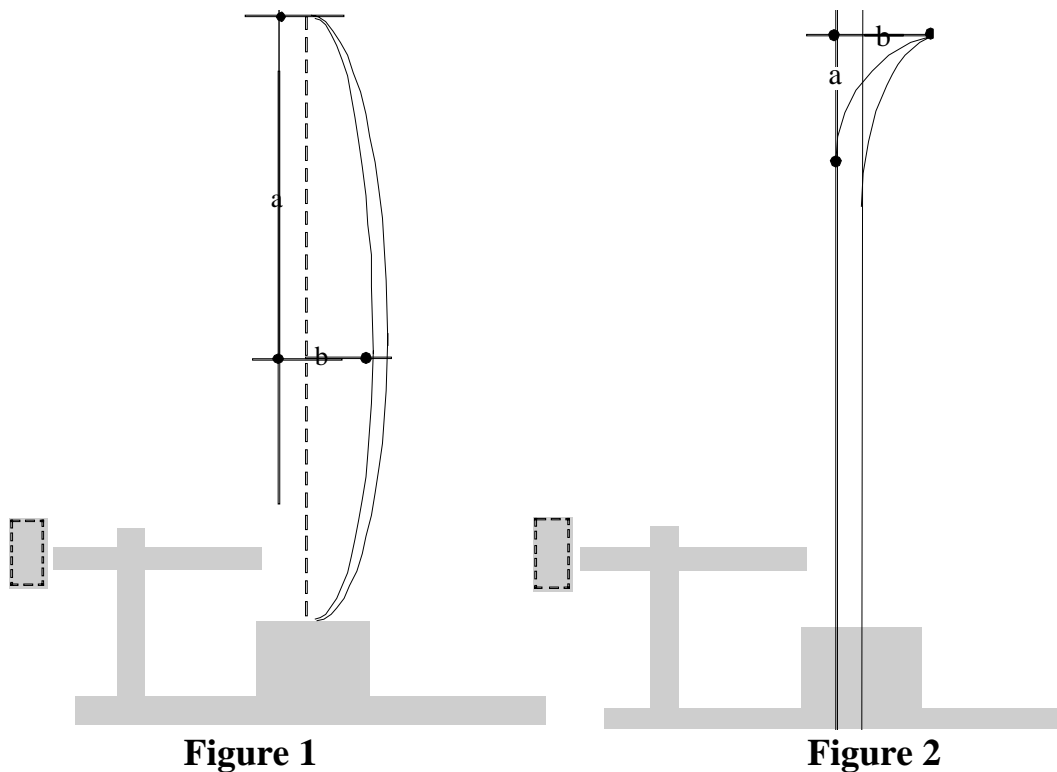
TARGET HEIGHT (inches)	TARGET BOW (inches)
20	1.7
38	2.9
42	3.7

A target that has less than a 10 degree bow may be reversed 180 degrees to the shooter and retained for use. Targets that bow 10 degrees or more will be removed from service.

- (5) Cracks, Joints, or Welds.
 - (a) Some steel targets are designed with target elements that move independently of the main target (i.e., “flip-away” areas). If a hinge or joint is exposed, a target will be evaluated carefully to determine potential splatter zones. They should be monitored closely to ensure that fragments are not reaching the firing line and may require minimum shooter-to-target distances greater than other targets.
 - (b) Hardened steel plate requires special welding techniques to attach brackets, hinges, and pivot points. Such attachment points will be protected by shields, sandbags, or other means and designed to minimize splatter.

3. TARGET PLACEMENT.

- a. Distance of the participants and bystanders from the target. An observer area, if required, will be established in a safe area on the range. All movement by personnel on the firing range should be monitored strictly by instructors. The following minimum shooter-to-steel target distances will be used.
 - (1) 7 yards for handgun caliber firearms and shotguns firing shot (see Appendix 3, Figures 1 and 5 of this Section).
 - (2) 50 yards for shotguns firing slugs or rifles firing service ammunition (see Appendix 3, Figure 4 of this Section).
 - (3) Shooter-to-steel target distances for frangible ammunition will be established in consideration of the manufacturer’s recommendation.



The formula to use to determine the maximum allowable depth of a target that is completely bowed is:

half the length of the target (a) x the tangent of 10 degrees = allowable bow (b).

The formula to use to determine the maximum allowable depth of the bow for any specific length of the bowed portion is:

length of bowed portion of target (a) x tangent of 10 degrees = allowable bow (b).

- b. Location of participants and bystanders relative to the target. Participants, observers, and bystanders will be located outside the splatter zone(s). Appendix 3, Figures 2, 4, and 5 of this Section indicate maximum distances participants, observers, and bystanders could be on either side of the gun-to-target line. These maximums are calculated based on the angle of the splatter and the minimum allowed distance to the target. To minimize the likelihood of injury, all personnel on the range should be behind the shooter(s) and as close to the gun-to-target line(s) as practicable.
- c. Distance and angle of multiple targets relative to each other. When using multiple targets, each target will be placed outside the splatter zone of every other target, positioned to prevent splatter, or shielded to prevent secondary splatter (see Appendix 3, Figures 2 and 3 of this Section). Instructors will review the course of fire for any potential signs of splatter hazards that will require increased shooter distances. Instructors must ensure physical controls are in place for identified hazards. One option is to place barricades (usually wood) between the targets.

- d. The ability of the targets to move on projectile impact. When using targets that move or that may be struck by follow-up shots, instructors should ensure that the angle does not change in a direction that causes the splatter to come back up range or ricochet toward other occupied areas.
4. PERSONAL PROTECTIVE EQUIPMENT (PPE). Additional PPE should be required for all personnel when firing on steel targets. Hats with brims should be worn in addition to approved eye and hearing protection unless wearing approved goggles or night vision goggles and/or tactical helmets.

APPENDIX 1. SAMPLE OF HAZARDS REVIEW

NOTE: THIS ANALYSIS ONLY ADDRESSES HAZARDS ASSOCIATED WITH FIRING AT STEEL TARGETS. HAZARDS ASSOCIATED WITH USE OF FIREARMS OR A SPECIFIC COURSE OF FIRE MUST ALSO BE ASSESSED.

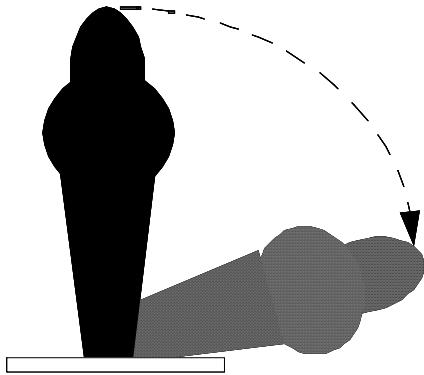
CONDITION/TASK	HAZARD/RISK	RECOMMENDED CONTROL
Firing handgun, shotgun, and rifle caliber firearms at steel targets	Regardless of the precise nature of the hazard, the risk is that participants, observers, or bystanders are struck by bullet fragments causing serious to minor injuries.	<p>The following precautions are required anytime steel targets are used:</p> <p>Participants, observers, or bystanders must wear eye protection with side protection and hats/caps with brims/bills. If shooters are wearing goggles or night vision equipment, additional headgear is not required.</p> <p>Participants, observers, or bystanders must be positioned outside of splatter zone.</p> <p>If possible due to design, target surface angled slightly toward shooter to direct fragments downward.</p>
Firing handgun ammunition	As above	Participants, observers, and bystanders may be not closer to target than 30 feet nor more than 50 feet either side of the gun to target line. Distances for firing frangible ammunition are determined by the manufacturer.
Firing buckshot	As above	Participants, observers, and bystanders may be not closer to target than 30 feet nor more than 15 feet either side of the gun to target line.
Firing rifle ammunition or shotgun slugs	As above	Participants, observers, and bystanders may be not closer to target than 150 feet nor more than 15 feet either side of the gun to target line.

CONDITION/TASK	HAZARD/RISK	RECOMMENDED CONTROL
	<p>Due to target design or construction, bullet dimples, or cracks, or penetrates steel target surface;</p> <p>Subsequent bullets impact surface defect and fragments are directed back up range.</p>	<p>Steel used to make targets must be hard enough and thick enough to prevent dimpling or penetration and sufficiently malleable to prevent cracking.</p> <p>Only weapon systems compatible with the specific target design/construction may be used.</p> <p>Design of steel targets must be approved by the range master.</p>
	<p>Due to target design, bullet strikes structural support (other than target surface) and fragments are directed back up range.</p>	<p>Target design minimizes structural supports within splatter zone;</p> <p>Deflective surfaces minimized or shielded when target surface has reacted (if applicable);</p> <p>Structural supports protected by deflectors that direct bullets and fragments downrange;</p> <p>Otherwise, structural supports are shielded by material capable of absorbing bullet fragments (i.e., sandbags).</p>
	<p>Due to damaged target, bullet strikes dimple, crack, or hole and fragments are directed back up range.</p>	<p>Steel targets must be examined prior to use:</p> <p>Targets with holes or cracks, with dimples deeper than one-sixteenth inch, or with a bow >10 degrees must not be used as targets for handgun caliber weapon systems or shotguns.</p> <p>(They may be used for rifle targets at distances >100 yards).</p>

CONDITION/TASK	HAZARD/RISK	RECOMMENDED CONTROL
	<p>Bullet strikes surface of properly designed, properly built, and properly shielded target;</p> <p>Fragments splatter off target surface, strike structural supports or other surfaces on range.</p>	<p>For splatter off target surface:</p> <p>If possible due to design, target surface angled slightly toward shooter to direct fragments downward.</p> <p>For ricochet off structural support:</p> <p>Design of target minimizes structural supports within splatter zone.</p> <p>Structural supports within splatter zone are shielded/padded (i.e., using sandbags).</p>
<p>Multiple targets – multiple shooters</p>	<p>One or more shooters address multiple steel targets, fragments splatter from target surfaces, strike adjacent targets or deflective surfaces on the range, and are directed back up range.</p>	<p>In multiple steel target scenarios, targets must be placed so that no target is within the splatter zone of any other target in the array, or shielded from the splatter from other targets. Shielding must be angled to deflect splatter downrange.</p> <p>Other deflective surfaces must be eliminated or shielded.</p> <p>Participants, observers, and bystanders must be positioned outside the splatter zone of every target in the array.</p>
<p>Moving shooters</p>	<p>As above</p>	<p>Movement of shooters must be controlled to prevent them from entering the splatter zone(s) of the target(s).</p>

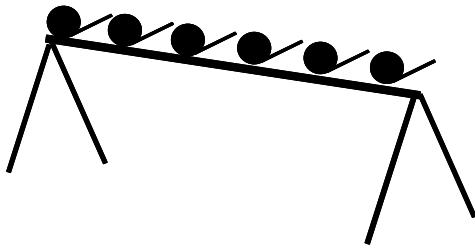
APPENDIX 2. EXAMPLES OF STEEL TARGETS

The depicted target types are representative of the styles and types available from steel target manufacturers. They are not to be construed as the only styles authorized for protective force use.



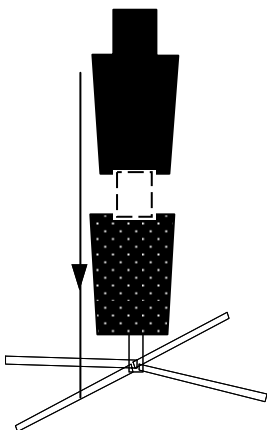
Pepper Poppers

These steel targets are made in different sizes and are used to represent the head and body of a human. Pepper popper targets are adjustable and designed to pivot on a support base and fall rearward when struck by a projectile. (Plans available from the DOE National Training Center [NTC].)



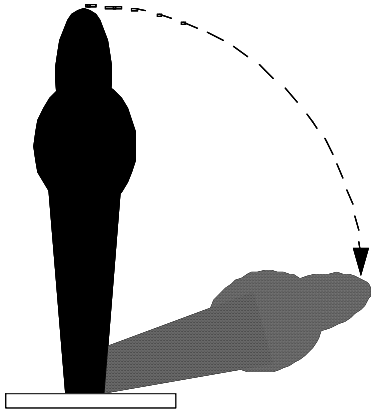
Round Plates

These steel plates vary in size, stand on a base or hang on a rack and are used to simulate head shots.



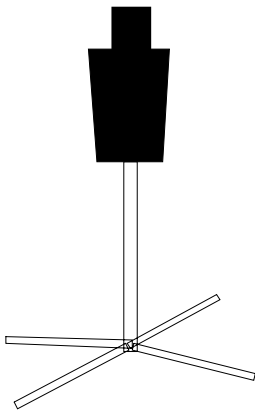
Droppers

These steel targets represent the head and upper torso of the human silhouette. Most dropper targets stand about 5 feet tall and consist of the steel target and a pole for the target to slide down. They are called dropper targets because they drop quickly down the pole when struck by a projectile.



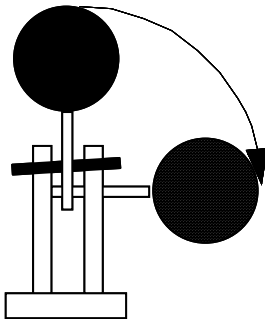
Davis Poppers

These steel targets are similar to the pepper popper steel targets but are larger and squarer. They pivot to the rear on a support base but are usually used as stationary targets with a forward tilt of approximately 15 degrees to help direct rounds downward into the ground. Because of their size and weight, they are usually permanently located on the range and also used extensively for shooting with shotguns firing buckshot. (Plans available from the DOE NTC.)



Standing Silhouette

These targets are a steel version of the International Practical Shooting Course cardboard target. These targets sit on a stationary stand making the targets about 5½ feet tall. They are useful for firing at greater distances and are generally painted to enable the hits to be seen.

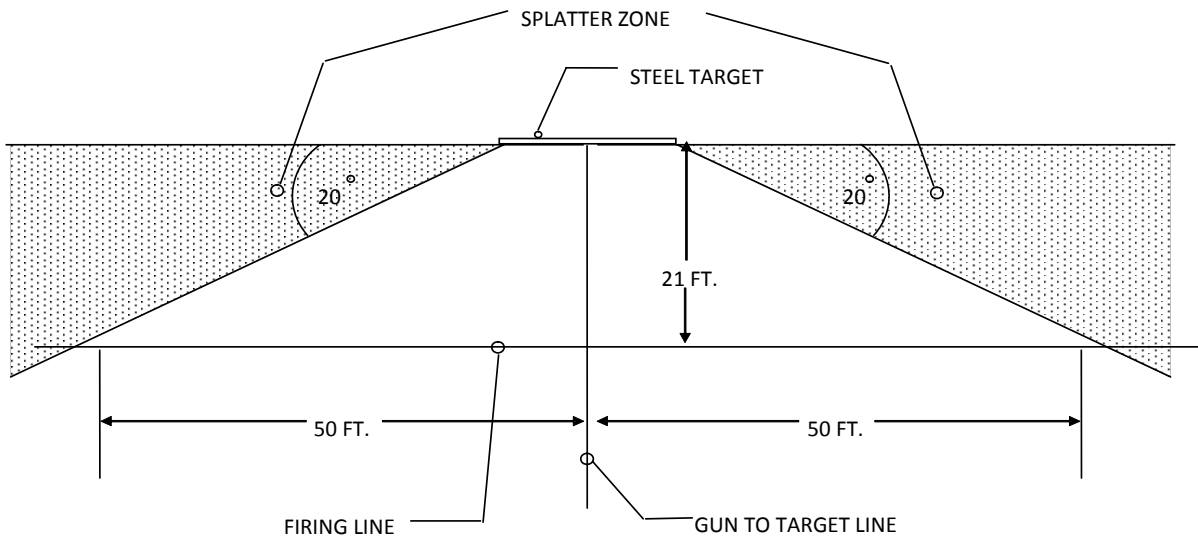


Swinging Targets

These are a swinging version of the round steel plates used for head shots during rifle training. When set at greater distances (100 yards and beyond), the targets can be seen swinging when they are hit. The 4-inch targets normally swing all the way around, and the 10-inch targets move a few inches rearward.

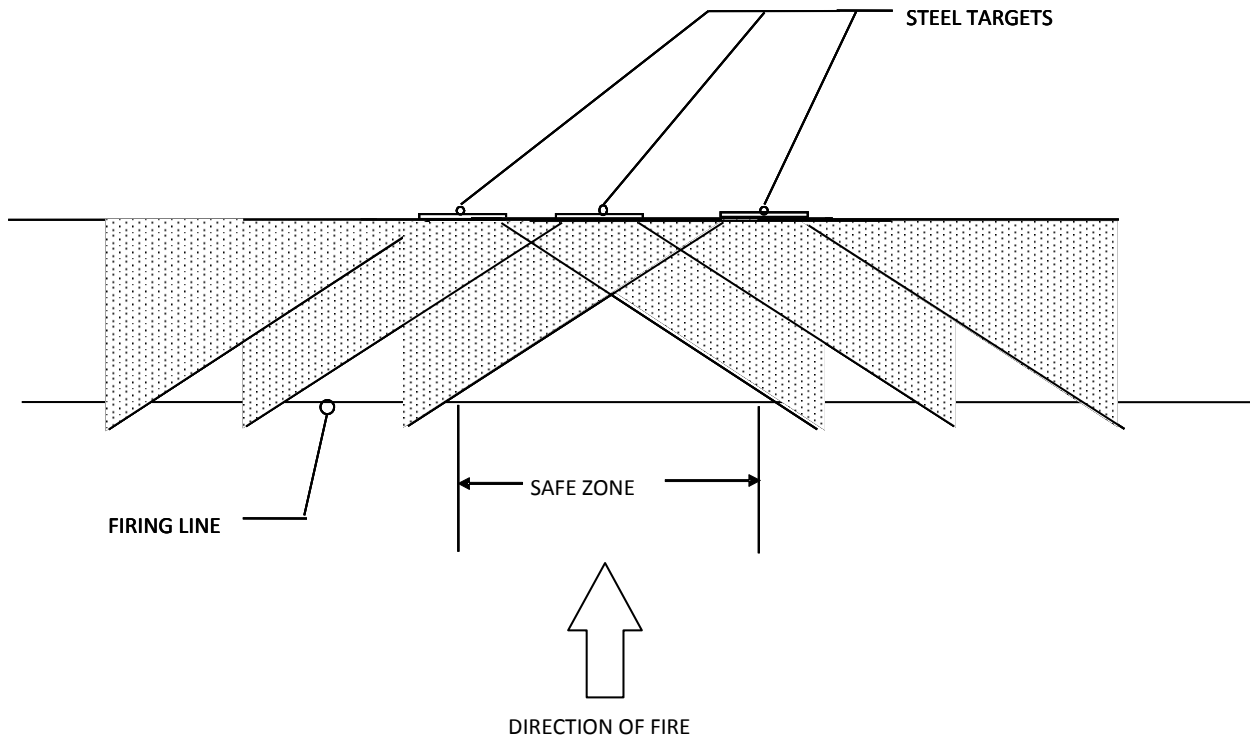
APPENDIX 3. STEEL TARGET SPLATTER ZONES

- Figure 1. Splatter Zone for Handgun Ammunition Fired on Steel Target
- Figure 2. Splatter Zone for Handgun Ammunition Fired on Multiple Steel Targets
- Figure 3. Splatter Zone for Handgun Ammunition Fired on Multiple Steel Targets (Staggered)
- Figure 4. Splatter Zone for Rifle Ammunition and Shotgun Slugs Fired on Steel Target
- Figure 5. Splatter Zone for Buckshot Ammunition Fired on Steel Target



SPLATTER ZONE FOR HANDGUN AMMUNITION FIRED ON STEEL TARGET

Figure 1. Splatter Zone for Handgun Ammunition Fired on Steel Target



SPLATTER ZONE FOR HANDGUN AMMUNITION FIRED ON MULTIPLE STEEL TARGETS
Note: The splatter zones of targets at either end of target line determines the width of safe

Figure 2. Splatter Zone for Handgun Ammunition Fired on Multiple Steel Targets

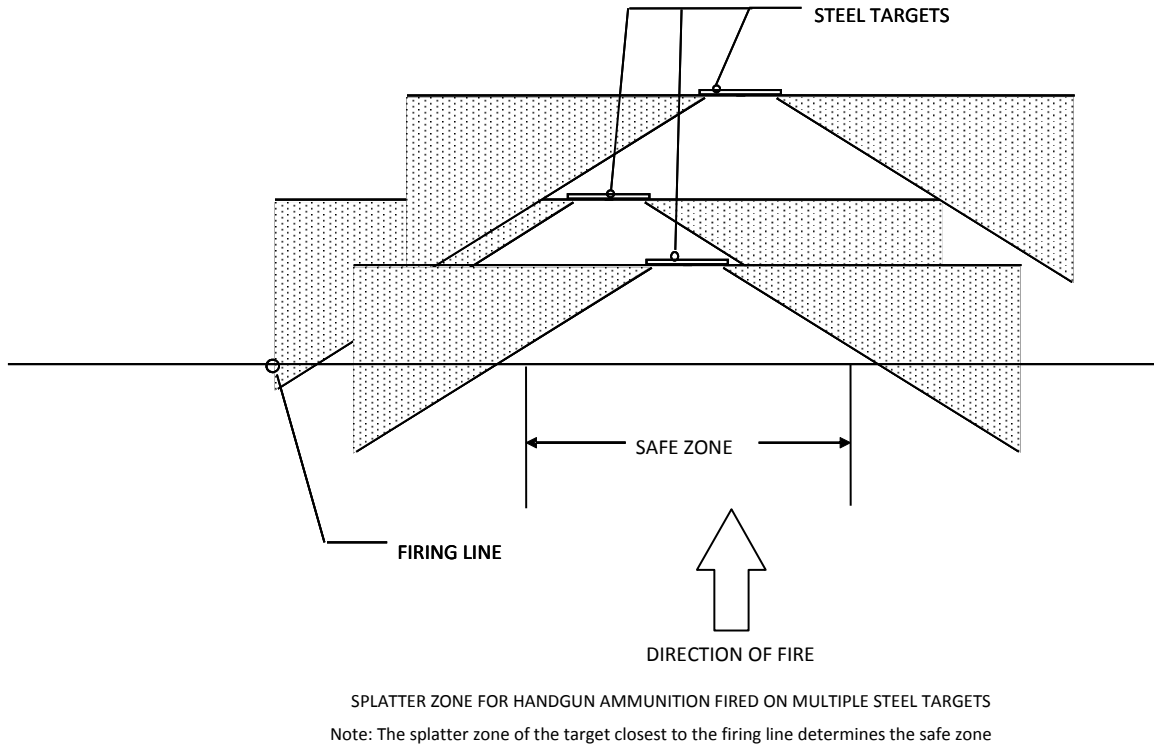


Figure 3. Splatter Zone for Handgun Ammunition Fired on Multiple Steel Targets (Staggered)

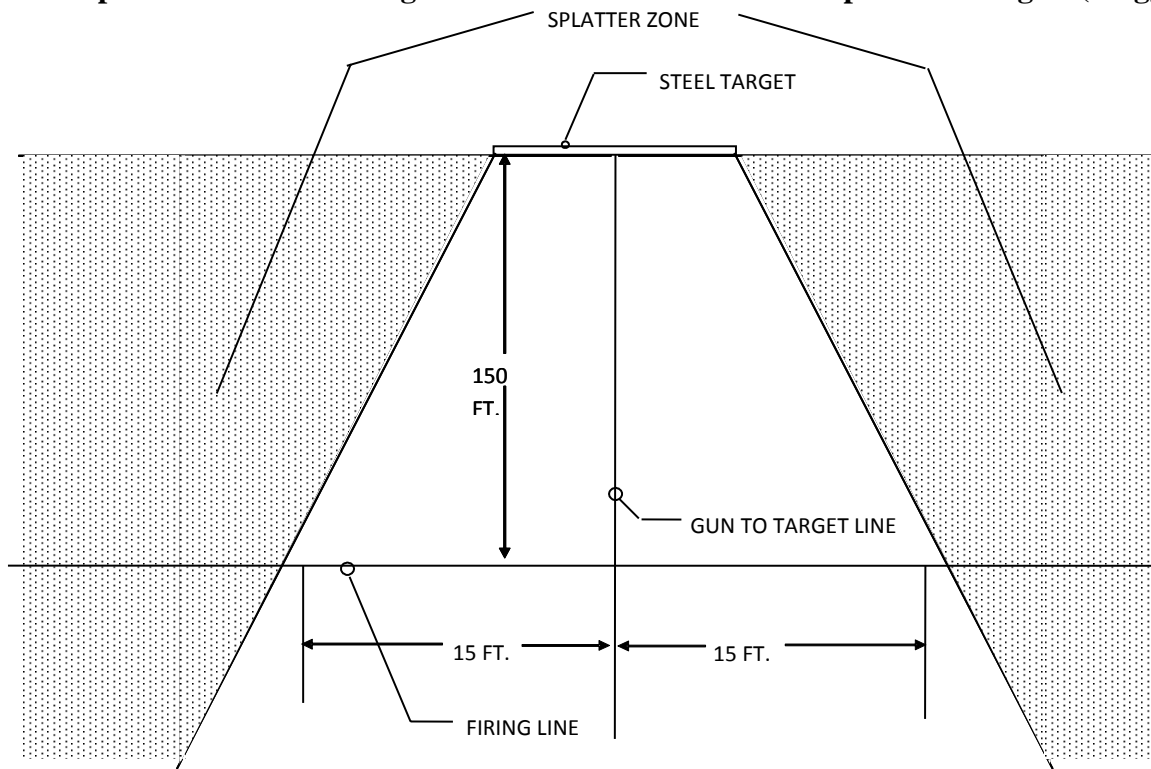
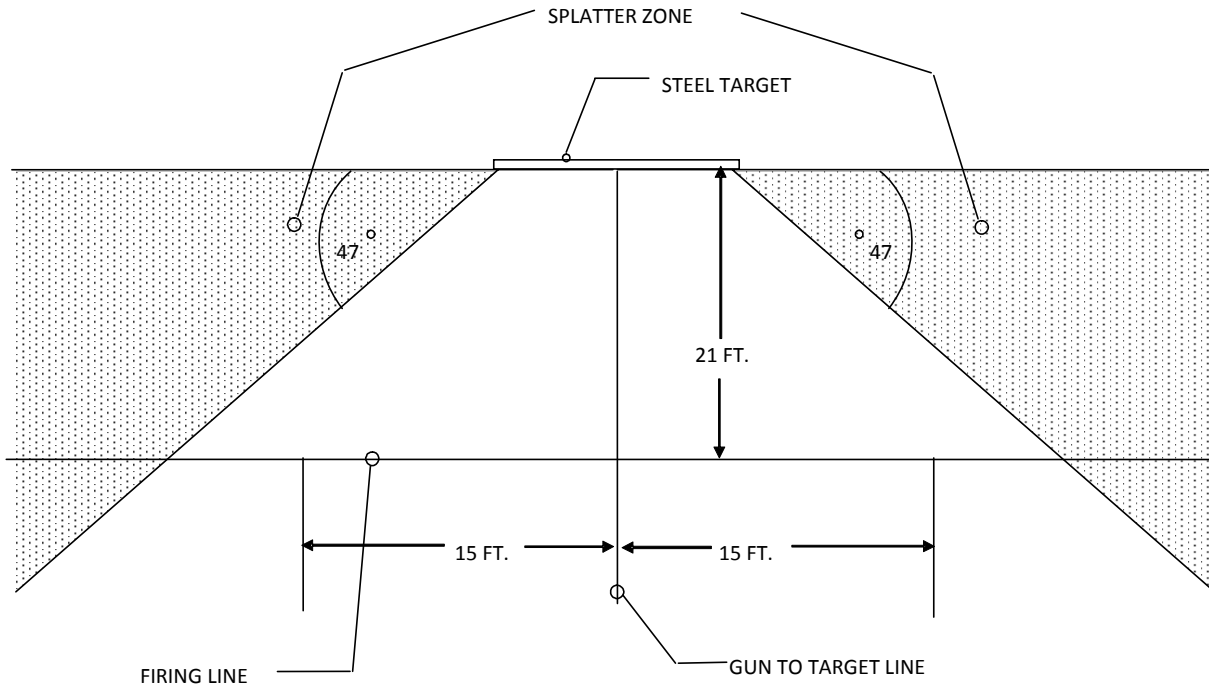


Figure 4. Splatter Zone for Rifle Ammunition and Shotgun Slugs Fired on Steel Target



SPLATTER ZONE FOR BUCKSHOT AMMUNITION FIRED ON STEEL TARGET

Figure 5. Splatter Zone for Buckshot Ammunition Fired on Steel Target