



# NATIONAL TRAINING CENTER

## Protective Force Training Department

### Standard Operating Procedure

Title:	Live Fire Shoot House
Number:	PFT-SOP-645
Revision:	4

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### REVISION HISTORY

Rev.	Date	Description of Revision
4	09/06/12	Added language to include both LFSH 114 and 115. Added appendix for LFSH 115 Pre-/Post-Training Walk-Through Form. Added appendix for LFSH 115 Weekly Inspection. Added references to Building 099, Range Control Facility. Updated R&D safety notes to address simultaneous range use and sequential LFSH use. Updated phone numbers in Appendix B, Range Safety Officer.
3	05/21/12	Revised Section 7.7.5 in response to HSS safety review (level of lighting during training), and sections 8.13(c) and 8.14(a) in response to NTC Firearms Safety assessment (level of body armor protection).
2	08/29/11	Procedure updated with the following: LFR Safety Specialist replaced ESH&QA Director; increased emphasis on LFSH safety, bullet traps, and inspections; Paramedic section (8.3); non-DOE users of LFSH; weapons and ammunition allowed; observers on EOCP; Appendix B, Range Safety Officer; bullet trap inspection criteria (Appendix G); and observer safety brief (Appendix H)
1	02/27/08	<ul style="list-style-type: none"> <li>• Redesignated and reformatted as 600-level procedure</li> <li>• Updated Section 7.4 and Appendices A and B (per SOP 644)</li> </ul>

## 1.0 PURPOSE

The live fire shoot houses (LFSH 114 and LFSH 115) are used to train personnel with simulated realistic, stressful, decision-making scenarios. This standard operating procedure (SOP) describes the methods to be used in conducting safe live-fire exercises inside LFSH 114 and LFSH 115 at the Live Fire Range (LFR) at the U.S. Department of Energy (DOE) Office of Health, Safety and Security (HSS) National Training Center (NTC).

As a tenant of Kirtland Air Force Base (KAFB), the NTC and its employees, contractors, and visitors must recognize and adhere to all applicable regulations. LFR users must obtain approval from the Protective Force Training Department (PFTD) Manager, Rangemaster, and LFR Safety Specialist for training to be conducted outside the parameters of this procedure. All requests will be submitted to the DOE/NTC Director through the PFTD Manager or NTC General Manager.

## 2.0 SCOPE

This SOP applies to all LFSH operations except maintenance. Applicable operations include training, demonstrations, rehearsals, testing or evaluation, and live-fire or dry practice exercises under day and night conditions. These procedures apply to LFR instructors and staff (both permanent and adjunct), students (regardless of their place of employment), non-NTC agencies that may use LFSH 114 and LFSH 115, and observers.

Failure to comply with the safety rules presented in this SOP may be cause for removal from LFSH 114 or LFSH 115, and/or failure to comply with the LFSH weapon and ammunition restrictions may result in the loss of training privileges at LFSH 114 or LFSH 115. NTC employees may be subject to disciplinary actions, up to and including termination.

## 3.0 CANCELLATION

This SOP supersedes PFT-SOP-645, *Live Fire Shoot House*, dated May 2012.

## 4.0 REFERENCES

- 4.1 10 CFR 851, Worker Safety and Health Program
- 4.2 DOE Order 470.4B, Safeguards and Security Program
- 4.3 DOE Order 473.3, Protection Program Operations
- 4.4 DOE Guide 450.4-1C, Integrated Safety Management System Guide
- 4.5 American National Standard Institute (ANSI) Z87.1-2003, Occupational and Educational Eye and Face Protection Devices
- 4.6 National Institute of Justice Standard 0101.04, Rev. A, Ballistic Resistance of Police Body Armor (June 2001)
- 4.7 HSS Protective Force Firearms Qualification Courses, Section B, Use of Steel Targets

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### NON-PROPRIETARY INFORMATION

This SOP was prepared by the PFT and ES&H departments and is scheduled for review in August 2013.

- 4.8 PFT-SOP-644, Live Fire Range Operations
- 4.9 ESH-GP-552, Inclement Weather Restrictions
- 4.10 ESH-GP-549, Storage, Transportation, and Use of Explosives

## **5.0 DEFINITIONS**

- 5.1 DRY PRACTICE. Practice session conducted in an LFSH using unloaded firearms.
- 5.2 ELEVATED OBSERVATION CONTROL PLATFORM. The observation platform that overlooks the rooms in an LFSH. Use of this platform enhances the ability of the instructors to observe and control training operations within an LFSH.
- 5.3 LIVE FIRE. A shooting session conducted in an LFSH using loaded firearms.
- 5.4 LIVE FIRE SHOOT HOUSE INSTRUCTOR. An instructor who has successfully completed Special Response Team Certification (SRTC) training, Special Response Team Instructor Certification (SRTIC) training, and the NTC LFSH written examination, and has completed and documented 40 hours of assistant instructor duties. Additional requirements include documented annual completion of 20 hours of live fire operations in LFSH 114 and LFSH 115 and semi-annual completion of both the LFSH Qualification Test (SRTC Course) and the DOE "Shooting on the Move" qualification course for pistol and long gun (with minimum scores of 90 percent).
- 5.5 MALFUNCTION. Failure of weapon or magazine to function properly or operate in the manner designed. A malfunction can normally be cleared by the operator.
- 5.6 NON-NTC AGENCIES. Federal, state, and local (law enforcement/military) agencies that have a current Range Use Agreement (RUA) with the NTC to use the LFR facilities and have been authorized by the DOE/NTC Director to conduct training within an LFSH.
- 5.7 SHOOTER. Any participant (with the exception of an instructor) who enters an LFSH as part of the exercise and is carrying a firearm. Any individual who meets this definition is to be considered a shooter for purposes of instructor-to-shooter ratios at all times until the exercise has been terminated.
- 5.8 TARGET ROOM. A room within an LFSH that is constructed of ballistic walls, contains portable bullet traps, and is designed to stop rifle caliber ammunition by impact in either the bullet trap or the ballistic wall.
- 5.9 UNAUTHORIZED DISCHARGE. The discharge of a firearm under circumstances other than (a) during firearms training with the firearm properly pointed downrange (or toward a target), or (b) the intentional firing at hostile parties when deadly force is authorized. (See Appendix A for additional information on Unauthorized Discharges.)
- 5.10 WALK-THROUGH. Practice session conducted in an LFSH with no loaded firearms in the hands of the shooter. Handguns must be holstered, and long guns must be hanging from a sling.

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## 6.0 POLICY

It is the policy of the NTC to conduct firearms and tactical training in an LFSH in accordance with DOE training safety requirements.

All work at the NTC will be conducted in accordance with the DOE Integrated Safety Management System. It is NTC policy to incorporate safety into the planning and execution of all work and to ensure safety from hazards for NTC workers and the environment. The NTC will implement appropriate controls for those hazards that cannot be totally removed.

## 7.0 RESPONSIBILITIES

Although each individual is responsible for his or her duties listed in this section, these duties may be delegated to another individual who is equally qualified to perform the same function.

The LFR is a designated Property Protection Area (for safety considerations, the wearing of badges may not be required during training). As such, all visits to the LFR must be coordinated with the Rangemaster or designee. Unauthorized personnel must follow the directions posted at the main gate. All personnel will observe requirements associated with the range flags and flashing beacons.

- (a) All visitors will proceed to Building 099 and sign in with the Training Coordinator. The Training Coordinator will locate the PFTD sponsor via telephone or radio and coordinate a meeting place. Once business has been completed, the visitor will sign out in Building 099 prior to departure from the LFR.
- (b) Upon arrival at the LFR, maintenance personnel will proceed directly to Building 099 and adhere to procedures. Radios will remain on Channel A-4 while at the LFR. When possible, all work at the LFR will be coordinated with the Rangemaster in advance.
- (c) During regular work hours, DOE LFR users (MOU or RUA holders) will proceed to Building 099 and adhere to procedures (as outlined in Section 7.9.1 of SOP 644). If visitors will be attending training sessions, the sponsoring agency will escort their visitors to Building 099 to complete the sign-in procedure.

During non-duty hours, sign-in/out procedures will be completed on the Range Use Log (see SOP 644, Appendix C). The sponsoring agency will accept responsibility for the visitor.

- (d) Prior to and upon completion of scheduled LFSH operations, the user shall conduct a daily walk-through inspection of the condition of all walls and bullet traps, recording results on the LFSH Pre- / Post-Training Walk-Through Form (Appendix C). The completed inspection forms are to be placed in the form box located at the entrance to LFSH 114 or LFSH 115. Failure to comply could result in the suspension of that organization's RUA or MOU; for NTC training, appropriate administrative action may apply. During non-duty hours, the completed inspection forms are to be placed in the form box located at the entrance to LFSH 114 or LFSH 115.

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### NON-PROPRIETARY INFORMATION

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- (e) The LFR Safety Specialist or designee will conduct a weekly walk-through inspection of the condition of all walls and bullet traps, recording results on the LFSH Weekly Inspection Form (Appendix E). The LFR Safety Specialist will keep the forms in a quickly retrievable file system.
- (f) Delivery personnel will coordinate all deliveries with the Rangemaster or Training Coordinator to ensure proper personnel and equipment are available.

## **7.1 NTC General Manager / Deputy General Manager**

The NTC General Manager and Deputy General Manager are responsible for ensuring the activities that are conducted at the NTC's LFSHs comply with the requirements of all applicable regulations and this SOP.

## **7.2 Protective Force Training Manager**

- 7.2.1 Responsible for the safe operation and maintenance of the LFR, including the ranges, armory, and LFSHs.

**NOTE: Only qualified personnel can operate an LFSH.**

- 7.2.2 Designates qualified instructors to operate an LFSH. Qualifications for selection as either a lead instructor or a support instructor will be the same as Paragraphs 8.4.1 and 8.4.2 of this SOP.

## **7.3 Rangemaster**

- 7.3.1 Responsible for the safe operation and maintenance of LFSH 114, LFSH 115, and all activities at the LFR.
- 7.3.2 Responsible for approving bullet traps used within an LFSH.
- 7.3.3 Responsible for approving ammunition used within an LFSH.
- 7.3.4 Ensures the RUAs and MOUs for all users are current and signed.

## **7.4 Range Safety Officer**

The Range Safety Officer (RSO) is the designated and trained lead instructor that is responsible for safety during live fire training in an LFSH. (See Appendix B for a list of duties and responsibilities.)

## **7.5 Lead Instructor**

The lead instructor is responsible for the overall conduct of training and safety (as the RSO) at an LFSH and must meet the requirements to support training (for example, targets, ammunition, medical support, support equipment, classrooms, and training aids).

- 7.5.1 Schedules range and classroom requirements at least 60 days in advance.

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### **NON-PROPRIETARY INFORMATION**

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- 7.5.2 Schedules paramedic requirements 60 days in advance. (For paramedic scheduling procedures, see SOP 644, Section 8.7).
- 7.5.3 Provides ammunition requirements to the Rangemaster, via electronic mail, at least 30 days prior to the start of class.
- 7.5.4 If unique training aids are required, notifies the Rangemaster at least 45 days in advance.
- 7.5.5 Ensures all students and instructors are qualified to conduct training in an LFSH.
- 7.5.6 Ensures instructor-to-shooter ratio is met in accordance with DOE O 473.3.
- 7.5.7 Ensures all participants have received a safety briefing.
- 7.5.8 Delegates and assigns responsibilities to other instructors.
- 7.5.9 Ensures everyone in an LFSH and on the elevated observation control platform during a live-fire exercise is wearing appropriate personal protective equipment (PPE).
- 7.5.10 Ensures that an approved risk analysis report is in effect prior to any LFSH training.
- 7.5.11 Verifies the qualifications of all students before they take part in training.

## **7.6 Instructors**

The instructors are responsible for the supervision and safe conduct of all training activities, whether live fire or dry runs, within an LFSH.

- 7.6.1 Sign for ammunition used to support training, both at issue and turn in. Another LFR staff member must be present at the issue and turn-in of ammunition. Ammunition will not be left unattended and will be secured or under observation at all times.
- 7.6.2 Position targets and bullet traps to prevent an errant round from crossing the path of another shooter's movement within the target room.
- 7.6.3 Ensure instructor-to-shooter ratio is in accordance with DOE O 473.3.
- 7.6.4 Ensure all students and observers have received a safety briefing that includes the LFR safety rules found in SOP 644 and this SOP.
- 7.6.5 During low-light/night training, instructors must ensure that appropriate lighting is used when lighting is required. If observers are present during low-light/night training, instructors are responsible for ensuring that observers have sufficient lighting in order to move about.
- 7.6.6 Blow the "STOP" whistle and/or announce "CEASE FIRE" in the event of a safety violation.
- 7.6.7 Observe the loading and unloading of weapons.
- 7.6.8 Ensure LFSH 114 or LFSH 115 is clear of personnel before training begins.

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### **NON-PROPRIETARY INFORMATION**

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- 7.6.9 Conduct demonstrations for students, as appropriate.
- 7.6.10 Ensure there is no trash, tripping hazards, expended ammunition, pooled water, or snow or ice on the floor of LFSH rooms.
- NOTE:** NTC training courses may be conducted on a temporary basis without the presence of a Paramedic with prior approval from the PFTD Manager or Rangemaster. (See Section 8.3 for specific requirements.)
- 7.6.11 Supervise and control the issue, use, turn-in, and disposal of all ammunition and diversionary devices used during training.
- 7.6.12 Ensure shooters have received training on the diversionary devices to be used in an LFSH. This training will include nomenclature, safety features, deployment procedures, procedures for handling unexploded devices (duds), and other relevant item-specific information. Students must not handle dud diversionary devices.
- 7.6.13 Ensure only authorized vehicles are allowed on the range.
- 7.6.14 Ensure students do not remove ammunition, supplies, or other equipment from the range complex.

## 7.7 Assistant Instructor

The assistant instructor is responsible for assisting the Lead Instructor in the safe conduct of LFSH training.

## 7.8 Shooters

**NOTE:** Shooters are usually, but not always, students.

Shooters in an LFSH are responsible for following the directions of instructors and the requirements of this SOP at all times. Failure to do so may be cause for removal from training.

- 7.8.1 If an unsafe act or condition is observed, announce "CEASE FIRE."
- 7.8.2 In the event of a "CEASE FIRE" command or upon hearing a "stop" whistle, stop movement, stay in place, place trigger finger straight along the frame of the weapon, and await further commands from the instructor.

## 7.9 LFR Maintenance Staff

LFR maintenance staff work under the direction of the Rangemaster.

- 7.9.1 Ensure the LFSHs are free of trash, water, or snow/ice accumulations prior to training.
- 7.9.2 When the LFSHs are operational, a daily check will be conducted by the LFR maintenance staff. Maintenance staff will inspect the bullet traps utilizing the Bullet Trap Daily User Inspection Criteria (Appendix G). All daily maintenance to the bullet traps will be documented on the LFR Bullet Trap Maintenance Record (Appendix D).

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- 7.9.3 Semi-annually, the bullet traps will undergo a detailed inspection (if required, replace the steel, Linatex, all 2 x 4 framing, and casters, welds, plywood, and counter weights) in accordance with Range Design Criteria established by the DOE HSS. All bullet trap maintenance will be documented on the LFR Maintenance Record and will be kept by the LFR Training Coordinator. (See Appendix D for a list of inspection and approval requirements.)
- 7.9.4 Inspect and maintain LFSH walls, doors, and all wood coverings.

## 7.10 Non-NTC Agencies

Non-NTC agencies may use an LFSH if:

- (a) There is authorization from the DOE/NTC Director in the form of a current RUA or MOU;
- (b) The LFSH has been scheduled through the NTC web site;
- (c) The requirements of DOE O 473.3 for first aid and cardiopulmonary resuscitation (CPR) certification have been met, and copies of certifications are on file with the RUA or MOU at the LFR; and
- (d) They request a certified instructor from the LFR (if the requesting agency does not have a current NTC-certified LFSH instructor). This request must be submitted through the DOE/NTC Director at least 60 days in advance.

## 7.11 Observers

All observers are responsible for following the safety rules established for the LFR at all times. Failure to comply with these safety rules may result in removal from the LFR. The observer will receive and sign the LFSH Observer Safety Briefing. Observer Safety Briefings will be turned in to and filed by the LFR Training Coordinator.

## 8.0 OPERATIONS

All individuals at the NTC LFR must comply with the safety rules and procedures provided in this section.

**SAFETY NOTES:** LFSH 114 is located on the R&D Range along with the 12-Position Range and the Vehicle Assault Range. Simultaneous use of LFSH 114 and the 12-Position Range/Vehicle Assault Range is **not permitted**. No one is permitted on the elevated observation control platform of LFSH 114 when either the 12-Position Range or Vehicle Assault Range is **HOT**. However, concurrent training may be permitted when compensatory measures (for example, one or a combination of adequate ballistic protection, administrative controls, or tactical controls) are emplaced between any of the four ranges on the R&D Range **and** with prior approval by the Rangemaster and LFR Safety Specialist.

The use of the 12-Position Range or the Vehicle Assault Range is permitted when LFSH 115 is in use and personnel are on the elevated observation control platform of LFSH 115.

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The simultaneous use of LFSH 114 and LFSH 115 is permitted. The sequential use of LFSH 114 and LFSH 115 is permitted when adequate compensatory measures are taken (for example, 1-4 student-instructor ratio and specific safety emphasis when moving between LFSH 114 and LFSH 115).

## 8.1 LFSH Safety Briefing

Shooters must receive a safety briefing before participating in training. The briefing must include the following requirements per DOE O 473.3.

- (a) The Four General Firearms Safety Rules:
  - (1) All firearms are always loaded.
  - (2) Never point the firearm at anything you are not willing to destroy.
  - (3) Keep your finger off the trigger until your sights are on the target.
  - (4) Be sure of your target.
- (b) The Specific Range Safety Rules:
  - (1) It is mandatory to use approved eye and ear protection and other PPE as required by the range safety officer.
  - (2) Unsafe conditions must be reported immediately to an instructor.
  - (3) A firearm may only be exchanged with another shooter under the direct supervision of an instructor.
  - (4) Firearms must not be left unattended or unsecured.
  - (5) Firearm loading and firing may commence only on command.
  - (6) Shooters are not permitted to talk during a firing activity except in reply to an instructor as a part of the activity or to shout "cease fire" in an unsafe situation.
  - (7) Until the firing line has been declared safe by the firearms instructor, shooters must not move past or bend over the line.
  - (8) All shooters must be trained on what constitutes an unsafe condition and to shout "CEASE FIRE" when such a condition is observed.
  - (9) Smoking, eating, or drinking must be prohibited while shooting.
  - (10) Alcoholic beverages and drugs are prohibited on firing ranges. Shooters taking medication must report this fact to the firearms instructor before reporting to the firing line. The firearms instructor is responsible for determining whether a shooter is fit based on the medication taken and whether it is safe for the shooter to use the range. A physician may be consulted if necessary.

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### NON-PROPRIETARY INFORMATION

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- (11) Shooters must take precautions to prevent hot spent cartridge and gunshot residues from getting inside their clothing.
  - (12) When a training session is completed, each firearm must be physically examined by the shooter and by a designated range safety officer or qualified firearms instructor to ensure that it is unloaded and in safe condition before leaving the range. If the shooter is using a duty firearm on the range, he or she may reload that weapon at the range if returning directly to duty.
  - (13) Shooters must collect unexpended ammunition and return it to a firearms instructor.
  - (14) While a firearm is being cleaned, live ammunition must not be allowed in the cleaning area.
- (c) LFSH Rules
- (1) Instructions to keep the weapon at the low ready unless engaging a target;
  - (2) Instructions to de-cock or safe the firearm as soon as offensive actions have stopped, or anytime the shooter plans to move a significant distance;
  - (3) Instructions to await further commands from the instructor when an operation has ended;
  - (4) The fact that every participant is a safety officer with the authority to call "STOP WORK" or "CEASE FIRE".
  - (5) Instruction that when a whistle blast is heard and/or a verbal command of "CEASE FIRE" is given, the shooter is to freeze and keep the trigger finger straight along the frame of the weapon;
  - (6) Direction that weapons handling and muzzle discipline must be enforced;
  - (7) Information that a round that does not impact a bullet trap is a safety violation;
  - (8) Direction that the 1-meter rule must be enforced;
  - (9) Instruction not to shoot unless the shooter is certain that a shot is safe;
  - (10) Instruction that a shooter not turn back after turning in the wrong direction (for example, the shooter is committed to the new area of responsibility);
  - (11) Direction that the shooter should not exceed the area of responsibility;
  - (12) Instructions to exercise fire discipline using the fewest number of rounds to solve the problem; and
  - (13) Instructions to take appropriate action in the event of a malfunction.
- (d) Observer Safety Brief (Appendix H)

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## 8.2 Safety Violations

It is NTC policy that all safety violations will be documented and investigated. Failure to comply could result in the suspension or termination of an organization's RUA or MOU or an individual's range access privileges. Students, instructors, and observers will call "CEASE FIRE" at any time to prevent an unsafe act. Training will not resume until the situation has been safely resolved. The Rangemaster will be notified of all safety violations.

8.2.1 LFR User: Responsible for the safety practices below.

8.2.1.1 Adhere to established safety policies and procedures at all times. Repeat violators of LFR safety rules will be removed from training and placed in remedial training programs. Violators may return to normal training activities only upon successful completion of remedial training, with the recommendation of the lead instructor, and with approval of the PFTD Manager. Violation of these rules may result in removal from training activities.

8.2.1.2 Alcoholic beverages and drugs are prohibited on NTC training facilities. If taking medication, report this fact to the instructor before participating in training. Students suspected of being under the influence of drugs, alcohol, or medication will be removed from training and referred to LFR management.

8.2.2 Instructor: Determine if a student is fit for training based on the medication taken. A physician may be consulted if necessary.

8.2.3 LFR Safety Specialist, PFTD Manager, Rangemaster, and Instructor: Conduct periodic safety audits of LFSH training activities to ensure compliance with LFR safety rules.

## 8.3 Presence of Paramedic

A Paramedic must be present at the LFR during NTC-sponsored live-fire training. An exception to this requirement may be granted on a temporary basis with prior approval from the Rangemaster or PFTD Manager and notification of the LFR Safety Specialist. Approval will be based on the presence at the active range of an NTC Instructor who is currently trained and certified in first aid and CPR and is in possession of a medical trauma kit.

8.3.1 Lead Instructor: At least 60 days in advance, provide the Lead Paramedic with the dates, hours, and location for which a Paramedic will be required. Fill out the PFTD Paramedic Request form, and send it electronically to the Lead Paramedic and copy the message to the Rangemaster. Notify the Paramedic prior to beginning training and when he or she is no longer required for the class.

8.3.2 Rangemaster: Resolve all scheduling conflicts.

8.3.3 Paramedic: Attend all NTC live fire and other hazardous training activities for which you have been scheduled.

## 8.4 Qualification Requirements

8.4.1 NTC LFR Instructors: Must have successfully completed Security Police Officer (SPO) III training, SPO Instructor Certification (SPOIC) training, and the NTC LFSH

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written examination prior to conducting training in the LFSH; have completed 40 hours of assistant instructor duties; and must have successfully completed all firearms training up to the point at which LFSH training begins. Additional requirements include documented (1) semi-annual completion of both the LFSH qualification test (SRT course) and the DOE "Shooting On The Move" qualification courses for pistol and long gun (with a minimum score of 90 percent), and (2) annual completion of 20 hours of live-fire operations within the LFSH. All qualifications and training of LFSH instructors must be documented.

#### 8.4.2 Non-DOE Users: Responsible for the actions below:

8.4.2.1 Designate a lead instructor from the user agency before the agency uses an LFSH.

8.4.2.2 Obtain the NTC Director's approval of all instructor qualifications prior to using an LFSH.

8.4.2.3 Designate a lead instructor who holds a current LFSH qualification through their agency and is approved by their supervisor/commander. LFSH instructor qualifications must be sent to the LFR Training Coordinator every 6 months or prior to establishing an RUA or MOA. All paperwork must be on file and current in order to schedule an LFSH. Additionally, the non-DOE instructor will be given the LFR Annual Range Brief that includes LFSH operations prior to using the facilities.

8.4.2.4 Comply with all pre- and post-LFSH inspection, reporting, and safety requirements described in this SOP.

### 8.5 **VIP Presentations and Demonstrations**

Presentations and demonstrations for VIPs will be conducted by NTC LFR instructors who have maintained the qualifications required in Section 8.4.1 above. Any participant that does not meet the requirements of Section 8.4.1 must have the approval of the DOE/NTC Director prior to participating in the demonstration.

### 8.6 **Instructor-to-Shooter Ratio**

All LFR users must comply with the instructor-to-shooter ratios found in the DOE O 473.3. The minimum ratios will be 1-to-4 for all SRT operations and 1-to-1 for all non-SRT operations. Ratios may be increased (more instructors may be assigned), as necessary, based on the instructor's evaluation of student's language barrier, physical abilities, skill level, weapon manipulation, and overall adherence to safety.

When exceeding the minimum ratios (when more instructors are assigned), there must be a lead instructor/RSO present during all operations, and these individuals will not be included in the instructor-to-shooter ratios.

### 8.7 **Instructor Operational Assignments**

All LFSH instructors are responsible for (1) ensuring the safety of shooters, observers, and instructors at all times; (2) ensuring student adherence to safety rules; and (3) evaluating student performance during training.

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#### NON-PROPRIETARY INFORMATION

This SOP was prepared by the PFT and ES&H departments and is scheduled for review in August 2013.

- 8.7.1 **Lead Instructor:** Responsible for the actions below.
- 8.7.1.1 Must be present during all operations and serves as the RSO.
  - 8.7.1.2 Designate responsibilities to other instructors.
  - 8.7.1.3 Ensure all training operations are designed and conducted in accordance with approved lesson plans, risk analyses, and SOPs.
  - 8.7.1.4 Ensure all students are properly equipped to safely undergo training.
  - 8.7.1.5 Ensure assistant instructors are briefed on their responsibilities for the safe conduct of the training, are properly equipped (including whistles), and are wearing required PPE.
  - 8.7.1.6 Assign at least one instructor to act as the control instructor. The control instructor will give commands of execution and observe actions on the ground. There will be at least one control instructor on the ground with the shooters at all times. The close proximity of the control instructor (s) to the shooters allows a rapid response to unsafe conditions and/or acts.
- 8.7.2 **Assistant Instructor:** Observe the training operation from the elevated observation control platform (this position provides an optimum view for identifying safety infractions). You will be assigned to specific areas on the platform for observing training. There will be at least one instructor assigned to the elevated observation control platform during all live-fire SRT training.

## 8.8 Weapons and Ammunition Allowed

**NOTE #1:** Failure to comply with the LFSH weapon and ammunition restrictions may result in the loss of training privileges at LFSH 114 or LFSH 115. Concealed weapons are prohibited at NTC facilities.

**NOTE #2:** All classroom demonstrations must be performed with unloaded or simulated weapons. Before using a firearm for classroom demonstration, clear it into a bullet containment device and ask a student or other instructor to verify that the weapon and magazine to be used have been cleared. Only clearly identifiable inert training rounds may be used for classroom demonstrations.

- 8.8.1 As a tenant of KAFB, NTC employees and users must adhere to all applicable regulations pertaining to transportation and carrying of personal weapons. Privately owned weapons may not be used at the LFSH 114 or LFSH 115 (or elsewhere at the LFR) unless approved, in writing, by the DOE/NTC Director.
- 8.8.2 Upon request, written approval by their authorizing agency is required for non-DOE Users that carry duty weapons for duty purposes.
- 8.8.3 Only DOE ammunition will be used with DOE weapons. Non-DOE Users weapon users will provide their own ammunition.
- 8.8.4 All weapons and ammunition must be stored in an approved location.

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### NON-PROPRIETARY INFORMATION

This SOP was prepared by the PFT and ES&H departments and is scheduled for review in August 2013.

- 8.8.5 LFSH 114 or LFSH 115 are designed and built for the use of handgun-caliber and 5.56mm caliber frangible non-lead rifle ammunition. All personnel within an LFSH will ensure that only the below specified firearms and ammunition are used during training.
- (a) Weapons Allowed: Conventional caliber handguns, handgun caliber submachine guns, rifles firing frangible non-lead 5.56x45mm NATO/.223 Remington ammunition, and shotguns firing lead-free breaching rounds are approved for use in an LFSH. In addition, dye-marking cartridges and weapons modified to fire dye-marking cartridges (DMC) may be used if approved by the DOE/NTC Director.
  - (b) Ammunition Allowed: Only ammunition approved by the Rangemaster may be used within an LFSH. The following ammunition is approved by the Rangemaster: frangible, non-lead handgun ammunition. 5.56mm frangible, lead-free rifle ammunition. In addition, lead-free shotgun-breaching rounds, and non-fragmenting diversionary devices may be used. Non-DOE users must specify when requesting use of an LFSH what type of ammunition will be used. The Rangemaster will approve or disapprove the request based upon ammunition listed at the time request is submitted. DMC may be used on a case-by-case basis if approved by the DOE/NTC Director.
  - (c) Not Allowed: Any lead, hollow point, semi-wadcutter, non-approved rifle caliber, or non-frangible ammunition and fragmenting diversionary devices. (See SOP 644, Appendix F, Prohibited Ammunition in Live Fire Shoot House.)
- 8.8.6 As a general rule, ESS systems are not permitted in LFSH 114 or LFSH 115. The NTC Director may approve ESS use on a case-by-case basis. Approval for use of ESS systems must be in writing, secured in advance of the training, and comply with PFT-SOP-646.

## 8.9 Targets and Bullet Traps

- 8.9.1 Various types of approved targets may be used in LFSH 114 and LFSH 115. Target placement must meet the requirements of this section for each type of target used. If a target or target system fails to meet these requirements, it cannot be used in LFSH 114 or LFSH 115. Targets will be placed on bullet traps so the maximum effective area of the trap is utilized to contain rounds and prevent rounds from penetrating the construction joints of the trap.
- (a) Paper Targets. Paper targets are stapled to the bullet trap and centered, left to right, on the bullet trap. The head-scoring zone of the target must be placed a minimum of 6 inches below the top of the bullet trap.
  - (b) Three-dimensional (3-D) Targets. 3-D targets may be used in front of the bullet traps or other backstop materials approved by the NTC Rangemaster. The targets must be placed in front of, and centered on, bullet traps.
  - (c) Drop Targets. Drop targets may be used when they connect to the bullet trap by magnet, balloon and string, or by use of a target stand which is erected in front of the bullet trap. Target placement must be such that it is as close to a 90-degree firing angle as possible. The drop target system must operate in such a manner that the shooter can recognize when the target is no longer a threat and does not require additional rounds on target. The drop target system may use a blinder, which hides

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### NON-PROPRIETARY INFORMATION

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the target after it has fallen from the bullet trap, or the target may fall to the ground in front of or to the side of the bullet trap. With either system, the shooters must be aware that once the target falls from the bullet trap, there will be no more rounds fired at that target.

- (d) **Bullet Traps.** Only NTC bullet traps approved by the Rangemaster and that are constructed in accordance with Range Design Criteria, and deemed serviceable by inspection may be used in LFSH 114 or LFSH 115. (See Appendix F for inspection and approval criteria). Any bullet trap in need of repair will not be used and will be taken out of service (see Appendix C).
- (e) **Bullet Trap Positioning.** Bullet traps will be positioned so that if a round misses a target, it will not cross the path of another person's movement. Bullet traps will be positioned so that a shooter cannot engage a target at less than 30 degrees from center. Blinders, obstructions, or other means may be used to accomplish this angle limitation.

8.9.2 In the event a shooter misses the bullet trap, the following procedures will be followed:

- 8.9.2.1 Once discovered by NTC contract personnel, the PFTD Manager shall be notified immediately.
- 8.9.2.2 If caused by a NTC student while training under an approved NTC lesson plan, that student shall no longer be allowed to participate in LFSH drills. Students will be briefed this requirement in advance of the training.
- 8.9.2.3 If caused by a RUA or MOU holder after the fact, that user shall no longer be authorized access to the LFSHs until otherwise authorized by the PFTD Manager. Costs for damages may be charged to the RUA or MOU holder.
- 8.9.2.4 The NTC contractor shall repair all holes in the interior walls of the LFSHs.
- 8.9.2.5 If bullet traps are discovered to have been hit with non-frangible rifle rounds, the PFTD Manager shall be notified immediately.

## 8.10 Diversionary Devices

Shooter: Responsible for the actions below.

- 8.10.1 Must wear PPE during diversionary device deployment. PPE will include serviceable, durable, fire-resistant (Nomex) gloves, long-sleeve shirts, eye protection that meets the requirements of ANSI Standard Z87.1-2003, and ear protection with a minimum Noise Reduction Rating (NRR) of 26.
- 8.10.2 Must not deploy operational (full power) diversionary devices into rooms or hallways that are occupied by personnel.

## 8.11 Night Operations

Lead Instructor: Prior to nighttime LFSH training, the following actions must be accomplished.

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This SOP was prepared by the PFT and ES&H departments and is scheduled for review in August 2013.

- 8.11.1 Verify the LFSH lighting system is operational.
- 8.11.2 Verify the weapons mounted lighting systems are operational.
- 8.11.3 Ensure different colored chemical light sticks are available for ready identification of instructors, students, and observers.
- 8.11.4 Practice the training activity in daylight prior to conducting the night training.

## 8.12 Elevated Observation Control Platform

All individuals on the elevated observation control platform during live-fire training operations must comply with the PPE requirements set forth in Section 8.13 of this document.

**NOTE:** Without compensatory measures, no one is permitted on the elevated observation control platform of LFSH 114 when live-fire training is in progress on the 12-Position Range to the west of LFSH 114 or on the Vehicle Assault Range to the east of LFSH 114 (see Safety Note in Section 8.0).

- 8.12.1 Lead Instructor: Responsible for the safety of all instructors, shooters, students, and observers at all times. For non-DOE users, the safety briefing will be signed by the instructor and observers.
- 8.12.2 Observer:
  - (a) Wear required PPE (eye protection, hearing protection, body armor) while on the elevated observation control platform.
  - (b) Follow the directions of the lead instructor at all times. The lead instructor will designate where observers are to stand during observation of training.
  - (c) Never attempt to communicate with a shooter without the permission of an instructor. If a potentially hazardous situation is noticed, immediately notify an instructor.
  - (d) Never stand directly above, adjacent to, or transition over a bullet trap while that trap is being engaged by a shooter.
  - (e) Receive, read, and sign the Observer Safety Briefing (Appendix H) prior to entering the elevated observation control platform. The forms are located in the form box located at the entrance of LFSH 114.
  - (f) The safety briefing will be signed by the instructor and observer, specifying organization, and dated. During normal hours the safety briefing will be turned into the LFR Training Coordinator. After hours, the form will be placed in the form box located at the entrance to the LFSH, which will be picked up by the Rangemaster or designee and given to the LFR Training Coordinator to file.
- 8.12.3 Instructor and/or Observer: Never stand directly above, adjacent to, or transition over a bullet trap while that trap is being engaged by a shooter.

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### NON-PROPRIETARY INFORMATION

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### 8.13 Personal Protective Equipment

All Personnel: Use the following PPE when training in an LFSH.

- (a) Hearing Protection. All individuals in an LFSH and on the elevated observation control platforms must wear hearing protection. Other areas designated as “hearing protection required” by instructors will also require appropriate protection. Protection may take the form of earplugs, or earmuffs. Hearing protection must have a minimum NRR of 26.
- (b) Eye Protection. All personnel in an LFSH and on the elevated observation control platforms must wear eye protection. Eye protection must meet ANSI Standard Z87.1-2003 and include side shields or be “wraparounds.”
- (c) Body Armor. Protective armor for SPO I personnel must provide at least Type III A level protection, established by National Institute of Justice (NIJ) Standard 0101.06 (07/08). Protective armor for SPO II and III personnel must provide at least Type III level protection, as established by NIJ .06 (07/08), in accordance with DOE O 473.3 (6/11).

Outside agencies using rifle caliber ammunition in LFSH 114 or LFSH 115 must wear Level III body armor. When only using handgun caliber, the level of armor required is Level IIIA.

### 8.14 Duty Equipment

All Personnel: Use the following duty equipment when training in an LFSH.

- (a) All personnel in an LFSH and on the elevated observation control platforms must wear the appropriate level of approved body armor. For pistol caliber training, body armor must be no less than Level III A. For rifle caliber training, body armor must be Level III. Other than live-fire, body armor may be removed.
- (b) Non-slip, above-the-ankle boots must be worn by personnel directly involved in LFSH training activities.
- (c) Personnel in an LFSH who deploy diversionary devices must wear durable, serviceable, fire-resistant gloves, long-sleeve shirts, and appropriate eye and hearing protection.
- (d) Personnel in an LFSH who are shooters participating in NTC SRT courses will wear helmets to afford protection against blunt head trauma.

### 8.15 Risk Analyses

All LFSH users will adhere to the risk controls identified in LFSH training risk analyses.

### 8.16 Weapons Loading and Unloading

8.16.1 Shooter: Load and unload all weapons as follows:

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- (a) On a range, pointed downrange within appropriate limit poles;
- (b) Into an appropriate bullet containment device;
- (c) Under the supervision of an instructor;
- (d) In a designated area at an LFSH.

8.16.2 Instructor: Ensure that shooters unload, clear, and safe firearms before breaks, meals, placement in rifle racks, brass call, weapons cleaning, and end of training.

## 8.17 Post-operational Procedures

Lead Instructor: At the conclusion of training at an LFSH, ensure the following actions are completed:

- 8.17.1 All weapons are safe, cleared, and inspected for live ammunition.
- 8.17.2 All weapons, ammunition, diversionary devices, body armor, and any other equipment used during the training day have been accounted for.
- 8.17.3 All weapons, ammunition, and equipment are properly stored.
- 8.17.4 All brass has been collected and all debris within the LFSH has been removed.
- 8.17.5 All injuries sustained by students during the training activity have been reported.
- 8.17.6 Prior to and upon completion of scheduled LFSH operations, the user shall conduct a walk-through inspection of the condition of all walls and bullet traps, recording results on the LFSH Inspection Form (Appendix C). The completed form shall be turned in to the LFR Training Coordinator's office. During non-duty hours, the completed inspection forms are to be placed in the form box located at the entrances to LFSH 114 and LFSH 115. Failure to comply may result in the suspension of that organization's RUA or MOU; for NTC training, appropriate administrative action may apply.

## 9.0 APPENDICES

- A – Actions to Take in Response to a Significant Event
- B – Range Safety Officer
- C – LFSH 114 Pre- / Post-Training Walk-Through Form
- D – LFSH 115 Pre- / Post-Training Walk-Through Form
- E – Bullet Trap Maintenance Record
- F – LFSH 114 Weekly Inspection
- G – LFSH 115 Weekly Inspection
- H – Bullet Trap Detailed Inspection Criteria
- I – Bullet Trap Daily User Inspection Criteria
- J – Observer Safety Brief

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### NON-PROPRIETARY INFORMATION

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## **APPENDIX A – ACTIONS TO TAKE IN RESPONSE TO A SIGNIFICANT EVENT**

### **A.1 DEFINITIONS**

**MALFUNCTION / FAILURE.** For reporting purposes, an event that results in personal injury or damage to property or firearms.

**NEAR MISS.** An incident that does not result in personal injury, property damage, or schedule delay but has the potential to do so.

**NON-SIGNIFICANT EVENT.** Minor first aid injuries / conditions not involving an unusual event or near miss. Documentation consists of submittal of supervisor's incident report and paramedic report (if generated) and notification of Rangemaster, LFR Safety Specialist, and PFTD Manager.

**SIGNIFICANT EVENT.** An unplanned or unintended event that occurs at the NTC LFR. Significant events include unauthorized discharges, weapons malfunctions or failures (see above definition), accidents, injuries greater than first aid, unusual incidents, and near misses. Outside users will notify Rangemaster as soon as possible.

**UNAUTHORIZED DISCHARGE (UD).** The discharge of a firearm under circumstances other than (a) during firearms training with the firearm properly pointed downrange (or toward a target), or (b) the intentional firing at hostile parties when deadly force is authorized.

### **A.2 POLICIES**

Individuals involved in a significant event should immediately take appropriate emergency actions to preserve the safety and well-being of the individuals and equipment involved in the event. Following these actions, NTC employees are responsible for reporting all details associated with the significant event and complying with all investigative measures.

An investigative team will be comprised of, at a minimum, one member of the ES&H staff, the PFT Department, and the Armory, as applicable.

### **A.3 OPERATIONS**

#### **A.3.1 Reporting the Event**

In the event of a significant event, NTC employees are responsible for reporting the event and complying with the NTC reporting procedures. All other users of the NTC LFR are responsible for reporting the event to the LFR staff and complying with this appendix and their specific agency reporting policies.

1. Personnel involved in or witnessing a significant event will immediately report the event to a supervisor and/or range safety officer.
2. The reporting process will include notification through the chain-of-command, as appropriate, starting with the individual reporting the event:

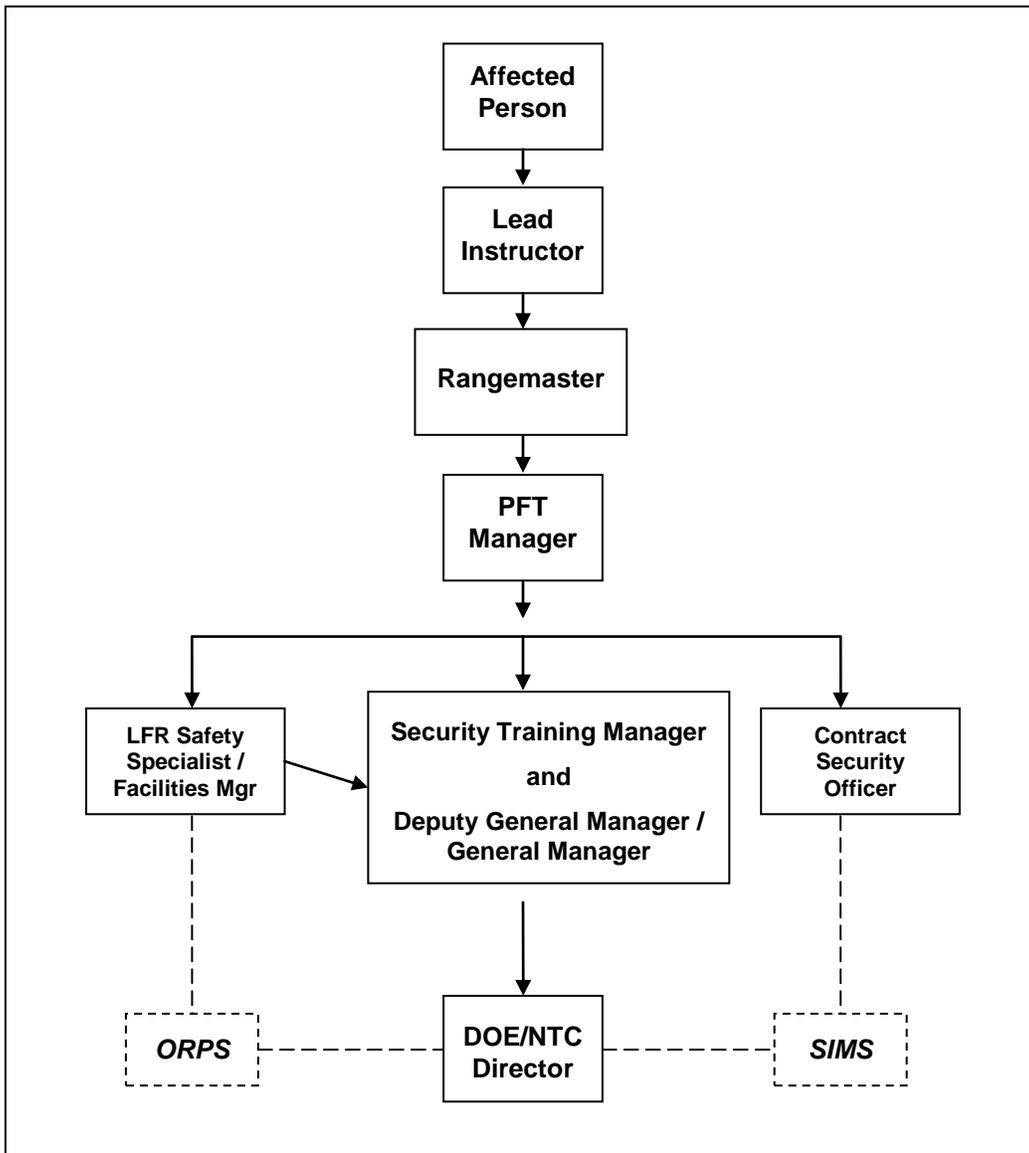
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#### **NON-PROPRIETARY INFORMATION**

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- Lead Instructor
- Rangemaster
- PFTD Manager
- LFR Safety Specialist or Facilities Operations/ES&H Manager
- Contract Security Officer
- NTC Deputy General Manager
- NTC General Manager
- DOE/NTC Director

Each individual is responsible for immediately notifying the next entity in the chain-of-command, as shown in the figure.



**NON-PROPRIETARY INFORMATION**

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3. In accordance with DOE directives, the ES&H staff will complete an occurrence report and submit it to the Occurrence Reporting Processing System (ORPS), and the Contract Security Officer will complete an occurrence report and submit it to the Security Incident Management System (SIMS). The LFR Safety Specialist and Contract Security Officer will obtain signatures from the DOE Director on the reports prior to submitting them to ORPS and SIMS, as necessary.

### **A.3.2 Investigating the Event**

#### **A.3.2.1 General Procedures**

1. Lead Instructor:
  - (a) Secure the incident scene as an “accident scene” in order to preserve evidence.
  - (b) Obtain written statements from all involved parties (instructors, students, and observers) as soon as practicable. Interviews will be accurately documented in detail.
  - (c) Collect evidence (including but not limited to):
    - Photographs, if possible;
    - Accurate, measured diagrams of the scene showing locations of all instructors, students, and observers; target locations; direction of fire; and bullet(s) and fragment(s) impact(s) locations;
    - Ammunition details, including lot number, firearm type (including features and serial number), and firearm condition immediately after a UD; and
    - Environmental conditions such as temperature, wind speed and direction, and lighting conditions.
  - (d) For incidents involving firearms, secure weapons for inspection and function check (if appropriate).
  - (e) Complete supervisor incident report, include photographs / drawings, statements and evidence.
  - (f) Perform testing to duplicate events only with concurrence of the cognizant contractor and DOE officials, under written test plans, and in a manner to preserve evidence.
2. Cognizant DOE Authority (NTC Director): Must authorize:
  - The release of the incident scene;
  - The release of firearms, related equipment, and other evidence for use;
  - Affected personnel to return to duty; and
  - Resumption of the suspended activity.

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#### **NON-PROPRIETARY INFORMATION**

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### A.3.2.2 UD-Specific Procedures

1. Lead Instructor: In addition to the above requirements, follow the UD-specific procedures below:
  - (a) Remove the individual firing the UD and other involved parties from training or immediately relieve them of duty to allow the incident investigation to commence.
  - (b) Immediately cease the training, qualification, or equivalent activities in which the UD occurred in order to allow the incident investigation to commence.
  - (c) Clear the firearm(s) that fired and make them safe under the observation of a firearms instructor.
2. Firearms Instructor: Record the condition of the firearm(s) and any comments on any observed firearm-related topics (for example, malfunctions).
3. Lead Instructor:
  - (a) Immediately take the firearm(s) that fired the UD and any involved equipment (such as holsters, tactical bags, body armor, equipment vests, etc.) into custody as evidence and control it to preserve and record the chain of custody.
  - (b) Provide the firearm(s) involved in the UD to an NTC Gunsmith for a function check.
4. Gunsmith: Document the function check findings.
5. Cognizant DOE Authority (NTC Director): Must authorize:
  - The release of the incident scene
  - The release of firearms, related equipment, and other evidence for use
  - Personnel to return to duty
  - Resumption of the activity

## APPENDIX B – RANGE SAFETY OFFICER

### B.1 DEFINITION

The Range Safety Officer (RSO) is the designated and specifically trained individual that is responsible for safety at a live-fire range (LFR) (DOE O 473.3).

### B.2 REQUIREMENTS

The RSO for the LFR at the Department of Energy National Training Center (DOE/NTC) will be the lead instructor with overall responsibility for range safety. This will include monitoring the safety performance of shooters as well as the overall safety of the firing range. The lead instructor/RSO will be present during all range firearms training, including qualifications.

### B.3 RESPONSIBILITIES

1. Be familiar with the “Four General Firearms Safety Rules” and the “Fourteen Specific Safety Rules.”
2. Be knowledgeable of NTC standard operating procedures.
3. Be knowledgeable of the range limit poles at the DOE/NTC LFR.
4. Be knowledgeable of the types of weapons and targets that may be used on specific ranges.
5. Be knowledgeable of instructor-to-shooter ratios for DOE/NTC live fire activities.
6. Possess a hand-held radio capable of communicating with the paramedic on duty, LFR staff, and the SNL Emergency Operations Center (Channel C-1).
7. Ensure a qualified firearms instructor gives a lesson-specific safety briefing to all students and observers prior to conducting any training/qualification activity.
8. Visually inspect the designated range for any safety hazards that may exist (for example, tripping or falling hazards).
9. Ensure a red flag is flying during daylight training and the red beacon is on during night training.
10. Report emergencies at the LFR by dialing **911**. The following NTC staff should also be informed of emergency situations as appropriate and as soon as possible.

Protective Force Training Manager	845-2303
Rangemaster	845-2326
LFR Safety Specialist	845-2330
Facilities Operations/ES&H Manager	845-2067

Report after-hour emergencies by dialing **911**.

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11. Ensure a paramedic is on duty for NTC training. If training is being conducted without the presence of a paramedic, an NTC LFR instructor must be present who is currently trained/certified in first aid and cardiopulmonary resuscitation and has a medical trauma kit in his/her possession. Prior approval from the Rangemaster or PFTD Manager and notification of the LFR Safety Specialist is required.
12. Ensure that all individuals, including observers, have required personal protective equipment.
13. The lead instructor/RSO will ensure training is suspended and all personnel are removed from the firing line to a designated safe area during electrical storms or when lightning is present (see ESH-GP-552, Inclement Weather Restrictions).
14. The lead instructor/RSO will make the determination when to stop firing due to adverse weather conditions (see ESH-GP-552).
15. During extreme heat conditions, ensure water is available and personnel involved in firearms training are given a break at least every 60 minutes. In cold weather, ensure regular breaks are taken in heated areas.
16. Ensure all observers are located in a designated safe area.
17. When the training is complete, ensure each firearm is in a safe condition (safety on, ammunition/magazine removed, action open, and chambers clear), and is physically examined by the shooter and the lead instructor/RSO or qualified firearms instructor before leaving the LFR. (Shooters may reload the firearm at a clearing barrel if returning directly to duty.)
18. If shooters are to use the weapons cleaning room, the lead instructor/RSO or an instructor will ensure weapons are inspected at the clearing barrel prior to entering the cleaning room.

For night firing:

19. Ensure a rotating red light is visible while firing is in process.
20. Conduct a visual inspection of the target area with a flashlight and an audible check to ensure no individuals are in the impact area prior to commencement of night firing.

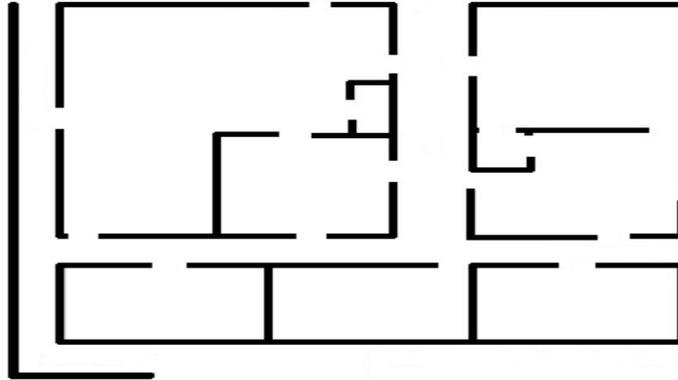
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This SOP was prepared by the PFT and ES&H departments and is scheduled for review in August 2013.

### APPENDIX C – LFSH 114 PRE-/POST-TRAINING WALK-THROUGH FORM

Organization: \_\_\_\_\_



**NOTE:** Damage to moveable walls or partitions must be indicated on this schematic.

Comments: \_\_\_\_\_

Prior to training in the NTC LFSH, the user shall perform a walk-through inspection of the facility and identify all bullet holes in walls, inspect bullet traps, and note other damage. (Questionable bullet traps will be taken out of service). Damaged bullet traps will be marked with a large X, taken outside, and removed from service immediately.

**LFSH INSPECTION**

- \_\_\_\_\_ Walls (bullet holes, large fragments, loose panels)
- \_\_\_\_\_ Doors (on hinges, inserts)

**BULLET TRAP INSPECTION**

- \_\_\_\_\_ 360-degree inspection of seam caps and frame (look for voids, gaps, and missing seam caps).
- \_\_\_\_\_ Inspect Linatex for self-sealing qualities (ensure that steel is not visible and no holes bigger than ¼-inch).
- \_\_\_\_\_ Inspect rear of armor plate for holes, cracks, and bulges (ensure you cannot feel dimpling on back of steel plate).
- \_\_\_\_\_ Inspect frame, casters, bullet traps, and counter-weights for breakage or loose bolts.

NOTE: Report all discrepancies to the Rangemaster or designee.

Upon completion of training, the user shall perform another walk-through inspection of the facility and identify any bullet holes in walls, damaged bullet traps, or other damage. The completed inspection forms are to be placed in the form box located at the entrance to LFSH 114 upon completion of inspection. Failure of the organization to document all damage

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found in the facility could result in termination of use privileges and collection of repair cost from their agency. Any questions should be directed to the LFR Rangemaster.

Organization Representative (printed) \_\_\_\_\_

User Signature \_\_\_\_\_

Date/Time of Use/Ammunition Used (specify) \_\_\_\_\_

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## APPENDIX D – LFSH 115 PRE-/POST-TRAINING WALK-THROUGH FORM

Organization: \_\_\_\_\_



**NOTE:** Damage to moveable walls or partitions must be indicated on this schematic.

Comments: \_\_\_\_\_

Prior to training in the NTC LFSH, the user shall perform a walk-through inspection of the facility and identify all bullet holes in walls, inspect bullet traps, and note other damage. (Questionable bullet traps will be taken out of service.) Damaged bullet traps will be marked with a large X, taken outside, and removed from service immediately.

### LFSH INSPECTION

- \_\_\_\_\_ Walls (bullet holes, large fragments, loose panels)
- \_\_\_\_\_ Doors (on hinges, inserts)

### BULLET TRAP INSPECTION

- \_\_\_\_\_ Perform 360-degree inspection of seam caps and frame (look for voids, gaps, and missing seam caps).
- \_\_\_\_\_ Inspect Linatex for self-sealing qualities (ensure that steel is not visible and no holes bigger than ¼-inch).
- \_\_\_\_\_ Inspect rear of armor plate for holes, cracks, and bulges (ensure you cannot feel dimpling on back of steel plate).
- \_\_\_\_\_ Inspect frame, casters, bullet traps, and counter-weights for breakage or loose bolts.

### NON-PROPRIETARY INFORMATION

This SOP was prepared by the PFT and ES&H departments and is scheduled for review in August 2013.

**NOTE:** Report all discrepancies to the Rangemaster or designee. Upon completion of training, the user shall perform another walk-through inspection of the facility and identify any bullet holes in walls, damaged bullet traps, or other damage. The completed inspection forms are to be placed in the form box located at the entrance to LFSH 115 upon completion of inspection. Failure of the organization to document all damage found in the facility could result in termination of use privileges and collection of repair cost from its agency. Any questions should be directed to the LFR Rangemaster.

Organization Representative (printed) \_\_\_\_\_

User Signature \_\_\_\_\_

Date/Time of Use/Ammunition Used (specify) \_\_\_\_\_

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**NON-PROPRIETARY INFORMATION**

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**APPENDIX E – LFR BULLET TRAP MAINTENANCE RECORD**

Bullet Trap	Steel	Linatex	2x4 Frame	Casters	Frame	Caps	Welds	Ply Wood
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

Signature: Rangemaster or Designee Approval

Date:

**NON-PROPRIETARY INFORMATION**

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### APPENDIX F – LFSH 114 WEEKLY INSPECTION

Person Inspecting: \_\_\_\_\_ Date: \_\_\_\_\_



Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

#### LFSH INSPECTION

- \_\_\_\_\_ Walls (bullet holes, large fragments, loose panels)
- \_\_\_\_\_ Doors (on hinges, inserts secure, sliders operational)
- \_\_\_\_\_ Floors (water, snow, ice, breaching debris)
- \_\_\_\_\_ Elevated Observation Control Platform (EOCP – catwalk)
- \_\_\_\_\_ Roof (sound-deadening, nests)
- \_\_\_\_\_ Lighting (bulbs, fixtures, rheostats)

#### BULLET TRAP INSPECTION

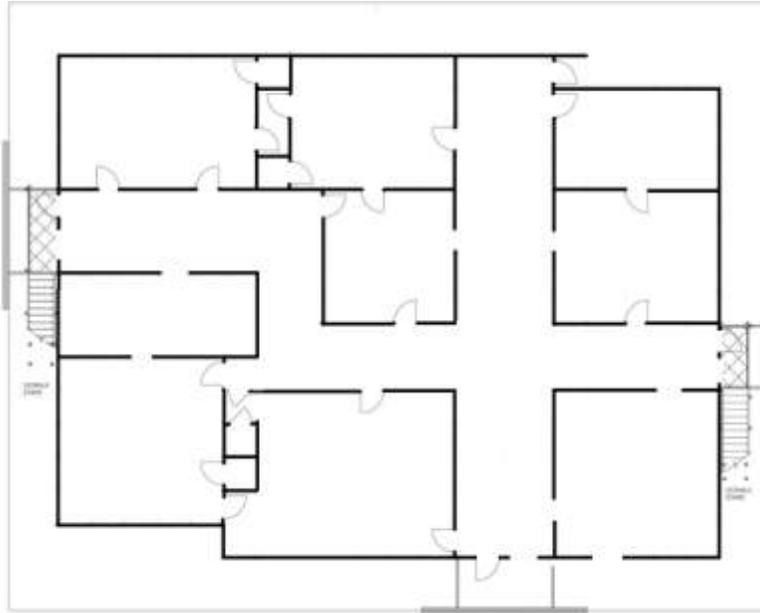
- \_\_\_\_\_ Conduct 360-degree inspection of seam caps and frame (look for voids, gaps, and missing seam caps)
- \_\_\_\_\_ Inspect Linatex for self-sealing qualities. Ensure steel is not visible, and there are no holes bigger than ¼-inch.
- \_\_\_\_\_ Inspect rear of armor plate (holes, cracks, concave/convex bulges, reverse dimpling). Ensure excessive dimpling can't be felt on back of steel plate.
- \_\_\_\_\_ Inspect frame, casters, trap, and counter-weights for breakage or loose bolts

#### NON-PROPRIETARY INFORMATION

This SOP was prepared by the PFT and ES&H departments and is scheduled for review in August 2013.

### APPENDIX G – LFSH 115 WEEKLY INSPECTION

Person Inspecting: \_\_\_\_\_ Date: \_\_\_\_\_



Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

#### LFSH INSPECTION

- \_\_\_\_\_ • Walls (bullet holes, large fragments, loose panels)
- \_\_\_\_\_ • Doors (on hinges, inserts secure, sliders operational)
- \_\_\_\_\_ • Floors (water, snow, ice, breaching debris)
- \_\_\_\_\_ • Elevated Observation Control Platform (EOCP – catwalk)
- \_\_\_\_\_ • Roof (sound-deadening, nests)
- \_\_\_\_\_ • Lighting (bulbs, fixtures, rheostats)
- \_\_\_\_\_ • Technology (cameras, special effects equipment)

#### BULLET TRAP INSPECTION

- \_\_\_\_\_ • Conduct 360-degree inspection of seam caps and frame (look for voids, gaps, and missing seam caps)
- \_\_\_\_\_ • Inspect Linatex for self-sealing qualities.

**NON-PROPRIETARY INFORMATION**

This SOP was prepared by the PFT and ES&H departments and is scheduled for review in August 2013.

- • Ensure steel is not visible, and there are no holes bigger than ¼-inch. Inspect rear of armor plate (holes, cracks, concave/convex bulges, reverse dimpling).
- • Ensure excessive dimpling can't be felt on back of steel plate. Inspect frame, casters, trap, and counter-weights for breakage or loose bolts

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**NON-PROPRIETARY INFORMATION**

This SOP was prepared by the PFT and ES&H departments and is scheduled for review in August 2013.

## APPENDIX H – BULLET TRAP DETAILED INSPECTION CRITERIA

The NTC Rangemaster and LFR maintenance staff will conduct the following detailed 360-degree inspection of the NTC's bullet traps every 6 months or sooner as needed.

1. Frame

Inspect all welds for cracks, breakage, and general damage.

2. Base

Inspect casters for smoothness in rolling, tightness, and check counter weight for loose bolts.

3. Front of trap

Remove plywood and replace as needed, along with inside material and 2 x 4 framing.

Traps must be constructed for easy inspection of the inside of the fascia material (Linatex) and the face of the steel.

Front steel inspection consists of checking the welds around the bath tub and ensuring the steel plate backing hasn't deteriorated beyond 50%. If deterioration is over 50%, the steel plate backing needs to be replaced.

4. Back of trap

Check for dimpling in the impact area. If dimpling is found, the steel plate backing needs to be replaced.

5. Reassembly

Ensure all welds, casters, counter weight, steel plate backing, Linatex, 2 x 4 frame, and fascia material have been inspected, repaired, or replaced, as needed.

Ensure the traps are flush and squared before applying the caps on the top, sides, and bottom.

Any discrepancies that are noted and/or documented will be brought to the attention of the Rangemaster or designee. If the trap is deemed unsafe, it will be removed from service immediately.

Documentation of the detailed inspection will be logged on the LFR Bullet Trap Maintenance Record.

The Rangemaster will sign the LFR Bullet Trap Maintenance Record to approve the bullet trap for use in the LFSH.

The LFR Bullet Trap Maintenance Record will be kept with the LFR Training Coordinator.

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**NON-PROPRIETARY INFORMATION**

This SOP was prepared by the PFT and ES&H departments and is scheduled for review in August 2013.

## APPENDIX I – BULLET TRAP DAILY USER INSPECTION CRITERIA

Daily users of the NTC's live fire shoot houses (LFSH 114 and LFSH 115) will conduct the following 360-degree inspection of the bullet traps:

1. Frame

Inspect all welds for cracks, breakage, and general damage.

2. Base

Inspect casters for smoothness in rolling, tightness, and check counterweight for loose bolts.

3. Front of trap

Check the fascia material to ensure serviceability of plywood. The plywood must be inspected when the integrity of the material allows rounds to splash back onto the shooters.

4. Back of trap

Check for dimpling in the impact area. If dimpling is found, the steel plate backing needs to be replaced.

5. Documentation of inspection

If the trap is deemed unsafe, it will be removed from service immediately by the user and the user will mark the disabled with a big X across the face of the trap. Any discrepancies that are noted and/or documented will be brought to the attention of the Rangemaster or designee.

Documentation of the inspection will be logged on the Pre- / Post-Training Walk-Through Forms (Appendix C for LFSH 114 or Appendix D for LFSH 115), signed by the user, and placed in the designated marked box located inside the southwest corner of the LFSH, which will be retrieved by the LFR maintenance staff or Rangemaster and kept with the LFR Training Coordinator.

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**NON-PROPRIETARY INFORMATION**

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**APPENDIX J – OBSERVER SAFETY BRIEF**

1. Wear required personal protective equipment (eye protection, hearing protection, body armor) while on the elevated observation control platform.
2. Follow the directions of the instructors at all times. The instructors will designate where observers should be located during observation of training.
3. Never attempt to communicate with a shooter without the permission of an instructor.
4. If a potentially hazardous situation is noticed, immediately notify an instructor.
5. Never stand directly above, adjacent to, or transition over a bullet trap while that trap is being engaged by a shooter.

Lead Instructor: \_\_\_\_\_ Observer: \_\_\_\_\_

Organization: \_\_\_\_\_ Date: \_\_\_\_\_

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**NON-PROPRIETARY INFORMATION**

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