

**APPENDIX A**  
**LIVE HAND GRENADE RANGE**  
**OPERATIONS CHECKLIST**

*This appendix is designed to assist leaders in the safe operation of a basic live hand grenade range. As a checklist, it does not provide the answers but asks the questions for leaders to answer. Modification of the checklist for other types of live hand grenade training (collective training, STX, and so forth) is expected. The following is a suggested checklist:*

**A-1. BECOME AN EXPERT**

- Review written material.
- Review AR 385-63.
- Review FM 23-30 and TM 9-1330-200-12.
- Check out the range.
- Visit range control and read installation range instructions.

**A-2. DETERMINE REQUIREMENTS**

- Personnel.
- OIC.
- Safety officer.
- Assistant safety officer.
- NCOIC.
- Ammunition personnel.
- Target detail.
- Tower operator.
- Assistant instructors.
- RATELOs.
- Guards, as required.
- Aidmen, with required medical supplies.
- Truck driver.

**A-3. EQUIPMENT**

- Kevlar, body armor, LCE, and earplugs issued to all personnel, instructors, and students.
- Range packet and clearance form.
- Safety fan and diagram.
- Appropriate publications pertaining to training (FMs, TMs, ARs).
- Lesson plans, status reports, and reporting folders.
- Range flag.
- Communications equipment to include a phone, FM radios, and field radios; two means of communication are required.
- PA system with bullhorns for backup.

- Kevlars marked for control personnel.
- Ambulance or required dedicated evacuation vehicle; the driver must have knowledge of the route to the hospital.
- Earplugs for all personnel; have extras on hand for visitors.
- Water for drinking and cleaning.
- Qualification scorecards.
- Tables and chairs, if needed.
- Training aids.
- Targets required for the operation of the range (bunkers or personnel targets 1/4-inch steel E-type silhouette).

#### **A-4. OCCUPY, INSPECT, AND SET UP RANGE**

- Establish good communication by at least two means.
- Have designated parking areas for cadre and training unit personnel.
- Have secured ammunition points.
- Establish locations for medical station.
- Establish water points.
- Have a designated mess area.
- Have a designated helipad.
- Inspect range for operational conditions.
- Make sure the impact area is raked and clear of debris.
- Check all throwing pits for sharp edges or unlevelled throwing surfaces.
- Check to ensure knee walls meet standards.
- Check tower and tower PA system.
- Raise the red flag when occupying or firing, according to local SOP.
- Request an opening code from range control.

#### **A-5. PREPARATION FOR TRAINING**

- Get a good head count of all soldiers going to train.
- Identify soldiers who will not be training.
- Issue equipment and ammunition necessary to conduct training.
- Conduct safety briefing to include administrative personnel.
- Organize personnel into throwing orders.

#### **A-6. CONDUCT INITIAL HAND GRENADE TRAINING**

- Move soldiers to training location.
- Issue practice grenades to soldiers.
- Show soldiers inspection procedures when unpacking hand grenades.
- Show soldiers composure of grenade, for example, body, fuze, and three safeties.
- Teach soldiers proper left and right handgrips.
- Teach soldiers proper throwing positions and techniques.
- Let soldiers practice throwing grenades, 10 or more as required for efficiency.

**A-7. INSPECTION OF LIVE HAND GRENADES**

- Open the canister and visually inspect the grenade.
- If grenade is packed upside down, turn in grenade. (See TM 9-1330-200-12.)
- If safety pin or safety clip is missing, turn in grenade.
- If all the above is in order, remove grenade from canister.
- If grenade body is cracked, turn in grenade.
- If fuze lugs are broken, turn in grenade.
- If safety lever is bent or broken, turn in grenade.
- The safety pin must have either a diamond crimp or a 45-degree spread; if not, turn in grenade (TM 9-1330-200-12).
- If pull ring is cracked, turn in grenade.
- If fuze is loose, turn in grenade.

**A-8. MOVEMENT TO LIVE-BAY TRAINING AREA**

Soldiers are briefed to prepare to move down to the live-bay throwing site. Individual weapons and protective masks are grounded in the designated training unit area of operation. Range cadre ensure soldiers have earplugs, flak vest, LCE, and Kevlar. Soldiers also ensure that all equipment is properly worn and fastened. Before marching the soldiers to the live-bay site, a last minute check is made to make sure any high-risk soldier is identified in the initial training period and is pulled out of the formation.

**a. Safety Precautions.**

(1) After soldiers go past the prescribed roadblocks and or barriers, make sure a guard is posted and briefed on procedures for individuals wanting to cross roadblocks during live throwing of grenades.

(2) Communication between roadblock and tower must be confirmed before live throwing.

(3) Soldiers are shown the live-bay training area and a safety briefing is given on the operating procedures of live bay. Cadre reinforce the fact that cooking-off and milking of hand grenades are not allowed in live bay. Soldiers are also briefed on the procedures for dropping grenades.

(4) After the live-bay safety briefing, march the soldiers to the overhead cover area.

(5) Soldiers are checked once more to ensure all have earplugs and equipment is properly secured.

**b. Issue of Live Hand Grenades.**

(1) Issue grenades to the soldiers making sure they are holding the grenades using a proper left or right handgrip. Grenades are issued only to those soldiers who are next in line to go to the throwing pit. The safety NCO makes sure the soldiers are holding the grenades properly and at the chin-chest level.

(2) When departing to the live-bay pit, the safety officer directs soldiers to sound off, each indicating with which hand he will throw the grenade.

**A-9. THROWING OF LIVE HAND GRENADES**

Throwing of live hand grenades can be done in a safe manner if the range safety procedures are followed. These procedures include identification of high-risk soldiers as well as reinforcement of training to those soldiers who may have had problems during the initial training block of instruction. Live-bay cadre must be completely alert at all times and prepared to take appropriate actions for any given situation. The following is guidance for operation procedures of live-bay throwing.

- The range OIC must be positioned in the tower to observe the throw phase and count grenade explosions for purposes of grenade accountability and duds.
- A pit NCO is assigned to each throwing pit.
- The safety NCO issuing grenades directs soldiers to specific throwing pits.
- The pit safety NCO observes movement of soldiers to the pit.
- The soldier identifies the throwing arm to the pit safety NCO.
- The pit safety NCO directs the soldier to the appropriate position of the pit, based on left or right throwing arm.
- The pit NCO directs the soldier to hand over the grenade in his nonthrowing hand.
- The pit safety NCO directs the soldier to remove the safety clip and prepare to throw. From this point on, the pit safety NCO does not remove his eyes from the throwing hand until completion of the throw. The pit safety NCO signals the tower that the soldier is prepared to throw by holding up his left or right arm in a vertical position.

**WARNING**

**If a grenade is dropped in the pit, the pit safety NCO forces the soldier out of the pit into the designated safe area and follows him.**

**A-10. ORDER TO THROW FROM TOWER**

- When all throwing pits are ready, the tower NCO commands THROW, and the pit NCO repeats the THROW command to the soldier in the pit.
- All pits throw at the same time.
- The soldiers throw the grenades, then drop to cover. If the soldier does not take cover, the pit NCO forces the soldier to take cover if needed.
- The tower NCO commands CLEAR after observing each grenade detonate.
- The soldiers prepare to throw a second grenade, repeating the required steps.

**WARNING**

**If a soldier releases the safety lever but fails to throw the grenade, the pit safety NCO forcefully repeats the command to throw; if necessary, the pit safety NCO grabs and throws the grenade himself.**

**A-11. COMPLETE THE TRAINING MISSION**

- Clear the range.
- Close down the range in accordance with local SOP.
- Remove all equipment and ammunition from the range.
- Police the range, fill in all holes with sand, rake the impact area, and perform other range maintenance as required by local SOP.
- Request a range inspection from range control when ready to clear.
- Turn in paperwork and equipment.
- Submit after action report to headquarters.
- Report any noted safety hazards to proper authorities.
- Turn in all unexpended grenades in original grenade containers to the ASP, along with all safety pins and packing residue from all detonated grenades.