Hose & Nozzle Technique: Drill 10 & 11



Prerequisite Training

Learners must have received basic instruction in the use of personal protective equipment, hose, nozzles, have developed basic proficiency door entry (see Hose & Nozzle Technique Drills 4 & 5).

Learning Outcomes

- 1. Demonstrate the procedure used for safe entry through a locked door into a compartment that is or may be involved in fire. This process must include:
 - a. Size-up (dynamic risk assessment)
 - b. Door control
 - c. Gas Cooling

Note: These skills must be demonstrated using both inward opening doors (Drill 10) and outward opening doors (Drill 11)

Reference

Grimwood, P., Hartin, E., McDonough, J., & Raffel, S. (2005). *3D firefighting: Training, techniques, & tactics*. Stillwater, OK: Fire Protection Publications.

Resource Requirements

These drills require a pumping apparatus and sufficient hose and nozzles to provide each team of learners with a hoseline. If possible teams should be limited to no more than five learners to maximize practice and minimize session duration. If possible, the same nozzles that will be used operationally should be used for this drill.

Training Prop

Forcible door entry is most effectively practiced using a forcible entry prop (or actual door in an acquired structure that can be forced). However, sequence and process can be practiced on any door where water may be applied. In this case, forcing the door must be simulated.

CFBT Instructors

One instructor is required for each team of learners during this lesson.

Learners

The maximum number of learners is dependent on the availability of resources and instructors.

Safety

Inspect the training area prior to conducting this evolution to ensure that there are no walking or working surface hazards. Instruct the participants to use caution when directing water from hoselines.



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Personal Protective Equipment

Learners should wear structural firefighting clothing and self-contained breathing apparatus during this drill.

Scene Control

Scene control will vary to some extent based on the specific training location. The immediate training area will be limited to participants and (accompanied) observers of the training activity.

If in-service apparatus is at the training location, position it to ensure ease of egress.

Instructional Activities

This lesson involves the following instructional activities. Base your instructional approach on learners experience level and understanding as the lesson progresses. Drills 4 and 5 are not sequence dependent (learners may start with either inward or outward opening doors)

Drill 10: Inward Opening Doors

- 1. Review the sequence of actions in the door entry procedure. If learners master the sequence before engaging in physical practice they can focus on technique rather than both sequence and technique.
 - a. Size-Up (approaching and at the door)
 - b. Control the door. Discuss use of a hose strap or tool to control inward opening doors.
 - c. Technique for forcing inward opening doors (e.g., with the Halligan and flat axe).
 - *Note:* If working with a two person team, the firefighter with the nozzle will serve as the striker (using the flat axe). In this case, the firefighter must have the nozzle in hand, prior to the door being completely forced. If working in a three person team, the firefighter with the nozzle remains in that role and the third firefighter serves as the striker.
 - d. Two pulses above (coordinated with forcing the door) and open the door, assess conditions inside, and cool the gases inside the compartment (short or long pulses depending on the compartment and conditions)
 - *Note:* Use of two pulses above when forcing an exterior door will depend on observed conditions (limited, cool smoke, will not likely require cooling above before opening).
 - e. Close and maintain control of the door and assess the risk of entry
 - f. Two pulses above the door and make entry if safe to do so.
 - It may be necessary to repeat this procedure multiple times to gain control of the space inside the door.
- 2. Have the learners verbalize the sequence while walking through the procedure (no hose, nozzle, tools, or door). This helps the learners master the sequence of steps. Reinforce that this is not a lock-step procedure, the forcible entry procedure, extent to which the door is opened, angle of the fog pattern, and duration and number of pulses will vary depending on conditions.



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- 3. Have the learners practice the door entry procedure working in both the nozzle and tools/door position. Provide the learners with information about observed conditions, changing conditions each time that they perform the procedure.
 - a. Size-Up (approaching and at the door). Have the learners verbalize their thought process as they perform this element of the door entry procedure.
 - b. Control the door. Have the learners practice using a hose strap to control inward opening doors.
 - c. Force the door. Have the learners practice with different door and working space configurations. Explore different forcible entry techniques to determine how forcible entry and door entry procedures can best be integrated under different circumstances.
 - d. Two pulses above (coordinated with forcing the door) and open the door, assess conditions inside, and cool the gases inside the compartment (short or long pulses depending on the compartment and conditions)
 - e. Close the door, maintain control, and assess the risk of entry
 - f. Two pulses above the door and make entry if safe to do so.

It may be necessary to repeat this procedure multiple times to gain control of the space inside the door. Provide varied conditions so that the learners must make this decision.

4. Debrief the learners after each evolution, encourage them to analyze their own performance and identify how their door entry procedure could have been improved.

Drill 11: Outward Opening Doors

This drill is quite similar to Drill 4, but using an outward opening door. The principal difference is in how the learners control the door (a hose strap is not required). Have the learners in the door position experiment with various forcible entry techniques as well as body and foot position to maintain door control during the door entry procedure.

Integration

Hose and Nozzle Technique Drills 10 and 11 can be used as a stand-alone training exercise or elements of this drill can be integrated into other training activity. This drill should be integrated into training activity any time that learners are making entry through a locked door that may have hot smoke or flames behind it (e.g., hose evolutions simulating interior fire attack, primary search).



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