Maryland Fire and Rescue Institute
Drill of the Month – October 2001

Standard Operating Procedures

Instructor Guide

Level of Instruction:

Time Required: Two Hours

Materials:

- Transparencies
- Overhead Projector
- Screen
- Group Exercises

References:

- Engine Company Fireground Operations, Second Edition, NFPA
- Truck Company Fireground Operations, Second Edition, NFPA
- MFRI Supplemental Material

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PREPARATION:

Motivation:

Objective (SPO): 6-1

> The firefighter will demonstrate a basic knowledge of standard operating procedures as a means of positioning and utilizing apparatus and personnel in a variety of common structural fireground assignments, from memory, without assistance, to a written test accuracy of 70%.

Overview:

> Standard Operating Procedures
>
> - Why Standard Operating Procedures
> - Elements of a Standard Operating Procedure
> - Work Assignment by Position
> - Sample Standard Operating Procedures

Standard Operating Procedures

SPO 1-1 The firefighter will demonstrate a basic knowledge of standard operating procedures as a means of positioning and utilizing apparatus and personnel in a variety of common structural fireground assignments, from memory, without assistance, to a written test accuracy of 70%.

EO 1-1 Describe the reasons for and benefits of having standard operating procedures at a structural fire.

EO 1-2 Describe the basic elements of a standard operating procedure for a structural fire.

EO 1-3 Describe the basic work assignments for each position on a piece of apparatus responding to a structural fire.

EO 1-4 Based on sample standard operating procedures develop a standard operating procedure for a structural assignment in your department.

This drill should be conducted as an interactive discussion to allow all members, regardless of knowledge and experience, to participate and contribute. Members can then be part of the final product.

I. Why Standard Operating Procedures (1-1)

A. Standard operating procedures (SOP) are guidelines for use at particular incidents and not rules or regulations
   1. Attempt to create generic SOP's for types of incidents such as residential fires rather than for specific locations
   2. Specific SOP's may have to be developed for target hazards (high life loss potential)

> *Note:* Some departments choose to refer to standard operating procedures as standard operating guidelines because the use of the term "procedures" may imply that they should be followed as prescribed rather than used as a guideline. It is suggested that an opening statement be included in the standard operating procedures to indicate that the document is a guide and not a specific procedure and that it may be adjusted based on individual incidents and circumstances.

B. Benefits of standard operating procedures
   1. Reduce need to provide instructions by radio
   2. Insure positions and duties are addressed
   3. Standardize operations among companies and departments
   4. Reduce confusion
   5. Designate responsibility for establishment of command and safety
   6. Improve accountability of personnel
   7. Keep unassigned units uncommitted and ready for future deployment or return to service

C. Initial assignments
   1. Response patterns and operating procedures ensure
      a. Crew members get into action quickly
      b. Most urgent operations begin immediately upon arrival
   2. Standard operating procedures should detail parts of fire building to be covered and apparatus positioning
   3. Units should announce arrival on scene and location to insure that all positions are covered

II. Elements of a Standard Operating Procedure (1-2)

A. SOP's should be based on order of arrival rather than order of dispatch or specific units
   1. Units may be delayed in arriving
   2. Units may be committed on another alarm
   3. Units may be out-of-service

B. Water supply
   1. Deliver water from source to scene
      a. Assign responsibility for initial water supply
      b. Assign responsibility for sustained water supply
      c. Address the need for additional resources to supply water at scene, e.g., tanker shuttle or water relay
      d. Rural operations as well as larger fires may require multiple engines working together
   2. Provide for an adequate and continuous water supply through the use of a pressurized system, static water source, relay operations, or tanker shuttles

C. Coverage of the structure
   1. Approach
      a. Approach is more difficult as unit gets closer to fire building
      b. Advance in slow, deliberate manner

c. Officer-in-charge concerned with getting good position
d. Remain uncommitted until in position needed

2. Positioning
   a. Not essential to be positioned directly in front or rear on one- and two-story building
   b. Should not block access to hydrants or protective systems
   c. Allow access to taller buildings
      1) Engine should pull past building when truck and engine coming from same direction
      2) Engine should stop short when truck and engine coming from opposite directions
      3) Width of building and fire conditions may solve positioning problem
      4) May require positioning for elevated streams
      5) Leave room for trucks and/or squads
      6) Positioning should allow viewing as many sides of the building as possible
3. The first arriving unit at the fire scene will generally be an engine company and the decisions made regarding this engine company may set the stage for the entire operation.
4. Front and rear coverage
   a. Must be provided in standard response procedures
   b. Entire building should be checked as soon as possible
   c. First arriving engine and truck should be assigned front
   d. Second or third arriving engine and second truck to rear
   e. Assignment modified according to situation
   f. Rear assignment does not mean apparatus must be driven to rear; crew must check rear

g. Through pre-fire inspection and planning, know area for access to rear

5. Other aspects
   a. Assign interior coverage as part of standard response procedures
   b. Coverage operations must be coordinated
   c. Fire building must be covered front and rear, inside and outside
   d. Provide for the designation of a scene safety officer on working incidents

D. Protection of exposures
   1. Insure that interior and exterior exposures are covered during the initial response
   2. Do not ignore exposures and focus only on the fire

E. Confinement of fire
   1. Provide for primary and secondary attack lines to confine fire
   2. Include a provision for back-up lines or master streams as needed
   3. Attempt to confine the fire to the smallest possible area before extinguishing

F. Extinguishment
   1. Assign responsibility for extinguishment of fire
   2. Address coordination of fire attack with ventilation and salvage activities
   4. Make sure there are adequate numbers and sizes of streams for incident

G. Other Items to Consider
   1. Establishing command and the incident command system
   2. Establishing safety officer on working incidents
   3. Providing an initial situation report
      a. Conditions on arrival
      b. Location of fire - side and quadrant
   4. Establishing level of staging

a. Level I - approximately one block from scene and uncommitted
b. Level II - staging area on multiple alarm incidents

5. Providing progress reports at regular intervals
6. Maintaining accountability and conducting periodic personnel accountability reports
7. Establishing rescue teams
8. Preparing contingency plans should incident escalate
9. Consider frequent rotation of personnel in hot or cold weather or during incidents or extended duration
10. Establishing a rehab area

III. Work Assignment by Position (1-3)

A. Work assignments based on a crew of four for illustration purposes.

Note: In order to comply with 29 CFR 1910.134 (two-in/two-out rule), no company should begin interior operations unless there is a rescue team (rapid intervention team) in place unless there is a known rescue.

1. As part of pre-fire planning, personnel should be assigned tools
2. Tool assignments should be based on tool location and riding position

B. First engine company
   1. Driver
      a. Drive and operate apparatus
      b. Position apparatus at scene
      c. Break supply line and connect to pump panel
      d. Facilitate communications with crew
      e. Monitor or assist in establish water supply for fire protection systems (standpipe and sprinkler systems)
   2. Officer
      a. Supervise and control personnel
      b. Establish initial command if first arriving officer

c. Report to and maintain communications with command post
d. Equipment required includes portable radio, handlight, and SCBA

3. Firefighter I
   a. Initiate search and rescue if required and not being performed by other units on scene
   b. Initiate entry if required
   c. Initiate fire confinement and extinguishment
   d. Remain as part of a team with Firefighter II
   e. Equipment required includes portable radio (one per team or one per individual if available), SCBA, attack line
4. Firefighter II
   a. Drop supply line at hydrant or water source and return to apparatus
   b. Assist Firefighter I in performing assigned duties
   c. Remain as part of a team with Firefighter I
   d. Equipment required includes SCBA, entry tools, handlight

C. Second engine company
1. Driver
   a. Drive and operate apparatus
   b. Position apparatus at scene
   c. Pick up supply line and provide water supply to first engine
   d. Facilitate communications with crew
2. Officer
   a. Supervise and control personnel
   b. Report to and maintain communications with command post
   c. Equipment required includes portable radio, handlight, and SCBA
3. Firefighter I
   a. Assist with search and rescue if required and not being performed by other units on scene
   b. Assist with entry if required

c. Assist with fire confinement and extinguishment by extending second attack line from first engine to area above fire
d. Remain as part of a team with Firefighter II
e. Equipment required includes portable radio (one per team or one per individual if available), SCBA, attack line

4. Firefighter II
a. Assist Firefighter I in performing assigned duties
b. Remain as part of a team with Firefighter I
c. Equipment required includes SCBA, entry tools, handlight

D. Third engine company
1. Driver
a. Drive and operate apparatus
b. Position apparatus at scene
c. Provide secondary water supply to rear
d. Facilitate communications with crew

2. Officer
a. Supervise and control personnel
b. Report to and maintain communications with command post
c. Equipment required includes portable radio, handlight, and SCBA

3. Firefighter I
a. Serve as part of rapid rescue team
b. Assist with exterior operations in rear as required
c. Remain as part of a team with Firefighter II
d. Equipment required includes portable radio (one per team or one per individual if available), SCBA, attack line

4. Firefighter II
a. Assist Firefighter I in performing assigned duties
b. Remain as part of a team with Firefighter I

c. Equipment required includes SCBA, entry tools, handlight

Note: Other tools such as power saws, ladders, and rope bags may be needed and should be readily available

E. Truck or squad company
   1. Driver
      a. Drive and operate apparatus
      b. Position apparatus at scene
      c. Deploy ground ladders as needed and within physical capability
      d. Facilitate communications with crew
      e. Provide exterior lighting using apparatus mounted and portable lighting equipment
   2. Officer
      a. Supervise and control personnel
      b. Establish initial command if first arriving officer
      c. Report to and maintain communications with command post
      d. Equipment required includes portable radio, handlight, and SCBA
   3. Firefighter I
      a. Initiate search and rescue if required
      b. Initiate entry if required
      c. Initiate natural and mechanical ventilation
      d. Locate fire extension and advise engine company
      e. Remain as part of a team with Firefighter II
      f. Equipment required includes portable radio (one per team or one per individual if available), SCBA, rope bag, short hook
   4. Firefighter II
      a. Assist Firefighter I in performing assigned duties
      b. Remain as part of a team with Firefighter I
      c. Equipment required includes SCBA, entry tools, handlight

IV. Sample Standard Operating Procedures (1-4)

A. Street Assignment (Single Family Residential)
   1. First arriving engine company
      a. Position apparatus at Side 1 (front) of the fire building to begin rescue, cover exposures, and/or attack and confine fire.
      b. Officer will establish initial incident command until relieved by higher ranking officer.
      c. Provide initial incident report including confirmation of location, conditions on arrival, location and position of unit, and any information deemed appropriate.
   2. Second arriving engine company
      a. Prime responsibility is to ensure an adequate water supply for the first engine company.
      b. Utilize personnel to advance second attack line to area above fire floor or protect exposures.
   3. Third arriving engine company take a position on Side 3 (rear).
   4. Other engine companies will remain uncommitted.
   5. Truck or squad company (if no truck or squad is available, an engine company can be assigned to perform these duties).
      a. Normally take a position on Side 1 (front) to ladder the building, effect any obvious rescues.
      b. Initiate search and rescue
      c. Initiate forcible entry if needed
      d. Raise ladders
      e. Provide interior and exterior lighting
      f. Perform ventilation
   g. Control utilities

      It is assumed that only one truck or squad would be responding on this type of assignment.

6. First arriving ambulance
    a. Establish an aid station at Side 1 (front) of the fire building. Park vehicle a distance from building so as not be impede incoming apparatus. It should also be positioned in such a manner as to allow a path of exit if required.
    b. Establish and operate rehab
7. Squad (dispatched in addition to a truck or squad) - As necessary to perform search and rescue duties.

B. Box Alarm (Commercial building or low-rise multiple-family dwelling)
1. First arriving engine company
    a. Position apparatus at Side 1 (front) of the fire building to begin rescue, cover exposures, and/or attack and confine fire.
    b. Set up water supply to sprinkler system. Sprinkler systems charged immediately if part of the standpipe system. Otherwise charged if smoke or flame is visible, the water motor gong is ringing, or the officer in charge deems it advisable.
2. Second arriving engine company
    a. Ensure an adequate water supply for the first engine company area.
    b. Utilize personnel to advance second attack line to area above fire floor or protect exposures.
3. Third arriving engine company shall take a position on Side 3 (rear).
4. Other engine companies remain uncommitted.
5. First arriving truck company
    a. Take a position on Side 1 (front) to ladder the building, effect any obvious rescues.
    b. Initiate search and rescue
    c. Initiate forcible entry if needed
    d. Raise ladders
    e. Provide interior and exterior lighting
    f. Perform ventilation

g. Control utilities

6. Second arriving truck company
   a. Positioned on Side 3 (rear) of the fire building, effect obvious rescue, and then report to the area above the fire to carry out normal truck company duties.
   b. Assist with search and rescue
   c. Assist with forcible entry if needed
   d. Raise ladders
   e. Assist with interior and exterior lighting
   f. Assist with natural and mechanical ventilation
   g. Assist utility control
7. Squad - As necessary to perform search and rescue duties.
8. Other Trucks or Squads - Remain uncommitted
9. First arriving ambulance
   a. Establish an aid station at Side 1 (front) of the fire building. Park vehicle a distance from building so as not be impede incoming apparatus. It should also be positioned in such a manner as to allow a path of exit if required.
   b. Establish and operate rehab

C. High Rise Building
   1. First arriving engine company
      a. Position apparatus on the side of the building containing the standpipe-sprinkler siamese, keeping access clear if possible; where feasible the crew may be dropped off on the annunciator panel side of the building.
      b. Set up water supply to standpipe and/or sprinkler system. Standpipes charged immediately to required pressure for reported location of fire. Sprinkler systems charged immediately if part of standpipe system. Otherwise charged if smoke or flame is visible, the water motor

gong is ringing, or the officer in charge deems it advisable.

2. Second arriving engine company
   a. Position so as to help first arriving engine company complete water supply to standpipe system. Should this company not be needed to complete primary water supply, they may establish secondary water supply from an alternate source.
   b. Assist first arriving engine company in establishing an adequate water supply.
3. Third arriving engine company
   a. Normally assume a position on the side opposite the standpipe and/or sprinkler siamese.
   b. Provide an extensive exterior size-up and report to the Incident Commander as to the conditions found and the progress being made.
4. Other engine companies remain uncommitted.
5. First arriving truck company
   a. Normally take a position on Side 1 (front) to ladder the building, effect any obvious rescues.
   b. Initiate search and rescue
   c. Initiate forcible entry if needed
   d. Raise ladders
   e. Provide interior and exterior lighting
   f. Perform ventilation
   g. Control utilities
6. Second arriving truck company
   a. Positioned on Side 3 (rear) of the fire building, effect obvious rescue, and then report to the area above the fire to carry out normal truck company duties.
   b. Assist with search and rescue
   c. Assist with forcible entry if needed
   d. Raise ladders
   e. Assist with interior and exterior lighting
   f. Assist with natural and mechanical ventilation

g. Assist utility control

7. Squad (dispatched in addition to a truck or squad) - As necessary to perform search and rescue duties.
8. First arriving ambulance
   a. Set up an aid station on the floor below the fire (unless the fire is located on the ground floor without obstructing fire fighting operations unnecessarily).
   b. Establish and operate interior rehab
9. Other ambulances
   a. Establish an aid station at Side 1 (front) of the fire building. Park vehicle a distance from building so as not be impede incoming apparatus. It should also be positioned in such a manner as to allow a path of exit if required.
   b. Establish and operate exterior rehab
10. Other Trucks or Squads - Remain uncommitted

D. Commercial or Industrial Complex
   1. First arriving engine company
      a. Position apparatus at Side 1 (front) of the fire building to begin rescue, cover exposures, and/or attack and confine fire.
      b. Set up water supply to standpipe and/or sprinkler system. Standpipes charged immediately to required pressure for the reported location of fire. Sprinkler Systems charged immediately if part of standpipe system. Otherwise charged if smoke or flame is visible, the water motor gong is ringing, or the officer in charge deems it advisable.
   2. Second arriving engine company
      a. Ensure an adequate water supply for the first engine company.
      b. Advance a line above the fire area.
   3. Third arriving engine company shall take a position on Side 3 (rear).

4. Other engine companies remain uncommitted.
5. First arriving truck company
    a. Normally take a position on Side 1 (front) to ladder the building, effect any obvious rescues.
    b. Initiate search and rescue
    c. Initiate forcible entry if needed
    d. Raise ladders
    e. Provide interior and exterior lighting
    f. Perform ventilation
    g. Control utilities
6. Second arriving truck company
    a. Positioned on Side 3 (rear) of the fire building, effect obvious rescue, and then report to the area above the fire to carry out normal truck company duties.
    b. Assist with search and rescue
    c. Assist with forcible entry if needed
    d. Raise ladders
    e. Assist with interior and exterior lighting
    f. Assist with natural and mechanical ventilation
    g. Assist utility control
7. Squad (dispatched in addition to a truck or squad) - As necessary to perform search and rescue duties.
8. First arriving ambulance
    a. Set up an aid station on the floor below the fire (unless the fire is located on the ground floor without obstructing fire fighting operations unnecessarily).
    b. Establish and operate interior rehab
9. Other ambulances
    a. Establish an aid station at Side 1 (front) of the fire building. Park vehicle a distance from building so as not be impede incoming apparatus. It should also be positioned in such a manner as to allow a path of exit if required.
    b. Establish and operate exterior rehab

10. Other Trucks or Squads - Remain uncommitted

E. Develop a Standard Operating Procedure

Divide class up into teams of no more than four and have them evaluate a type of structure in their response area. They should develop an SOP for a first alarm response for that structure considering the three items listed below. The groups should be allowed 30 minutes to develop their operations.

1. Protection of exposures
2. Confining fire
3. Extinguishing fire

If some variety is desired, SOPs can also be developed for rescue incidents involving potential multiple victims.

SUMMARY:

Review:

Standard Operating Procedures

- Why Standard Operating Procedures
- Elements of a Standard Operating Procedure
- Work Assignment by Position
- Sample Standard Operating Procedures

Remotivation:

Standard operating procedures can improve the efficiency and effectiveness with which a department can provide service at the scene. They should be developed, reviewed periodically, updated as needed, and practices with other departments.

Assignment:

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EVALUATION: