

	<h1>COMMERCE FIRE DEPARTMENT</h1> <h2>Standard Operating Guidelines</h2>
	Subject: Commercial Fires
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Approved By: Chief Kevin Dean	

Purpose: The purpose of this guideline is to provide information for firefighting operations at commercial buildings (including apartments, multi-family dwellings, large residences, and low/high rise structures). These guidelines shall be used by the incident commander (ref. SOG 3.00) along with his/her experience and training, to accomplish this department's strategic goals for an incident of this type.

Scope: This SOG applies to all Commerce Fire Department members.

Terminology:

1. Apartment building - A structure usually with multiple living units in each building.
2. Townhouses Housing complexes - Usually constructed in a row or lines that are attached or otherwise connected and separated only by a fire-rated wall.
3. Condominiums - Apartments or townhouses owned by the occupants.
4. Commercial alarm - An alarm in any business where people and material are exposed to fire and or fire gases which may result in injury, death, or loss of livelihood. These structures are not limited to size, as they will range from single story small square footage to multi-storied factory type structures.
5. Primary search - The rapid visual and/or tactical search of all habitable areas of a structure for the purpose of locating any possible occupants. This shall occur during the earliest stages of firefighting operations and in conjunction with ventilation practices and deployment of hose lines. If conditions permit, the following order of search should be implemented:
 - a. Immediate fire area
 - b. The floor immediately above the fire
 - c. Other floors above the fire floor
 - d. Other exposed areas
6. Secondary search - A thorough visual inspection of the same areas searched during the primary search. This should take place when visibility and other conditions have improved and should be performed by a different team of firefighters than the primary search team
7. Ventilation - The act of removing heat, smoke, and fire gases from an involved structure and replacing these with fresh air. This shall be done if possible during the early stages of

firefighting operations and in conjunction with primary search and deployment of hoselines. The incident command may choose the method of ventilation to be implemented based on his/her evaluation of conditions. Accepted methods of ventilation are:

- a. Positive Pressure Ventilation (PPV)
- b. Horizontal ventilation
- c. Vertical ventilation
- d. Mechanical ventilation

8. RIT (rapid intervention team) - A specifically tasked team (minimum of four members) organized to provide personnel for the rescue of emergency service members, if the need arises, operating at emergency incidents

9. Personnel Staging Area - An area designated as a staging area for on scene personnel.

10. PAR (personnel accountability report) - An on scene accountability report of operational personnel to include personnel, progress reports, location, and air supply

11. High Rise - A building considered to be greater than 75 feet in height or taller than four stories in height

12. T.I.C. – Thermal Imaging Camera

Basic offensive plan:

1. First in unit shall give size up, establish and name command and announce initial actions.
2. Identify critical fire ground factors and perform risk/benefit analysis
3. Establish RIT and safety officer
4. First line-fast, aggressive interior attack (using tank water)
5. Provide support activities (ventilation, forcible entry, ground ladders etc.)
6. Do primary search
7. Second line-backup, cover, additional water
8. Pumped water
9. Quickly evaluate success and react

Basic defensive plan:

1. First in unit shall give size up, establish and name command and announce initial actions.
2. Evaluate fire spread/write off lost property
3. Identify critical fire ground factors and perform risk/benefit analysis
4. Prioritize fire streams outside the collapse zone and protect exposures
5. Provide big, well placed streams
6. Pumped water
7. Quick determination of additional resources
8. Surround and drown

Response:

The response to a commercial fire shall initially consist of three (3) Engine Companies and one (1) Ladder/Service Company and shall be augmented at the discretion of the incident commander.

Incident Priorities: Incident priorities shall be:

1. Life safety
2. Incident stabilization
3. Property conservation

Operational Procedure:

1. Upon arrival to the incident, the apparatus operator shall, if possible, spot the apparatus just past the structure. This will allow the officer to visualize three (3) sides of the structure and potentially allow the front of the structure for the ladder company. For large structures or low/high-rise type structure, the apparatus operator shall spot the apparatus at or near the front entry to allow quick access to the alarm panel.

2. The first arriving officer (or senior personnel) shall initiate the incident command system and relay the appropriate information (ref. SOG 3.00). A secondary size-up will often be warranted due to the remote locations of some residences in our jurisdiction. In the event of a high-rise operation, the command post should be no closer than 200 feet from the structure. A distance within one block should be sufficient to run the incident during the operations phase. If possible, the command post should be established to where the incident commander can visualize two sides of the structure.

3. On large structures or low/high-rise type structures, the incident commander or his/her designee will need to access the alarm panel to determine the possible location of the fire, population within the structure, and if the elevators are in use. The buildings active fire protection features will now be activated (if equipped) by use of the fire control board or station. This system will minimize fire and smoke spread, thus allowing occupants time to escape or reducing risk if being protected in place.

4. The incident commander or his/her designee will conduct a 360 degree incident "walk around" to assist with developing an incident action plan. A thermal imaging camera (TIC) should to be utilized during the incident walk around. On large structures, the 360 degree "walk around" may be accomplished in a vehicle.

5. The incident commander will determine the mode of operation for the incident by conducting a risk/benefit analysis. Within a structured risk management plan we may risk our lives a lot in a calculated manner to protect savable lives, we may risk our lives a little to protect savable property, and we will not risk our lives at all to save what is already lost.

6. The incident commander will need to consider the following when determining the mode of operation Offensive, Defensive, Rescue:

- a. The building (type of construction, condition, age open or enclosed structure

etc.)

b. Structural integrity of the building (contents vs. structural involvement)

c. The fire load (what type of fuel is burning and what's left to burn)

d. The fire and/or smoke conditions (extent of fire, location, color of smoke, velocity etc.)

e. The rescue profile (savable occupants/survivability)

f. Available resources

g. Time of day, vehicles in the driveway etc.

7. Fire involvement greater than 50% of the structure shall indicate a probable defensive mode of operation.

8. The incident commander shall retain the authority to alter the mode of firefighting operation at any time during the incident based on his/her evaluation of the conditions on/or around the scene.

9. The incident commander shall consider the responding resources and request additional resources as needed.

10. In the event that a size-up indicates a structure greater than 2,000 square feet in size or greater than two (2) stories in height, an additional engine shall be responded, at the discretion of the incident commander, in an emergency response mode to the scene.

11. The incident commander or his/her designee shall make every attempt to secure the structures utilities prior to engaging in firefighting activities. No fire department personnel shall pull a structures power meter.

12. The incident commander shall request the power company and gas company early into the incident if needed.

13. As per *NFPA 1500*, an incident safety officer shall be assigned at all incidents.

14. The default location for the "personnel staging area" will be located at the rear of the first in engine unless otherwise specified by the incident commander. All previously un-assigned personnel will report to the "staging area" and await an assignment.

15. A RIT team shall be assigned as soon as enough personnel are available. The incident commander may assign a responding unit as RIT and they shall fulfill the function upon arrival.

16. Secondary means of egress shall be established on any structure that presents an egress hazard for firefighters operating on the interior.

17. In the event of a high-rise operation, an operations officer will be designated by division, determined by which floor the fire officer is assigned or takes in their charge. Operations will then notify the incident commander and lobby officer to which floor the staging of the attack crews will be formed on (usually two floors below the fire floor).

18. The incident commander shall verbalize all benchmarks over the radio. Incident commanders may consider using dispatch on-scene timer as a reminder to relay benchmarks. The benchmarks could include:

a. Knockdown

b. Primary search/secondary search all clear

c. Utilities secured

d. Positive water supply

e. Ventilation complete

f. Secondary means of egress established

g. PAR

19. Due to the steel structural supports within some structures, it may be required of you to move to window, stairwell, or the roof to communicate via portable radio.

20. If the structure is equipped with fire phones, these assets should be considered for communication between crews on upper floors and the lobby to potentially decrease radio traffic.

21. A personnel accountability report (PAR) shall be conducted at regular intervals, change of operational modes, in the event of an emergency situation, or other benchmarks.

22. When a large structure or multi-story structure is involved, the area surrounding the building should be kept clear for approximately 100 feet to minimize the risk of falling debris or potential collapse. The actual distance will also depend on building height and wind.

23. If the elevators are deemed worthy to use, the fire crews may take them up to either two or three floors below the fire and report to the operations officer.

24. Any crew responding to the upper floors of a multi-story structure are to take at a minimum an extra cylinder, tool, and/or extra attack line if needed.

25. Consider a "protecting in place" strategy. If evacuation is needed, designate one protected stairwell for evacuation purposes.

26. The incident commander should re-evaluate the tactics being used every 10 minutes. If progress is not being made a change in tactics should be considered.

27. Tactical assignment for the first due engine company may include:

- a. Vent, Enter, Search (VES) with known or probable rescues
- b. Locate the alarm panel and recon the location of the fire
- c. Locate standpipe systems and attach appropriate hose lines
- d. Deployment of necessary attack hose lines (minimum size of 1.75")
- e. Primary search and rescue
- f. Ventilation
- g. Evidence preservation

28. Tactical assignment for the second engine crew may be water supply. Locate and supply the FDC (fire department connection). Unless otherwise directed by the incident commander, the second engine will provide a 5" supply line to the initial attack engine.

29. Tactical assignments for the next arriving units will be assigned by the incident commander and may include:

- a. Assist attack crews
- b. Deploy backup or additional hose lines (minimum size of 1.75")
- c. Equipment staging
- d. Secondary search
- e. Throwing up ground ladders
- f. RIT
- g. Incident rehab
- h. Ventilation
- i. Salvage/overhaul

j. Elevated master streams

Operational Objectives:

Personnel shall use the RECEO-VS method for determining the operational objectives.

1. Rescue of victims or potential victims
2. Exposures - Protection of exposed property
3. Confinement of the hazard
4. Extinguishment of the fire
5. Overhaul - Incident scene overhaul
6. Ventilation (when appropriate)
7. Salvage - Property salvage (along with suspicious evidence conversation)

Conclusion:

At an incident of this type, as with all operations of this department; Life safety is our primary concern. This includes firefighters as well as civilians. These incidents require extensive manpower. Incident commanders will need to be diligent with their accountability system to ensure the locations of all personnel. All personnel involved in firefighting operations shall wear full protective equipment. The incident commander may relax this when conditions have sufficiently improved. An incident safety officer will be assigned at every incident. Upon stabilization of the incident, property preservation shall be our next concern. Every effort shall be made to minimize damage to property by the incident and the operations of this department. An offensive attack, carried out according to established department standards, normally will accomplish the previously noted objectives. It shall be the responsibility of the incident commander, using his/her training and experience, to determine when these objectives can be reached in a safe and efficient manner.