

REGIONAL STANDARD OPERATING PROCEDURES

Fireground Strategy

#: 103.00

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SCOPE & PURPOSE:

To quickly determine the most effective, correct action, the IC must “cut through” a lot of confusion and evaluate all of the incident hazards. What we do at the very beginning of the event generally sets the stage for what happens throughout the incident.

This procedure describes how the IC develops and uses the incident strategy and incident action plan (IAP) to take the correct actions that matches and takes control of the incident conditions—all within the overall incident strategy.

SAFETY:

An IC properly managing the incident’s strategy has the **#1 – GREATEST** overall impact on responder safety.

Risk management is a key component of strategic decision making. IC’s must avoid taking unnecessary risks to save property when our members are the only life safety threat in the hazard zone.

PROCEDURE:

Matching standard conditions to standard actions for a standard outcome

This is the core of the command system and is the launching pad for all operations. Standard conditions are identified as the incident’s **current** critical factors. We must:

- Identify the incident’s critical factors before taking any action.
- Our initial and ongoing size-up of the incident’s critical factors must produce the information that becomes the basis for the current incident strategy and incident action plan (IAP).
- Current, accurate and relevant information provides the informational foundation for effective initial and ongoing action.
- This systematic evaluation process continually produces standard, safe, well-managed incident outcomes.

Strategic Decision-Making Model

The strategic decision-making model gives us an evaluation/action system that takes the mystery out of initial emergency operations. This model brings the decision-making process into a standard sequence: First we identify the incident's significant critical factors, and then we base all actions on our evaluation of those factors. By continually evaluating those factors, we keep the plan current and the workers safe.

Use the Critical Factors to Develop the Incident Strategy & the IAP

We must use a standard evaluation approach and incident-management system to develop and conduct our operations around the incident's critical factors. Critical factor management is detailed in Regional SOP 103.02.

Risk Analysis

Fireground operations will fall in one of two strategies, Offensive or Defensive. These two strategies are based on a standard Risk Management Analysis that is to be employed on incidents.

The following Risk Management Analysis will be used at all times whenever a hazard zone exists:

- We will risk our lives a lot, to save savable lives
- We will risk our lives a little, to save savable property
- We will NOT risk our lives, at all, for lives or property that are already lost

The above three levels of risk can only be assumed in a highly calculated and controlled manner. Highly calculated and controlled refers to effective application of SOPs, training, and the safety systems (PPE, radios, apparatus, water, etc.) that must be used/followed at all times, in order to take any level of risk.

We must always begin our operational response with the assumption that we can make a difference for our customers by conducting standard incident operations. Our risk-management approach is based on us always conducting operations within standard operational and safety SOPs.

Rescue operations in the hot zone are the only place where, based on the possibility of saving a threatened customer, Risk Analysis allows workers to take a significantly higher level of risk. Rescue operations are based on a deliberate situation evaluation, a conscious decision by the IC, and the continual application of the safety SOPs.

The offensive/defensive strategy should again be re-evaluated and re-declared after an "all clear" has been achieved. Both are critical decision points for the IC.

Determine the overall incident Strategy

Overall operational strategy is divided into only two categories: Offensive or Defensive.

- Offensive operations are conducted inside a hazard zone
- Defensive operations are conducted outside of the hazard zone - in safe locations

The two separate strategies create a simple, *understandable* plan that describes in primitive terms how close the emergency responders will get to the incident's hazards.

The incident's overall strategic decision is based on the incident's critical factors weighed against the Risk Analysis.

IC's must avoid taking unnecessary risks to save property when our members are the only life safety threat in the hazard zone.

Declare the incident's Strategy as part of the Initial On-Scene Report

Declaring the incident strategy up front, as part of the initial radio report will:

- Announce to everybody the overall incident strategy.
- Eliminate any question on where we will be operating on the incident scene (inside or outside the hazard zone).

Confirm ongoing Strategy as part of the Elapsed-Time Notifications (ETN)

When an offensive Working Fire, Special Rescue or Haz Mat incident is declared, it will prompt Dispatch to begin Elapsed Time Notifications (an IC can also request ETN's whenever they feel it is necessary).

The Dispatcher will announce over the tactical frequency an elapsed time notification every ten (10) minutes until the incident is placed under control, or until command requests to discontinue or restructure the ETN's.

The IC must verbally acknowledge each 10 minute notification by re-announcing the incident's strategy over the assigned tactical radio frequency until the incident is placed under control, or until command requests to discontinue or restructure the notifications.

Use the Incident Organization & Communications to Implement the Strategy/IAP

Incident operations begin under control and stay under control when everyone operates within the incident management system and the overall strategy.

The IC uses the radio to manage incident operations. This starts with the initial radio report where the initial strategy is declared. Subsequent arriving units who Level 1 stage are given specific task, location and objectives in their assignments. Once in place, these units will report back to Command the conditions in their assigned area. These

actions connect everyone together on the incident site and help the IC manage the proper strategy based on the current conditions.

The IC controls evolving operations by decentralizing the hazard-zone when assigning Division/Group (D/G) responsibilities. D/G supervisors operating in forward positions give the IC the following strategic advantages:

- They control access into and out of the hazard zone based on the current strategy.
- They usually have a better view of conditions in their D/G than the IC.
- They are in a much better position to directly manage the safety in their D/G.

The IC provides the D/G supervisors with the overall strategy and objectives for their area. This becomes the starting point for conducting operations within that D/G. As progress is made, objectives are met or conditions change (good or bad), the D/G supervisor reports this information to the IC.

The IC must process reports from all the operating D/G's to continually manage both the overall incident strategy and the corresponding IAP.

Standard Company Functions

Standard company operations assign basic fireground functions and activities to companies based upon the capability and characteristics of each type of unit.

Standard company operations assign fireground functions to the particular company who can best accomplish the task/operation.

Standard company operations integrate the efforts of Engine and Ladder/Truck companies to effectively complete the chosen strategy's tactical priorities.

Standard company operations should reduce the amount of detail in the orders from the IC that is required to get companies into action on the fireground. This greatly reduces radio traffic.

The following items represent the standard operations that will typically be performed by Engine and Ladder/Truck. These basic functions will provide the framework for field assignments for these companies:

Standard Engine Company Functions:

- Establish a water supply
- Stretch hoselines
- Operate nozzles
- Search, rescue, and treatment
- Open up concealed spaces
- Deploy ground ladders

- Pump supply lines
- Supply master streams
- Loss control activities

Standard Ladder/Truck Company Functions:

- Search, rescue, and treatment
- Ventilate
- Forcible entry
- Raise ladders
- Provide access/check fire extension
- Utility control
- Provide lighting
- Deploy aerial devices
- Operate ladder pipes (aerials and platforms only)
- Perform overhaul
- Extrication
- Loss control activities

Standard Squad Company Functions:

- Stretch hoselines
- Operate nozzles
- Search, rescue, and treatment
- Loss control activities

Standard Medic Company Functions:

- Search, rescue, and treatment
- Other firefighting duties as assigned by the IC

Every company will be expected to perform all basic functions safely within the limits of their capability, and it will be the on-going responsibility of Command to integrate company tasks and objectives as required with the on-scene units.

Fireground Incident Priorities

- Fire Control – “Under Control”
- Life Safety – Primary and Secondary “All Clear(s)”
- Property Conservation – “Fire Out”
- Customer Stabilization – Short term

Tactical Objectives

Once the overall incident strategy has been determined, the IC must manage the completion of the tactical objectives for the chosen strategy. Each strategy has a different set of tactical objectives/considerations that enable the IC to address the incident priorities.

Tactical objectives provide the IC with a simple, short list of major categories that act as a practical 1-2-3 guide during the difficult initial stages of fireground planning. The IAP must be short and simple; complicated IAP's tend to break down during this critical time. Generally, the IC tries to achieve the same basic objectives from one incident to the next. Tactical objectives offer a regular set of "hooks" on which the IC can hang tactical activities in order to develop a standard approach to solving incident problems. With this standard approach, the IC can manage the basic work sequence at every incident, in the same manner. This creates consistency the troops can understand and dependability that continually creates standard actions to the current conditions.

Offensive Incident Action Planning

When an incident's critical factors and the risk-management analysis indicate the offensive strategy, firefighting forces will enter the hazard zone to attempt to control the incident hazards. An offensive IAP seeks to address the incident priorities by way of the following tactical objectives:

Structural Fire Tactical Goals
S.L.I.C.E.R.S.

Sequential Actions

- S**ize Up
- L**ocate the Fire
- I**dentify and Control Flow Path
- C**ool the Space from Safest Location
- E**xtinguish the Fire

Actions of Opportunity

- R**escue
- S**alvage

Offensive Search and Rescue Operations

One of the major tactical objectives to accomplish as early as possible in the event is to search for and remove any savable, endangered occupants in the hazard zone, and to protect any customers exposed to the incident's hazards.

For offensive structural fires, we achieve the life-safety priority by performing primary and secondary searches in the fire occupancy and in any exposures threatened by the fire.

Primary All-Clear is defined as: a quick search and clearing of all affected areas of the structure(s)

Secondary All-Clear is defined as: a much more thorough, methodical search of the affected areas of the structure(s) once the conditions in the structure have been completely controlled.

The IC uses the standard rescue order to prioritize and manage these searches. The rescue order is the standard order that we use to search a hazard zone:

1. The most endangered
2. The largest group
3. The remainder of the fire area/structure
4. The exposures

The IC is responsible for assigning all incident resources in order to achieve a quick and effective primary search of the affected structure(s). The IC must assign companies to search specific geographical areas of structure. This eliminates searching the same area multiple times, while other critical areas remain unsearched.

The most urgent reason for calling additional alarms is for the purpose of covering life safety.

Command must develop a realistic (and pessimistic) rescue size-up as early as possible.

When encountering larger, high density, compartmentalized, multi-unit/room residential structures, it is often more effective to implement a "protect in place" life safety operation as opposed to removing multiple people from a structure who are not directly exposed to the incident hazards. These actions should:

- Secure and protect normal means of egress
- Search and clear the immediate areas of involvement
- Contain, control and eliminate the incident problem
- Remove the products of combustion
- Systematically clear the remainder of the fire area/exposures

When primary search companies encounter and remove victims, Command must assign other companies to continue to cover the interior search positions vacated by those companies.

Command must also request and provide the necessary medical resources to treat any patients encountered on the incident site.

Command must obtain Secondary All Clears of all affected areas once the initial tactical objectives have been achieved.

Completed Primary and Secondary searches of the entire structure shall be announced over the tactical channel using the order model to alarm. IC's shall avoid giving piece meal primary all clear reports over the tactical channel when multiple areas of a structure require a search.

Occupancy type will many times drive the IC's search priorities. Residential occupancy types must have a high life safety focus because these structures can be occupied 24/7/365. Strip mall, commercial and big box fires have a much lower life safety hazard and all initial actions should be directed towards putting water on the fire unless there is credible information of survivable occupants inside of the hazard zone.

Primary All Clears should not be given on large, wide area commercial structures where search operations would require the efforts of several companies on the initial alarm.

All initial actions should be directed towards putting water on the fire and ventilating the structure unless there is credible information of survivable occupants trapped inside the hazard zone.

Search and Rescue rules of thumb:

- **The first hand line should put water directly to the fire for firefighter safety and to support completing primary and secondary searches.**
- In working situations, "All-clears" must be obtained for all residential occupancy types. Smaller sized occupancies will accommodate a more rapid search.
- Larger sized commercial occupancies – all initial efforts directed towards fire control.
- A TIC's primary use is for S&R and crew accountability – use it every time.
- All personnel working in the hazard zone must either bring on their own handline or work under the protection of a handline located in their same geographic location while performing search operations.
- Once "All-Clears" have been gained in operational areas, the IC must constantly consider that we are the only life safety threat in the hazard zone.

Offensive Fire Control Operations

The term "**Working Fire**" indicates a situation that will at least require the commitment of all responding companies. This report advises dispatch that the companies will be engaged in tactical activities and will be held at the scene for an extended period of time.

When the forward progress of the fire is stopped and no other resource is required for fire control, the IC will transmit an “**Under Control**” radio report signifying that the fire control tactical benchmark has been obtained and no further resource will be required to mitigate the problem.

Rules of thumb to apply when addressing the fire-control tactical priority:

- Always establish an early, uninterrupted water supply for interior fire-suppression activities.
- Consider mobility vs. gpm when selecting the properly sized hose line.
- The highest priority during initial operations is putting water on the fire
- Water should be applied to the fire as quickly as possible.
- The initial interior hoseline should be placed between the fire and the most severe exposure (people or property).
- In most instances, the fire should be cut off and contained/knocked down to facilitate search and rescue activities and firefighter safety.
- All members in the hazard zone must be working under the protection of a hoseline in their immediate geographical area.
- Maximum distance inside a structure is 200 feet.
- Interior work times must be tied to SCBA air supplies, and the decision to exit the structure must be based on exiting with an air reserve.

Command must consider the most critical direction and avenues of fire extension, plus the estimated speed of a standard fire progression, particularly as they affect:

- Rescue activities
- Level of risk to fire fighters
- Confinement efforts
- The concealed spaces that house the structures support elements
- Exposures

Command must request and allocate adequate personnel and resources based upon this fire spread evaluation.

Command must direct whatever operations are required to get water on the fire as early as possible in the event. The rescue/fire control-extension/exposure problem is solved in the majority of cases by a fast, strong, well-placed attack that puts water on the fire as soon as possible.

Command must make critical decisions that relate to cutoff points and the development of a pessimistic fire control strategy that must also consider where the fire will be when attack efforts are ready to actually go into operation. It takes a certain amount of time to get water to a location, and the fire will continue to eat up property while the attack is being set up.

Don't play "catch up" with a fire that is burning through a building. Project your set-up time, write off lost property and get ahead of the fire to adequately overpower it.

The basic variables relating to attack operations involve:

- Location/position of attack
- Size of attack
- Support functions

Command develops an effective attack through the management of these factors. Command must balance and integrate attack size and position with fire conditions, risk and resources.

All initial attack efforts must be directed toward putting water on the fire and supporting rescue efforts. Interior hose lines must be placed in a manner to control interior access, confine and put out the fire, and to protect avenues of escape.

Normal means of egress most often times will give control forces the fastest access possible to apply water on the fire while protecting these avenues of escape for occupants and firefighters.

In some instances (upper floor occupancies with long handline stretches) it may be faster using alternate means of egress to apply water on the fire (ground ladders, aerial devices, fire escapes, drop bags, etc.). When using alternate means of egress to quickly put water on the fire, command as soon as possible, must cover and protect the normal means of egress for both the occupants and firefighters to safely utilize.

Defensive Incident Action Planning

A defensive situation is where the incident problem has evolved to the point that lives and property are no longer savable, and offensive tactics are no longer effective or safe. The entire defensive strategy is based on protecting firefighters.

Firefighter safety is the No. 1 defensive priority. No firefighter should be injured on a defensive fire.

Defensive Strategy Tactical Objectives:

- Define the hazard zone/establish collapse zone
- Evaluate and provide for exposure protection and evacuation
- Evaluate the need/feasibility for aerial master streams
- Estimate water supply needs
- Estimate additional resource needs
- Establish/re-establish groups/divisions to maintain adequate span of control

Transitioning from an Offensive strategy to a Defensive strategy

When the offensive strategy is chosen on our initial arrival, most of the time, a well-placed initial attack solves the incident's problem. But there are many times (for many reasons) that our initial, and sometimes re-enforced attack efforts, do not solve the incident problems and conditions continue to deteriorate to the point where the critical factors indicate switching from an offensive to a defensive strategy.

IC's must be very pessimistic in these types of situations, *especially* if the structure has a primary "All Clear". Command must change strategies before the building is structurally unstable. When this happens, Command is very late in the strategy shift and on the receiving end of the building's decision governing the new strategy. The IC must be the single person to make the defensive decision, NOT the building coming apart.

The announcement of a change to a defensive strategy will be made as follows:

- Clear Dispatch – Ask for Emergency Tones/Traffic
- Emergency Tones transmitted
- Announce to all hazard zone units:
 - Shifting to the Defensive Strategy
 - All Unit's "Exit" or "Abandon" the structure
 - All Units report PAR's upon exit
 - Dispatch repeats Emergency Traffic report - verbatim

Exposure Protection – Strategic Separation

Arrangement becomes a major critical factor with defensive fires. The way the main fire compartment/area is arranged to its neighboring exposures will dictate our operating positions on a defensive emergency scene.

All exposures, both immediate and anticipated, must be identified and protected. The first priority in defensive operations is personnel safety; the second is exposure protection.

Stand-alone buildings with no significant exposures must have the collapse zone identified and all operating units will remain behind those defined boundaries —*this perimeter must not be crossed*.

One thing that greatly reduces firefighters' "creeping" toward the fire area is shutting down all small-diameter handlines (unless they are being used to directly protect exposures). This also diverts that water into master-stream devices that can apply large amounts of water directly on the fire and the exposures.

Many times, a defensive fire area will threaten exposures. These can be immediate exposures that directly connect to the fire area (apartments and strip malls) or they can be located in very close proximity to the fire area with little separation.

All direct exposures not in the defensive fire area must be searched and protected whenever possible. This exposure protection involves:

- Advancing hand lines into the exposure(s).
- Clearing the exposure(s).
- Opening up and verifying the concealed spaces directly exposed to the defensive fire conditions.
- In some cases, direct water application to stop the lateral spread of fire.
- In some cases, once extension is verified, write off and move to the next exposure to get ahead of the fire.
- In some cases it will be necessary to write off the entire exposure(s) due to rapid fire extension through common concealed spaces.

Command must be very specific on separating two (2) operating positions (Defensive vs. Offensive). The IC's radio traffic when operating in the overall defensive strategy, while being offensive in the exposures, should sound like this; "Command to all units; we will be operating in the defensive strategy on the main fire occupancy and we'll be offensive in the Bravo 1 and Delta 1 exposures".

Defensive Water Application

Rules of thumb for defensive water application:

- Master streams are generally the most effective tactic to be employed in defensive operations.
- Command must consider the effectiveness of aerial water application vs. ground operated master stream devices.
- Small diameter hand lines not directly protecting exposures should be shut down.
- When the exposures are severe and water is limited, the most effective tactic is to put water directly on the exposure.
- Once exposure protection is established, attention may be directed to knocking down the main body of fire and thermal-column cooling.
- In the defensive strategy, fire under control means the forward progress of the fire has been stopped and the remaining fire can be extinguished with the current on-scene resources.