

	INTERIOR SMOKE INVESTIGATIONS		2014revB
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Procedure:

Size-Up Considerations

The size-up is one of the most critical components for the development of an incident action plan. The size-up essentially provides an evaluation of the situation confronted by the first arriving unit or member. The first arriving officer, unit or member shall consider the following questions when preparing for an “On Scene” radio report and ensuing Incident Action Plan:

- What has happened?
- What is happening now?
- What is likely to happen?

The first arriving officer, unit or member shall consider the following factors when preparing for an “On Scene” radio report while only committing to what can be seen from the cab:

Description of Event

The first arriving officer, unit or member shall look at the building size, number of stories, occupancy, whether or not evacuation is occurring or in place and if any smoke is visible from the exterior.

Staging Location

The first arriving engine, truck and battalion chief shall respond to the scene. However, the first arriving officer, unit or member may recommend a different placement for apparatus based on terrain or location of the involved structure.

Establishment of Command

The first arriving officer, unit or member shall assume and name command based on street address or location. The first arriving officer, unit or member can retain command or pass command to the battalion chief if it is determined to be a working incident.

Command may be kept with the first arriving officer, unit or member for the duration of the incident. If needed, the initial incident commander will pass command to the battalion chief which can occur during the “On Scene” report or during the “Follow Up” radio report. Passing of command will be needed if conditions dictate a first alarm upgrade or an involved investigation will be needed.

Action Taken

The first arriving officer, unit or member shall complete a 360 and transmit they will be conducting a 360 during the “On Scene” report. If the first arriving officer, unit or member recognizes that this cannot be accomplished upon arrival, the member shall transmit that a 360 cannot be completed or announce that a 360 was not completed during the “Follow Up” radio report.

If the first arriving officer, unit or member does not have obvious signs of smoke or fire, they shall transmit that they will be conducting a 360 and investigating during the “On Scene” report.

Resource Needs

The first arriving officer, unit or member may need to upgrade to a first alarm assignment if visible smoke is found inside the structure. Once an upgrade occurs, the initial incident commander will develop an IAP and begin assigning resources according to the Residential Structure Fire Guideline.

“On Scene” Report

As mentioned earlier, the “On Scene” report is a description of what the first arriving officer, unit or member encounters. LFRA has adopted and modified the Blue Card

Certification program to establish a standard method of initiating command. Therefore, the following is an example of the standard method of transmitting an “On Scene” report:

“200, Engine 5.... Engine 5 is on scene of a medium, two-story residence with no visible signs from the exterior. Have all units continue and stage. This will be ‘Main Street’ command. I’ll be completing a 360”.

Incident Action Plan (IAP) Considerations

The development of the Incident Action Plan (IAP) is based on the conditions, actions and resources available to the incident commander. In reference to smoke odor incidents, it is imperative that the first arriving unit or member understand the need for established strategies and tactics to be used at the incident as they relate to the Incident Priorities.

The development of the IAP begins with the initial dispatch information but does not get communicated until after the first arriving officer, unit or member arrives on scene and completes their 360 and transmits their “Follow Up” report. The “Follow Up” report shall serve as the foundation of the IAP along with the Incident Priorities.

The first arriving officer, unit or member shall consider the following factors when preparing for a “Follow Up” radio report and developing the IAP:

360 Complete

The 360 shall be completed by the first arriving officer, unit or member if conditions, size of the structure and terrain permit. This also serves as a benchmark and indicates that an Incident Action Plan is about to follow.

Along with the 360, the first arriving officer, unit or member should meet with the RP and should interview the RP and ask the following questions:

- Who smelled the odor?
- When was the odor first noticed?
- What were you doing when you noticed the odor? (Dishes, laundry, cooking etc.)
- Is the odor still present?
- What does it smell like?
- Did you open any doors or windows before we arrived?

Location and Description of Smoke

The first arriving officer, unit or member shall provide greater detail on the location of the smoke based on RP information and relay that information to incoming units during the “Follow Up” report.

For example, *“All incoming units, RP reports light smoke on second floor in the master bedroom”*.

Building Features

This is a critical component of the IAP as it will assist with the tactics to be used for the first arriving unit as well as incoming resources.

Building features that should be relayed are walkout basements, extended driveways, access issues and any other features that may be an extreme hazard to incoming firefighters.

Actions

The actions of the first arriving officer, unit or member shall be described in simple terminology. This provides incoming resources a quick briefing on the course of action being taken by the first arriving officer, unit or member.

For example, the first arriving unit may state, *“E5 will be entering the structure par 2 to investigate.”*

Strategy and Risk Profile

During the “Follow Up” report, the first arriving officer, unit or member shall transmit what the risk profile of the incident is (i.e., Very High, High, Medium, or Low). A description of the risk profiles is listed under “Benchmarks” of this guideline.

Smoke odor investigations may begin in Offensive Strategy, Low Risk, but may be adjusted based on conditions and information found by the first arriving officer, unit or member. Following is an example:

“E5 will be entering the structure par 2 to investigate Offensive Strategy, Low Risk”

Assignments

The relay of fire ground tasks to incoming units is the final step of the IAP. Incoming resources have either been assigned to staging or they have been given tasks in alignment with the IAP and Incident Priorities.

Appropriate assignments for the first arriving truck or support company will be based on the needs of the incident. Some assignments may include:

- Stage for assignment
- Additional investigation crew for larger buildings
- Access roof to investigate HVAC units

Communication

The first arriving officer, unit or member may choose to remain in command while investigating. They may also pass command to Battalion 1 if the investigation is going to be well involved.

“Follow Up” Report

The “Follow Up” report is a description of what the first arriving unit or member encounters upon completion of a 360. LFRA has adopted and modified the Blue Card Certification program to establish a standard method of initiating command. Therefore, the following is an example of the standard method of transmitting a “Follow Up” report:

“All incoming units... 360 complete with no visible signs from the exterior. RP states light smoke on second floor in master bedroom. E5 will be entering the structure par 2 with a PW to investigate. R2 stage for assignment.”

Company Level Functions

First Arriving Engine

The method for how an incident will unfold is often based on the actions and positioning of the first arriving engine. The responsibilities of the first arriving engine are often based on the decisions of the first arriving unit or member and the formulation of the IAP.

The following are some of the responsibilities of the first arriving engine:

- Position in a manner for the best tactical advantage in accordance with the Incident Priorities as well as consideration for future anticipated needs
- Pull past the involved structure to allow the officer to see three sides
- Provide room in front of the involved structure for ease of access for support companies or for the aerial device
- Development of initial “Incident Action Plan” and modes of operations (i.e., investigating) with Incident Priorities as the main focus
- Place dry hose line at front door
- Enter to investigate the source of the odor
- Upgrade to first alarm if smoke conditions are found
- Once at the location of the odor, scan area with TIC
- Isolate source of odor, examples of this are:
 - Unplug appliance
 - Remove burned food
 - Isolate breaker
 - Shut down HVAC unit
- Ventilation of smoke if necessary

Truck and/or Support Companies

The first arriving truck or support company’s responsibilities will be determined by the incident commander. It is the responsibility of the officer of the truck or support company to place appropriately for the incident. Truck and/or support companies may be assigned or accomplish the following responsibilities:

- Investigation
- Access roof

- Prepare for support functions if fire conditions are found
 - Search
 - Ventilation
 - Utilities
 - Salvage/overhaul

The first arriving truck officer should expect to be a working member of his or her crew based on the delegated assignment from Incident Command and the Incident Priorities.

Benchmarks

The following benchmarks are utilized with residential structure fires to ensure that the incident priorities are being obtained, as well as to determine that the appropriate risk profile is being assigned to the incident:

360 Complete

The 360 shall be completed by first arriving officer or member if conditions, size of the structure and terrain permit. This benchmark can also be completed by the battalion chief or with assistance from the officer of a second arriving apparatus.

Primary Search All Clear

This benchmark shall be completed by the crew(s) assigned "Investigation" by the incident commander. Completion of this benchmark will ensure that the structure has been evacuated and that there is no life hazard.

Risk Profile

The risk profile is established by the first arriving unit or member. The risk profile can be modified based on a change in conditions (offensive to defensive) or as the incident progresses. If fire and smoke conditions are present, along with the First Alarm upgrade, the Risk Profile will be adjusted to the appropriate level and transmitted by the incident commander and will follow the Residential Structure Fire Guideline. Additional information can be located in the LFRA ICS Guidelines.

Odor located

Once the source of the smoke has been identified, the “Investigation” crew will announce that they have identified the source of the smoke.

Odor Controlled

This benchmark shall be announced once the source of the smoke odor has been isolated and no additional threat is present.

Termination of Incident

Once the source of smoke has been identified and isolated, the incident commander will begin to release units back into the system. The incident commander will notify the RP of the results and actions of the investigation and then release the building back to the RP.

Validation Summary:

No additional validation testing requested given the practices outlined in this document have been in use for an extended time.

Revision History:

Revision B-Updated by C. Pollema to reflect the current formatting. No change in content.

References:

Residential Structure Fire Guideline 6.4 (2014, May). *Loveland Fire Rescue Authority Operational Guidelines*