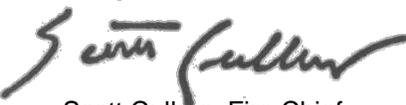




**City of Winchester
Fire & Rescue Department
STANDARD OPERATING PROCEDURE**



Section: Fire Suppression Operations	SOP: 8.4
Subject: Two-in, Two-out	Executed: November 17, 1998 Revised: December 25, 2010 October 22, 2012
Approved:  Scott Cullers, Fire Chief	

PURPOSE

To establish standard policy that will serve to provide a safe fire ground for all firefighters and to reduce the risk of injury or death as a result of department operations.

SCOPE

The following information outlines the guidelines, processes, and expected actions that should occur regarding fire ground operations. It is realized that this document cannot address every possible situation or scenario. Therefore, officers and members shall follow the actions listed in this document; however, should the need to deviate from the policy's expected actions, the actions taken shall be documented and justified on the incident report based on unusual circumstances or the safety of personnel. This policy, along with I.C.S., Accountability, Minimum Training Certification Standards and well-trained firefighters, will improve safety for all.

PROGRAM STANDARDS

This program uses the following to set the minimum requirements. Requirements may exceed but not fall below any of these standards:

- NFPA 1500 Standard on Fire Department Occupational Safety and Health Program
- Virginia Department of Labor Occupational Safety and Health Administration for Interior Structure Fire Attack

DEFINITIONS

Immediately Dangerous to Life and Health (IDLH) Atmosphere - The Virginia Department of Labor and Industry Occupational Safety and Health Administration (VOSH) defines an IDLH atmosphere for interior structure fires to be "an advanced fire

that has spread inside of the building where high temperatures, heat, and dense smoke” are present.

Federal OSHA defines an IDLH as an atmosphere that poses an immediate threat to life, would cause irreversible adverse health effects, or would impair an individual's ability to escape from a dangerous atmosphere.

Working Structure Fire - Any fire that requires the use of a 1.5-inch or larger fire attack hose line and that also requires the **use** of self-contained breathing apparatus (SCBA) for firefighters entering the hazardous area. This is also when any structure fire meets the definition of an IDLH atmosphere as identified for interior structure fire attack.

Incipient Stage Fire: A fire which is in the initial or beginning stage and which can be controlled or extinguished by a portable fire extinguisher, Class II standpipe, or small hose system without the need for protective clothing or SCBA.

Initial Stages of an Incident: The period of an incident where tasks are being performed by the first arriving units with only one team assigned or operating in the hazardous area.

Early Stages of an Incident: The period of an incident following the initial stages of an incident. Having more than one team operating within the IDLH area indicates this period of the incident.

Personnel Accountability Report (PAR): Identifies the location and the safety of firefighters on an incident.

Rapid Intervention Team (RIT): A specifically designated rescue team with full protective clothing, portable radio, and other needed rescue equipment at the scene of an emergency incident beyond the initial stage of operations designed to provide personnel for rescue of firefighters operating at the incident should the need arise.

Rescue Team: A minimum of two firefighters present outside the IDLH area of a working structure fire during the incident's initial stage. Equipment shall be readily available for use by this outside team should the need for rescue inside the hazard area be necessary. One of these personnel may be assigned more than one role during the initial stages if the abandonment of that role to affect a firefighter rescue does not jeopardize other personnel operating on the fire ground.

Note: All personnel operating as an interior firefighter or on a Rapid Intervention or Rescue Team shall meet the Minimum Training Certification Standards in Appendix A of Memo O-98-20.

POLICY

1. An Incident Command System shall be utilized on all fire incidents. The first arriving unit shall assume the initial assessment and control of the incident until another unit or officer assumes command. (refer to I.C.S. Procedure)

2. At least four (4) firefighters **shall** be assembled on the scene before initiating interior fire fighting operations within IDLH atmosphere at working structure fires (except as noted in the exception section). Two (2) firefighters shall be designated as a rescue team and neither can be located within the IDLH atmosphere. The Incident Commander may request additional units/resources to maintain a safe emergency scene operation or to staff rapid intervention teams.
3. First arriving firefighters/officers and incident commanders will be responsible for performing a scene risk assessment prior to implementing tactics for fire attack. Tactical decisions will be made based on their evaluation of the event, the needs compared to the resources, and the expected incident outcome. On-scene operations shall be limited to those actions that can safely be performed by personnel on the scene. The incident commander shall base decisions and actions on their experience, professional judgment and training. This assessment is to be an ongoing process and tactics may change based on information and situation.
4. Personal Alert Safety Devices shall be operational prior to entering any IDLH atmosphere.
5. Whenever there is more than one team operating or assigned in an IDLH atmosphere the incident shall no longer be considered in the “initial stage” and at least one dedicated Rapid Intervention Team shall be designated and prepared for firefighter rescue.
6. Personnel operating in IDLH atmospheres shall operate in teams of two (Buddy System) and shall utilize full protective clothing and self-contained breathing apparatus. IDLH atmospheres may include vehicle or outside container fires.
7. The Department’s Personnel Accountability System shall be utilized in accordance with policy. Personnel Accountability Reports shall be conducted in accordance with policy.
8. The Incident Commander shall be responsible for appointing a scene safety officer or fulfilling that duty on all working incidents. The designated scene safety officer has full authority to halt any operation determined to be unsafe and has the authority to issue orders directly to personnel in regard to personnel safety. A dedicated scene safety officer shall be established at all working incidents greater than the scope of a normal first alarm response.
9. All personnel shall immediately exit the building when directed to do so by the incident commander, the scene safety officer, or by the evacuation signal designated in **SOP 8.2 Incident Command System**, radio tone and air horn blasts.

PROCEDURES

1. Units arrive on the scene of a “working structural fire with IDLH” with less than four firefighters. The firefighters should wait until four firefighters are assembled on the scene before initiating interior fire attack or entering into the IDLH atmosphere unless there is the probability of a victim rescue as outlined in the **Exceptions** section. Two firefighters can begin initial fire attack with two firefighters outside the

IDLH atmosphere to serve as the Rescue Team. The four members assembled prior to the initial fire fighting operation can include any combination of firefighters arriving on the incident scene. One of the firefighter outside can be assigned other duties. Apparatus operator(s) can be counted as one of the four as long as abandonment of the apparatus will not adversely affect the interior fire fighting/rescue efforts. A reliable water supply, adequate to contain the incident shall be established prior to utilizing any pump operator as part of the Rescue Team. The Incident Commander and the attack pump operator can **not** both be on the Initial Rescue Team.

2. Until four firefighters are assembled, **exterior** operations shall commence immediately in accordance with standard fire ground operations. This can include, but not be limited to: establishing water supplies, deploying fire attack lines and exposure protection hose lines, utility control, ventilation, placement of ladders, forcible entry, protective system support, and other **exterior** operations as deemed appropriate.
3. Firefighters operating in the hazardous (IDLH) atmosphere shall be in communications with each other through visual, verbal, physical, or safety rope/strap. Team members must be close to each other to provide assistance in case of an emergency.
4. During the initial stages of an incident, at least one (1) team of two will be designated as the Rescue Team. These firefighters may be the incident commander, firefighter/medic, or other firefighters. The attack pumper's operator should not be used as part of the Rescue Team or the Rapid Intervention Team. Other apparatus operators can and should be used if the abandonment of the apparatus does not adversely impact the safety of others or negatively affect the fire fighting/rescue efforts.
5. During the initial phases, the Rescue Team shall be identified and have the necessary equipment readily accessible to enter an IDLH atmosphere. Should a firefighter rescue be required, Rescue Team firefighters will be identified over the radio or face to face and will acknowledge this assignment. This assignment is to be logged on the accountability/ command board and announced to ECC. (We have a MAYDAY EVENT.)
6. As the incident progresses to the point of more than one interior team, an identified and dedicated Rapid Intervention Team shall be established and positioned immediately outside the IDLH atmosphere. This team shall be fully outfitted with protective clothing and SCBA with air-mask in a ready to don position. The team shall have a radio, hand light, hose line or tag line, and other required rescue equipment. Team members will be dedicated to perform firefighter rescue and shall perform only those tasks directly related to the safety of the team operating in the hazardous area. No activity by the Rapid Intervention Team shall impede their ability to be immediately deployed to affect a rescue. A hose line should be dedicated to this team.
 - a. If the incident is in a high or mid rise structure, large area facility, or other area with multiple IDLH atmospheres, the incident commander shall establish the

necessary number of Rapid Intervention Teams so that firefighter rescue can be accomplished without deployment delay. A team should be considered for each remote access point on any large facility around the involved area. The Incident Commander will be responsible for determining the number of teams needed based on the specifics of the incident.

7. If a firefighter becomes trapped, disabled, or otherwise in need of assistance by the Rapid Intervention Team, the incident commander shall announce this action via the radio to all units and ECC (we have a MAYDAY EVENT). All radio traffic not directly related to the rescue should cease immediately to facilitate the rescue of the firefighters. An immediate personnel accountability report shall be conducted. The incident commander shall then assign personnel to assist with the rescue and to assist the rapid intervention team as deemed appropriate. The RIT shall continue to inform the incident commander of their progress and actions taken during the rescue.
8. All personnel shall utilize SCBA in all IDLH atmospheres including exterior fire attack operations should IDLH atmosphere exist. This includes vehicle fires, dumpster fires, and other incidents as deemed appropriate by the Incident Commander. The Incident Commander shall assure that SCBA is worn until an atmosphere is no longer IDLH and the fire is extinguished with no visible smoke.
9. Should the incident commander order a building evacuation, a PAR check shall be conducted immediately after the building has been evacuated. The RIT shall remain in place for immediate activation should a team fail to report during the PAR check. Each crew will then meet with their sector officer and/or await reassignment.

EXCEPTIONS

1. If, upon arrival at the scene, firefighters find an imminent life threatening situation or probable life threatening situation where immediate action may prevent the loss of life or serious injury, such action shall be permitted with less than four firefighters on the scene. The probability of a rescue is made in accordance with normal size-up indicators and fire ground evaluation factors. (Example: report of persons inside or signs of persons inside)
 - a. Residential Occupancies – In the absence of a report from a responsible person on the scene that everyone is out of the residence, it is to be assumed that a life hazard exists until the primary search has been completed.
 - b. Business or Commercial (Non-Residential) Occupancies – The firefighter/officer shall evaluate the situation, consider the occupancy, time of day, day of the week, reports from people on the scene, signs that persons may be inside the structure, etc. Entry may be considered if signs indicate a probable victim rescue.
 - c. Vacant or Abandoned Occupancies – In the absence of clear signs or a report from a responsible person on the scene that people are in the structure. It is to be assumed that no life hazard exists and an interior fire attack shall not be

initiated until the minimum of four (4) firefighters are on the scene and a Rescue Team is established.

2. If firefighters are going to initiate actions that would involve entering a structure because of a probable or imminent life threatening situation where immediate action may prevent the loss of life or serious injury, and firefighters are not on the scene to establish an initial rescue team. The firefighters should carefully evaluate the level of risk that they would be exposed to by taking such actions. In all cases, a minimum of two (2) people shall form the entry team.
3. If it is determined that the situation warrants immediate intervention and four (4) firefighters are not on the scene, the incident commander/firefighters shall notify the ECC of the intent to enter the building prior to the availability of an initial rescue team. Such action is intended to apply only to those rare and extraordinary circumstances when, in the incident commander's professional judgement, the specific instance requires immediate action to prevent the loss of life or serious injury and the four (4) firefighters have not yet arrived on the fire ground.
4. Should immediate entry be required, the ECC shall notify all responding units. The incident commander shall establish an initial rescue team upon arrival of additional firefighters and insure accountability of all personnel. Good priority communications is key.

EXAMPLE

Structure Fire 608 Smithfield Avenue, Time out: 2205 hours, Wagon 1 with 1-firefighter, Wagon 5 with 1-firefighter, Truck 2 with 1- firefighter, Medic 4-1 with 2 – firefighters, and the **Battalion Officer**. Wagon 1 arrives on the scene with smoke showing from the second floor of a two- story apartment building.

It could go like this: Wagon 1 firefighter would be the pump operator getting hose lines ready for attack crew, Wagon 5 would be the supply pumper. Two firefighters from Truck –2 and Medic 4-1 would be the fire entry attack team and the other firefighter would team up with the **Battalion Officer** or the firefighter from the supply pumper to be the initial rescue team. Depending on the situation, other units would be called for and additional personnel may be assigned inside and to a RIT.

This situation may also fall under the **EXCEPTION** Residential Occupancy, where a two firefighter crew could make entry for search and rescue purposes before four (4) firefighters were on the scene. Remember to consider your risks!

Structure Fire 1180 South Loudoun Street, Winchester Automotives, Time out: 2320 hours. Wagon 5 with 2 firefighters, Wagon 4 with 2 firefighters, Truck 2 with 1 firefighter, Medic 5-1, with 2 firefighters, **Battalion Officer**. Wagon 5 arrives on the scene with heavy smoke showing from a 1 story commercial structure; Wagon 5 will be command and drop off point. There are no cars in the parking lot and the business closed at 1800 hours. There does not appear to be a life hazard.

It could go like this: Wagon 5 would be the attack pumper and the operator would be committed to pump operations and reading attack hose lines, Wagon 5's OIC is

the incident commander, Wagon 4 would be supply pumper and the operator would be committed to that assignment. The firefighter on Wagon 4 would be assigned to the entry crew along with one of the firefighters on the Medic 5-1; the **Battalion Officer** and other firefighter on Medic 5-1 would be the initial rescue team. The Truck operator *could* be assigned utility control or other tasks until other units arrive. This situation would more than likely fall under the Commercial Non-Residential with no evidence of the need for victim rescue. Firefighting teams should not enter the IDLH structure until the initial Rescue Team is available.