

Kennebunkport Fire Department

TACTICAL CONSIDERATIONS SAFETY 100.30

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Tactical Positioning

Positioning of operating companies can severely affect the safety of personnel and equipment. Firefighters must use caution when placed in the following positions:

- Above the fire (floors and roofs)
- Where fire can move in behind them
- When involved with opposing fire streams
- Combining interior and exterior attacks
- Where sectors cannot control positions
- Limited access- one way in and one way out
- Below grade fires

The safety of fire fighters represents the major reason for an effective and well timed offensive/defensive decision and the associated right-off of property by Command. When the rescue of victims has been completed, Command must weigh the option of is the property worth more than the risk.

When operating offensively we must be aggressively offensive -- effective interior attack operations directed toward quickly extinguishing the fire eliminates most of the eventual safety problems.

Personnel should try and use safe positions whenever possible, in an effort to safeguard themselves against sudden hazardous developments such as backdrafts, flashover, structural collapse and others.

The intent of this outline is to minimize incident confusion and congestion and to limit the number of personnel exposed to incident hazards. Individuals or companies shall be restricted from wandering about the incident scene or congregating in non-functional groups.

If you have not been assigned a task or do not have a necessary support function stay away from the operating area. If you have finished your assigned task contact Command for another assignment so as to try and eliminate any freelancing.

At incidents where crews must operate from opposing or conflicting positions, such as front vs. rear attacks, interior vs. exterior streams, roof crews vs. interior crews, these sectors must use radio or face-to-face communications to coordinate the movements and actions of each crew.

Do not operate exterior streams into an area where interior crews are operating. This procedure is intended to prevent injuries to personnel from those exterior streams and the driving of heat and smoke at interior crews. Crews must be notified and evacuated from those interior positions before exterior master streams go into operation.

When operating above or below grade, try to establish at least two (2) separate escape routes, such as stairways, ladders, fire escapes preferably at opposite ends of the structure or at least separated by as big a distance as possible.

For the purpose of safe operations the hazard zone can be defined as the area surrounding the structure that is on fire. This may include the structure itself, the immediate area that could be in a collapse zone.

All fire fighters entering the hazard zone shall:

Wear full protective clothing

Be assigned to a sector

Be assigned to a crew within that sector

Hazards that will affect only a specific area should be dealt with within that sector and not necessarily affect the entire operation.

In an effort to regulate the amount of fatigue suffered by personnel at an incident officers should frequently assess the physical condition of their crew members. When crew members exhibit signs of serious physical or mental fatigue, the entire crew should be reassigned to the Rehab Sector if possible.

Rotation of companies will be utilized by Command during extended operations to provide for an effective ongoing level of personnel and performance. It is Command's responsibility to summon adequate resources to tactical incidents in order to effectively stabilize the situation.

It is the intent of this outline to reduce the stress and fatigue experienced during difficult operations to a reasonable and recoverable level and is in no way intended to lessen the individual and collective efforts expected of all fire fighters during incidents.

Safety Officer

Command has the responsibility to recognize situations requiring the implementation of a Safety Officer. Upon arrival at a working incident the Safety Officer will report to Command and unless otherwise assigned, will automatically assume the assigned responsibilities. The assigned Safety Officer will respond to any incident upon request from Command. In the absence of the assigned Safety Officer, Command may assign the position to available personnel.

The Safety Officer shall be established at incidents posing a potential danger to personnel such as:

All working structure fires

Hazardous structural conditions

Hazardous material incidents

Any other situation where a Safety Officer could be advantageous to the safety of the operation

The establishment of a Safety Officer on the scene in no way diminishes the responsibility of all officers for the safety of their assigned personnel. Every fire fighter will be expected to operate within established safety procedures at all times.

Structural Collapse

Structural collapse has been a leading cause of fire fighter injuries and deaths. For this reason the possibility of structural collapse should be a major consideration in the development of any attack

plan.

Structural collapse is a possibility when a building is subject to an intense fire. If the fire is allowed to affect a structure long enough, some structural failure is inevitable. Regardless of the age and exterior appearance of a building, there is always the possibility that a structural support component is being affected by heat and may collapse suddenly inflicting serious injury to fire fighters.

In a typical building fire the roof is the most likely portion for failure, however failure of the roof may very likely trigger a collapse of one or more walls. This is especially true if the roof is a peak or dome type which may exert outward pressure against both the bearing and non-bearing walls upon collapse. In multi-story building with a basement, the floor section above the fire may collapse if supporting members are directly exposed to heat and flames.

Knowledge of various types of building construction can be invaluable to fire fighters from a safety standpoint, as certain types of construction can be expected to fail sooner than others. There are examples of light weight trusses collapsing in as little as 7 (seven) minutes.

Structures have been known to collapse without warning, but usually there are signs which may alert fire fighters before the collapse could happen.

INDICATORS

Bulges and cracks in exterior walls

Sounds of structural movement-creaking, snapping, groaning, etc.

Smoke or water leaking through walls

Flexible movement of any floor or roof where firefighters are operating

Interior or exterior bearing walls or columns leaning, twisting or flexing

The following construction features have been known to cause premature or at least contribute to structural failure when attacked by fire

Large open areas -- supermarkets, warehouses

Large signs or awnings-- which may pull away from weakened walls

Cantilevered canopies-- which usually depend on the roof for support and may collapse as the roof fails

Buildings with light weight truss, bar joist or bow string truss roofs

Buildings supported by unprotected metal beams, columns, etc.

Buildings containing one or more of the above features must be constantly evaluated for collapse potential. These evaluations should be a major consideration when determining tactical operations, either offensive or defensive.

It is a principal Command responsibility to continually evaluate and determine if the fire building is tenable for interior operations. This ongoing evaluation of fire/structural conditions requires the input of company officers advising Command of conditions in their area of operation.

Structures other than heavy timber or fire protected are not designed to withstand the effects of a fire and can be expected to fail after about 20 minutes of heavy fire involvement. If after 10-15 minutes of interior fire attack heavy fire conditions still exist, Command should consider a change of tactics to a defensive type of attack.

If structural failure of a building or section of building appears likely a safe operating perimeter must be established. The entire scene will be taped off so the general public will not be in any danger or

allowed to interfere with emergency procedures. In addition to the taping an inner barrier will be erected. This may be by rope or another color of tape, this is so personnel can still carry out their tasks in the area but stay out of the collapse danger zone. Also at this time Command will notify Fire Alarm and an announcement will be made stating that a collapse zone has been established and to stay out of the area.

Interior fire fighting operations should be abandoned when the extent of the fire prohibits or the structure becomes unsafe to operate inside. When conditions become untenable, evacuate, regroup, re-communicate and re-deploy.

When a hazard is present that may effect the safety of firefighters, the primary concern of Command is the firefighters welfare. In an effort to protect firefighters from the adverse effects of hazards such as structural collapse, explosion, backdraft, etc. a structured method of evacuation must be utilized, providing for the rapid and effective notification of all personnel involved and also accurately accounting for involved personnel.

The safety of firefighters represents a major reason for sectorization. The sector officer must maintain the capability to communicate with firefighters under his supervision so that he can control both their position and function.

Sector and company officers shall be able to account for the location and welfare of all crew members operating under their supervision. The company officers will keep Command informed of changing conditions especially those which may affect the firefighters safety.

An Emergency Radio Traffic announcement is designed to provide immediate notification for all personnel of a hazard that is about to occur, or has already occurred. The Emergency Radio Traffic announcement should be used when a member or members is in imminent danger.

The use of the Emergency Radio Traffic announcement should be initiated only when the hazard appears imminent. Any firefighter has the authority to use the Emergency Radio Traffic announcement but the overuse of it may make the announcement ineffective, so considerable discretion should be used.

When a severe hazard is imminent, the Emergency Radio Traffic process should be initiated by Command. The initiator should describe the apparent exposure and usually an evacuation a particular area or sector will be called for.

The Kennebunkport Fire Dept. Emergency Radio Traffic announcement will consist of Fire Alarm making a tone alert over the air and an announcement of the danger areas will be made. Also all apparatus at the scene will sound their air horns in 3 long blasts each of which should be 10 seconds in duration.

Upon hearing the Emergency Radio Traffic evacuation order, company officers will assemble their crews and promptly exit to a safe location, where all crew members will be accounted for. The company officers will then contact Command and advise that the crew is intact and standing by. When all affected crews and members are accounted for the evacuation process is complete.

Building evacuation generally involves a shift from offensive to defensive strategy. It is extremely important that Command is sure that everyone has received the word of the strategic shift. Crews retreating from interior positions often require hose line protection. This protection represents a major function of the backup lines.

Search and Rescue

Search and Rescue should be performed efficiently and be a well planned procedure. The safety of

the searching crews is our number one priority. The object of search is to locate possible victims, not create additional ones by neglecting the safety of our firefighters.

All searching members should be in teams of at least two. They should be familiar with the specific search plan and may have to develop and communicate the plan to others before entering the search area.

Officers must maintain an awareness of the location and function of all members of their crew during search operations. Each search team should have radio contact with Command in the case of an emergency or the location of victims.

When a search is conducted in an area that exposes the search team to fire conditions, the search team shall be protected as soon as possible with a charged hose line(s).

“Mayday”

The radio transmission “Mayday” is only to be used if you or a fellow firefighter is in imminent danger from being trapped, out of air, lost, having received a life threatening injury, a fellow firefighter who is unconscious or if someone cannot reach a safe location,

Call “Mayday, Mayday” on your radio giving your company number, approximate location, floor number, and type of emergency. Keep trying to call until you get a response from someone, either Command, Fire Alarm or an officer on scene. Then manually activate your PASS alarm

Self Contained Breathing Apparatus

It is the policy of the Kennebunkport Fire Department that all members expected or likely to respond to, and function in, areas of atmospheric contamination shall be equipped with and trained in the proper use and maintenance of self contained breathing apparatus (SCBA).

All members shall don SCBA immediately upon arriving at the scene for all alarms where the use of SCBA may be required. This includes but is not limited to:

reported building fires
vehicle fires
Hazardous Materials incidents
potential BLEVE, explosion or rupture of flammables
anytime where smoke is present

All members shall utilize the provided SCBA when encountering the following emergencies:

below grade level, tanks, manholes
contaminated atmosphere- smoke, chemicals, hazardous materials
situations where it is likely that the atmosphere may become contaminated

Try to resist the temptation to remove the SCBA prematurely during routine fire situations. Be aware of the respiratory hazards which exist in ordinary as well as fire situations, it is generally true the Carbon Monoxide levels increase during overhaul.

SCBA may be removed when it has been determined by Command that the fire is under control and that the scene has been thoroughly ventilated and tested for contaminants. When complex situations, particularly toxic materials are involved, the Safety Officer should be consulted.

Members raising ladders, operating exterior lines, performing exterior ventilation or other external activities are not mandated to wear SCBA. However any individual member may wear SCBA at

any alarm that they respond to.

To reduce the possibility of injury, members responding to alarms are not required to don SCBA while the apparatus is in motion. After use all SCBA shall be returned to the apparatus so as to reduce the chances of damage to the unit. Upon returning to quarters the SCBA shall be cleaned and disinfected.

Driver Safety

When responding under emergency conditions, fire department vehicle speed shall be regulated by existing road and traffic conditions. School zones are included, which means speed must not exceed 15 MPH during the times students are in the zone and the lights are flashing.

All department vehicles must come to a stop at red traffic lights, blinking red lights, blinking school bus lights and stop signs. The driver may then proceed through the intersection with caution after determining that it is safe to do so.

During an emergency response, fire vehicles should avoid passing other emergency vehicles. If unavoidable, the passing arrangement should be conducted by radio communications. Drivers of emergency vehicles must be aware of the potential that exists for vehicle accidents on or near the incident scene due to the distractions caused by the emergency and its response.

Respond and react accordingly to the conditions encountered; neither poor road conditions or inclement weather or the actions of others relieve the driver of his responsibility to drive safely.

The officer, or acting officer, and the driver shall not permit a fire department vehicle from moving in any direction until all personnel are seated and belted. Riding while standing is strictly forbidden. All restraints and safety bars shall be in place while the vehicle is in motion. Riding on the rear tailboard or side running boards at anytime is also forbidden.

Hearing protection will be worn when operating pumps, roof saws and chain saws. Hearing protection is for your own hearing preservation and each of us must assume some responsibility in the wearing of hearing protection. If there is any doubt of potential hearing damage, wear hearing protection.

Whenever someone is backing up a fire department vehicle, other than into quarters a person will aid the driver in backing up the vehicle. This is to ensure not only personnel safety but also the citizens who may run behind a backing vehicle. The person who is backing up the vehicle should be in clear view of the driver to facilitate any communication that may be needed. All fire department vehicles are subject to this.

When backing a fire department vehicle into quarters all personnel will remain on the vehicle.