Halifax Fire Department
June 4, 2004

STANDARD OPERATING GUIDELINE

On-Site Auxiliary Fire Equipment

11.01 PURPOSE

A. To establish a procedure for identifying the type, condition and possible use of On-Site Auxiliary Fire Equipment in a given situation.

11.02 POLICY

A. In the event a fire is reported in, or in the event a building or property is threatened by fire the following guidelines have been established pertaining to the use of On-Site Fire Equipment.

11.03 SCOPE

A. For the purposes of this policy, On-Site Auxiliary Fire Equipment shall include the following:

1. Sprinkler Systems
2. Standpipe Systems
3. Wall Lines
4. Dry Chemical Systems
5. Halon Systems
6. Carbon Dioxide Systems
7. Foam Systems

11.04 PROCEDURE

A. Determine if the involved occupancy has On-Site Auxiliary Fire Equipment; if so, identify the type or types of equipment provided.
B. If the occupancy is so equipped, determine if the auxiliary fire equipment is in operation.
C. If currently in operation, determine the effectiveness of such equipment.
D. If auxiliary equipment is non-operational, determine how to activate such equipment and place it into service if it will aid in control of the fire.
E. Provide support to On-Site Auxiliary Fire Equipment in accordance with the type of equipment involved and the nature of the fire situation.

11.05 SPRINKLER SYSTEMS

The following guidelines apply to all types of sprinkler systems including: wet pipe, dry pipe, deluge, pre-action, combined dry pipe and pre-action systems.

A. Follow SOG 10 on operations in sprinklered buildings whenever possible.

B. At fires where sprinkler systems are operating, support the system by pumping to the Fire Department Connection (FDC) at a pressure of 150 psi through a minimum of two (2) 2 ½" hose lines.

C. Check the effectiveness of the sprinkler system and take appropriate action to insure proper control and extinguishment.

D. Insure that the water supply valve to the system is open. Detail a firefighter with a radio to stand by at the valve.

E. Sprinkler systems in buildings which are severely exposed to a fire from another building or an outside source such as a storage area should be supplied at the FDC to insure proper exposure protection.

F. Usually the first line off the ***Second Due*** engine is to supply the FDC, although the second line off the ***First Due*** engine can be used if needed.

11.06 STANDPIPE SYSTEMS

Where an occupancy is equipped with a standpipe system, fire department personnel should utilize the system to the best advantage to eliminate the need for excessively long hose lays.

A. Where the standpipe system is independent and is also equipped with a FDC, support the system by pumping to the FDC at a pressure of 25 psi plus 5 psi per story for each floor above the ground level. In addition, hydraulic calculations must also be included for the hose line (s) being utilized off the standpipe outlet. Support of the system through the FDC shall be with a minimum of two (2) 2 ½" hose lines.

B. Where the standpipe system is combined with the sprinkler system by pumping to the FDC, provide the FDC with 100psi at the connection.

C. Those members assigned to the interior attack utilizing the standpipe outlet must be sure they can communicate with the pump operator supplying the system.

D. When a hose line is connected to a standpipe outlet in a stairwell on the fire floor, the excess hose should be pulled down the stairway toward the next floor before it is charged. The hose will easily advance up the stairs once it is charged.

E. Firefighters must be careful not to impede occupants evacuation down stairwells and not to allow great volumes of smoke into the stairwell.

F. If standpipe outlets are in the corridors, the attack should begin from an outlet on the floor below the fire floor. Unless it is confirmed that the fire is located some distance down the corridor from the stairway, then the outlet on the fire floor may be used.

11.07 WALL LINES

When a decision has been made to utilize wall lines or house lines, members should keep in mind the limitations of such installations and be guided by the following:

A. When utilizing a wall line installation:

1. Disconnect the existing line and remove any pressure reducer that may be present.

2. Connect high rise pack (fire department hose).

B. Remember that the volume of water and the pressure available from these installations may be limited.

C. House lines may be utilized for initial attack while back up lines are being deployed into position.

11.08 DRY CHEMICAL SYSTEMS

Dry chemical systems may be found in a variety of occupancies and installations. Some of these include restaurants, spray booths, and dip tanks.

A. Upon arrival at an out-of-doors fire being attacked by a dry chemical extinguishing system, such as a tank loading rack, lay lines to back up the system in case of re-ignition after the chemical has dispersed. Portable extinguishers from the apparatus should be used to supplement the system.

B. In the case of a local application system inside a building, such as for a dip tank, do not turn hose lines on the fire, since this is likely to splash the burning liquid out of the tank – spreading the fire.

C. If a total flooding system is operating; do not open up the enclosure until the powder has fully extinguished the fire and any hot objects which can act as sources of ignition have cooled off. The chemical must be permitted to build up sufficient concentration inside the enclosure to fully extinguish the fire. Any premature “opening up” will nullify its operation.

D. If it is necessary to enter an enclosure in a heavy concentration of dry chemical to close up openings or effect a rescue, SCBA shall be worn without exception and firefighters must work in pairs.

E. Always investigate the upper floors and or attic area for fire extension whenever a grease duct fire occurs.

F. The Incident Commander shall take measures to insure that the Health Department is notified whenever a food establishment has been involved.

G. The Incident Commander shall make sure that the management of the occupancy has taken steps to restore the system into working order.

11.09 HALON SYSTEMS

It is vitally important for all members to have an understanding of Halon extinguishing systems.

A. When responding to a fire where a total flooding system has operated in a room or vault, do not open the door until you are satisfied that the fire is out; do not open the door until sufficient time has elapsed to allow the gas to "soak" in and the material to cool so that re-ignition will not occur when the inert atmosphere dissipates.

B. Always deploy an extinguisher and a hose line as a back up to the system in case the system fails to function as intended.

C. During overhaul, all members must wear SCBA and be sure to direct ventilation products to the outside where they will not collect in a basement or a low lying area. Remember that Halon 1301 is approximately five times heavier than air.

D. The Incident Commander should be sure that steps are being taken by the management to restore the system.

11.10 CARBON DIOXIDE SYSTEMS

A. Upon arrival be prepared to activate the system manually if it has not activated automatically.

B. If upon arrival, the system warning alarm is sounding, the occupants have evacuated the room, the doors are closed, and the C02 has been discharged into the area. Do not open the door until the gas has dissipated and you are equipped with adequate extinguishing agents.

C. If it is necessary to enter a room flooded with C02 to effect a rescue or manually close openings to seal up the enclosure; All members shall wear SCBA with PASS and a life line.

D. When ventilating a room which has been flooded with C02, portable fans and PPV can be used to assist in ventilations in occupancies that are not equipped with exhaust systems.

E. The Incident Commander should be sure that steps are being taken by the management to restore the system.

11.11 FOAM SYSTEMS

A. If upon arrival the fire has not yet been extinguished, check the system to make sure the valves are open and that the power is on.

B. If upon arrival there is a small fire and the system has not activated, it may be possible to extinguish the fire with a portable extinguisher before the system activates.

C. If upon arrival there is a fire progressing quickly and the system has not been activated, the system should be manually activated and backed up with portable extinguishers, wheeled units, foam generators, or dry chemical extinguishers.

D. If a large spill has occurred, but has not yet ignited, any system that is designed to protect this area may be manually activated to provide a protective foam blanket as a precaution while the leak is being controlled and the spilled mitigated.

E. Do not direct hose lines (water) into a tank or diked area that has a foam blanket on it; this will break up the continuity of the surface blanket and may cause overflow of the foam and the flammable liquid nullifying the effectiveness of the foam system.

F. Remember that some systems are designed to provide exposure protection, as well as extinguishment, so be careful not to wash away foam blankets on exposures with hose lines.

G. The Incident Commander should be sure that steps are being taken by the management to restore the system.