

Big Tree Volunteer Fire Company, Inc.
Standard Operating Guideline

Sprinkler & Standpipe Operations

Revised May 24, 2002

PURPOSE:

To establish a standard guideline for operations in sprinklered and / or standpipe buildings.

POLICY:

In the event that a structure equipped with a sprinkler or standpipe system is reported to be on fire (either by verbal or alarm system notification), the following procedures should be followed.

Procedures For Sprinklered Buildings:

The majority of buildings in the Big Tree fire district that are equipped with sprinkler systems are commercial, multiple occupancy, or public assembly buildings. There is, however, an increasing demand for residential home sprinkler systems. Buildings in the Big Tree fire district that have sprinkler systems should be documented as part of our *Pre-fire Plans*. These *Pre-Plans* will denote the location of the Fire Department Connection (F.D.C.) for a quick reference while responding to incidents in these buildings.

The first arriving engine should:

- Give condition report and continue with size-up.
- Report to the most advantageous location to determine where in the building the alarm is coming from or fire is reported to be.
- Check with occupants or check annunciator panel (if available).
- Check for alarm bells ringing, which may indicate the involved zone.
- Check for water flowing from exterior drains, which may indicate the general area.

Once the fire area has been determined, the crew should commence with the appropriate fire attack tactics. The type of structure, fire load, and degree of fire involvement will determine these tactics.

The second arriving engine should:

- Position the apparatus at the Fire Department Connection (F.D.C.) and await orders to connect to the system and provide a water supply.
- If a fire is confirmed in the building, a water supply should be established from the nearest hydrant or water source and supply lines should be hooked into the F.D.C.

- A minimum of two 3” lines should be used to hook into a split F.D.C. Several of the new buildings in the Town of Hamburg are being equipped with a 5” stortz F.D.C. Where these exist, a 5” line should be used to feed the system.
- If a fire is in progress and sprinkler head(s) have activated, one hundred fifty (150) pounds of pressure should be provided to the F.D.C. If long lines are required between the engine and the F.D.C., the friction loss in the hose must be considered in hydraulic calculations.
- Observe the effect of the sprinkler system on the fire to determine if the system is operating correctly.
- Hose-lines must be ready, charged, and in position for confinement and control before the sprinklers are shut off.
- When fire control has been achieved, the sprinkler system should be shut down (slowly) to allow proper ventilation to occur and crewmembers manning the hose lines to move in and fully extinguish the fire.
- Initiate prompt salvage and water removal operations to protect records, machinery, storage, stock and furnishings from water damage.
- After the fire operations are complete, contact the owner and occupants that the sprinkler system is out of service and that they need to contact a service representative to put the system back in service.
- Explain to the owner and occupant that while the system is out of service, property will not be protected, or if connected to a central signaling station, an alarm will not be transmitted until system is back in service.

Procedures For Standpipe Buildings:

Some buildings in the Big Tree fire district have standpipe systems in the building that can be used to hook in fire department hose-lines in order to support a fire attack. This kind of system is typically found in mid-rise and high-rise structures (e.g., Bethel Estates, Home Depot). Standpipe systems have a similar exterior Fire Department Connection (F.D.C.) as sprinkler systems and in some cases the F.D.C. feeds both systems.

All of the same procedures for sprinkler buildings as listed above should be followed in buildings with standpipe systems.

Crews entering the building to extinguish fire should be in full turnout gear with S.C.B.A., lights, and appropriate tool(s). If the crew will be using the building’s standpipe system as the water source to fight the fire, they should take the “High-rise” or “Hotel Pack” into the stairwell or area where the inside standpipe connection is located. The “high-rise kit” should also be taken if not attached with the pack. The “high-rise pack and kit” consist of:

- 100’ of 1-3/4” or 2” hose
- Straight tip or automatic nozzle

- Gated Wye (2-1/2" to two 1-3/4" outlets)
- Spanner wrench(s)
- Extra valve handle or pipe wrench

The cap on the 2-1/2" standpipe connection should be removed and the gated wye put on. The 1-3/4" or 2" hose should be connected to it. It is important to make certain that you are close enough to the fire to adequately reach with 100' of hose. If not, either move to a closer standpipe connection or add additional lengths of hose. Once the hose-line is stretched and you are ready for water, a firefighter must open the valve at the standpipe connection and open the appropriate gate on the wye. A backup hose line can be connected into the open side of the wye and the same procedures apply.

The pump operator should deliver at least 150 gpm to the outside fire department connection. Friction loss should be calculated depending upon how many lengths of hose are used.

Firefighters should avoid using house lines, which are intended for use by building employees or the public. Proper testing, maintenance and reliability of these hoses cannot be counted on.

We are experimenting with 2" hose with a straight tip nozzle. The intent is to deliver a greater gallon per minute flow at lower pressures. Keep in mind that when using these lines at lower pressures, line management is very important. Lines at lower pressures can kink easily, which can reduce water flow.

Refer to the Standard Operating Guideline entitled **High-rise Firefighting** for further guidelines on fighting fires in high or medium rise buildings.