

Test Your Knowledge - Chief Officer

PROMOTIONAL SCENARIOS FOR THE CHIEF OFFICERS

Smoke in the Basement

As the Chief of the 1st Battalion, you respond with an Engine Co. 1 and a Ladder Co. 1 to a report of smoke in the basement of 2-1/2 story, Class 5/frame, private dwelling.

You arrive just ahead of the engine and ladder and observe smoke showing from the basement window, with a distinct odor of “*delayed ignition*” from the buildings oil burner.

Test Question:

How will you direct your companies?



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Smoke in the Basement; Answer Key

- Assign members to bring in fire extinguishers (include a CO2, dry chemical, and/or AFFF extinguisher).
- Stretch a 1-3/4 hose line – Fire extinguishers by themselves may not be enough.
- Prior to entering the basement/cellar area, shut the remote control switch to the heating unit – This is usually identified as a red electrical switch/box installed outside the burner room. (See photo)
- Ventilate the affected area.
- Shut of the fuel supply from the oil tank into the burner. If approachable, this will generally be a copper hose line that is goes directly from the tank to the burner. It can be strung along the wall, floor or attached to the underside of the first floor joists. Trace out the line and find the shutoff valve.
- Avoid operating in front of or near the burner unit – the heating unit can violently pulsate and force the firebox door open injuring firefighters.
- Extinguish any fire outside the burner.
- Monitor any fire in the firebox and allow it to burn itself out - Applying any water in the fuel box can result in devastating steam/oil burns to your firefighters.
- Search all floors for building occupants who may be in danger (overcome by toxic smoke).
- Check for any fire extension – Thoroughly check and remove any affected combustibles in the basement and around structural members in the basement area.
- Check for any fire extension in and around the flue pipe.
- Check for a possibly chimney fire. (Refer to the Operational Guide book referenced below for actions to take at Chimney fires).
- Check for fire extension on the floor directly above.
- Always use utilize thermal imaging cameras when checking for fire extension.
- Once under control – advise the homeowner of findings and the service needs of the heating system.
- Check CO levels prior to allow occupants and owner to re-occupy the building.
- If the building cannot be reoccupied due to a loss of heat, assist the building owner/tenants with relocation to a warm shelter. (i.e. Red Cross, etc.)

Additional information: Delayed ignition, puff backs, kick backs, or as they are also called, blow backs, can occur in a heating system when unburned atomized fuel is ignited at the start of a burner cycle resulting in a explosion. The explosion itself can vary in size and effect. It can be as minor as a small thud quickly followed by a puff of smoke. This is the most common. It could be more intense resulting in the dislodging of the heating units flue pipes filling the basement with smoke, or it can blow open the fire box door sending fire across the room. Well-maintained systems have protective systems in place to prevent such occurrences, but as in any mechanical system.....faulty or poor maintenance is high possibility. *Members must exercise caution at all incidents. Stay Safe!*

For additional information:

“*Fireground Operational Guides*” from Fire Engineering Books; by Deputy Chiefs F. Viscuso and M. Terpak

“*Assessment Center Strategy and Tactics*” from Fire Engineering Books; by Deputy Chief Michael Terpak



Michael Terpak is a 35 year veteran of the fire service and a Deputy Chief with the Jersey City Fire Department. Terpak travels extensively around the country lecturing on fire related topics. He is the founder of Promotional Prep, a NJ based consulting firm designed to prepare firefighters and officers for promotional exams. He is the author of three bestselling books including *Fireground Operational Guides* (with DC Frank Viscuso, PennWell 2011). The book features a universal tactical worksheet for structure fires and operational guides for over 70 incidents that range from water, gas and electrical emergencies to multiple-alarm structure fires. (available at FireOpsOnline.com)