

Responding to Chimney Fires



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If you were to ask your senior members (don't say old members, please) of your department if they responded to more chimney fires "back in the day," you're likely to get a raised eyebrow and an "oh, yeah" response from them.

Back in the 1970s and 1980s, it was a common response for fire departments to get called out to handle a chimney fire. Back "in the day" there was a common belief that the oil barrels were going to run dry and people were reacting to the scare by placing wood burning stoves in their homes in anticipation of running out of oil. And the hasty installation of these makeshift heating units kept fire departments busy.

I had been working on a lesson plan and preparing a training session for my full-time fire department on how to handle chimney fires recently. On most weekends, I retreat to the north country and volunteer my time for the area's



fire departments. Coincidentally, we got paged out for a chimney fire at 2:30 on a cold Sunday morning. When I got eyes on the house, it didn't take much time to realize this was not just an isolated fire inside the confines of the chimney. We had dirty gray smoke showing from the first floor, second floor and the attic. Showtime!

My intent of this article is to walk you through a "best practices" approach to handle a response to a chimney fire. Remember that nothing is absolute, and I just want you to think of plan B and plan C before plan A falls apart on you.

Equipment

First, we need to look at what equipment we can use to help take care of the situation.

Your arsenal for handling chimney fires should include the following:



- Metal bucket
- Small shovel like a fireplace shovel or military-grade entrenching tool
- Chimney bombs (these are baggies filled with dry chemical extinguisher powder)

- Floor runner(s)
- Chimney mirror

Additional equipment may include:

- Chimfex flares
- Chain with weight
- Asbestos mittens
- Tools for removing cap on chimney

Equipment that is normally carried on your fire apparatus that may be considered:

- Extension ladders
- Dry chemical fire extinguisher
- Positive pressure fan
- Pressurized water extinguisher (for handling the fire in the firebox of the wood burning stove or fireplace)

Overall strategy for handling a chimney fire should consist of the following:

1. Extinguish the fire
2. Check for extension
3. Ventilate as necessary
4. Overhaul
5. Salvage
6. Monitor for carbon monoxide and hydrogen cyanide
7. Recommend the owner/occupant have a certified chimney inspector check the chimney prior to using it again.

Response

Ok, let's walk through a response to a chimney fire once the tones go off. Our size-up begins with information relayed from dispatch while responding. On arrival our size-up continues on the outside of the structure:

- Perform a 360 with a Thermal imaging camera

- What are the fire conditions?
- What are the smoke conditions within the structure?
- Interview occupant(s) to get more information
- If the fire has breached the chimney and is burning in the walls or the attic, we treat the situation as any other structure fire.
- If it appears the fire is contained to the chimney, we continue our size-up to the interior.
- Is there a fire inside the firebox to the fireplace or wood burner? (it's likely there is)
- Check for extension of fire in the walls or attic.
- What are the smoke conditions on the inside of the structure?

Tactics

1. Stretch a hose line to the doorway (in case the fire spreads. Remember plan B?)
2. Extinguish the fire in the firebox with a pressurized water extinguisher and remove all material outside with the shovel and metal pail
3. Close the damper to the flue. Close doors/windows to fireplace or wood burner
4. Place floor runner to minimize damage to area outside firebox and flooring
5. Attack fire from above-Drop chimney bomb(s) down chimney
6. Use water from extinguisher or hose line with caution as it may cause further damage by cracking the chimney's liner
7. Attack fire from below-Open damper enough to discharge dry chemical extinguisher upward above fire box. Close damper quickly afterward to minimize air from entering the flue
8. You may consider using a Chimfex® flare if you have

them. Don't use a standard road flare in its place!

9. Another tactic that may assist you is by placing a positive pressure fan near the fire box. I would start out at half-throttle and have someone continually monitoring the attic space for changing conditions

After the fire has been extinguished.

- Check the atmosphere for carbon monoxide levels
- Clean up the area around the firebox
- Check the interior one last time with the thermal imaging camera to ensure no extension of fire has occurred outside the chimney's flue.
- Advise occupants to have the chimney inspected by a certified chimney inspector and cleaned before using it again.

Chimfex® has good information on their website about the use of their flares for a chimney fire. I recommend visiting it to gain more knowledge on their product. There are also some good, short videos on YouTube on using Chimfex® flares.

Another very good video I came across on YouTube was produced by the Wisconsin Association of Home Builders titled "WAHI Education House Chimney Fire." It is just under 15 minutes long and it shows how a clay liner inside the chimney can fail during a fire. I recommend you watch this video as well during an upcoming training drill at your station.

