

Fire Cause Pattern Identification

Objectives: (NFPA 1001 5.3.4(B))

- Ability to locate the fire's origin area
- Ability to recognize possible causes
- Ability to protect the evidence

Equipment:

- 3 - 4'X4' cubes
 - 2 - cubes with an open front 3 walls and ceiling.
 - 1 - cube with 3 walls, ceiling and approximately 1/3 front top enclosed.
- 2 - Metal burn cans.
- 1 - pad easel paper.
- 1 - large bin of wood pallet slats
- 1 - bin of smaller wood kindling
- 1 - full bail of hay
- 1 - Butane torch
- 2 - Small cushions
- 3 - APW's
- 2 - TIC's
- 1 - Closet hook

Instructors:

One Lead; two instructor

Support Staff:

- None

Fire Cause and Determination

This standard evolution is designed show students what to look for with burn patterns, locate fire origin and how to protect the evidence. Instructors shall discuss each of the different burns, their patterns and origin location.

Burn #1 - Plume / Cone pattern. Place burn can in the center of the one open front cell. Build fire in can approximately 40 minutes before students come out. Build wood crib on top of can just before students come out. Place 1/4 of hay bail on top of crib.

Burn #2 - Two dimensional V pattern. Place burn can right into one of the corners against both walls. Discuss the ability of radiant heat to build heat faster on the wall surfaces as air entrainment cannot get around the fire like the example in burn #1.

Burn #3 – Flashover

After the burns are complete the instructors should discuss different way to protect evidence, such as barrier tape, posting personal, and covering the evidence.