

# **Tempe Fire Department Policies and Procedures**

## **Overhaul**

### **207.12**

#### **Rev 11-12-09**

Overhaul activities seek-out and extinguish all remaining fire, and stabilize the incident scene by providing for safety and security. Three main objectives should be addressed during overhaul:

- . Extinguish hidden fire.
- . Preserve evidence.
- . Secure the fire scene.

#### **Hidden Fires**

Fire suppression operations often overlook small pockets of fire concealed in construction voids or hidden under debris. Fire personnel involved in overhaul activities must thoroughly search the fire scene to detect and extinguish these hidden fires or "hot spots" before they rekindle. Always use Thermal Imaging cameras to identify any areas of residual heat. At temperatures approaching 1000 degrees, a confined fire will force its way through very small openings in a structure. Insulation and combustible material surrounding these openings should be removed, as they may conceal smoke and embers. Extra effort must be used in any fire involving cellulose insulation. It is advisable to come back and check all fires involving cellulose at 1-2 hour intervals to avoid a rekindle.

Floor, wall, or ceiling areas showing evidence of extensive decomposition due to fire, should be thoroughly examined during overhaul. Additional areas to check include: wooden door jambs, baseboards, door and window casings, and around light fixtures and electrical outlets. Axes, pike poles, and pry bars are most commonly used for this purpose. Attics, plenum spaces, soffits, and pipe chases should receive careful inspection, as they provide possible routes for fire to spread throughout a structure. Failing to overhaul these areas invites fire extension to uninvolved building areas.

#### **Evidence Preservation**

Companies performing overhaul should continuously weigh the importance of preserving evidence, with the desire to immediately remove debris and completely extinguish all traces of fire. In some cases, it may be necessary to monitor spot fires until investigators arrive on the scene. Where possible, evidence should remain untouched, undisturbed, and in its original location. Where circumstances prohibit this, evidence should be removed under the direction of a fire investigator.

#### **Securing the Fire Scene**

Securing the fire scene is also a function of overhaul. Securing refers to actions required to protect the structure and contents from damage after fire suppression companies have departed from the scene. Roof ventilation holes, and broken windows should be covered to reduce weather damage. The roll plastic carried on ladder companies is ideal for this use. For safety reasons, residual glass pieces should be removed from the frames of broken windows prior to installing covers, and always prior to leaving the scene.

Securing the scene also includes the actions required to insure the safety of all persons likely to visit the incident scene. Once a hazard zone is established during firefighting operations, it must not be abandoned prior to removing or stabilizing the hazard. If the structural integrity of a building is compromised, utilize the equipment and crew of Support 276 to provide adequate shoring for safe interior operations. It may be necessary to contact the City Building Safety Division of Development Services to obtain an evaluation of the site. Barricades, hazard tape, and the posting of guards are all suitable methods of identifying and

guarding hazards depending upon the severity of hazard.

During overhaul there is the danger of toxic products of combustion being present, even though the atmosphere may appear to be clear. Toxic gases and particles of combustion will be present in a confined structure during overhaul. Therefore, it is essential that all personnel involved in overhaul, operate in SCBAs. Air monitoring must be ongoing throughout the overhaul process and SCBA's are to be worn until the CO level is below 35 ppm. Even if the CO levels are within safe limits, particulates of combustion may remain and the use of SCBA's or particulate masks should continue. Remember that overhaul can be very physically taxing on personnel involved. Adequate rest periods or crew rotation should be considered. For further safety considerations during overhaul operations, see the policy on safety.