

<b>PHOENIX REGIONAL STANDARD OPERATING PROCEDURES</b>	
Policy Name: <b>OVERHAUL</b>	Policy Number: <b>M.P. 202.12B</b>
This policy is for internal use only and is not intended, nor should it be construed to expand the legal duty under the law or expand civil liability in any way. This policy does not create a higher duty of care under the law to act. Remedies for violations of this policy, if proven, are limited to administrative disciplinary action against PFD employees.	
Related Policies: 202.01, 202.04, 202.05, 202.05B, 206.02	
Other Reference:	
Date Implemented: 08/2022-R	Review Date: 08/2028

### **PURPOSE**

This procedure establishes guidelines for conducting overhaul operations. While it is impossible to completely eliminate the chances of secondary fires, the goal of overhaul is to reduce the incidence of secondary fires, control loss, and stabilize the incident scene while providing for firefighter safety, preserve evidence, and secure the fire scene.

### **DEFINITIONS**

**Cellulose Insulation:** Finely ground, recycled newspaper with a chemical additive to increase fire resistance. Cellulose insulation is typically mechanically blown into an empty space of a structure to provide insulation.

**Overhaul:** A fire-fighting term involving the search for hidden fires and other indicators of fire, and the assessment of final extinguishment after the main body of fire has been knocked down. The goal of Overhaul is to make reasonable efforts to reduce the possibility of a subsequent fire caused by the return to flaming combustion of the original fire or by any other ignition source.

**Rekindle:** A subsequent fire in a building, structure, pile of debris, or other, where a recent fire was previously extinguished.

**Note:** Even when reasonable efforts are performed, overhaul may not eliminate all the risks of rekindle; however, it will reduce the possibility. A rekindle is not always and should not be considered *per se* evidence of a return to flaming combustion of the original fire.

Effective overhaul activities help reduce the potential for secondary fires. When addressing overhaul operations, the Incident Commander (IC) should make reasonable efforts to:

- Ensure overhaul is conducted safely. This includes, but is not limited to, following the SOPs for Fireground Exposure Reduction (206.02) and Self-Contained Breathing Apparatus (202.05B).
- Ensure allied equipment (Thermal Imaging Camera, foam applicator, etc.) are utilized when necessary.
- Use early and continuing positive pressure ventilation to maintain an acceptable working environment and reduce loss. Fire companies must evaluate and monitor conditions when operating fans.
- Meet with the property owner/occupant concerning overhaul operations.
- Schedule fire companies to conduct post-incident drive-by/walk-through of fire building to check for potential re-ignition sources.
- Coordinate overhaul with fire investigators.

### **CUSTOMER RELATIONS**

In the absence of an occupant services sector, the IC, or the company officer should meet with the property owner/occupant to explain the reasons for overhaul operations. Where it is reasonably safe to do so, the IC, or the company officer, may escort the property owner/occupant through the fire area to explain the need for overhaul operations. Proper loss control/salvage operations should be completed prior to any walk-through. Providing the property owner/occupant the opportunity to remove personal possessions/valuables or assisting them in boxing and removing these items is excellent customer service and a loss control opportunity.

Reasonable efforts should also be made to assist the property owner/occupant in notifying insurance agents of the fire.

### **HIDDEN FIRES**

Reasonable fire suppression operations might not detect and extinguish small pockets of fire concealed in construction voids or hidden under debris. Overhaul activities include searching the fire scene to detect and extinguish hidden fires or "hot spots." Suppression crews should open as many of these construction voids as reasonably possible. 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, air conditioning vents and registers, baseboards, door and window casings, metal to wood connections, ties, straps, conduits, and areas around light fixtures and electrical outlets. TICs, foam applicators, axes, pike poles, and Halligan tools are most commonly used for this purpose. Although a TIC may not be able to detect small hot spots, it can nonetheless be a valuable tool when looking for hidden fire/hot spots. Foam application during overhaul cannot guarantee complete suppression of all materials.

Attic fires can pose a special hazard for secondary fires where insulation has been exposed to fire. Large areas can receive fire damage and can be located in difficult to reach areas. In some cases, insulation should be reasonably removed to extinguish all remnants of fire. It is understood that

there is no possible way for firefighters to completely remove all insulation (especially cellulose insulation). Removing insulation in many cases means removal of large sections of ceiling. If possible, a reasonable risk/benefit discussion should be conducted with the owner/occupant to discuss the extent of insulation removal. The department cannot be held responsible for secondary fires if owner/occupants understand the risks associated with limited insulation removal. Plenum spaces, soffits and pipe chases should receive careful inspection as they provide possible routes for fire to spread throughout a structure. Some construction features do not allow this.

The IC is responsible for ensuring that the fire area has been reasonably overhauled. The company officer last leaving the scene is responsible for fire extinguishment, when possible. The IC is further responsible for scheduling post-incident drive-by/walk-through inspections of the fire building when needed. Post-incident inspections include a walkthrough of the building or areas when safe to enter. Crews should search for evidence of smoke or remaining hot spots. Crews should examine materials below salvage covers. In some cases, crews may need to create additional openings in the structure. A post incident inspection will be performed prior to the last fire department unit leaving the scene. The IC is responsible for assessing the need for additional post incident inspections and coordinating the plan with Dispatch & Deployment. A reasonable period of post-incident inspections may be scheduled to prevent secondary fires in buildings that contain cellulose insulation. The IC may waive post incident inspections if a fire watch is in place. If The IC believes the circumstances warrant a fire watch, C99 should be dispatched to the incident. C99 will meet with the building owner/occupant so that the owner/occupant understands Fire Code requirements including fire watch qualifications and cost, and to ensure that the owner/occupant complies with the Fire Code.

### **CELLULOSE INSULATION FIRES**

Cellulose insulation, which is one of the most commonly used insulation types, has been used in structures for several years. When exposed to heat, sparks or flames, cellulose insulation presents special problems for the fire service, businesses, and building owners/occupants. Hot spots can get buried deep inside cellulose insulation where they can lie before breaking into fire. Fire companies at structure fires that have cellulose insulation should:

- Follow standard operating procedures for obtaining all clear and fire control.
- Identify cellulose insulation as soon as possible.
- Evaluate the use of fans based on the presence of cellulose insulation.
- Follow standard overhaul procedures contained in this M.P.
- While it is widely recognized that it is impossible to remove all cellulose insulation and impossible to absolutely prevent all secondary fires or rekindles of a structure, fire companies should remove or wet down as much insulation as reasonably possible.
- Have utility companies pull the electrical meter and ensure other utilities are secured.
- Meet with the owner/occupant and the fire investigator to advise the owner/occupant that they should not occupy the structure.

## **DEFENSIVE FIRES**

Overhaul activities as described above will not be conducted on structures that have been declared Defensive Fires. Firefighter safety prohibits standard overhaul activities in structurally compromised buildings. Crews will continue to apply water to hidden fire/hot spots from exterior positions until all fire is completely extinguished. During campaign operations, the IC will coordinate the rotation of crews through Dispatch & Deployment.

## **EVIDENCE PRESERVATION**

Companies performing overhaul should compare the importance of preserving evidence to the danger of immediately removing debris and extinguishing all traces of fire. In some cases, it may be necessary to monitor spot fires until investigators arrive on the scene. In these instances, and when 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 further loss after fire suppression companies have left the scene. Roof ventilation holes and broken windows should be covered to reduce weather damage and deter vandalism. Rolled plastic is ideal for this purpose. For safety reasons, reasonable efforts should be made to remove remaining glass shards from the frames of broken windows prior to installing covers or leaving the scene.

Securing the scene also includes the actions required to address 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. Overhaul companies should provide means of identifying and guarding hazards that cannot be removed or stabilized. Reasonable efforts, including, but not limited to barricades, hazard tape, and the posting of guards are all methods depending upon severity.