

OVERHAUL

Overhaul is the practice of searching a fire scene to detect hidden fires or smoldering areas that may rekindle and to also safeguard signs of arson. Overhaul should begin after the main fire has been knocked down. If the fire is of suspicious origin, only minimal overhaul should be performed until a Fire Investigator has cleared the area. When checking for fire extension, careful inspection of wall and ceiling openings should be made. Care must be exercised not to overlook possible avenues of extension; hidden fire in void spaces is a frequent cause of rekindle. Every effort must be made to be certain the fire is totally extinguished to prevent rekindles.

Overhaul operations should always follow a set plan or pattern. It is best to start nearest the area of origin and work out from that point. Personnel should be in full PPE during initial overhaul operations and a charged hose line should be in place. A booster line does a good job putting out small fires and cooling hot spots with a minimal amount of water in small one room fires or fires in single family dwellings. Larger lines may be needed in commercial buildings. This limits some of the water damage to the building and contents.

Searching for Hidden Fires

The objective in searching for hidden fires should be to make a careful check to determine whether the fire extended to other areas of the structure or is still smoldering in a hidden space. Before starting a search for hidden fires, it is important to evaluate the condition of the area to be searched. The intensity of the fire and the amount of water used for control are two important factors that affect the condition of the building. The extent to which structural members have been weakened and the additional weight of the water used to control the fire should be considered for the protection of personnel during overhaul operations. In one-room content fires take a good look at the ceilings and walls. If they are still intact you may want to look in the attic access before taking down the ceilings. If there is any doubt, begin where a void exists. This may be vent piping in heater rooms or light fixtures in living quarters. Wall openings such as switch boxes and light fixtures can also be a path for fire spread. These areas can be opened first to inspect for evidence of fire extension or smoldering. Only enough wall, ceiling, or flooring should be removed to assure there is no extension. Often time's unnecessary damage is done during overhaul.



Pulling Ceilings

Pulling down ceilings is tiring work. It is often better to work in shifts than to have too many people trying to pull down the ceiling in one room. Insulation material may harbor hidden fires or smolder for a prolonged period of time. It is important to check this material thoroughly. Head and eye protection should always be worn. When pulling down the ceiling material do not stand directly under the area you are working on. Have the tool extended in front of you and pull down so that the material comes down in front of you. You should work from the farthest point in the room towards the door or exit to keep your exit route from being blocked by falling debris.



Windows and Doors

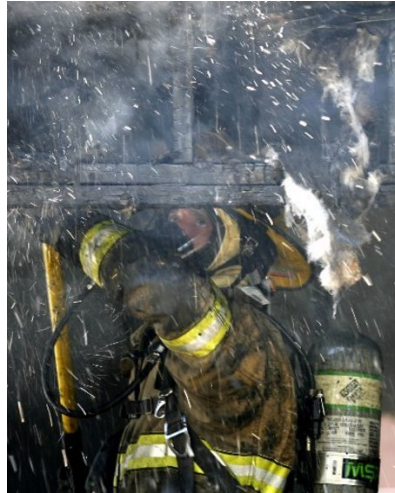
When fire has burned around windows or doors, there is a great probability that there is fire or smoldering remaining within the frames or casings. These areas must be opened to ensure complete extinguishment. By simply pulling off the molding to expose these areas you can see if there are any hot spots. This should be done on both the interior and exterior.

Walls

Opening walls should include removing paneling, chair rails and other decorative molding around the wall. Using the axe, begin horizontally until a structural member is found. Begin a vertical cut with short downward strokes along the stud. This shearing motion along the stud will cut through both drywall and lath and plaster. A reciprocating saw can make a very clean cut if a section of wall needs to be removed for investigation. This will usually leave a symmetrical opening that is easily repaired.

Roofs

Overhauling a roof can be a very long and tedious process. Often there are multiple roofs under the most visible one and each one needs to be removed and checked for possible fire extension. The removal of all the material exposed to the fire that could smolder for a long period of time is not only difficult but also includes the inherent dangers of working above ground.



The material must be removed from the roof and cooled on the ground, which creates a danger to those firefighters on the ground from falling debris.

Personal protective equipment should be worn during the early stages of overhaul operations. Smoldering material will give off more of the by products of combustion than when the fire was free burning. Carbon monoxide has cumulative effects on the body and SCBA's should be worn until the area is well-ventilated and smoldering contents extinguished. The possibility of hot materials, sharp objects and falling debris is also present. Full head and eye protection is mandatory for pulling ceilings and opening walls. Company Officers should make sure all their personnel are in the proper protective clothing for the situation.

Removal of debris as the search for hidden fires is completed helps keep the work area clear. Materials from walls and ceilings should be removed to the outside and any smoldering material extinguished. The material should be placed in a pile outside in one area to assist the owner and clean up crews. Customer service should always be a consideration during overhaul and salvage work.