

## OPERATIONS EMERGENCY



Accumulation of soot and chemicals on turnouts, tools and SCBA can lead to persistent exposures of carcinogens to fire fighters. Turnouts, tools and SCBA should be cleaned after each exposure to toxic products of combustion.

18

### OVERHAUL

The primary emphasis during post-fire operations should be the safety of all fire personnel operating on the scene. Decontamination, rehabilitation and rehydration procedures should already be in place. When crews are able to exit the structure, chemicals will start to dissipate naturally, and their overall exposure will be reduced. An additional benefit of timely crew removal is that it will allow fire investigators to gather information before a scene is further disturbed by overhaul.

As a best practice, the most contaminated crews should be sent home to shower within the hour. They should put on a clean change of clothing to further remove the toxic products of combustion that accumulate on fire fighters during firefighting operations and reduce off-gassing exposure to these contaminants. The Jacksonville (Florida) Fire and Rescue Department has had a policy in place since 2010 (SOG 437) that designates a new crew be dispatched to the scene of working fires as a CUT Team, or "Clean Up Team." The primary job of the CUT is to "perform overhaul duties and assist the fire investigator at structure fires." This allows the original firefighting crews to return to quarters and clean up after their firefighting operations.

Research done by Tualatin Valley Fire Department and the State of Oregon assessed the risk to fire fighters during the overhaul process to better understand airborne contamination risks to fire fighters and fire investigators. The data showed that allowing more time after knock-down was beneficial and should be an important consideration when determining the best practices for fire fighters during overhaul. Though not part of the study, ventilation seemed to improve conditions. However, time after extinguishment seemed to have been a more significant factor in improving atmospheric air quality.

#### **These additional overhaul best practices should be followed:**

- During the structural cooling-off period, the IC can develop an overhaul plan that includes the identification of safety issues, such as holes in floors or unstable walls/roofs, and the establishment of hot, warm and cold zones.
- SCBA is mandatory to be used for any work performed inside the structure for the duration of overhaul. Monitor for fatigue and hydration and cool crews by removing SCBA and bunker jackets while in rehab.
- Fire investigators can begin interviews and investigation outside the hot and warm zones of the structure during the structural cooling-off period.
- Fire investigators are subject to the same toxic environments as other firefighting personnel. They must be protected from respiratory and dermal absorption hazards when operating inside the hot zone (WAC 296-305-05002 (16)).