

Minimising firefighters' exposure to fire effluents



(21 April 2022) We are publishing a report commissioned by the Fire Brigades Union (FBU) from the United Kingdom to UCLAN (The University of Central Lancashire) about the risks for fire fighters and their exposure to toxic effluents.

Chemical and building regulations are designed to ensure that exposure to materials within residential, commercial, and industrial buildings are safe. However, there are currently no requirements to consider how the safety of those materials might change in the event of a fire – i.e. there are no requirements to measure and quantify the toxic fire effluents produced by burning materials. There are no restrictions on the use of products capable of emitting lethal quantities of toxic effluents during a fire. Compared with natural materials (wood, wool, cotton, leather, etc.), widely used synthetic polymers (derived from oil) burn more quickly, have faster flame spread, generate more heat and produce not only higher numbers of hazardous gases and particulates, but also much higher concentrations of toxic chemicals. Firefighters are therefore at an increased risk of exposure to toxic fire effluents and subsequently at an increased risk of suffering adverse health outcomes.

The report contributes to an EPSU campaign to raise awareness about the health and safety issues that firefighters in Europe are facing on a daily basis.

Translations for this report has been supported by EPSU and are available in eight languages (see below).

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