

Guaranteeing Equipment Safety for Firefighters Act

Bipartisan Legislation led by Senators Jeanne Shaheen (D-NH) and Cory Gardner (R-CO)

The Guaranteeing Equipment Safety for Firefighters Act, introduced by Senators Jeanne Shaheen (D-NH) and Cory Gardner (R-CO), will take important steps to address firefighter's occupational exposure to per- and polyfluoroalkyl substances (PFAS) through personal protective equipment. Specifically, the Guaranteeing Equipment Safety for Firefighters Act authorizes a comprehensive study of the personal protective equipment worn by firefighters to determine the identity and concentration of PFAS, as well as firefighters' risk of exposure to these harmful chemicals from the gear. The legislation also establishes a federal grant program to advance the development of safe alternatives to PFAS chemicals in personal protective equipment.

Background

Recent studies, including a toxicological profile published by the Agency for Toxic Substances and Diseases¹, have linked PFAS exposure to a number of adverse health effects. The potential ties between PFAS and various forms of cancer are of particular concern to firefighters across the country who, according to the National Institute for Occupational Safety and Health (NIOSH)², are at a higher risk of cancer compared to the general population in the U.S. These brave men and women may experience long-term occupational exposure to PFAS due to the use of aqueous film forming foam, a fire suppressant agent, in firefighting and fire training exercises. However, research has suggested that these toxic chemicals are not only found in firefighting foam, but also in the personal protective equipment firefighters wear on the job, putting at risk the health and safety of firefighters who experience prolonged occupational exposure to these materials.

Firefighters are a vital component of our nation's emergency response system and risk their lives to protect the communities they serve. There is a critical need to better understand how PFAS exposure from personal protective equipment may affect the health of these heroes and their families.

Solution

In order to obtain a better understanding of the risks of PFAS exposure associated with firefighters' personal protective equipment, the Guaranteeing Equipment Safety for Firefighters Act directs the National Institute of Standards and Technology (NIST) to work in consultation with NIOSH to conduct a comprehensive study of the turnout gear worn by firefighters. Specifically, the legislation directs the agencies to examine:

1. The identity, prevalence and concentration of PFAS in personal protective equipment;
2. The conditions and extent to which PFAS are released into the environment over time from the degradation of personal protective equipment; and
3. The relative risk of exposure to PFAS faced by firefighters from their use of personal protective equipment.

The legislation would also establish a grant program at NIST to advance the development of safe alternatives to personal protective equipment materials containing PFAS.

¹ Agency for Toxic Substances and Disease Registry (ATSDR). 2018. Toxicological profile for Perfluoroalkyls. (Draft for Public Comment). Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

² Daniels RD, Kubale TL, Yiin JH, *et al.* Mortality and cancer incidence in a pooled cohort of U.S. firefighters from San Francisco, Chicago and Philadelphia (1950–2009) *Occup Environ Med*, 2013. DOI: 10.1136/oemed-2013-101662.