


**LOS ANGELES FIRE DEPARTMENT**

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FIRE CHIEF

September 6, 2023

BOARD OF FIRE COMMISSIONERS  
FILE NO. 23-089

TO: Board of Fire Commissioners

FROM:  Kristin M. Crowley, Fire Chief

SUBJECT: REPORT ON CURRENT PROCEDURES TO REMOVE PFAS FROM  
FIREFIGHTING GEAR

FINAL ACTION:	<input type="checkbox"/> Approved	<input type="checkbox"/> Approved w/Corrections	<input type="checkbox"/> Withdrawn
	<input type="checkbox"/> Denied	<input type="checkbox"/> Received & Filed	<input type="checkbox"/> Other

### SUMMARY

This report is in response to the City Council Motion 23-0404 Per- and Polyfluorinated Substances (PFAS) and steps being taken by the Department to address this matter.

The Supply and Maintenance Division (S&M) is in charge of procuring and distributing Firefighter Protective Equipment, including turnout gear. The presence of Per- and Polyfluorinated Substances (PFAS) are in almost all Firefighter protective equipment including turnout gear. Recent health concerns about the presence of this material have raised national concern for its removal from all protective equipment.

As of now, there are no manufacturers in the industry who have developed material or technology to replace PFAS in Firefighting equipment. S&M is actively and continuously meeting with leading manufacturers, specifically Gore and Dupont to work with and test potential substitutes to PFAS.

### RECOMMENDATION

That the Board:

Receive and transmit this report to the City Council (Council File: 23-0404).

### FISCAL IMPACT

The Department expects that there will be significant costs as a result of replacing all Firefighting gear once available as well as shorter lifespan of the gear not containing PFAS. The Department is actively working on quantifying these costs and timelines at this time.

### DISCUSSION

PFAS are a class of synthetic chemicals known for their water and grease resistant properties, which have made them popular in manufacturing various products, including firefighting gear. However, concerns have arisen regarding the health and safety

implications of PFAS exposure on firefighters who rely on this gear in their daily operations.

Firefighter turnout gear contains PFAS in the moisture barrier section of the gear to enhance its performance characteristics and at the same time, allow for air movement to keep the firefighter cool in extreme heat in a fire. This moisture barrier does not come into contact with the Firefighter's skin and is located in-between two other protective layers. However, PFAS is also found at all fire incidents when materials burn given the abundance of PFAS on household items. Exposure to PFAS has been linked to several health concerns, including increased cancer risk, hormonal disruptions, and liver and kidney damage.

The LAFD currently has several mitigating strategies to reduce the exposure to PFAS from the environment. They are as follows:

- Regular gear cleaning after a fire incident and periodically.
- Wearing of N95 masks and/or SCBA during overhaul operations.
- Proper disposal of contaminated gear through S&M.
- Regular inspection of turnout gear for tears and worn out sections by field Battalion Chiefs.
- NFPA 1851 becoming California law on January 1, 2024, which will require all firefighting turnouts to have advanced cleaning, inspection, and repair at minimum twice a year.

There are currently no manufacturers who have developed a replacement for PFAS in turnout gear. There are ongoing efforts to develop and implement technologies to replace PFAS in firefighting gear, particularly in the production of turnout gear and protective equipment. One approach is to explore alternative materials that provide similar protective properties without the environmental and health concerns associated with PFAS. These alternatives are mainly based on advanced textiles and coatings that resist water and other hazards.

However, specific developments in this field have not yet been brought to market. S&M is actively working and meeting with leading material manufacturers, specifically Gore and Dupont to support their studies and testing of such materials.

## **CONCLUSION**

The Department, through S&M, will continue to implement processes to minimize PFAS exposure to its members as outlined above as well as assure the procurement of PFAS free turnout gear and protective equipment as it become available in the marketplace.

Board report prepared by Amir R. Caspian, Assistant Chief, Supply and Maintenance Division.