

PLANNING



Diesel exhaust is classified by the International Agency for Research on Cancer (IARC) as carcinogenic to humans (Group 1).

FACILITIES MAINTENANCE

Initial and/or periodic testing should be conducted at fire stations to ensure a safe environment for fire and EMS personnel working there. It is important to reduce or eliminate exposure to these known fire station concerns:

- ▶ **Diesel exhaust:** Diesel exhaust is classified by the International Agency for Research on Cancer (IARC) as carcinogenic to humans (Group 1). Engineered systems, such as direct-source capture systems, need to be maintained to ensure they are exhausting gases and particulate matter to the outside atmosphere. The use of diesel exhaust fluid (DEF) does not decrease the hazard.
- ▶ **Staph, VRE, C. difficile, COVID and MRSA:** Chronic health effects from bloodborne exposures are persistent in the fire service.
- ▶ **Asbestos:** Older fire stations should be assessed for asbestos encapsulated pipe wrap. Damaged wrap should be repaired or replaced.
- ▶ **Radon:** A radioactive gas that occurs naturally in the ground, radon can enter living spaces—especially basements through groundwater or cracks in foundations—and accumulate there. Radon is known to cause lung cancer, so if levels are above Environmental Protection Agency (EPA) guidelines, mitigation is recommended.

STATION SHOES VS. WORK BOOTS

Fire and EMS personnel regularly respond to incidents in which exposures to biologics and carcinogens can occur. It is not uncommon for personnel to step in hazardous substances (e.g., soot, blood, urine, vomitus, feces, etc.) with their response footwear during a call. To reduce contamination that may be brought into the station on the soles of response footwear, an alternate form of footwear (the station shoe) is authorized for wear inside the stations.

- An example of a station shoe could be a black, closed-toed non-safety shoe that is easy to clean if needed.
- Station shoes should be easy to change into and out of quickly without delaying response to a call.
- Station shoes should be worn only in the Cold or Safe Zone (GREEN).
- Station shoes should *not* be worn when performing apparatus checks, responding to calls or performing work where safety shoes (impact and crush protection) are required.
- Boot washers should be located in strategic areas when moving from the RED zone into the YELLOW or GREEN zones in the fire station.



ABOVE: Turnouts are strictly prohibited in living quarters to prioritize the safety of firefighters and minimize their exposure to contaminants.



It is recommended that all fitness or exercise activities occur in the Cold or Safe Zone (GREEN) of fire stations. Participating in those activities within apparatus bays poses a substantial risk of personal contamination, as there is the potential for contaminants and toxic chemicals to enter the body through ingestion absorption, and respiration. The apparatus bays are recognized as the most hazardous and unsafe areas for such activities.