

**BULLETIN 2023-6**  
**MISSISSIPPI DEPARTMENT OF INSURANCE**

**FIRST RESPONDER HEALTH AND SAFETY ACT**  
**BEST PRACTICES FOR PREVENTING**  
**FIREFIGHTER CANCER**

**October 30, 2023**

**1. PURPOSE**

First responders face a significantly higher risk of developing cancer due to exposure to carcinogens encountered in the line of duty. The connection between occupational cancer and first responders is well-established. Smoke from the average house fire contains more than 140 hazardous chemicals, including carcinogens like arsenic and benzene. As a result, studies have indicated that first responders have an increased risk of developing certain types of cancer. A study by the National Institute for Occupational Safety and Health (NIOSH) found that firefighters have a nine percent (9%) higher risk of being diagnosed with cancer and a fourteen percent (14%) risk of dying from cancer than the general population.

In response, the Mississippi Legislature passed the Mississippi First Responders Health and Safety Act (“Act”), which includes a provision directing the Commissioner of Insurance to adopt rules to establish firefighter cancer prevention best practices as it relates to personal protective equipment, decontamination, fire suppression, apparatus and fire stations.

**2. BEST PRACTICES**

In establishing firefighter cancer prevention best practices, the Commissioner looked to the *Lavender Ribbon Report*<sup>i</sup>, as released by the National Volunteer Fire Council and International Association of Fire Chiefs’ Volunteer and Combination Officers Section. This report provided eleven (11) specific actions that a firefighter could take to protect themselves from the risk of occupation cancer. Firefighters are encouraged to read the *Lavender Ribbon Report* in its entirety.

The Best Practices actions are listed below.

- Full personal protective equipment (PPE) must be worn throughout the entire incident, including a self-contained breathing apparatus (SCBA) during salvage and overhaul. The National Fire Protection Association (NFPA) has set forth guidance in NFPA 1971 Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting and NFPA 1977 Standard on Protective Clothing and Equipment for Wildland Fire Fighting.
- A second hood should be provided to all entry-certified personnel in the department. Protective hoods are designed to protect a firefighter's head and neck. Use this safety bulletin to drive the point home in your firehouse.

- Following exit from an immediately dangerous to life or health (IDLH) incident and while still on air, you should begin immediate gross decontamination of PPE using soapy water and a brush if weather conditions allow. PPE should then be placed into a sealed plastic bag and placed in an exterior compartment of the apparatus, or, if responding in personally owned vehicles, placed in a large storage tote, thus keeping the off-gassing PPE away from passengers and self.
- While still on scene, the exposed areas of the body (neck, face, arms and hands) should be wiped off immediately using wipes, removing as much soot as possible from exposed areas. Wipes should not be used in lieu of a shower, but can prevent carcinogens from entering the skin immediately.
- Change your clothes and wash them after exposure to products of combustion or other contaminants.
- “Shower within the hour.”
- PPE, especially turnout pants, must be prohibited in areas outside the apparatus floor (i.e., kitchen, sleeping areas, etc.) and should never be in the living quarters.
- Wipes, or soap and water, should also be used to decontaminate and clean apparatus seats, SCBA and interior crew areas regularly, especially after incidents where personnel were exposed to products of combustion. New vehicle enhancements including air filtration systems to remove contaminated particles from vehicles and non-SCBA seats to help prevent contamination from air packs entering the cab may also help minimize risk.
- Get an annual physical, as early detection is key to survival. The American Cancer Society also suggests regular physical activity, limiting alcohol intake, and knowing your family history and potential risks.
- Tobacco products of any variety, including dip and e-cigarettes, should never be used at any time, on or off duty.
- Fully document all fire or chemical exposures on incident reports and personal exposure reports. Documentation is essential to establish clear correlation between a firefighter's work and his/her health. Record-keeping helps others to see the extent of exposure that a firefighter experiences in his/her career.

Studies have also shown that firehouses may also have inherent hazards, including diesel fumes from fire trucks and soot and chemicals carried back from emergency scenes on suits and helmets. The Lymphoma and Leukemia Society (LLS) has provided guidance in this matter and has provided several steps departments can take to reduce exposure in fire stations, including:

- Opening station doors before truck engines are started and keeping them open until after the trucks are turned off;
- Keeping doors to living quarters and offices closed and sealed;
- Regularly checking and maintaining engines;
- Cleaning and maintaining SCBA equipment and other personal protective equipment: and,
- Regularly showering and cleaning clothing after each incident.

### **3. CONCLUSION**

The goal of the Mississippi First Responders Health and Safety Act and this Bulletin is to provide guidance to help protect our first responders, as they serve to protect us. It is the hope that fire fighters and fire stations will take the Best Practices provided in this Bulletin and work to incorporate them into their fire duties, thereby reducing the risk of occupationally caused cancer.

Issued this the 30th day of October 2023.

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**MIKE CHANEY**  
**COMMISSIONER OF INSURANCE**

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<sup>1</sup> A copy of the Lavender Ribbon Report may be found at <https://www.nvfc.org/wp-content/uploads/2018/08/Lavender-Ribbon-Report-Final.pdf>