



West Manatee Fire & Rescue District

Memorandum

Date: May 5, 2020

To: West Manatee Fire & Rescue Board of Commissioners

From: Jay A. Johnson, Administrative Battalion Chief

Subject: Replacement/Spare Bunker Gear

Executive Summary

In 2010 the National Institute for Occupational Safety and Health began a multi-year study utilizing nearly 30,000 career firefighters. The focus of this study was the relationship between cancer and firefighting as an occupation. The study was published in 2013, and the results were staggering. NIOSH found that firefighters were 9% more likely to be diagnosed with cancer and had a 14 % greater increase in cancer-related deaths than that of the general public. In the study published by NIOSH, there were significant positive associations between exposures (fires) and an increase in certain types of cancers. Further solidifying the relationship between firefighters and cancer was data compiled by the International Association of Fire Fighters (IAFF), revealing that 61 % of the line of duty deaths were a result of occupational cancers. It is also important to note that the building materials utilized in today's construction methods lead to more volatile fires and release carcinogens that are directly linked to firefighter related cancers.

After the NIOSH study was published and analyzed, the Firefighter Cancer Support Network released a list of eleven (11) initiatives to combat cancer in the fire service. Since these initiatives have been released, West Manatee Fire Rescue has begun adapting and adopting these best practices. An example of the fostering of these practices is the utilization of what is known as gross field decontamination. This process involves the immediate removal of visible carcinogens from structural gear utilizing soap and water after any personnel exits an IDLH. This process is critical and has been shown to reduce the amount of time the structural gear "off-gasses." This is still "gross" decontamination, and the bunker gear still needs to have an "advanced cleaning" done per NFPA 1851. The initiatives set forth by the Firefighter Cancer Support Network specify this cleaning needs to be done immediately after the fire. NFPA 1851 specifies that only certified personnel or third-party may perform advanced cleaning, and the gear must be inspected after advanced cleaning has been performed. This critical process that ensures that staff is not going to be continually exposed to cancer-causing carcinogens leaves limited

options for operations. It is a strong recommendation from the Firefighter Cancer Support Network that each full-time career personnel be issued a second set of structural bunker gear.

This solution provides three primary functions in combating health and wellness obstacles that are unique to the fire service. The first of these functions is that it allows the staff member to maintain the regular performance of their responsibilities while maintaining their consistent level of personnel protection. Each set of bunker gear is sized appropriately for the individual user. This sizing guarantees that the user has proper air spacing, pinch protection, and other like properties that would otherwise compromise the safety of the wearer. The second of these functions allows personnel to maintain good hygiene practices. By issuing a spare set of gear to each individual, there would be no sharing of personnel protective equipment. The final and perhaps the most important of the functions is it eliminates the need to re-wear gear that has only been grossly decontaminated. Where it has been shown that this gross decontamination is highly effective, it does not remove all of the "off-gassing" carcinogens. By continuing to use this gear, it exposes and contaminates any surfaces or areas that it contacts. We recommend the purchase of a second set of gear for each line personnel.

This purchase will allow our personnel to maintain the highest level of safety in performing their job functions as well as ensure the lowest exposure potentials to carcinogens. The life span of a full set of Bunker gear is approximately ten years. By budgeting and purchasing a new set of Structural gear every five years, we will get on a natural cycle of replacement while simultaneously providing that second set of protective equipment.

Recommendation

Staff recommends reallocating capital funds for the purpose of purchasing thirty-three (33) sets of structural firefighting gear for this fiscal year.