The purpose of this training is to understand that all fires, including training fires, pose health risks for firefighters and that by adhering to best practices, firefighters can reduce their risk of developing cancer.

**Discussion**

**Fact:** Live-fire training plays an essential role in the training and maintenance of firefighter skills. And, live-fire training is fun, it’s the part of the job we like most.

**Key Points:** All fires (excluding those that result in 100% complete combustion, ex: Bunsen burner, well-maintained furnace, etc.) produce toxic byproducts that can pose a significant health risk to firefighters. Live-fire training exposes firefighters to numerous carcinogens, pulmonary irritants, and carbon monoxide in varying amounts depending on the type of fuel burned and the degree of combustion. Because the frequency of fires continues to decline, many firefighters get the vast majority of their firefighting experience and toxic exposure on the training ground. Therefore, it is imperative to understand that no fire is “safe” and no fire is “non-toxic,” whether operating in a purpose-built “burn-building” or an acquired structure.

**Action:** Adhering to cancer risk reduction best-practices during training is key to reducing your risk of developing occupational cancer and living a long and healthy life.

**Make the necessary changes**

**Do your homework:** Review and discuss NFPA 1403 and your state and local guidelines related to live-fire training. Everyone should be aware of the live-fire safety guidelines because everyone on the fire/drill-ground acts as the eyes and ears of the Safety Officer.

- In acquired structures conducting a site survey is essential to identify and ensure removal of all environmental hazards, including asbestos, which is commonly found in older buildings.
- In acquired structures and Class A burn buildings use appropriate fuel for burning:
  - Only burn clean wood, straw, hay, or excelsior.
  - Do not burn pressure-treated wood, OSB, discarded furniture, tires, carpeting, chemically treated pallets, or other miscellaneous items.
- While many of these fuel choices make for great fire behavior, including quick rollover and high-heat conditions, they pose an unreasonable health risk and should not be used for firefighter training.

**Don’t get complacent; treat training fires like the real thing because they are:**

- Get masked-up early before you unnecessarily inhale toxic smoke while approaching the entry point.
- During training, practice air management skills to increase your “on-air” skills and work capacity.
- Stay “on-air” throughout overhaul.
- Avoid standing downwind of smoke.
- Engage in Preliminary exposure reduction including the use of wet wipes on the drill ground and shower after training.
- Bag up contaminated PPE and equipment. Do not transport in the cab of any apparatus.
- **Always** launder PPE after live-fire training or exposed to products of combustion. Follow NFPA 1851 recommendations.
- Instructors are at particular risk due to the frequency of exposure:
  - To reduce toxic load, rotate instructor duties.
  - Instructors set the tone:
    - Instructors should act as role models by conspicuously engaging in cancer risk reduction best practices.
    - Instructor behaviors shape cultural norms within an organization, send the right message.

**Cancer risk reduction best practices need to be incorporated into the overall training plan**