PURPOSE

To provide guidance and direction to department personnel to reduce their exposure to possible cancer causing environments and minimize exposure to carcinogens and other possible cancer causing toxins.

SCOPE

All City of Fairfax Fire Department members (career, administrative, and volunteer).

I. INCIDENT SCENES

Any incident scene that causes personnel to be exposed to carcinogens or other toxins increases the chance of developing cancer. To minimize exposure to carcinogens and other toxins the following actions shall be taken when operating on incident scenes where carcinogens or other toxins may be present:

A. Personnel shall utilize Self Contained Breathing Apparatus (SCBA) from initial fire attack through the completion of overhaul. On hazardous materials incidents, follow the hazardous materials response unit OIC or command’s direction.

B. Prior to leaving the incident scene perform a gross decontamination of all Personal Protective Equipment (PPE) to remove as much soot, toxins, and particulate matter as possible. This can be accomplished by using a brush to remove large debris or by using a low volume of water, such as a garden hose. When using a brush be cognizant of the area onto which contaminants are being deposited and consider some form of respiratory protection if dust will be created. When using a garden hose ensure you begin at the head and work your way down to the feet, again being cognizant of the area in which contaminants will be left.

C. When doffing PPE on scene after exiting the Immediately Dangerous to Life and Health (IDLH) environment it is recommended personnel stand in front of a positive pressure ventilation (PPV) fan turned on at a low speed and doff their PPE. This will allow for any harmful materials to be blow off and away from the person doffing their PPE. When performing this operation ensure other personnel are not behind the individual doffing their PPE and air is drawn from a clean area.

D. Upon entering rehab or when entering the cold zone if no rehab has been established personnel shall utilize the commercially produced wet wipes provided on apparatus to remove as much soot as possible, especially from the head, neck, jaw, throat, under arms and hand areas. It has been shown
that nomex hoods do not provide any protection from absorbing carcinogens and other harmful toxins because they do not block the passage of particulate matter.

E. Removing PPE and sealing in bags while on scene is recommended for returning to the fire station. Units may remain out of service while returning to the fire station until members are able to clean themselves and place their second set of gear in service.

II. AT THE FIRE STATION

Upon returning to the fire station a more thorough effort shall be made to remove and reduce exposure to carcinogens and other toxins. To accomplish this the following actions shall be taken:

A. Upon returning to the fire station PPE is to either be cleaned using the department gear extractors and then hung to dry or if deemed appropriate by the battalion chief the gear may be sent out for cleaning to the department approved vendor. Personnel shall switch into their second set of PPE while their primary PPE is being cleaned. When removing gear from bags to be washed members should don EMS style gloves and respiratory protection such as an N95 mask. The minimum number of personnel possible should handle gear. Those personnel without a second set of gear should coordinate with the battalion chief to determine the appropriate course of action.

B. Following incidents where personnel may have been exposed to products of combustion or other contaminates, decontaminate the apparatus by wiping down all interior surfaces using common cleaning products as recommended by the manufacturer or appropriate to the surface. Cleaning should be done with paper towels or shop towels only, and personnel should wear EMS type gloves and respiratory protection such as an N95 mask to prevent transfer of potential carcinogens during cleaning.

C. Shower thoroughly with water, as hot as can be tolerated. This serves to open the skin’s pores, helping to remove any toxic substances that may still be on the body.

D. Put on a clean uniform and wash the uniform worn on the incident. Uniforms which have been exposed to IDLH shall be bagged upon doffing and remain bagged until they can be washed. Uniforms exposed to IDLH shall be washed at the station, not brought home by the member to be washed. Members shall wear EMS style gloves to handle the uniform items until they have been washed. Normal laundry techniques are suitable for cleaning uniforms subject to this recommendation. Uniforms not exposed to IDLH during wear may be washed as the member chooses, but use of the station laundry facilities is encouraged.

E. Keep PPE out of all living and sleeping quarters.
F. Diesel exhaust is a known carcinogen, with suspected long term health risks beyond cancer including, but not limited to, heart and lung disease. To reduce exposure to diesel exhaust, apparatus bay doors shall be closed after apparatus exit the building for apparatus checks. While the apparatus’ diesel motor must be running for those checks which require it, only the minimum necessary personnel shall be outside in the area of the apparatus. As soon as the apparatus checks requiring the apparatus to be running are completed the apparatus is to be shut off. At all times when apparatus are being operated for any reason personnel should make efforts as the situation allows to position apparatus so exhaust will not be directed at personnel working and when possible to stand upwind of the exhaust in areas of clear air.

III. OTHER RECOMMENDATIONS

The following are additional best practices to use to avoid unnecessary exposure to carcinogens and other toxins:

A. Do not take contaminated uniforms or PPE home or store them in your personal vehicle. Prior to cleaning, uniforms and PPE continue to off gas for an unknown amount of time which may expose personnel and family members to carcinogens and other toxins on the uniforms and PPE.

B. Use sunscreen or sun block to protect skin from exposure to the sun. Sunscreen wipes are provided on all front line apparatus.

C. Limiting exposures to carcinogens on the job will help prevent cancer, however personnel are strongly encouraged to evaluate risks in other areas of their lives, to include discussing personal and family medical history with a physician, either their personal doctor or with an Occupational Health Center (OHC) physician during annual physicals. These discussions should include evaluation of what self-exam techniques members should be aware of and practice, and what signs or symptoms should prompt the member to seek immediate medical advice. Personal risk factors may also lead to recommendation of regular preventive screening by a specialist, such as a dermatologist. Personnel are additionally encouraged to seek out and take advantage of programs such as personal consultation with a nutritionist which are offered through OHC. Research has proven that an overall healthy lifestyle is essential in preventing cancer, and is therefore endorsed and supported to the greatest extent possible by the department.