



Safety Bulletin

Occupational Health and Safety Committee

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Approved By: Mark S. Ciarrocca, Acting Fire Rescue Chief

During the June Health and Safety Committee meeting various recorded accidents and injuries were reviewed. After reviewing the incidents, a list of trends and concerns were formulated based on the incidents. The committee also took up several health and safety related topics for discussion. This safety bulletin was assembled to aid in prevention of similar accidents and injuries and inform you of health and safety concerns within our profession.

Vehicle mirror strikes

The when operating an emergency vehicle the driver must have a firm understanding of the vehicles dimensions. This is particularly important within our county because road size frequently changes, therefore the operation of the vehicle should change as well. The vehicle operator should use situational awareness to properly judge the vehicle distance from passing or oncoming traffic. The recommendation from this committee is to continue to conduct training with your crew on diminishing clearance scenarios using a safe training method such as cones.

Backing of emergency apparatus

Backing of vehicles shall be avoided where possible. Before backing a fire rescue vehicle, the driver shall ensure the intended path is clear of hazards and obstructions. The backing of fire rescue vehicles where the driver does not have 360 degree visibility from the driver's seat requires a spotter. If no spotter is available, refer to procedures in OP 701. The apparatus should never be backed on a roadway that's traffic flow has not been controlled in the lane in which they are operating.

The driver is in control of the vehicle and therefore responsible for its movement. Open window to optimize communications, do not move until the spotter is in place. If the driver loses sight of the spotter, the driver shall immediately stop and not move the vehicle until the spotter is in sight. If, at any time, the driver feels the situation is not safe, they shall stop until the situation has been corrected. When in doubt, get out of the vehicle and check. The audio AM/FM radio shall be turned off, and remove headset to allow driver to hear spotter's commands. More information can be found such as the spotters responsibilities in OP 701.

Blocking apparatus

The use of blocking apparatus is essential to the safety of your crew, law enforcement, auto salvage workers, civilian rescuers if present and the victims of a vehicle accident. Only in rare situations should the dispatched blocking apparatus be placed in service. The lessons learned from the LODD in Hanover County of Lt. Brad Clark which tragically took his life and injured two other firefighters should themselves highlight the necessity of a blocking apparatus. Please take time to review the Operating Procedure for Roadway Incidents NOVA manual and employ these safety measures on roadway incidents. Also train with your crew and review IB

18.008 “Roadway Response Change” which states “It is expected that, as is the case for any incident, units arriving on scene do a thorough size up and determine the appropriate resources to manage the incident. Size up considerations should include traffic volume and speed, terrain, visibility, weather conditions and complexity of incident.” This IB was issued to provide a safer roadway incident for us to work on during an emergency.

Fire ground rehabilitation

The importance of fire ground rehabilitation should be evident due to the alarming number of LODDs caused by cardiac issues. Crews should report to an established rehabilitation location set up away from any exposure to diesel exhaust fumes or products of combustion immediately after any necessary post exposure decontamination has been conducted. The company officer will play a vital role in not just accountability but direction to the rehabilitation area and impressing on his or her crew the importance of this rest and recuperation times as well as the documentation of all firefighting personnel’s vitals. These measures will ensure we have fresh crews for extended operations and we have evaluated their fitness for continued firefighting operations. Stressing the importance of rehabilitation the company officers will serve as an advocate for their crew members’ wellbeing.

Station alerting and unnecessary noise during night

The Health and Safety Committee discussed the importance of rescuers being well rested and able to function during emergency incidents. The importance of quality rest when available especially at night during down time within the bunk room is essential to safe operations. The recent article in Fire Engineering magazine titled “Addicted to Awake: Sleep Deprivation in the Fire Service” states;

The likelihood of a firefighter getting cancer goes up exponentially when the individual is sleep deprived. According to the International Journal of Cancer, sleep deprived women have a 40 percent increased risk of breast cancer, and sleep deprived men have a 50 percent increased risk of prostate and colorectal cancer. This could be because after just one night of sleeping just four or five hours, the body’s natural killer cells (“anti-cancer” cells), drop in count by 70 percent. A cancer research center in Seattle, Washington, found that people who slept less than six hours per night before their cancer diagnosis were 1½ times more likely to die from the disease than people who slept 7-8 hours per night. Furthermore, the World Health Organization has officially classified shift work a probable carcinogen.

This conversation addressed the need for station alerting techniques to be used that focus on the rest and recuperation of all crew members. This essential rest during a 24 hours schedule cannot be accomplished if the radios are left on scan throughout the night. Ensure you are employing all measures available at each individual station while continuing your shift with vigilance. We as the Health and Safety Committee are aware of the station alerting system differences throughout the county and are continuing to discuss solutions, in the meantime we must all do what we can to foster an environment that places rest as the most vital key to good health.

Capabilities and deficiencies of air ventilation systems.

The Health and Safety Committee discussed the safe practices in the station in regards to department vehicle emissions and gas powered equipment emissions during daily operations. All efforts must be made to mitigate diesel exhaust and diesel particulate matter (DE/DPM) from living quarters and ideally apparatus bays. If

engineering controls are in place they must be understood as to their capabilities and used every time. The fire stations within the county that do not employ DE/DPM ventilation systems require the members to be extra vigilant when conducting daily operations such as truck checks and small engine equipment checks as well as emergency responses. The operations at stations without exhaust systems should employ employee tactics to include no unnecessary idling within the apparatus bays no small engine equipment should be checked in apparatus bays and certainly no engine should ever run with bay doors closed. While responding to an incident the apparatus should not idle for extended period of time while crews continue to don PPE instead the truck should be started just prior to leaving for the incident. This measure will decrease your exposure to diesel exhaust and diesel particulate matter, which OSHA states

“Short term exposure to high concentrations of DE/DPM can cause headache, dizziness, and irritation of the eye, nose and throat severe enough to distract or disable miners and other workers. Prolonged DE/DPM exposure can increase the risk of cardiovascular, cardiopulmonary and respiratory disease and lung cancer.”

In fire stations where there is no system in place for ventilation of exhaust fumes all doors to living quarters and office space should remain closed and just prior to returning to quarters the bay doors should remain up to help aid in natural ventilation. The conclusion from the NIOSH multi-year study of nearly 30,000 firefighters and the link to incidences of cancer urges the need for continued studies of source capture ventilation of diesel exhaust which will be used to derive exposure metrics to more accurately examine dose response. We must do all we can do to eliminate the diesel exhaust and limit our exposure to harmful carcinogens.

Properly reporting through Industry Safe.

It is the responsibility of all personnel to report any injury/illness, vehicle accident, or property damage incurred while performing their official duties. The reporting of such incidents shall be done immediately or as soon as practical to their immediate supervisor. After the supervisor is notified, the personnel and supervisor (together if possible) will access the Industry Safe reporting database via the public web form:

www.industrysafe.com/fauquierco/incidents

Industry safe information can be found in OP 703 please review and train with your crew members the proper reporting procedure. While completing an industry safe report be complete and thorough and include specific details from the incident this will help our department identify and mitigate safety deficiencies to hopefully prevent future incidents.

Questions regarding this bulletin should be directed to Battalion Chief Lorenzen.