

## Extrication Training Drill Gone Bad

### BACKGROUND

The firefighter became injured during a simulated extrication drill on a small four-door sedan that was rolled on its right side with two rescue mannequins placed in the vehicle to simulate injured occupants that needed to be extricated from the vehicle. During the training exercise a firefighter was struck in the head by a piece of debris causing a large laceration and a concussion.

### INCIDENT

The department meets its yearly training by completing weekly assigned scenario-based drills, which is planned and executed by the company officer. These training exercises were to be completed during the crews regularly scheduled shifts; which were 48 hours (2 days) at a time.

This drill took place during the month of August when the daily temperature was averaging approximately between 90-95 degrees. Because of the high temperature, the training exercise was postponed several times. It was decided by the company officer that they would complete the training event on the last day of the crews shift. The training exercise was to be a simple quick evolution that would meet the objective for our training requirement. On the final day of the crews scheduled shift the outside temperature was 92 degrees.

The company officer determined that based on the training drill scenario and outside temperature that instead of wearing full personal protective equipment (PPE), that the firefighters only had to wear eye protection, gloves and bunker pants only for this drill. The vehicle was placed on its side with two mannequins placed inside the vehicle to simulate injured patients. The exercise was to use extrication tools to remove the injured patients from the vehicle. The crew stabilized the vehicle with rescue struts and their truck winch, preventing it from tipping over or excessively rocking during the extrication. The crew removed the windshield and successfully extricated the first patient.

Using one of the hydraulic extrication tools one of the crew members then successfully cut the "A" and "C" posts, and then attempted to cut the "B" post at a height of about 6 foot high – based on the orientation of the vehicle this cut was being made at about eye level of the crew member. The crew member made multiple attempts to make an effective cut of the "B" post. During one of the attempts to make the cut, the extrication tool twisted, forcing the crew member operating the tool to "open the cutter". Once the cutter opened a piece of the tool broke free and launched into the air, hitting the crew member in the forehead causing him to stumble backwards, dropping the extrication tool to the ground.

The company officer immediately gave the command to stop the drill and went over to the crew member who was now sitting on the ground. The injured crew member complained of dizziness and a headache and was bleeding profusely from his forehead. The crew member was evaluated at the scene by emergency medical technicians and was transported by ambulance to the local hospital where he received treatment for his injuries; which required 14 surgical staples to close the laceration and was diagnosed with a moderate concussion.

### INVESTIGATION AND LIABILITY ASSESSMENT

- The firefighter was not wearing his helmet, since it was determined prior to the start of the training exercise that the crew did not need to wear their helmets.
- In the investigation report it was noted that members believe in this case, that if the crew member was wearing their helmet the projectile would have struck the brim of the helmet and not his forehead.
- During the interview process with the company officer, he stated "due to the severe heat that day he approved the use of limited turnout gear (PPE)" and thought that Eye, hand and lower extremity protection would be sufficient.
- Due to the extent of the injury there was an extended period of total temporary disability (TTD).
- CIRMA is 100% responsible for this work-related incident. The total direct cost of this claim, including medical expenses, totaled \$85,000.

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### KEY RECOMMENDATIONS/ACTION ITEMS

Based on the facts surrounding this injury, and in consultation with the CIRMA Fire Services Task Force, the below recommendations have been created to reduce the likelihood of this type of incident occurring in the future:

- Crew members should wear all required PPE during training exercises.
- Insure that a properly trained safety officer is monitoring the training exercise and enforces the required safety protocols.
- Regular review, inspection and maintenance of all extrication /tools is conducted at the beginning of each crews shift.
- Properly maintain all extrication tools in accordance with manufacture recommendations and industry best practices.
- Conduct regular review and training of proper extrication tool placement and cutting techniques. For example limiting, when possible, the need to operate the extrication tools at eye level.

For more information, please contact your CIRMA Risk Management Consultant at (203) 946-3700.

Questions on this topic? Ask your Supervisor or CIRMA Risk Management Consultant.