

## Rappelling Incident During Training Exercise

### BACKGROUND

During Rope Rescue training, members were practicing with a new Multi-Purpose Device (MPD), which replaced an older system. The intent of the MPD, which utilizes numerous working parts, is to make lowering and raising during rope rescue more streamlined and efficient.

### INCIDENT

Members were working on the top of a four-story drill tower with a tripod as a high point anchor system. The MPD was being used on the mainline with another MPD on the belay to raise and lower a training dummy in the litter basket. Once the initial drill with several evolutions was completed, a firefighter (FF-1) asked if he could do some rappelling. Since FF-1 did not have much exposure to rope rescue, the training opportunity was approved by the instructor. The training involved FF-1 being lowered over the edge of the tower and then locked off with the MPD on the mainline. An overhand knot ensured that the mainline was locked off.

During FF-1's descent, it was noted that the rope had some minor slippage when passing through the MPD. The slippage was more than likely due to the age and wear of the rope. The belay line was still in place with the other MPD. After some basic instruction from the lead trainer, FF-1 began his descent on the eight plate. It was noted that FF-1 had "good control for a firefighter with minimum experience" in this type of activity.

At this time, while FF-1 was rappelling, another firefighter (FF-2) seemed confused as to why the MPD on the mainline was locked off and not being used. FF-2 then untied the mainline and unlocked the MPD as he thought it would be needed to lower FF-1 who was rappelling. When FF-2 opened the MPD and began to lower FF-1, FF-1 dropped uncontrollably to the ground at a rapid speed. Fortunately, FF-1 was only approximately fifteen to twenty feet off the ground and the rapid descension to the ground did not cause a fatal injury. Instead, FF-1 sustained closed fracture injuries to both lower extremities and a concussion-based head trauma. Due to the extent of injuries resulting from the fall, FF-1 was flown to the local trauma center by helicopter for care. The sustained injuries resulted in both lost time from work and an extensive prolonged recovery process.

### INVESTIGATION

The firefighter (FF-2) who untied the rope, quickly realized the principals of rappelling with an eight plate and lowering with use of the MPD, understanding that the eight plate needed a static line during operations. The lead instructor also discussed the importance of considering any actions, especially during high-risk training, with the rest of the team to ensure appropriate measures. It is never acceptable to untie any line with another firefighter on it or if the line is in operation.

### CIRMA LIABILITY ASSESSMENT

CIRMA is 100% responsible for this work-related incident. The total direct cost of this claim, including medical expenses, totaled \$110,000.

### KEY RECOMMENDATIONS/ACTION ITEMS

- Instructor approval of deviation from the drill schedule and should have reset training area.
- Safety officer supervision should have been provided at each station of the drill site.
- A review process of the "current activity" should have taken place to explain the objective.
- Although stated in the investigation, the lead instructor should have reviewed changing the line operations during the evolution and its consequences.
- Not knowing the level or skillset of FF-1 related to rappelling capability, the instructor should not have allowed FF-1 to rappel freely.

Questions on this topic? Ask your Supervisor or contact your CIRMA Risk Management Consultant at (203) 946-3700.