

# Taking *fast* action

First-aid knowledge,  
quick action prevent  
serious eye injury

By JEFF WOOD AND ROBIN MCBRIDE

**M**arsha Grover, an inspector on the Next-Generation 737 final-assembly line in Renton, Wash., was walking by a hydraulic test bench connected to a 737 airplane when a hose suddenly broke loose. A solid stream of hydraulic fluid drenched her head and shoulders with the highly irritating liquid.

Although she was wearing eye protection, the force of the stream knocked the safety glasses aside and flooded into her eyes. "It felt like needles in my eyes," Grover said. "You can't do anything but shut your eyes and hope that help comes."

Fortunately, Mike Borkan, a 737 functional test technician, saw the whole event from several yards away. Having had experience with hydraulic fluid, he knew what to do.

"My first thought was to get Marsha to running water," Borkan said. The eye-wash stations located around all the work areas are sufficient for minor splashes or splatters, but with the amount of fluid in this incident, large volumes of running water were essential.

Borkan guided Grover straight to the nearest wash basin and kept the running

water flowing over Grover's eyes. He knew it can take 30 minutes or more for an effective rinse. He also knew how painful even a little hydraulic fluid can be if it gets into the eyes. "Sometimes you get a few drops on your hands or your sleeve. You think you've washed it off, but it clings to the skin. You can accidentally rub it into your eyes even hours later, and it hurts," he said.

As the flowing water began to clear the fluid from Grover's eyes, Borkan used the lotion soap at the basin to wash the oily fluid from Grover's hair, preventing more fluid from dripping into her eyes. "She was just soaked with the fluid," Borkan said. "Her clothes, her hair, everything was a possible source of additional contamination."

Meanwhile, the functional test mechanics at the work site called for help and assisted the patient until Boeing Fire aid units arrived. Thanks to Borkan's knowledge of the first-aid procedures and prompt action, Grover was able to return to work in a few days and is recovering.

To capture the lessons learned, Borkan is working with the functional test group

to develop a safety presentation for this sort of unusual incident.

"We have training to deal with the most common occurrences, but this was out of the ordinary," he said. "It's important to know where the eye-wash stations are located. But it's just as important to know when that's not enough. When seconds count, it's no time to be reading the instructions."

Following the incident, an investigation team including shop management, operators, Equipment Engineering, Equipment Services, and Environment, Health and Safety employees met to initiate the identification of root causes and preventive action. Several possible causal factors (e.g. manufacturer defects, work practices, and more) have been identified and the team is now determining the degree to which these may have contributed to the accident. The team will continue to meet to determine and implement corrective measures. ■

*richard.j.wood@boeing.com*  
*robin.m.mcbride@boeing.com*



Mike Borkan (right) guided Marsha Grover straight to running water when a return line from a hydraulic test bench came loose and sprayed her with hydraulic fluid. Grover credited Borkan's fast action with preventing serious injury.

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