Rapid Lesson Sharing

**Event Type:** Chainsaw Fuel Mishap – Vapor Lock

**Date:** June 11, 2014

**Location:** Sequoia and Kings Canyon National Parks

**Narrative**

While working on a brushing project, a hand crew member was injured when saw fuel sprayed onto his face and into his eyes.

Prior to this event, the saw team filled-up their saw just before taking lunch. While on their lunch break, the saw had been set down in the sun. After lunch, the saw team was unable to start the saw.

While troubleshooting the problem, the crew member held the saw at waist height and opened the saw’s fuel cap. That’s when the pressurized fuel from the tank sprayed out—into the crew member’s face and eyes.

His face and eyes were immediately flushed with water and saline solution and his contact lenses were removed.

The crew member had some slight eye irritation and requested to be seen by a doctor. The CA-1 and CA-16 were immediately filled out and the crew member was taken to the doctor. After an examination, the crew member was discharged without any work restrictions.

**Lessons**

The high temperature (98 degrees) caused the fuel to expand within the saw’s fuel tank. The saw was fully fueled. The fuel didn’t have much room to expand within the tank, therefore becoming pressurized.

This pressurization caused the fuel to spray out of the tank when the fuel cap was removed—and, most likely, the pressurization is also why the saw wouldn’t start after lunch.

When the incident occurred, the crewmember was wearing all required PPE, including eye protection. This likely helped to minimize the amount of fuel that entered the crewmember’s eyes and prevented a potentially more serious injury.

**Recommendations to help prevent similar incidents from occurring:**

- When possible, place the saw in the shade.
- If the fuel is suspected to be pressurized, open the fuel cap while holding a rag—or other covering—over it. Hold the saw away from the face and look away while opening the fuel cap.
- Wear all required PPE for chainsaw operations.

**Submitted By**

Module/Crew Overhead