

## Lesson Learned

### Engine Medical after Felling a Tree



**Date/Time:** July 24, 2009, 1100

**Location:** Whisky Fire, California

**Employee Titles:** Engine crew / falling trees to prevent them from falling on road and provided training.

- **Details:** **What was planned.** Engine crew was going to fall some hazard trees in the old Whisky Fire along the M-2 road. Both employees had completed S-212 in 2008. The crew reviewed the JHA for chainsaws in 2009. Employee "A" is a qualified class A sawyer. The weather at the time of accident was clear sky, 86 degrees. The crew was falling the trees due to the fact they burned in the Whisky Fire and were leaning towards the M-2 road. This also provided a good training opportunity for the fire fighter's who were working to get their class B certification.

**What actually happened.** Part of the engine module went to fall one tree and the rest of the module went to fall a different tree. This allowed someone to watch the road and someone to work with the faller's. The tree Employee "A" was planning on falling was a class B tree about 18 inch DBH and it was dead due to the fire but still had the holding wood of a green tree. Employee "A" was going to fall the tree and another employee was the spotter and one employee was watching the road. Employee "A" cleared out around the base of the tree and put in the face cut, we inspected it and Captain approved of it. Captain told Employee "A" he wanted him on the uphill side of the tree which only put him 3 to 4 feet from the road providing him with two escape routes. One would be up to the road and the other would be side hill and down the hill. The ground above the tree was steep about 60 to 70 percent slope and it had some gravel that had come down from the road above with a hard base under it. Employee "A" put his back cut in and the tree

was starting to move. Captain told employee “A” to come up the hill, because he noticed the tree moving and he began his way up to the road. About a step into it, the ground gave way and employee “A” ended up falling down the hill into his secondary escape route. In the process his knee got twisted and dislocated his knee cap 2-3 inches to the right of his knee. Captain sent one employee to get the rest of the crew, medical equipment and GPS unit. Captain then contacted dispatch and requested the ground ambulance and medical ship. Three employees provided medical attention to Employee “A”, and Captain was talking to Dispatch and resources and one employee was watching the road and finding location to land the helicopter. The crew then requested Cal-Fire engine, knowing they were the closest resource and had rescue equipment. Cal-Fire Engine arrived on scene and Captain asked them to help get employee “A” up to the road. About a minute later the helicopter arrived on scene. They landed and Captain brought the Paramedics to employee “A” and they gave him medical attention including an I.V. to administer drugs. The crew then assisted in loading employee “A” on to the helicopter and they took him to the Hospital.

**Why did it happen.** Chainsaw operations are a dangerous job even though all formal training and safety precautions were followed accidents are still going to happen. His footing gave way with no warning due to terrain and loose ground cover.

**What can we do next time.** Validate our plan, talk about the job and the risks involved. Look at the landscape closer.

A follow up on employee “A” conditions he was treated at the Hospital and released at 1530. They gave him a walking cast and told him no work for a week and then to be re-examined by an orthopedic doctor.

#### **Lesson Learned:**

- Always do a risk assessment.
- Does the task at hand need to be completed?
- Cutting a step for improved footing is always an option when working on steep terrain.
- Risk management should consider the additional risk of helicopter time. Helicopters are appropriate for life threatening conditions. The decision for air or ground transport should consider the mechanism of injury, the area injured and the patient symptoms.

**(See the attached guide)**

[http://fsweb.r5.fs.fed.us/program/safety/corner/LessonLearned/Injury\\_or\\_Incident\\_Communications\\_Protocols\\_Backbone\\_July20.doc](http://fsweb.r5.fs.fed.us/program/safety/corner/LessonLearned/Injury_or_Incident_Communications_Protocols_Backbone_July20.doc)