

Rapid Lesson Sharing

Event Type: Pile Burning, Broken Ankle, Self-Extrication

Date: December 4, 2025

Location: Sugar Rush Timber Sale, Coos Bay Unit, BLM Oregon

The Story and Lessons from this Pile Burning Broken Ankle Incident

Summary

During a prescribed pile burn on the Sugar Rush Timber Sale, located in the Coos Bay Unit, Bureau of Land Management (BLM), Oregon, a firefighter suffered a closed posterior malleolus fracture of the right tibia after a slip-and-fall incident while traversing a 40 percent slope. The firefighter self-extricated, was transported for medical care, then later released with follow-up orthopedic instructions.

Event Description

The prescribed burn included 94 acres of machine and landing piles. Eight BLM employees staffed the burn, including RXB3s, RXB2s, and FFT2s. Ignitions began at approximately 1300 after an accepted test fire.

At approximately 1400, a crewmember (the only qualified EMT on site) slipped while hiking side slope through brush/thistle ground cover attempting to avoid slippery logs. Wearing “calks” (boots – see sidebar below), the firefighter stepped on an unseen hardwood sprout/stem and the calks slipped.

The crewmember was unprepared for the lost footing and began to fall to their right side when the calks regained traction and all the force of the fall was transferred to the ankle.

The crewmember felt/heard a pop in the knee/ankle. Next, the crewmember recognized increasing pain and moved to the road, later being transported for medical care. X-rays revealed a posterior malleolus fracture (broken ankle).



Figure 1 – The Sugar Rush burn unit.



Figure 2 – The location of the Sugar Rush Timber Sale.

What are “Calks”

Pronounced “corks,” calks are a requisite safety item in western forests. Calks are typically a standard logger boot with short metal spikes on the bottom instead of a Vibram tread. Calk boots are usually the preferred footwear of experienced forest workers because of improved safety by reducing slips, trips, and falls when workers are traversing through logging slash, especially during wet weather.



Lessons

What Went Well

- ❖ Clear communication and timely reporting of the injury from the firefighter.
- ❖ Strong support culture/leadership remained with the injured firefighter.
- ❖ Early medical decision making prevented further harm.
- ❖ The Burn Boss reassessed staffing and completed the burn safely while providing patient care.
- ❖ Strong safety program on this District invests in additional equipment unique to westside forests (such as calks) for field-going personnel.

Contributing Factors

- ❖ Steep (40 percent) sidehill terrain.
- ❖ Mixed footing decreased traction for calks.
- ❖ The normalization of slips as part of routine field movement.
- ❖ Utilization of calks to reduce slipping resulted in disproportionate force on the ankle when traction was regained.

Key Learning Points

- ❖ While utilizing adequate safety equipment will not always reduce the severity of an injury, the equipment will reduce the frequency of injuries, lowering overall risk.
- ❖ Slips on “routine” terrain remain a top injury source.
- ❖ Early recognition of pain matters.
- ❖ Initiating a prescribed fire with more than the minimum resources required provides the flexibility to continue when an unforeseen event removes staffing (such as a medical Incident Within an Incident).
- ❖ Consider slope exposure when designing ignition patterns.
- ❖ Reporting minor slips helps develop organizational learning.
- ❖ Prescribed fire medical plans need to be validated before a project is implemented.
 - ✓ Include an injury plan with process, procedures, paperwork, contact information (with backups) for Office of Workers’ Compensation Programs (OWCP) Representatives. It should be a local appendix in Serious Incident or Fatality (SIOF) plans and included with the burn-boss/burn-plan documentation.
- ❖ The requirements for OWCP paperwork are unique for the wildland fire organization. Therefore, time should be taken to expose and annually train leadership to the administrative requirements of the process for exposure, injuries, and treatment.

Discussion Prompts

- ❖ How do we evaluate and mitigate footing hazards during pile burns?
- ❖ When are calks appropriate—and when are they not?
- ❖ Are calks in good condition? What are the standards?
- ❖ How can reporting of slips be encouraged?
- ❖ How do firing patterns mitigate slope exposure?
- ❖ Do we continuously reassess staffing capacity?
- ❖ What is the new medical plan if the only EMT is injured and leaves the worksite?

Takeaways

Routine movements in familiar terrain still pose meaningful injury hazards. A strong reporting and learning culture supported by communication, medical evaluation, and leadership engagement helps to prevent more severe outcomes.

Important Reminders for On-The-Job Injuries

- ❖ It is vital that a Medical Doctor (MD) sign the OWCP paperwork. A medical assistant, nurse practitioner, etc., is not accepted by OWCP.
 - ❖ Ensure that the “Firefighter” box is always checked regardless of the incident type (wildfire, prescribed fire, etc.) to ensure that the paperwork is routed for processing as a fire-related injury.
 - ❖ The MD must fill out the CA-20 clearly and legibly with the diagnosis, prognosis, and next steps for OWCP to approve the ongoing treatment facilitate timely treatment decisions for the patient.
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