



Poco Fire Safety Analysis Report

Rapid Disengagement of Firefighting Resources

Day Shift: June 19, 2012

On June 19, 2012, at approximately 11:45, a Dozer Operator and a Heavy Equipment Boss Trainee, rapidly disengaged from direct attack suppression efforts to control spot fires that appeared outside of containment lines on Division H of the Poco Fire (AZ-TNF-000078). Due to rapidly escalating fire activity in steep terrain, the Dozer Operator and the Heavy Equipment Boss Trainee abandoned the Forest Service agency dozer (Coconino National Forest Dozer 47, E-10) and escaped the impinging flames on foot reaching fire containment lines safely and without injury.

Immediately following the incident, nearby resources under the guidance of the Division Supervisor provided assistance to the firefighters. Members of the Northern Arizona Incident Management Team Command and Staff also mobilized to provide assistance to the two firefighters. Due to the serious potential of the near miss incident, the firefighters were offered Critical Stress Debriefing options, were interviewed and were asked to provide statements regarding their near miss. The two firefighters were also offered opportunities to return to their home unit or stay on the fire. The Dozer Operator chose to return to his home unit and was released from the fire. The Heavy Equipment Boss Trainee chose to return to his crew (Black Mesa Interagency Hotshot Crew) and remain on the fire.

Following the rapid disengagement of the two firefighters, an expanding fire front from the spot fire passed over the dozer and burned all the trees and surface fuels in the area and continued to grow until it was contained the following day. Aerial reconnaissance of the site later in the day revealed that the fire had completely burned around the dozer.

On June 20, 2012, after dangerous fire conditions had subsided, an on-site investigation of the abandoned dozer revealed that the dozer was relatively intact with only limited physical evidence of damage to the apparatus. With this knowledge, a group from the Coconino National Forest consisting of a qualified dozer operator, mechanic and others, worked with members of the Northern Arizona Incident Management Team to assess damage to the dozer and to look at opportunities for removal. On June 21, 2012, the dozer was assessed for damages. Finding only minor superficial damages, the dozer was started, removed from the site inspected for damage and transported back to the home unit for further assessment and repair.

An After Action Review focusing on the incident is scheduled to occur on June 23, 2012.

Donald Muise
Safety Officer 2 Trainee
Northern Arizona Incident Management Team





















Poco Fire Safety After Action Review

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On June 23 2012, an After Action Review (AAR) of a rapid disengagement of firefighting resources was conducted to review the incident with firefighters who were closest to the scene. The AAR was facilitated by members of the Northern Arizona Incident Management Team Safety Cadre (Mike Gillespie (SOF2), and Don Muisse (SOF2(t)). Participants at the AAR included a Heavy Equipment Boss Trainee, The Division Supervisor (Division H), the Safety Officer assigned to Division H for that operational period, and the Crew Superintendent from the Payson Interagency Hotshots Crew (IHC).

What was planned?

The planned action was to utilize a Forest Service Agency Fire Dozer to assist crews in controlling spot fires that occurred outside of containment lines located in Division H of the Poco Fire.

What actually happened?

On June 19, 2012, at approximately 11:45, a Dozer Operator and a Heavy Equipment Boss Trainee, rapidly disengaged from direct attack suppression efforts to control spot fires that appeared outside of containment lines on Division H of the Poco Fire. Due

to rapidly escalating fire activity in steep terrain, the Dozer Operator and the Heavy Equipment Boss Trainee abandoned the Forest Service agency dozer and escaped the impinging flames on foot reaching fire containment lines safely and without injury.

Why did it happen?

After a morning of successfully catching numerous spot fires across containment lines in Division H, the Forest Service Dozer actively engaged the spot fire to contain the spot to the smallest possible size. The Forest Service Dozer began pushing along the right (north) flank of the spot, while the Payson IHC began to engage on the left (south) flank of the spot. Shortly after engaging the spot fire, a wind shift caused smoke from the spot fire to engulf the Forest Service Dozer causing the Dozer Operator to become disoriented. The Dozer operator attempted to disengage the dozer from the fire line but was unsuccessful in the attempt. Impinging flames and heat lead the Dozer Operator and the Heavy Equipment Boss Trainee to make the decision to abandon the Forest Service Dozer and escape by contouring away from the growing spot fire and eventually turning up the slope to fire containment lines and safety. The Dozer Operator and the Heavy Equipment Boss Trainee were not injured in the incident.

An audio recording of radio traffic during the incident indicates that the total elapsed time for the incident was less than two minutes. Eyewitness statements indicate that the collapse of the smoke column onto the Forest Service Dozer and the subsequent intense fire behavior from the spot fire made escape with the dozer improbable.

What can we do next time?

Following the incident, the two firefighters who disengaged were shaken by the experience but were unharmed. All participants agreed that abandoning the Forest Service Dozer and making an escape on foot was the prudent decision given the circumstance, however, this incident had a high potential to lead to a serious accident or a fatality.

Extremely dry fuels were present across the whole fire. The entire fuels profile was available to the fire with little energy needed to drive off remaining moisture. Fire was moving steadily through all fuel types, regardless of slope. These characteristics may have led to increased fire behavior as the day progressed.

Successful containment of dozens of spot fires prior to engaging at this location may have contributed to a sense that success with containing this spot fire was probable.

Quick decision making under stress and a recall of previous training (Fire Behavior, Fire Shelter Training, etc...) may have contributed to the firefighter's decision process and may have aided the firefighters in making the correct decision given the circumstances.

All AAR participants agreed that this was an experience that they would not soon forget. The incident reinforced the need for continued review of situational awareness and the importance of establishing and maintaining LCES (Lookouts, Communications, Escape Routes and Safety Zones). The Payson IHC Superintendent perhaps put it best when he said; "in those two minutes, we probably learned more than we will ever learn in any classroom".

**Donald Muise
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