## Recent 'Rash' of Burn Injury Incidents

**June 4th, 2008:** On the Jungle Fire near Winterhaven CA (AZ-FYA-Jungle) a Diamond Mountain Hotshot received 2nd degree burns on his feet from being in hot ashes for too long a time. He was transported to the Maricopa Burn Center in Phoenix where he was treated and released with second degree burns to his feet.

**June 10, 2008:** A Sacramento Metro Fire Captain was involved in a burnover on the CA-AEU-Jackson Fire. The captain and two of his engine crew were protecting a mobile home when the wind and flames suddenly shifted direction. Two crew members were able to get inside the cab and escaped injury. The captain didn't make it in time and was caught by the flames.

He was treated at UC Davis Burn Center for severe burns: third-degree burns to his hands, which required surgery and second-degree burns to his forearms and nose.

June 11, 2008 (before 10:30AM): Placer County Fire Department Brush 75 (BR 75) and Brush 73 (BR 73) were involved in a burnover accident during suppression activities during the CA-NEU-Nicholaus vegetation fire west of Lincoln, CA (NE of Sacramento). Both BR 75 and BR 73 were on a dirt road paralleling the lank flank of the fire when they were involved in a burnover. The BR 73 firefighters were quickly overran while trying to seek refuge in the cab. They retreated through the flame front to the west, into the burn. All firefighters were treated and transported to UC Davis Medical Center. The BR 73 firefighters were moved to the burn unit with burns to the face and hands and expected to remain in the hospital 7 to 10 days. The third firefighter, identified only as a Placer County volunteer, was driven to UC Davis Medical Center for treatment of relatively minor facial burns and later released.

June 11, 2008 (about 4PM): Five LPF Engine 71 firefighters were entrapped by an unexpected extreme fire behavior event on the Indians (CA-LPF-Indians) fire. Between 1625 and 1635 hours, a sudden change in the fire behavior occurred resulting in the burnover of four engine crewmembers and the engine driver in an entrapment. While attempting to return to the engine, three crew members opened their fire shelters to deflect the radiant heat and the fourth crewmember was able to return to the engine where along with the drive, were able to back out of the fire to a safe area. The most serious injuries were sustained by one crew member who was treated for second and third degree burns to the hands, neck and ears. The employee was transported to the Santa Clara Valley Trauma and Burn Center. Two members were treated at for burns at Twin Cities Hospital emergency room and released. The fourth crew member declined treatment initially at the ICP Medical Unit but after further consideration chose medical evaluation and treatment after showing physical signs of burn injuries and transported to the Valley burn Center.

An Accident Prevention Analysis (APA) team was ordered and currently developing a "Lessons Learned Analysis" to focus and understand systems failures and why individual behavior made sense at the time of the event. The APA Team has 45 calendar days to provide a draft report to Region 5.

**June 12, 2008 (1420 hours)**: A Tehama County Fire Department Engine Company assigned to structure protection on the Humboldt Fire (Paradise, CA) made the decision to abandon their

position and evacuated by a CAL FIRE Fire Apparatus Engineer (FAE) in a utility vehicle. While departing the area, the utility vehicle sustained significant damage. One Tehama County firefighter and the CAL FIRE FAE were evaluated for possible burn injuries at a local Trauma Center and were medically cleared to return to duty.

## In Summary:

- Five separate incidents (California, Arizona)
- Eleven firefighters received burn injuries:
  - o 7 firefighters treated and released with burn injuries
    - 1 firefighter initially declined treatment then transported to local burn unit
  - o 4 firefighters received severe burns requiring hospitalization
    - 1 firefighter required surgery for burn injuries sustained
- All firefighters transported to burn centers for further evaluation and/or treatment
- Out of 11 firefighters- 1 Hotshot crewmember, 10 Engine Crew members (CAL FIRE, USFS, County)
- Predominate conditions included 'light flashy fuels' and unexpected or sudden change in fire behavior.
- Immediate 'Lessons Learned':
  - o Situational Awareness including 10's & 18"s, LCES, Common Denominators, and fire weather advisories, warnings, and watches.
  - o Mandatory use of all PPE
  - Structure Protection Tactics
  - o Maintain familiarity with proper operation of equipment (pumps)
  - o Always stay mobile
  - o Risk versus gain analysis while in a WUI operation
  - o Engine Operations entrapment/burnover preparedness and training