

GREEN SHEET

California Department of Forestry and Fire Protection

SERIOUS INJURY ACCIDENT



FIREFIGHTERS INJURIES Single Family Residential Structure Fire

March 9, 2006

Riverside Unit
CA-RRU-020551

California Southern Region
CA-CSR-000024

A Board of Review has not approved this Summary Report. It is intended as a safety and training tool, an aid to preventing future occurrences, and to inform interested parties. Because it is published on a short time frame, the information contained herein is subject to revision as further investigation is conducted and additional information is developed.

Lookouts

Communications

Escape Routes

Safety Zones

SUMMARY

On March 9, 2006 at approximately 1138 hours, a structure fire was reported within the incorporated City of Palm Desert, California. A first alarm structure response was dispatched and the first Engine Company arrived at approximately 1149 hours. The first arriving Engine Company reported a single-story, single-family dwelling fully involved. A defensive fire attack was initiated utilizing multiple hand lines from the first arriving engine company. A Truck Company provided forcible entry and laddered the rear of the structure. During the course of this incident, two Truck Company Firefighters and the Truck Engineer who ascended the ladder observed that fire was compromising their egress. This required one Truck Company Firefighter to jump from the ladder approximately eight feet to the ground. The Truck Company Firefighter's fall resulted in a fracture to his left foot. A second Firefighter Paramedic received second and third degree burns from radiant heat at the front of the structure. The fire was contained without further incident at approximately 1209 hours.

CONDITIONS

Weather observations at the Palm Springs Airport Weather Station for March 9, 2006 at 1153 hours were:

Temperature	66 degrees Fahrenheit
Relative Humidity	33%
Wind Speed	Calm
Direction	Calm
Visibility	10 miles Good visibility

Weather observations at the Palm Springs Airport Weather Station for March 9, 2006 at 1253 hours were:

Temperature	66 degrees Fahrenheit
Relative Humidity	27%
Wind Speed	9.2 MPH (average)
Direction	East Northeast
Visibility	10 miles Good visibility

SEQUENCE OF EVENTS

On Thursday March 9, 2006 at approximately 1138 hours, CDF / Riverside County Fire Department Engine 55, as part of a standard structure assignment consisting of four Engine Companies, one Truck Company, two Medic Units, and a Battalion Chief; responded to a reported single family dwelling structure fire within the City of Palm Desert. Upon arrival the Fire Captain of Engine 55 (Operations Chief) reported that the single-story, single-family dwelling of approximately 3,000 Square Feet was fully involved. The unoccupied dwelling was under renovation and was wrapped with paper and wire in preparation for stucco. Multiple hand lines were deployed to protect exposures and to attack the dwelling fire.

Firefighters from Truck 33 performed forcible entry at the front of the structure. At the direction of the Truck Company Captain, a roof ladder was placed at the rear of the structure to survey the roof. Two Truck Company Firefighters and a Truck Company Engineer ascended the 16-foot roof ladder and gained access to the uninvolved portion of the roof. Simultaneously and without command direction, the Truck Company Captain pulled a 21" blower fan to the rear of the structure. The Truck Company Engineer remained on the 16 foot roof ladder near the roofline. During the roof operation, a 2 ½" attack line was placed into service at the rear of the structure and an interior attack was initiated. Neither a BUC nor a RIC team were established nor identified to support the interior attack as indicated in the RRU / RVC Standard Operating Guidelines (SOG).

The interior attack line made access through the rear door as the Truck Company Captain started the 21-inch blower fan to support the interior attack. Almost immediately as the blower fan introduced mechanical ventilation through the structure, fire breached the window directly beneath the 16 foot roof ladder. The Truck Company Engineer was able to descend the roof ladder safely to the ground. The two Truck Company Firefighters remained on the roof with fire blocking their egress. One of the Truck Company Firefighters attempted to descend the ladder; however, an increase in fire activity through the window compromised his decent and he pushed away from the ladder jumping approximately eight feet to the ground. The Truck Firefighter sustained a fracture to his left foot and was removed to the front of the structure by the remaining Truck Company Firefighter and Engineer. The second Firefighter remained on the roof until the ladder could be repositioned. A second ladder was not placed to support roof operations nor permit a secondary means of escape..

The Riverside Unit Emergency Command Center initiated a Personnel Accountability Reporting (PAR) to the Incident Commander. The response from the Incident Commander confirmed full accountability; however, a formal roll call to company officers was not initiated.

The Operations Chief (Fire Captain – Engine 55) ordered an evacuation of the structure upon notification of the injured Truck Company Firefighter. This evacuation was transmitted on a tactical frequency and may not have reached all members on the fire ground. During fire ground operations, several violations of failure to wear personal protective equipment were observed.

The injured Truck Company Firefighter was treated by paramedics at the scene and transported to Eisenhower Medical Center at approximately 1232 hours. During transportation, the Firefighter Paramedic who had been treating the injured Truck Company Firefighter observed that he had also been injured; receiving burns to his left ear, the left side of his face, the back of his left hand, and to

the top of his left foot. These burns were received from radiant heat during defensive fire suppression activities at the front of the dwelling. The Firefighter Paramedic from Medic 55 had been assigned to the nozzle of one of two -1 ¾" hose lines that were used in an exterior (defensive) attack at the front of the structure. Simultaneously, the 2 ½" interior attack line was placed into service at the rear of the structure resulting in opposing hose streams. The blower fan, which had been started during the interior attack, produced an increase in fire behavior at the front and throughout the structure. The 2 ½" interior attack line and the blower fan combined to increase the fire's intensity, exposing the Firefighter Paramedic to additional radiant heat.

The injured Truck Company Firefighter was hospitalized at Eisenhower Medical Center, and the Firefighter Paramedic was evaluated and treated at the Eisenhower Medical Center emergency room. The Firefighter Paramedic was released from duty and allowed to drive himself home in his private vehicle.

INJURIES/DAMAGES

Two Firefighters working at the residential structure fire were injured during the fire attack. One Firefighter (Truck 33) received a fractured foot when he jumped to the ground from the roof ladder. The Truck Company Firefighter was transported to the hospital via ambulance. A second Firefighter Paramedic (Medic 55) received burns to his left foot, left side of his face, left ear and the back of his left hand. The Firefighter Paramedic was evaluated and treated at the same medical center emergency room as the injured Truck Company Firefighter. The Firefighter Paramedic was released from the medical center, placed off duty and allowed to drive himself home in his private vehicle.

SAFETY ISSUES FOR REVIEW

The Serious Accident Investigation Team has identified the following safety issues for review:

- Command and Control – A clear incident command needs to be established and announced on the Command Net / Support Net upon arrival at the incident. Any changes made to the command structure during the incident needs to be announced on both the Command Net / Support Net and the Tactical Net so that assigned resources clearly understand who is in charge and to whom they should report.
- Communications – Communications need to be established and maintained, via radio and face to face wherever possible during fire ground operations with periodic updates until the incident is terminated.
- Personal Protective Equipment (PPE) – Full PPE must to be worn properly and kept in place at all times while engaged in fire ground operations.
- Fire Ground Emergencies – The recognized Departmental Incident Abandonment Procedures and Signals as identified in Fire Operations Handbook 7000, Section 7070.5,

should be utilized on the fire ground to alert assigned personnel of potential structural collapse or immediate deterioration of tactical conditions.

- Standard Operating Guidelines (SOG) – Current Standard Operating Guidelines need to be followed by everyone and enforced by Company Officers and Supervisors.
- Personnel Accountability Reporting (PAR) – PAR must be established and maintained on the fire ground during structural firefighting operations and reevaluated at regular intervals until the incident is terminated.
- Back Up Crew (BUC) and Rapid Intervention Crew (RIC) – A BUC and RIC need to be initiated according to policy prior to commencing Interior Attack Operations.
- Risk versus Gain Analysis – A risk versus gain analysis should be made prior to initiation of fire ground operations. Fire ground operational decisions should be based, at least partially, on this analysis. This analysis must be constantly re-evaluated to insure strategy and tactics are modified appropriately.
- Fire Ground Strategy and Tactics – Strategy and Tactics on the fire ground needs to be well organized and coordinated, specific to Interior and Exterior Fire Control Operations along with other specialized operations being utilized on an incident.
- Multi-Company Drills – Periodic Multi-Company Drills should be planned and practiced incorporating multi-company manipulative operations allowing Battalion Engine Company, Truck Company, and Medic Personnel to interface and train together on a regular basis. Interaction between and Cross Training with various disciplines is necessary for successful and coordinated fire ground operations.
- Training and Qualifications Records – Training and Qualifications Records should be kept current and in a central location; and should be periodically evaluated and updated as needed.
- Hospital Liaison Officer – A Hospital Liaison Officer should be assigned to every injured employee to ensure that the injured employee receives any and all necessary care and to ensure that necessary accident reports and other paperwork are completed in a timely manner.
- Opposing Hose Streams – Special care should be taken to avoid the deployment of interior hose applications which may conflict with exterior hose operations.
- Ventilation Techniques – Ventilation techniques should be a coordinated effort with other fire ground operations.
- Ladder Techniques – Sufficient ladders should be placed along the fire ground to provide a secondary means of egress from the structure. Structural openings should be avoided when placing ladders.

