



# CALIFORNIA CITY FIRE DEPARTMENT STAFF REPORT

CITY COUNCIL

**DATE OF PREPARATION:** 06/20/2006

**TO:** William W. Way – City Manager

**FROM:** Christopher Hayes – Acting Fire Chief

**SUBJECT:** Structure Fire 8561 Ironwood Ave.

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**SUMMARY:**

This staff report is based on information available at the time it was created.

On June 15, 2006, at approximately 1437 hrs., the California City Fire Department responded to a reported fire at 8561 Ironwood Ave. Upon leaving the station, fire crews observed a large column of black smoke coming from the area of the reported fire. The engine company officer immediately requested a structure response. From the time of dispatch the fire department arrived on scene in 6 minutes.

Upon arrival the fire crews observed approximately 150 to 200 wood pallets in the back yard of a single-family residential structure with approximately 65 pallets on fire with the fire spreading rapidly. The company officer also observed smoke coming from the attic vents to the front of the structure indicating that the fire had already extended into the attic of the structure. The fire apparatus was initially positioned to the front of the structure with fire crews setting up for direct attack on the fire.

The company officer was notified by a police officer that a 250 gallon propane tank was in imminent threat and becoming involved in fire. The company officer took into consideration that the extremely heavy fire load in close proximity to the propane tank created a BLEVE (explosion) potential. This condition was created by the very real possibility that the amount of heat produced by the fire could overcome the ability of the propane tanks pressure relief valve to effectively vent the overpressure in the tank there by creating a BLEVE of the propane tank. This BLEVE potential created an imminent threat to the life safety of not only the fire suppression crews but also to the large number of bystanders that were assembling at the incident.

As a result of the BLEVE potential the company officer modified his tactics to address this issue. He accomplished this by relocating his apparatus to a position where the fire crews would be able to apply water to the threatened propane tank in order to cool the tank and knock down the fire that was impinging on the tank there by reducing the BLEVE potential. In conjunction with this change in tactics the company officer had the forethought to realize that the single wharf head fire hydrant located in front of the structure was not going to be able to supply the water capacity for all the equipment that would be needed in order to extinguish the fire. Having information available to him that a second residential steamer fire hydrant was located across the vacant lot, the company officer opted to have his engine supplied by the residential steamer there by leaving the wharf head hydrant available for the next in engine that was 4 minutes out.

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Concurrently, while conducting these operations the company officer was requesting more resources to be responded to the incident.

By this time the extremely rapid spread of the fire had involved the entire back yard, the structure and propane tank, (which was venting), and had extended into the adjacent lot and structure to the east of the fire. As the fire spread into the adjacent lot it involved a second 250 gallon propane tank, which was also venting.

Fire suppression crews placed into operations the master stream device from the engine as well as deploying a 1 3/4" attack line and a 2 1/2" attack line with the objective to protect both propane tanks and knock down the impinging fire on the propane tanks.

As additional fire apparatus arrived on scene they were assigned to the front of the structures that were involved in fire. The additional fire suppression crews were deployed to both exterior and interior firefighting operations on both structures as well as exposure protection of a third residential structure located on the lot immediately to the east of the incident.

As fire suppression crews involved mitigated the BLEVE potential and accomplished their objectives they extended their operations into fighting the fire in and around the involved structures until the fire was extinguished.

## **CONCLUSION:**

This fire was the result of multiple factors that culminated in a significant fire that ultimately presented an extreme risk to the life safety of fire suppression crews as well as a large number of bystanders that assembled through out the event. In addition, this fire destroyed and/or damaged two residential structures along with property located inside and around the properties.

The largest contributing factor to this fire was the extremely high fire load of 150 to 200 wood pallets that the occupant had placed and was storing on his residential property. The configuration and placement of this fuel package, in conjunction with weather conditions of 90 degree plus temperatures, low humidity, and an approximately 20 mph sustained wind with gust much higher, created fire conditions that caused an extremely rapid rate of spread of the fire.

The fire conditions found by the first arriving fire suppression crews exceeded the equipment and manpower capabilities for them to immediately stop the progression of the fire. The first arriving fire suppression crews highest priority was for life safety and the tactics and strategies implemented by them appropriately addressed this issue. The second priority of the fire suppression crews was the preservation of property in which the crews diligently worked towards. It is important to realize that the fire and weather conditions faced by fire suppression personnel made this fire extremely difficult and dangerous to fight.

The response to this incident was Engine Companies from California City, Mojave, Rosamond, Boron, Randsburg, Ridgecrest, Edwards Air Force Base, and a Kern County Helicopter that was used to transport additional fire suppression crews from Bakersfield to the incident. In addition a Kern County Battalion Chief, Safety Officer and Arson Investigators assisted in the response.

This response was necessary in order to provide enough firefighters to the incident in order to perform fire suppression and overhaul operations as well as rotate firefighters through rehab.

This fire resulted in a total of five firefighter injuries, two of which required transportation to the hospital for treatment. Of these injuries two firefighters suffered from heat exhaustion, one firefighter suffered from heat stroke, one firefighter suffered from heat stroke and a broken knee, and one firefighter suffered a minor shoulder injury.