



Event Type: Engine Compartment Fire and Entrapment

Date: July 25, 2026

Location: Coleman Creek Fire, Oregon

What was Learned from this Engine Compartment Fire

Summary

On July 25 during extended attack on the Coleman Creek Fire east of Burns and Hines, Oregon, a United States Wildland Fire Service (USWFS) Type 6 Engine (Model 662) experienced an engine compartment fire while operating in rapidly changing fire conditions.

One firefighter sustained minor burn injuries and three firefighters were evaluated for smoke inhalation.

Narrative

On this day, July 25, the Coleman Creek Fire was exhibiting rapid growth due to prolonged drought and critically dry fuels. The USWFS Engine was assigned along Warm Spring Access Road near Warm Spring Reservoir.

The crew's assignment was to hold the road and coordinate with Division Alpha. While traveling along the road to tie-in with the Incident Commander and Division Alpha, the crew observed increasing fire activity as fire had become established on both sides of the road in multiple locations.

While continuing down the road, the engine suddenly lost power and stopped running. The driver noticed that the battery warning light had illuminated. Several attempts to restart the engine were unsuccessful.

Crew members then observed black smoke coming from beneath the hood. The driver exited the vehicle and opened the hood while another crew member retrieved a portable fire extinguisher. The crew identified what they believed to be the source of the fire in the air filter housing and proceeded to knock it down with the fire extinguisher.

Wind Shift Creates Fire Flare-Up, Fire Intensifies Around Engine—Crew Members Move Into the Black

As the crew was working to extinguish the engine compartment fire, fire activity around them continued to increase. Heavy smoke and radiant heat made it difficult to remain outside the engine, prompting the crew to temporarily return to the cab.

While inside the cab, the crew noticed the engine compartment fire had rekindled. The Captain, in an attempt to extinguish the fire, exited the vehicle and utilized water from a cubie to try to extinguish the engine compartment fire.

The Captain then directed some of the crew to get out and try to start the pump to apply water to cool the area around the engine. As crew members were exiting the engine, a sudden wind shift created a fire flare-up on the road, along the passenger side of the vehicle.

Concerned about the worsening fire conditions outside and with the engine compartment still on fire, the Captain immediately directed the crew members to move into the black on the southwest (driver's) side of the road, approximately 15-20 feet away.

The crew alerted the Division (DIVS) and reported an Incident Within an Incident (IWI).

Four personnel were in the black and were transported to the highway by the DIVS. Here, local EMS evaluated them: one firefighter was classified as "Yellow" due to burn injuries and three firefighters were classified as "Green" from smoke exposure.

The firefighter classified as a "Yellow" priority injury suffered a first degree burn to right side of face and a second degree burn to the right ear. This firefighter was transported to a local hospital for evaluation and treatment before being released later that day. The remaining personnel were evaluated and cleared on scene.

Vehicle Damage

Preliminary examination suggests that burning material entered the engine air intake system and ignited the paper air filter element. Continued engine airflow appears to have supported combustion within the air filter housing, resulting in fire spread throughout portions of the engine compartment.

Damaged components included: the battery, wiring, air intake system, and other engine compartment components.

Lessons

Discussion Points

Rapidly changing fire behavior can quickly shift operational priorities from suppression to medical care of injured firefighters. If multiple firefighters were injured simultaneously, would your crew have the resources and plan to provide immediate medical care?

Engine compartment fires create a unique hazard by simultaneously affecting vehicle mobility and firefighter decision space. How would your crew respond if the vehicle itself became part of the hazard?

Environmental conditions, including heavy smoke and sudden wind shifts, can limit situation awareness and rapidly reduce available escape route options. How often are changing fire behavior and weather incorporated into your evaluation of escape routes and safety zones?

Recognizing when to disengage and move to a safety zone remains a critical decision during rapidly evolving incidents.

What They Learned

This engine crew continually reassessed changing hazards and adjusted priorities as conditions evolved. As fire behavior intensified and the engine compartment continue to burn, the Captain directed the crew to move into the black rather than continue suppression efforts or return to the vehicle.

The Incident Within an Incident was promptly reported, allowing injured personnel to receive timely medical evaluation and treatment.

Preliminary observations suggest conventional paper air filters may be susceptible to ignition after ingesting burning embers or other burning material. Further evaluation of alternative filter media, including synthetic or fire-resistant designs, may help reduce this hazard.

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