Rapid Lesson Sharing

**Event Type**: Dozer Burnover

**Date:** July 16, 2026

**Location:** Kaiser Canyon Fire
Colville Agency, Washington

## The Story and Lessons from this Dozer Burnover with Injuries

On July 16, 2026, a lightning-caused fire was reported around 0530 hours. Several dozers, engines, crew, and aerial resources responded throughout the morning.

By 1329 hours, the fire had grown to approximately 1,000 acres and threatened several structures. Prior to 1523 hours, the fire remained east of Highway 155. However, at this time, the fire spotted toward the west and jumped Highway 155.

A dozer, along with other resources, was relocated to catch this spot fire. Additional spot fires also occurred in this area—which burned together.


*Where the dozer shut down and the operator escaped on foot.*

The dozer tied in with Operations, unloaded on the west side of the highway to prevent damage to the highway, and tracked north approximately 150 yards. The dozer was instructed to push a firebreak along the fire's right flank (north side). After tying into the highway shoulder, the dozer pushed approximately 60 yards of firebreak when the wind started to shift.

### New Head Fire Spreads Toward Dozer's Location

A now south wind pushed the fire through the critically dry grass/brush mix toward the north. The flank that the dozer started pushing quickly became a head fire and started spreading rapidly toward the dozer's location.

As the operator recognized the wind shift and change of fire direction—with flame lengths growing from 3–5 feet to nearly 20 feet—he picked up the pace as the fire was within feet of the dozer, burning grass and larger brush.

At this time, the dozer shut down. The operator, who was wearing a bandit-style face covering and a headset, was feeling the heat on his left side. He managed to get the dozer re-started and backed up—away from the heavier brush—approximately 20–25 yards when the dozer shut down again.

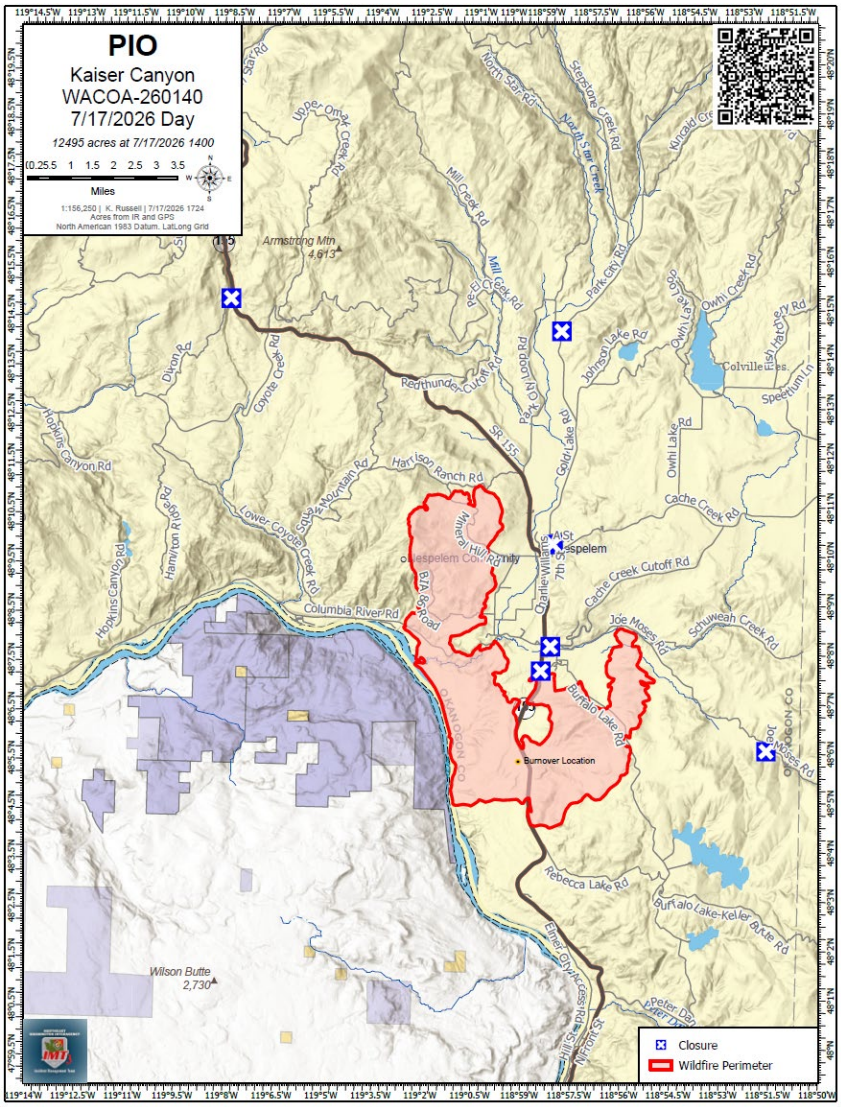
*This photo shows the openings in the bottom of the pre-cleaner, where the embers likely entered the air filter.*

The dozer's air pre-cleaner bowl or "dust bowl's" clear plastic container had started to melt, resulting in a large hole in the plastic. It is believed that embers were sucked into this opening and through the underside where it is designed to draw in air. The inner and outer air filter, located in a sealed canister within the engine compartment, did catch fire. This led to the dozer shutting down as the filter fire consumed oxygen in the air intake.

### IWI Process is Initiated

At 1618 hours, the operator headed east on the firebreak toward the highway where he was met by Operations. At this time, the Incident Within an Incident (IWI) process was initiated. Approximately 20 minutes later, the operator was driven to the hospital by a coworker and treated for second degree burns on the left side head, face and left hand.

Upon review of the dozer, the only visible damage was the pre-cleaner bowl and the burned air filters. The dozer was relatively clean of accumulated wildland fuels and debris which often collect in the belly pan and undercarriage. In addition, the dozer did not have a buildup of fluids or fuel in the belly pan and no hoses were found to be leaking. This, in combination with the burning filters being removed, is likely why the dozer itself did not burn.




***Map showing the Kaiser Canyon Fire's location.***

## Lessons

### 1. Changes in Wind Direction/Speed

Unexpected wind shifts played a significant role in this incident, drastically increasing fire intensity and changing the fire's direction.

**Lesson**: Although the topography in this area of the spot fire was relatively flat, this part of the Columbia River Basin often experiences wind direction changes and increased wind speeds due to channeling through terrain. These "local" winds most likely led to these changes during this event.

### 2. Current Fuel Conditions in Eastern Washington

Currently, fuel conditions in this area in mid-July already resemble mid-August conditions.

**Lesson**: Recent Fuels and Fire Behavior Warnings state it best: *"Expect more active fire behavior and longer active burn periods. Horizontal fuel loading in eastern Washington is contributing to rapid fire growth when aligned with wind."*

Changes in wind direction and/or speed had a more dynamic effect on fire behavior due to the fuel conditions at this time.

## 3. PPE

The operator was wearing his PPE but still received second degree burns to the left side of his head and hand.

**Lesson**: The operator was wearing a bandit-style mask which did reduce some direct heat to the face; his burns were located above this mask. Heat did singe facial hair and even the top of the operator's head as heat accumulated under the helmet. A headset covered his ears and reflected some of the heat until it was ripped off as he exited the dozer. The operator's gloves, that became extremely hot, were removed at some point while the operator was getting out of the dozer and escaping.

## 4. Condition of Equipment

The maintenance of the equipment prevented the loss of this equipment.

**Lesson**: The dozer was directly impacted as the fire blew toward the dozer with direct flame impingement and an ember shower. If excessive fluids, oils, vegetation, etc. had been present in the common areas where these collect (without proper maintenance), the dozer could have been a total loss and made escape even more difficult.

## 5. Tactics

A sense of urgency combined with space to unload the equipment likely pushed the decision to start on the northern side of the spot fire.

**Lesson**: As the operator started pushing the fire break, he did realize that he would be in a better position "to get a feel for the fire" had he been on the upwind side. (At that time, the winds were coming out of a southerly direction.) The operator had only pushed for a few minutes when the fire was bumping his location. The operator realized that he was too close, going direct, as the wind started to gust. Aerial resources, which could have cooled the fire's edge prior to utilizing the dozer, were actively engaged on a more critical portion of the fire.

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