

Narrative

The Cherokee 7966 Wildfire was reported mid-afternoon on September 1st, 2026. Texas A&M Forest Service resources from the Jacksonville Fire District were requested to respond to a new start in central Cherokee County. Requested resources included (2) tractor plow units, (2) chase trucks, as well as a Type 6 Engine from a neighboring office. Once on scene, dozers worked to complete line construction around the fire; however, due to steep terrain, it was determined that a small portion (20-30 ft) of the fire would need to be completed with hand line. Additionally, a burning snag observed on the edge of the black would need to be felled by hand. The 1500 temperature reading at the nearest Remote Automated Weather Station (RAWS) was 103 degrees.

One of the chase truck drivers, a Faller 2 Trainee (FAL2(t)), and a tenured agency employee, assumed the role of chainsaw operator. FAL2(t) began brushing out the identified area using



BURNING CHAINSAW AFTER FAL2(t) TOSSED IT INTO THE BLACK, REPRESENTATIVE OF WHAT THEY WERE STANDING IN WHEN IT IGNITED



CHAINSAW POWERHEAD AFTER FIRE WAS EXTINGUISHED

a Stihl 462c chainsaw. It took less than 10 minutes of saw work to open the area enough for the hand line to be completed. Upon completion of the brushing, FAL2(t) loaded the chainsaw onto a UTV and proceeded to address the burning snag. After conducting a thorough size-up of the tree, FAL2(t) attempted to start the chainsaw. FAL2(t) observed that the chainsaw would not turn over or stay running. Believing that they were standing in cold black, FAL2(t) began to troubleshoot the fuel system, beginning with the fuel tank. Understanding that the tank was likely pressurized (vapor locked), FAL2(t) angled the powerhead away from their body and slowly opened the quarter-turn cap to vent the tank. The pressure inside the tank was greater than expected. Upon venting, the fuel mixture overflowed out of the tank, knocking the fuel cap off the powerhead, and spilling on the ground. The fuel mixture quickly ignited, catching both the chainsaw and FAL2(t)'s right glove on fire. FAL2(t) responded

immediately, tossing the chainsaw, and removing their right glove.

FAL2(t) received no injuries, with minor redness observed on their face outside the coverage of their eye protection. The incident was reported up the chain of command, and Agency Safety Officers were notified. It was also reported to NWCG via the Fuel Geyser Incident Reporting Form.

Lessons Learned

Fuel Geyser Contributing Factors

Incidents involving fuel geysers during chainsaw operations are well documented in wildland fire. Variables such as fuel composition, environmental conditions, and equipment type are all contributing factors; however, it is a combination of fuel, heat, and pressure that causes this reaction.

Fuel – Fuel geysers can occur regardless of fuel composition. To minimize volatility, it is recommended to avoid using fuel that is older than one month. Do you have a system in place to track the age of saw fuel?

Pressure – There is a correlation between an increase in operational temperature in the powerhead and the increase in operational pressure within the fuel tank, thus, increasing the likelihood of a fuel geyser. Are there any steps that the chainsaw operator can take to reduce heat buildup in the powerhead during chainsaw operations?

Heat – Although fuel geysers can occur in different environments, the introduction of a heat source increases the risk of fuel ignition, potentially resulting in injury. Do you have established Standard Operating Procedures (SOPs) for troubleshooting fuel system-related issues on the fire line? Vapor Locked vs Flooded? What are symptoms of each condition? How can each condition be safely diagnosed on the fire line?



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AWARENESS PAGE

Burn Injuries and Chainsaw Operations

In this instance, FAL2 wore full PPE, and it functioned as intended. If the fuel geyser contacted FAL2(t)'s body, or they were unable to remove their glove, the outcome would have resulted in a higher likelihood of injury.

Although there is an emphasis on “Stop the Bleed” training for chainsaw operators, dealing with burn injuries isn’t a topic that is often discussed. Are you trained to conduct basic triage on burn injuries? If qualified medical personnel aren’t present, what type of injury stabilization can be done until they arrive (remove heat, cool burn, dress area)?

Be capable of performing basic first aid, familiarize yourself with the [NWCG Burn Protocols](#) and be prepared to act when needed.

Some Previous Fuel Geyser Incidents

[Washington and Jeffersons NF IA Fire Fuel Geyser \(2026\)](#) – In this incident from April 2026, a similar set of circumstances led to fuel spraying over the sawyer.

[Maple Springs Fire Leaf Blower Fuel Geyser \(2016\)](#) – This 2016 incident highlights that fuel geysering is not just a phenomenon of chainsaws but also occurs with other types of power equipment.

[Willow Peak Fire Burn Injury \(2015\)](#) – This chainsaw geysering incident initiated an intense focus on this type of accident. A sawyer experienced serious burns to their face, upper torso, arms and airway.

Other Useful Links

[NWCG National Fuel Geyser Awareness](#)

[NWCG Fuel Geyser Incident Reporting Form](#)

[NWCG Know Your Fuel Flyer](#)