

## NATIONAL INTERAGENCY FIRE CENTER

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9216 NFES (LLFA240000)

April 3, 2017

### NATIONAL FIRE EQUIPMENT SYSTEM CACHE MEMORANDUM NO. 17-2

To: NFES: National Interagency Support Caches

From: David Haston, Chair – NWCG Equipment Technology Committee

Subject: Fuel Geysering awareness stickers and labels

#### Background:

“Geysering” describes the rapid, high-energy, expulsion of fuel. It occurs when fuel in a closed (non-vented) system becomes superheated and pressurized. Under these conditions, removing a fuel cap from a partially filled fuel container or tank can result in rapid depressurization and accidental release of liquid and vapor.


#### Required Action and Direction:

This cache memorandum directs all National Interagency Support Caches (NISC) to place awareness warning stickers and labels on equipment as identified herein. Although not required, it is highly recommended that non-NISC caches and field units label equipment and fuel containers using these guidelines. For those outside of the NISC system, sticker and label information can be found at the end of this memorandum.

This cache memorandum includes instructions for installing 1) fuel geysering “Danger” stickers on mechanized equipment and fuel storage containers, and 2) a “Warning” label on the Chainsaw Kit (NFES 000340) carton.




## Chainsaw Kit Warning Label:



# WARNING

**READ AND UNDERSTAND THE WARNINGS ON THIS LABEL BEFORE REMOVING FUEL CAPS FROM CHAINSAWS OR FUEL TRANSPORT CONTAINERS (e.g. FUEL CANS, BOTTLES, AND DOLMARS)**



**USE CAUTION! ALWAYS ASSUME ALL FUEL TANKS AND CONTAINERS ARE PRESSURIZED BEFORE REMOVING THE FUEL CAP.**

- Move 20 feet or more from any heat source before removing the fuel cap. Remember a hot chainsaw engine or exhaust can potentially ignite spilled fuel.
- Check the fuel level by looking through the side of the translucent tank before removing the fuel cap.
- If fuel level is above ½ tank and the equipment has been running poorly, allow the engine to cool for 15 minutes before removing fuel cap. A vapor-locked chainsaw has a higher probability of geysering. Indications of vapor lock include but are not limited to: a) engine running poorly, 2) engine acts like it is running out of fuel, and 3) engine stops but still has fuel.
- Expect a fuel release any time a fuel cap is removed and plan accordingly. Remember fuel can be sprayed from the tank in a 360 degree radius as it is opened. This applies to all caps but in particular tool-less (quarter turn) chainsaw caps.
- Open cap slowly. Stop rotation and hold at the first detent on chainsaws with the tool-less (quarter turn) fuel cap.
- Use fresh fuel mix – Do not use fuel older than one month. Gasoline purchased in winter months is more volatile and boils at a lower temperature. Do not use fuel that has a strange odor.
- Ensure and double-check that the chainsaw cap is correctly installed before returning to operation.



Locate label as shown on the top center of the chainsaw kit box.

**“Danger” Sticker:****Mechanized Equipment Sticker Placement:**

Locate sticker as shown on NFES 000159 Chainsaw, NFES 007040 Leaf Blower, and NFES 000124 Wick 100G Lightweight Pump.





### Fuel Container Sticker Placement:

Locate sticker as shown on NFES 000741 Container-Fuel/Oil, 2 Compartment; NFES 001175 Can-5 Gallon, Gas, w/o Spout, Jeep; NFES 000218 Tank, Gasoline-5 Gallon, Pump Adapted; and NFES 001535 Container-1 Liter, Fuel, Aluminum, Red Finish.





### **Additional Notes:**

These label and sticker requirements will be incorporated into the refurbishment guide for the affected inventory items.

For field units with other types of equipment not identified herein, utilize similar sticker placement locations. In general, look for clean flat surfaces with good user visibility and avoid placing on corners, weld seams and maximize location for extended durability.

Sticker and label information can be provided by the NW Incident Support Cache at (541) 504-7234 or by email at [ornwkcache@gmail.com](mailto:ornwkcache@gmail.com).

**CONTACT INFORMATION:**

The NFES Chair is Matt Cnudde, 208-387-5277 or [mcnudde@fs.fed.us](mailto:mcnudde@fs.fed.us).

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*/s/ David V. Haston*

David V. Haston

Chair – NWCG Equipment Technology Committee

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