U.S. Department of Agriculture	1. WORK PROJECT/ACTIVITY **Fueling Small Gas Engine**	2. LOCATION	3. UNIT
JOB HAZARD ANALYSIS (JHA)	4. NAME OF ANALYST	5. JOB TITLE	6. DATE PREPARED

7. TASKS/PROCEDURES	8. HAZARDS	9. ABATEMENT ACTIONS Engineering Controls * Substitution * Administrative Controls * PPE
Fueling Chain Saw	• **Fuel splash on sawyer** • **Fuel tank pressure causing fuel geyser** • **Contamination of fuel tank** • **Fuel igniting from heat source; (hot chain saw, open flame, hot ash)** • **Fuel spills, (environmental damage)**	• **Review owner's manual fueling process.** • **Wear safety glasses meeting current ANSI standards.** • **If saw exhibits low fuel, vapor lock characteristics, check fuel level through opaque side of fuel tank before opening fuel tank cap. Be wary of tank pressure if tank is more than ½ full.** • **Clean debris away from fuel/oil tank openings.** • **Allow the saw to cool for at least 5 minutes before refueling.** • **Fill the saw on bare ground or on some other non-combustible, grounded surface.** • **Refuel outdoors and at least 20 feet from any open flame or other sources of ignition. Increase distance to account for wind or slope.** • **Fuel from the upwind side to reduce exposure to spilled fuel and vapors.** • **Assume fuel tank is pressurized, point cap away from operator before opening fuel cap, to avoid being sprayed by fuel. Slowly open fuel tank until pressure is release.** • **The order used to refill the fuel/oil tanks is not critical; doing it the same way every time will help to avoid filling a tank with the wrong fluid. Filling the oil tank first, then the gas tank, allows additional time for the saw to cool.** • **Fill tank to 90% of capacity to allow for expansion.** • **Hand-tighten the fuel/oil tank caps. Be careful not to cross thread them!** • **Do not start the saw within 10 feet from the fueling area.** • **Immediately clean up spilled fuel.** • **Wash gas off skin and gas contaminated clothing as soon as possible.**

10. LINE OFFICER SIGNATURE	11. TITLE	12. DATE

Previous edition is obsolete (over)

HA Instructions (References-FSH 6709.11 and .12)

The JHA shall identify the location of the work project or activity, the name of employee(s) writing the JHA, the date(s) of development, and the name of the appropriate line officer approving it. The supervisor acknowledges that employees have read and understand the contents, have received the required training, and are qualified to perform the work project or activity.

Blocks 1, 2, 3, 4, 5, and 6: Self-explanatory.

Block 7: Identify all tasks and procedures associated with the work project or activity that have potential to cause injury or illness to personnel and damage to property or material. Include emergency evacuation procedures (EEP).

Block 8: Identify all known or suspect hazards associated with each respective task/procedure listed in block 7. For example:

a. Research past accidents/incidents

b. Research the Health and Safety Code, FSH 6709.11 or other appropriate literature.

c. Discuss the work project/activity with participants

d. Observe the work project/activity

e. A combination of the above

Block 9: Identify appropriate actions to reduce or eliminate the hazards identified in block 8. Abatement measures listed below are in the order of the preferred abatement method:

a. Engineering Controls (the most desirable method of abatement). For example, ergonomically designed tools, equipment, and furniture.

b. Substitution. For example, switching to high flash point, non-toxic solvents.

c. Administrative Controls. For example, limiting exposure by reducing the work schedule; establishing appropriate procedures and practices.

d. PPE (least desirable method of abatement). For example, using hearing protection when working with or close to portable machines (chain saws, rock drills portable water pumps)

e. A combination of the above.

Block 10: The JHA must be reviewed and approved by a line officer. Attach a copy of the JHA as justification for purchase orders when procuring PPE .

Blocks 11 and 12: Self-explanatory.

Emergency Evacuation Instructions (Reference FSH 6709.11)

Work supervisors and crew members are responsible for developing and discussing field emergency evacuation procedures (EEP) and alternatives in the event a person(s) becomes seriously ill or injured at the worksite.

Be prepared to provide the following information:

a. Nature of the accident or injury (avoid using victim's name).
b. Type of assistance needed, if any (ground, air, or water evacuation)
c. Location of accident or injury, best access route into the worksite (road name/number), identifiable ground/air landmarks.
d. Radio frequency(s).
e. Contact person.
f. Local hazards to ground vehicles or aviation.
g. Weather conditions (wind speed & direction, visibility, temp).
h. Topography.
i. Number of person(s) to be transported
j. Estimated weight of passengers for air/water evacuation.

The items listed above serve only as guidelines for the development of emergency evacuation procedures.

JHA and Emergency Evacuation Procedures Acknowledgment

We, the undersigned work leader and crew members, acknowledge participation in the development of this JHA (as applicable) and accompanying emergency evacuation procedures. We have thoroughly discussed and understand the provisions of each of these documents:

SIGNATURE	DATE	SIGNATURE	DATE
Work Leader			