

Appalachian National Scenic Trail		1. WORK PROJECT/ACTIVITY Power Pole Saw - Gas or Battery-Powered	2. LOCATION Trail Wide	Includes work performed on lands of National Park Service, and various states' park and lands
JOB HAZARD ANALYSIS (JHA) References-FSH 6709.11 and -12 OSHA (Instructions on Reverse)		3. NAME(S) OF ANALYST(S) Keith Stegall, Facility Manager	4. Work Supervisor Various	5. DATE PREPARED 3/9/2021
Required Standards and General Notes:	Review Operators Manual			
Required Personal Protective Equipment	Gloves, eye protection, ear protection, sturdy boots, ANSI rated hard hat, tool harness, chaps, face protection, long-sleeved shirt			
Tools and Equipment	Fuel mix, bar oil, fuel and oil containers (OSHA certified Type II fuel cans) for gas powered saw; batteries for battery powered saws; First aid kit			
Available Training	Must have active saw certification within the A.T. Saw Program; User's manual; On-site training with work leader. NWCG Standards for Transporting Fuel			
7. TASKS/PROCEDURES		8. HAZARDS, POTENTIAL HAZARDS / INJURY SOURCE	9. ABATEMENT ACTIONS OR PROCEDURES Engineering Controls * Substitution * Administrative Controls * PPE	
Pre-Operation Inspection		Injury due to lack of knowledge	<ul style="list-style-type: none"> ● Review and adhere to product manual and operation instructions; ● Review tool and fuel related Safety Data Sheets (SDS). 	
		Injury due to unobserved faulty equipment	<ul style="list-style-type: none"> ● Inspect tool prior to use; ● Insure safety guards are in place and not damaged; ● Insure chain is sharp and in working condition; ● Check chain tension; ● Confirm there are no other defects. 	
Loading and Transporting Tool		Cuts and lacerations	<ul style="list-style-type: none"> ● Turn tool off while transporting; ● Carry with scabbard on and chain behind you; ● For battery-powered saws, remove battery for transportation and carrying; ● Keep distance from others while in transit. Be aware of tool swing zone. 	
		Impact from loose gear	<ul style="list-style-type: none"> ● Secure tool and fuel oil containers outside of passenger compartment. 	
Transporting Fuel in the Field		Injury / Exposure to Fuel	<ul style="list-style-type: none"> ● Fuel may only be "field transported" and used in: <ul style="list-style-type: none"> ○ Original manufacturer's container ○ OSHA approved fuel container ○ UL-labeled plastic fuel container ○ Aluminum 1 quart or smaller "Sigg" fuel bottle specifically intended to carry fuel. ○ Plastic Dolmar fuel container (Fuel-Mix / Bar Oil) 	

		<ul style="list-style-type: none"> ● Gas and/or Gas Mix fuel containers must be red in color and labeled for its contents and use. ● Diesel fuel containers must be yellow in color and labeled for its contents and use. ● Ensure fuel cap(s) is secured properly and tightly. ● Do not fill containers above the fill line (or leave at least 2” of space between fuel and top of bottle). ● Do not use fuel container for any other liquid containment. ● Wear eye protection.
Fueling Gas-Powered Pole Saw	Burns	<ul style="list-style-type: none"> ● Engine should be cool before fueling; ● Keep hands away from exhaust system.
	Exposure to toxins	<ul style="list-style-type: none"> ● Only use fuel cans; ● Do not leave fuel cans in direct sunlight. Fuel with tool on the ground in a well ventilated area; ● Do not eat or smoke while handling fuel; ● Wash hands after use; ● Review fuels SDS sheets prior to operation; ● Insure fuel cap is replaced tightly.
	Injury to eyes	<ul style="list-style-type: none"> ● Wear eye protection.
	Injury due to spillage	<ul style="list-style-type: none"> ● Place fuel in an upright position; ● Let others know where the container is to avoid spills; ● Open fuel container carefully, contents may be under pressure and can spray out unexpectedly.
Battery Handling for Battery-Powered Pole Saw	Burns and shocks	<ul style="list-style-type: none"> ● Insulate contacts with a non-conductive material such as electrical tape or wrap in cloth when carrying in a pack.
Starting	Cuts or lacerations	<ul style="list-style-type: none"> ● Start on the ground; ● Insure no one is near tool before starting; ● Never start when bar is in a cut; ● Ensure no objects are near the chain tip.
	Muscle strain	<ul style="list-style-type: none"> ● Stretch body before operation; ● Use good body mechanics; ● Use short direct pulls.
Operation	Injury due to improper operation	<ul style="list-style-type: none"> ● Only one person uses tool to make cuts at a time; ● Hold tool firmly with two hands at all times; ● Make cuts at full throttle, and do not apply pressure when reaching the end of a cut since the chain could pop out; ● For thicker branches, make a relief cut underneath before making the top cut; ● Pull out of the cut with chain running.

	Injury due to poor footing or lack of escape route	<ul style="list-style-type: none"> • Always plan and map out an escape route prior to operation; • Prior to performing task, ensure ground is stable and that work area and escape route are free of obstructions; • Make all cuts with two feet planted firmly on the ground; • Communicate your escape route to others working with and/or around you.
	Injury from material falling from height	<ul style="list-style-type: none"> • Observe condition of branch, including decay or rot that would affect work; • Do not cut materials directly above you; • Check for vines that could cause cut material to fall in unexpected direction; • Be aware of possible spring poles (i.e. limbs under tension); • Confirm that all cut materials are on the ground and that none remain hanging in the tree before moving into drop zone or leaving work area; • Ensure the area is closed off to the public before beginning overhead cutting.
	Muscle strain	<ul style="list-style-type: none"> • Stretch body before operation and use good body mechanics; • Wear tool harness and attach to tool as per manufacturer's instructions; • Maintain good balance and solid footing; • Rotate operators if/when possible.
	Eye injury	<ul style="list-style-type: none"> • Wear eye and face protection when making cuts.
	Injury to others	<ul style="list-style-type: none"> • Keep bystanders at least 25 feet from operator and drop zone; • Always look before you swing the pole in any direction; • Clearly define the communication processes among co-workers; • When working in a congested or tight area, use a spotter/lookout when possible.
	Electrocution	<ul style="list-style-type: none"> • Maintain 50 ft clearance between the tool and electric lines or hanging branches within 50 ft electric lines.
	Injury to head	<ul style="list-style-type: none"> • Wear hard hat at all times during operation of tool; • Plan where the intended drop zone will be for the materials being cut, and communicate this to others working with/near you; • Pay close attention to your position and others as it relates to the intended drop zone of the material.
	Hearing	<ul style="list-style-type: none"> • Wear hearing protection that meets or exceeds tool manufacturer's requirements.
Environment	Environmental Exposure	<ul style="list-style-type: none"> • Check vegetation for nests of stinging insects; • Check vegetation for snakes; • Check tree and surrounding area for poison ivy/oak.

10. OFFICIAL SIGNATURE	11. TITLE Acting Chief Ranger (over)	12. DATE 09/02/2021
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Previous edition is obsolete

JHA Instructions (References-FSH 6709.11 and .12)

The JHA shall identify the location of the work project or activity, the name of employee(s) involved in the process, the date(s) of acknowledgment, and the name of the appropriate line officer approving the JHA. The line officer 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, and 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 frequencies.
- e. Contact person.
- f. Local hazards to ground vehicles or aviation.
- g. Weather conditions (wind speed & direction, visibility, temperature).
- h. Topography.
- i. Number of individuals to be transported.
- j. Estimated weight of individuals 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

