


U.S. Department of Agriculture Forest Service	1. WORK PROJECT/ACTIVITY Chainsaw Operations	2. LOCATION Cheoah Ranger District Tusquitee Ranger District National Forest Ocoee Ranger District Tellico Ranger District Blue Ridge Ranger District Conasauga Ranger District	Unit National Forest in North Carolina Cherokee National Forest Chattahoochee-Oconee National Forest
JOB HAZARD ANALYSIS (JHA) References-FSH 6709.11 and 12 (Instructions on Reverse)	4. NAME OF ANALYST Peter Myers	5. JOB TITLE AFMO/Chainsaw Coordinator	6. DATE PREPARED 02/11/2020
7. TASKS/PROCEDURES	8. HAZARDS	9. ABATEMENT ACTIONS Engineering Controls * Substitution * Administrative Controls *PPE	
General Chain Saw Use and Operations	Equipment All PPE should be worn at all times. Personal Protective Equipment (PPE) Qualification	Proper saw for the job: bar length, power head size, chain brake, dogs, chain and proper wedges and felling axe or equivalent. Wear appropriate Personal Protective Equipment (PPE), including: <ul style="list-style-type: none"> • Leather gloves • Leg protection (chaps) - chaps shall have 14 inches of cover over the full length of the thigh and overlap the top of the boots by 2 inches. Chaps shall meet the US Forest Service Specifications 6170 – 4F as directed in the FS Health and Safety Code Handbook. Check the tag on the upper left inside hip of the chaps to ensure they meet these specifications. • Hardhat approved for saw operations ANSI Z89.1 – 1986. • 8” high laced leather boots, sturdy, with skid resistant soles. • Long sleeved shirt • Eye protection - safety glasses or face shield • Hearing protection rated to reduce noise levels to 85dBA • First aid kits shall be available at the work site and on each transport vehicle. First aid kits available for chainsaw operations should be supplied to handle traumatic injuries. Maintain appropriate Communication at all times: <ul style="list-style-type: none"> • Vehicle radio and hand- held radio’s - turned on, appropriate channel selected for location • Cell phone – check coverage Sawyers must maintain national certification cards indicating their proficiency levels as follows: “A” apprentice sawyer. “B” intermediate sawyer. “C” advanced sawyer. “C” sawyer certification. Saw operators shall be currently certified by a nationally recognized organization to render first aid and perform CPR.	
Carrying Chain Saw	Cuts Falls Burns	Stop saw before carrying. Point bar forward when going downhill and the saw is at the side. Point bar to the rear when going uphill and the saw is at the side. Pack and guard bar and dogs when carrying saw on the shoulder, and check saw as not to be hot and cause burns. Maintain minimum 10 feet	

<p>Pre-use Inspection</p>	<p>Damage Hazardous Conditions</p>	<p>walking space between crewmembers. Ensure fuel cap is secure. Know the saw you will be using. Saws vary by brands and models.</p> <p>Check that parts of the saw are securely attached and that no parts are missing or damaged. Make corrections as required.</p> <p>Check the chain condition; sharpen or replace as necessary.</p> <p>Check the bar adjustment and set chain tension as required.</p> <p>Test run the saw and ensure that the chain break and kill switch operate properly.</p>
<p>Fueling Chain Saw</p>	<p>Burns Spillage Fire</p>	<p>Stop the saw when checking fuel or bar oil levels. When refueling fill tank on bare ground or other noncombustible surface. Wipe spilled fuel off saw. Never start saw within 10 feet of the fueling area. Refuel saw at least 20 feet from persons smoking or other potential sources of ignition. Beware of Fuel geysering. The pressurization of fuel in fuel containers that can result in unintended fuel spray when fuel cap is removed.</p>
<p>Environmental Conditions</p>	<p>Weather Darkness</p>	<p>All work shall terminate and each volunteer shall move to a place of safety when environmental conditions create a hazard for the volunteer. No felling at night.</p>
<p>Starting Saw</p>	<p>Kickback Cuts</p>	<p>There are two recognized methods for safely starting a saw - On ground starting and stand starting. In both methods the trigger lock should not be used. Drop Starting is prohibited. Ensure the area is clear of people and hazards. Start the saw with the chain break on. Keep a secure grip on the saw at all times.</p>
<p>Size Up</p>	<p>Obstacles Species Conditions Escape Route's</p>	<p>The first hazard mitigation is analyzing the felling job by considering: (1) Location of people, structures, and power lines. (2) Roads and travel in the cutting area. (3) Topography and steepness of ground. (4) Nearby hazards such as trees, low hanging and dead limbs, rocks, and brush. (5) Primary and secondary escape routes, safety zones and alternatives. (6) Wind direction and speed. (7) Tree species, both live and dead. (8) Tree conditions: diameter and height of tree. (9) Soundness of tree: split, lightning struck, broken off top, rot, deterioration or physical damage to the root system, trunk, stem, limbs, or bark. (10) Lean direction and or limb distribution. (11) Widow makers. (12) Spiked top and/or schoolmarm. (13) Burning top or fire inside cavity. (14) Moisture in the form of rain, snow, or ice. (15) Insect damage trees.</p>
<p>Felling Considerations</p>	<p>Qualifications Space Escape routes Species Tree condition Deformities</p>	<p>Train new operators in chain saw use. Never let trainee sawyers operate without constant, direct supervision until they demonstrate the ability to handle the saw independently and proficiently and/or are carded to do so. A sawyer should not work alone. Individual chain saw operators have management support in any situation in which the faller opts toward safety in felling, bucking, and brushing operations. This should be based on his/her</p>


	<p>Lean distribution Weather</p>	<p>individual skill, knowledge and understanding of personal capabilities. The final decision to fell any tree is up to the faller. A secure felling area will be established, with a radius of at least two times the height of the tree to be felled. Escape path and safety zones and alternate path should be 45 degrees from direction of tree fall and in place before first cut is made. Some tree species may split or barber chair worse than others. Slope also will increase risk of tree splitting or barber chairing. Tree conditions and deformities can be very hazardous such as splits, lightning or wind shaken damage, rot or soundness of tree, whether burning interior or top on fire, dead limbs, insect activity, frost cracks, knot, conks or fungi activity, unstable root system, root protrusion and vines all these hazards need mitigation measures taken so tree or trees may be fell safely. Adjust for lean whether it be slight or great, head or side lean, heavy limbs or weight distribution from snow /ice or wind. By using the cross sight or plum bob it will help to adjust amount of lean.</p>
<p>Cutting Alone for Road Debris Removal</p>	<p>Communications Delayed Medical Response</p>	<p>Communication must be established with dispatch (District Office/Gainesville Dispatch, Cherokee Dispatch, or North Carolina District Office/ Asheville).</p> <ul style="list-style-type: none"> • Task • Location • Estimated time of completion • Contact dispatch when work is finished <p>Radio must be carried On Person during cutting operations</p> <p>Have medical/First Aid Kit readily available either on person or in an easy to access location on vehicle.</p> <p>Reference the USDA Forest Service Saw Operations Guide v 1.3.1</p>
<p>Personal Safety Considerations and Attitude.</p> <p>Maintenance</p>	<p>Personal Physical Considerations General health and mental considerations Medication or under the influence</p> <p>Missing Equipment Damaged Equipment Saw Not Ready to Use</p>	<p>Maintain regular fitness with exercise throughout the year. Medical testing when needed. Do not operate a chainsaw with mental or physical impairment including: medication, poor frame of mind, excessive fatigue, etc. Hold safety “tailgate” briefings and sign JHA. Talk about safety for the job at hand.</p> <p>Return the saw to the saw kit in a ready to use condition Ensure that all equipment is returned to the saw kit (box). This should include:</p> <ul style="list-style-type: none"> • Clean saw with sharp chain • Wedges • Saw tool • Axe • Spare chain for the saw • Spare chain bar • Spark plug

		<ul style="list-style-type: none"> • File for the chain • Flat file <p>All operators shall be currently certified in First Aid, CPR, and BBP (Bloodborne Pathogens). OSHA 1910.266 App B. First Aid kits and BBP kits MUST be readily available. In case of serious injury or illness, notify office by radio or personal communication device to request for EMS from local agency. Follow EMS protocols. Notify your supervisor as soon as possible of the incident. Use Bloodborne Pathogens precautions. Complete necessary paperwork.</p>
10. LINE OFFICER SIGNATURE	11. TITLE:	12. DATE
DERRICK MORRIS <small>Digitally signed by DERRICK MORRIS Date: 2021.06.21 16:37:11 -04'00'</small>	Forest Supervisor	6/21/2021

EDWARD HUNTER

 Digitally signed by EDWARD HUNTER
Date: 2021.07.14 10:35:23 -04'00'

ANDREW GASTON

 Digitally signed by ANDREW GASTON
Date: 2021.07.12 16:54:46 -04'00'

