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| <p>U.S. Department of Agriculture<br/>Forest Service</p> <p><b>JOB HAZARD ANALYSIS (JHA)</b><br/>References-FSH 6709.11 and -12<br/>(Instructions on Reverse)</p> | <p><b>1. WORK PROJECT/ACTIVITY</b></p> <p>Crosscut Saw (Recreation)</p>           | <p><b>2. LOCATION</b></p> <p>George Washington and<br/>Jefferson National Forests</p>   | <p><b>3. UNIT</b></p> <p>All Units of the<br/>George<br/>Washington and<br/>Jefferson<br/>National Forests</p> |
| <p><b>JOB HAZARD ANALYSIS (JHA)</b></p>   | <p><b>4. NAME(S) OF ANALYST(S)</b></p> <p>Jeff Cleek</p>                          | <p><b>5. JOB TITLE</b></p> <p>Saw Program, Recreation<br/>Program</p>   | <p><b>6. DATE PREPARED</b></p> <p>2024-03-20</p>   |
| <p><b>Required Standards and General Notes:</b></p>   |   |   |  |
| <p><b>Required Personal Protective Equipment</b></p>  | <p>Hardhat, Gloves, Boots, Eye Protection, Radio/SPOT, a communication device</p> |   |  |
| <p><b>Tools and Equipment</b></p>   | <p>Crosscut Saw</p>   |   |  |
| <p><b>Available Training</b></p>  | <p>Crosscut Saw Certification, Annual Refresher</p>                               |   |  |
| <p><b>7. TASKS/PROCEDURES</b></p>   | <p><b>8. HAZARDS, POTENTIAL HAZARDS / INJURY SOURCE</b></p>                       | <p><b>9. ABATEMENT ACTIONS OR PROCEDURES</b><br/>Engineering Controls * Substitution * Administrative Controls * PPE</p>  |  |
| <p>Qualifications for Task at Hand</p>  | <p>Right to say "no"</p>  | <ul style="list-style-type: none"> <li>• Crosscut Saw Operators should not cut outside of their comfort zone, and shall not cut outside of the qualifications.</li> <li>• Sawyers have the right to say "no" and walk away from any situation deemed unsafe. Exercise turn down protocol page 19 IRPG.</li> </ul>   |  |
|   | <p>Injury or Death</p>  | <ul style="list-style-type: none"> <li>• Employees shall not be permitted to use crosscut saw, unless carded. Check and ensure all saw qualifications are up to date.</li> </ul>  |  |
|   | <p>Cutting Outside of Capabilities</p>  | <ul style="list-style-type: none"> <li>• Forest Service employees, volunteers, and partners can be carded at any level: A, B, C, or Fire 1, 2, 3.</li> <li>• A carded sawyers shall be supervised by B carded sawyers</li> <li>• B carded sawyers can saw unsupervised.</li> <li>• Have appropriate tailgate safety session referencing this JHA.</li> <li>• "A" apprentice sawyer: completion of nationally approved classroom and field training for general saw work. Bucking and limbing and basic steps in felling. Supervised by "B" or "C" level sawyer. Work may include slashing and felling in the least complex situations, certification expires at the end of 3 years.</li> <li>• "B" intermediate sawyer: skilled and capable of performing on those task documented on the back of certification card. Not allowed to field certify sawyers, certification expires at the end of 3 years.</li> <li>• "C" advanced sawyer: handle complex sawing and felling operations, may conduct classroom and field certifications of "A" and "B" sawyers, not allowed to field certify "C" sawyers, certification expires at the end of 3 years.</li> </ul> |  |

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|  |  | <ul style="list-style-type: none"> <li>● "C" evaluator: handle complex sawing and felling operations may conduct classroom and field certification of all levels of sawyers, certifications expires at the end of 3 years.</li> </ul>   |
| General Safety   |  | <ul style="list-style-type: none"> <li>● Individual saw operators always have the obligation to say no and walk away from any situation they determine to be an unacceptable high risk.</li> <li>● Attend an annual saw refresher to include but not limited to:             <ol style="list-style-type: none"> <li>1. Review regional saw policy.</li> <li>2. Review saw JHA.</li> <li>3. Discuss accidents of past year in region or area of concern.</li> <li>4. Update on policy, training and equipment Changes.</li> <li>5. Recertify sawyers as needed.</li> <li>6. Ensure first aid, CPR and Bloodborne pathogen trainings are current and up to date (Refer H&amp;SH, pg. 20-47).</li> </ol> </li> <li>● Make sure tailgate safety sessions are done prior to starting a new job or as necessary. Make sure to have evacuation plans for work areas. Contact Supervisors, Safety Managers or Forest Saw Coordinator when issues or questions develop.</li> </ul> |
| Wear Personal Protective Equipment   | Cuts to body. Injuries from falls and aerial hazards. Eye Injuries, Hearing Damage, Cuts and Abrasions, aerial hazards and cuts from saw | <ul style="list-style-type: none"> <li>● Wear PPE. The following PPE is required for saw operations: Forest Service approved hardhat; eye protection; appropriate gloves (cut-resistant gloves); long sleeve shirt(optional), long pants; Forest Service approved chain saw chaps (optional for crosscut); OSHA approved loggers first aid kit; heavy duty, cut resistant, waterproof or water repellent, boots with ankle support, laced boots with nonskid soles; fire shelter (wildfire and prescribed burn assignments. (Refer H&amp;SH, pg. 20-49)</li> </ul>  |
| Saw Qualifications   | Accidents from improper or non-qualified personnel using saws  | <ul style="list-style-type: none"> <li>● Must attend classroom and field training encompassing in part or in total a national training program such as Wildfire Power Saws S-212. Sawyers must maintain national certification cards indicating their proficiency levels at the A, B or C sawyer level for crosscut saws (Refer H&amp;SH pgs. 20-48 &amp; 20-49). Recommended that new sawyers visit OSHA web site "Logging Advisor" prior to taking saw training: <a href="http://www.osha-slc.gov/SLTC/logging_advisor/manual">www.osha-slc.gov/SLTC/logging_advisor/manual</a></li> </ul>  |
| Sharpening Crosscut:<br><br>Axe.   | Damage to saw or personnel   | <ul style="list-style-type: none"> <li>● Use gloves and file guards. Use a vise if available.</li> <li>● Wear eye protection.</li> <li>● Cover with guard when saw is in vise but not being sharpened. Keep sharpening tools in good condition.</li> </ul>  |
| Transporting Saws:<br>-vehicles<br>-aircraft<br>-ATV<br>--watercraft<br>- pack animals | Damage to saw or personnel   | <ul style="list-style-type: none"> <li>● When transporting in a vehicle, make sure saw is properly secured to prevent getting hit by falling equipment, turnover. Never travel with crosscut saw in an enclosed vehicle, unless in emergency situations. Secure crosscuts to something large to prevent falling through nets during aerial transport. When transporting crosscut on a pack animal, take extra care. DO NOT use nylon cord to secure saw to pack animals. Adequately guard and secure saw (Refer to H&amp;SH pgs. 20-59 and 10-45 thru 10-46).</li> </ul>  |

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| Carrying Crosscut saws                                   | Damage to saw or personnel.  | <ul style="list-style-type: none"> <li>• When carrying a saw on your shoulder, take care due to sharpness of saw. Wear a long-sleeved shirt, gloves. Sheath crosscut saw and make sure proper spacing observed when carrying; saws should be last in line. Remove rear handle when carrying on shoulder. Cutting teeth should face away from neck and face.</li> <li>• (Refer H&amp;SH, pgs. 20-53, 54, 60, 61)</li> </ul>   |
| Operations and use:<br>Felling:                          | Personnel Injury or property damage due to improper operations, safety procedures and human factors. | <ol style="list-style-type: none"> <li>1.No night felling, or when the distance 2-1/2 times the height of tree (360°) to be felled is obscured by darkness, fog, smoke or other condition.</li> <li>2.Do proper situational awareness and size up.</li> <li>3. Insure to establish and clear primary and secondary escape routes, safety zones and alternates.</li> <li>4. Insure proper spacing from other workers.</li> <li>5.Saw from safe standing height.</li> <li>6.Consider mental and physical condition of you and crew members.</li> <li>7.Must be carded for felling.</li> </ol> <ul style="list-style-type: none"> <li>• (Refer H&amp;SH, . 20- 50 thru 20-62)</li> </ul>  |
| Bucking:<br><br><br><br><br><br><br><br><br><br>Axe use: | Personnel Injury or property damage due to improper operation, safety procedures and human factors   | <ul style="list-style-type: none"> <li>• Follow proper limbing, bucking and felling procedures and techniques. Watch for spring poles. Undercut all trees exceeding 5" DBH. Do proper size up. Never saw alone. Observe kerf and determine binds. Wedge all trees when possible/practical. Always buck trees from uphill side. When limbing, watch for limbs under pressure. Use warning shouts when felling and maintain proper spacing. Watch rolling bucked and felled material downhill. When bucking blowdown, make sure to observe binds and use extra caution due to logs under pressure that could move in any direction when overhead weight is cut or removed. Maintain good communication with partners when operating crosscuts be sure who will remove saw when felling. Have workers and felling crews working on the same contour, rather than some working above others on steep hillsides. Space employees so activities of one will not create a hazard for another (Refer to H&amp;SH, pgs. 20-50 thru 20-62).</li> <li>• When chopping down into the top of a log keep the handle parallel to the ground. This will always keep the cutting edge of the axe a full handle length from ones lower extremities.</li> </ul> |
| Manmade Hazards:   | Personnel Injury or Death, Damage to Property  | <ul style="list-style-type: none"> <li>• Make sure to walk out lay. Watch for structure, trails, roads and other recreation areas/activities.</li> <li>• Post lookouts as appropriate to warn forest users and stop traffic.</li> <li>• Watch for powerlines (Refer to H&amp;SH, pg. 20-56), and any other improvement that could cause injury or be damaged.</li> <li>• Watch for nails and fence in trees.</li> <li>• When felling or bucking in campgrounds and other developed recreation areas, check for metal objects in trees before cutting.</li> </ul>   |

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| Environmental Hazards: | Weather: Personal Injury or Death | <ul style="list-style-type: none"> <li>● Observe winds and stop operations when deemed unsafe, due to speed and gust.</li> <li>● Never work or continue to work when electrical storms or other weather hazards are in proximity to work area, and deemed unsafe to continue operations.</li> <li>● Be aware of temperatures to help prevent dehydration and hypothermia.</li> <li>● Drink plenty of water as needed, and wear appropriate clothing for conditions/</li> <li>● Refer to H&amp;SH, pgs. 50-33 thru 50-45.</li> </ul>  |
|                        | Bites and Disease                 | <ul style="list-style-type: none"> <li>● Animals: <ul style="list-style-type: none"> <li>○ Watch for snakes in area and avoid those areas that have large concentrations of rattlesnakes or dens.</li> </ul> </li> <li>● Insects: <ul style="list-style-type: none"> <li>○ Check for ticks, spiders, scorpions and any other insects that pose a safety issue.</li> <li>○ Do periodic check of clothing and work areas, and check clothing and body after work.</li> <li>○ Avoid putting work clothing in living areas to prevent transporting insects to living quarters.</li> <li>○ Avoid wearing bright colors for ticks and bees.</li> <li>○ Never work near bee or wasp nests, and when discovered mark with flagging, and avoid working in those areas.</li> <li>○ When personnel are stung, have rest for a half an hour. If multiple stings, and especially above shoulders, observe and transport personnel to station or hospital as situations dictate.</li> <li>○ Watch for insects in storage areas and use gloves when necessary to move rocks and logs.</li> </ul> </li> <li>● Refer to H&amp;SH, pgs. 50-17 thru 50-33.</li> </ul> |
|                        | Skin Rashes, Cuts                 | <ul style="list-style-type: none"> <li>● Watch for and try to avoid cutting in poison ivy, poison oak and poison sumac.</li> <li>● Ask local personnel what plants exist in area.</li> <li>● When exposed to sap, wash with soap and water or ivy wash. Use ivy block when working in areas infested with plants.</li> <li>● Wash hands after cleaning equipment to limit exposure.</li> <li>● Watch for nettles, briars and any other plants that pose a safety issue.</li> <li>● Refer to H&amp;SH, pgs. 50-17 thru 50-33.</li> </ul>  |

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| <b>10. OFFICIAL SIGNATURE</b> | <b>11. TITLE</b> | <b>12. DATE</b> |
|                               |                  |                 |



**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.

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**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**

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