

1. WORK PROJECT/ACTIVITY	2. LOCATION	3. UNIT
<p>U.S. Department of Agriculture Forest Service</p> <p><b>JOB HAZARD ANALYSIS (JHA)</b> References-FSH 6709.11 and -12 (Instructions on Reverse)</p>	<p>Chainsaw/Crosscut Operations</p> <p>MT HOOD NATIONAL FOREST</p>	<p>Hood River Ranger District</p>
4. NAME OF ANALYST	5. JOB TITLE	6. DATE PREPARED
Ken Kollas	Trail Manager	05/05/2009
7. TASKS/PROCEDURES		
8. HAZARDS	9. ABATEMENT ACTIONS	
<p>Vehicle Travel</p> <p>Foot Travel</p> <p>Travel on Horseback</p>	<p>Engineering Controls * Substitution * Administrative Controls * PPE</p> <p>Wear seat belts, drive with lights on, drive defensively. Wear appropriate PPE for vehicle driving. Review driving, ATV, Snowmobile JHA's and/or review appropriate sections of chapter 10 in Health and Safety Handbook (H&amp;SH)</p> <p>Watch footing on slick surfaces, avoid walking on logs as much as possible, be careful walking in rocky areas and in rock chutes. Refer to H&amp;SH, pg.s 10-49 thru 10-51 and JHA's</p> <p>Do a tailgate safety session. Make sure personnel have any training that may be required (Refer to H&amp;SH, pg.s 10-40 thru 10-46).</p>	
<p>Eye Injuries, Hearing Damage, Cuts and Abrasions, aerial hazards and cuts from saw</p>	<p><u>Wear PPE.</u> The following PPE is required for saw operations: Forest Service approved hardhat; eye protection, hearing protection (85 dB and above); appropriate gloves (cut-resistant gloves for chain filing); long sleeve shirt, long pants; Forest Service approved chain saw chaps (optional for crosscut); first aid kit; heavy duty, cut resistant, waterproof or water repellent, 8" high laced boots with nonskid soles; fire shelter (wildfire and prescribed burn assignments).</p>	
<p>Accidents from improper or non qualified personnel using saws</p>	<p>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 chainsaws and/or crosscut saws (Refer H&amp;SH pg.s 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></p>	
<p>Aerial and fuel leakage hazards</p>	<p>When transporting in a vehicle, make sure saw is properly secured to prevent getting hit by falling equipment, turnover and fuel spillage (chain saw only). Never travel with gas powered equipment, fuel (including empty fuel containers) or crosscut saw in an enclosed vehicle, unless in emergency situations. Use approved container for fuel and kerosine transport. Do not store food near fuel or kerosine. Wrap/sheathe or chap bar/chain. Secure crosscuts to something large to prevent falling through nets during aerial transport. When transporting crosscut/chain saw on a pack animal, take extra care. Adequately guard and secure saw (Refer to H&amp;SH pg.s 20-59 and 10-45 thru 10-46).</p>	
<p>Transporting Saws and Fuel:</p> <ul style="list-style-type: none"> <li>-vehicles</li> <li>-aircraft</li> <li>-ATV</li> <li>-snowmachine</li> <li>-watercraft</li> <li>-pack animals</li> </ul>		

<p>Fueling Chain Saws</p>	<p>Accidental combustion of fuel and saw causing burns</p>	<p>Allow saw to cool for 5 minutes before fueling. Fill chainsaw on bare ground or non-combustible surface. Immediately clean spilled fuel. Refuel outdoors and at least 20 feet from open flame or other ignition source. Start saw at least 10 feet from fueling area (Refer H&amp;SH, pg.s 20-54 &amp; 20-55). Follow Saw owners manual recommendations on proper fuel cap tightening. Watch opening fuel containers due to pressure build up in containers. Never open near face. Wear PPE.</p>
<p>Carrying Chain Saws/Crosscut saws</p>	<p>Abrasions, falls, cuts and burns.</p>	<p>When carrying a saw on your shoulder, take care due to sharpness of chain and "bucking spikes. Wear a long-sleeved shirt, gloves and a shoulder pad. If no shoulder pad, saw must be "chaped" or bar and bucking spikes appropriately covered. Point backwards when carrying uphill, and point bar forward when carrying downhill. Set chain brake when footing dictates or when carrying more than short distances. Shut saw off when carrying chainsaw more than 50 feet or when hazardous conditions dictate. Sheath crosscut saw and make sure proper spacing observed when carrying. (Refer H&amp;SH, pg.s 20-53, 54, 60, 61)</p>
<p>Equipment: -chain saw  -crosscut</p>	<p>Personnel Injury or property damage from using improper equipment</p>	<p>Proper saw for job: <i>required equipment</i> (Refer H&amp;SH, pg. 20-50)          -chain Break, fully functional          -wrap around handle bar          • See attached memo on use of 3/4 wrap handle bar, per Chuck Whitlock*          -appropriate bar length          -bow bars with top and bottom chain guards and stinger          -scrench and file          -approved container for fuel and oil, <u>properly marked</u>          -anti vibration device          -wedges as appropriate, <u>No wooden wedges</u>          -3 to 5 pound axe in good condition          -use proper lifting techniques when lifting and moving equipment  <u>Always inspect equipment and saws before use!</u></p> <p>Proper saw for job: <i>required equipment</i> (Refer H&amp;SH, pg. 20-61)          -sheath          -kerosine in approved container          -appropriate wedges , <u>No wooden wedges</u>          *keep crosscut out of dirt*</p>
<p>Starting Procedure for chain saws</p>	<p>Personnel Injury or equipment damage due to improper starting techniques</p>	<p><u>Do Not Drop Start.</u> Start on ground or where otherwise firmly supported. Always start saw with chain brake engaged (Refer H&amp;SH, pg. 20-54)</p>

<p>Operations and use: Chain Saw/Crosscut</p>	<p>Personnel injury or property damage due to improper operation, safety procedures and human factors</p>	<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 (Refer H&amp;SH, pg.s 20- 50 thru 20-62)</li> </ol>
<p>Saw use</p>	<p>Personnel injury or property damage due to improper saw use techniques</p>	<p>Follow proper limbing, bucking and felling procedures and techniques. Watch for spring poles. Undercut all trees exceeding 5" DBH. Do proper size up. Watch bar tip to avoid kickback. Never saw alone unless in an emergency situation. <u>Never cut with powerhead above shoulders.</u> Observe kerf and determine binds. <u>Wedge all trees when possible/practical.</u> 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 and avalanche debris, 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. Never reach across saw bar. 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, pg.s 20-50 thru 20-62).</p>
<p>Hazards: -Manmade</p>	<p>Personnel injury or damage to property</p>	<p>Make sure to walk out lay. Watch for structure, trails, roads and other recreation areas/activities. Post lookouts as appropriate to warn forest users and stop traffic. Watch for powerlines (Refer to H&amp;SH, pg. 20-56), and any other improvement that could cause injury or be damaged. Watch for nails and fence in trees. When felling or bucking in campgrounds check for metal objects in trees before cutting</p>
<p>-Environmental: 1) Weather</p>	<p>Personnel injury or illness</p>	<p>Observe winds and stop operations when deemed unsafe, due to speed and gust. 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. Be aware of temperatures to help prevent dehydration and hypothermia. Drink plenty of water as needed, and wear appropriate clothing for conditions (Refer to H&amp;SH, pg.s 50-33 thru 50-45).</p>
<p>2) Animals and insects</p>	<p>Bites and disease</p>	<ol style="list-style-type: none"> <li>1) Animals: Watch for deer, bear and other animals that pose a threat to safety. Never get between sow bears and cubs. Avoid confrontation, and if animals persist in area find another area to operate. Watch for Bird nest to avoid attacks. Watch for snakes in area and avoid those areas that have large concentrations of rattlesnakes or dens.</li> <li>2) Insects: Check for ticks, spiders, scorpions and any other insects that</li> </ol>

pose a safety issue. Do periodic check of clothing and work areas , and check clothing and body after work. Avoid putting work clothing in living areas to prevent transporting insects to living quarters. Avoid wearing bright colors for ticks and bees. Never work near bee or wasp nests, and when discovered mark with flagging, and avoid working in those areas. 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. Watch for insects in storage areas and use gloves when necessary to move rocks and logs.

3) Watch for and try to avoid cutting in poison ivy, poison oak and poison sumac. Ask local personnel what plants exist in area. When exposed to sap, wash with soap and water or ivy wash. Use ivy block when working in areas infested with plants. Wash hands after cleaning equipment to limit exposure. Watch for nettles, briars and any other plants that pose a safety issue.

(Refer to H&SH, pg.s 50-17 thru 50-33)

Use proper cutting techniques and procedures when cutting post and lumber.  
Wear proper PPE.

**\*\*INDIVIDUAL SAW OPERATORS ALWAYS HAVE THE OBLIGATION TO SAY "NO" AND WALK AWAY FROM ANY SITUATION THEY DETERMINE TO BE AN UNACCEPTABLE HIGH RISK\*\***

Attend an annual saw refresher to include but not limited to:

- 1) Review regional saw policy
- 2) Review saw JHA
- 3) Discuss accidents of past year in Region or area of concern
- 4) Update on policy, training and equipment Changes
- 5) Recertify sawyers as needed
- 6) Insure first aid, CPR and Bloodborne pathgen trainings are current and up to date (Refer H&SH, pg. 20-47)

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.

\*\*\*Region 6 Chain Saw/Crosscut policy is pages 20-47 (22.48) thru 20.62 in the Health and Safety Handbook\*\*\*

Injury from improper cutting techniques; exposure to chemicals when cutting treated timbers

Injury from improper cutting techniques; exposure to chemicals when cutting treated timbers

11. TITLE

12. DATE

Special use:  
-range work  
-trail work  
-structure construction

Safety

10. LINE OFFICER SIGNATURE

Previous edition is obsolete

(over)

**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) 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

