

<p>U.S. Department of Agriculture Forest Service JOB HAZARD ANALYSIS (JHA) References-FSH 6709.11 and -12 (Instructions on Reverse)</p>	<p>1. WORK PROJECT/ACTIVITY Cable Hoist and Winch Use</p>	<p>2. LOCATION CRGNSA</p> <p>5. JOB TITLE CRGNSA Saw Program Manager/Maintenance Mechanic</p>	<p>3. UNIT CRGNSA</p> <p>6. DATE PREPARED 01/31/2018</p> <p>10. POST ABATEMENT ACTION RISK RATING (Severity/Probability Matrix)</p>												
<p>7. TASKS/PROCEDURES</p>	<p>4. NAME OF ANALYST Roland Rosel, Mitchell</p>	<p>8. HAZARDS</p>	<p>9. ABATEMENT ACTIONS Engineering Controls * Substitution * Administrative Controls * PPE</p>												
<p>Entire Project</p>															
<p>Pre Abatement Risk Rating:</p> <table border="1" data-bbox="941 42 1047 546"> <tr> <td>Severity</td> <td>Probability</td> <td>Risk Code</td> </tr> <tr> <td>Critical</td> <td>Seldom</td> <td>Medium</td> </tr> </table>	Severity	Probability	Risk Code	Critical	Seldom	Medium	<p>Injury or Death</p>	<ul style="list-style-type: none"> Do a complete equipment check and tailgate safety session before leaving vehicles. Ensure this includes what is planned so each person knows what's expected and what emergency procedures may be needed in case of an accident. Minimize the number of people in the work area, particularly in line with the cable pull direction 	<table border="1" data-bbox="941 1606 1161 2016"> <tr> <td>Severity</td> <td>Probability</td> <td>Risk Code</td> </tr> <tr> <td>Critical</td> <td>Unlikely</td> <td>Low</td> </tr> </table>	Severity	Probability	Risk Code	Critical	Unlikely	Low
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<p>Use of wire rope, establishing the correct wire rope size and type for the expected work load</p> <p>Pre Abatement Risk Rating</p> <table border="1" data-bbox="584 42 690 546"> <tr> <td>Severity</td> <td>Probability</td> <td>Risk Code</td> </tr> <tr> <td>Catastrophic</td> <td>Likely</td> <td>Extremely High</td> </tr> </table>	Severity	Probability	Risk Code	Catastrophic	Likely	Extremely High	<p>Failure of rope strength can result in loss of load and risk serious injury to ground crew</p>	<ul style="list-style-type: none"> Use of four-strand wire rope. Wire rope should be inspected for frays or kinks in wire prior to use. Utilize grip hoist to manually lift and lower load. Review attached load and rigging chart on next page. Do not bind cable by pulling out one end from a roll, instead hand over hand roll the spool out and or in to prevent binds or twists. Or use a figure 8 to roll cable. 	<table border="1" data-bbox="584 1606 885 2016"> <tr> <td>Severity</td> <td>Probability</td> <td>Risk Code</td> </tr> <tr> <td>Critical</td> <td>Unlikely</td> <td>Low</td> </tr> </table>	Severity	Probability	Risk Code	Critical	Unlikely	Low
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<p>Placement and stability of anchors</p> <p>Pre Abatement Risk Rating</p> <table border="1" data-bbox="316 42 422 546"> <tr> <td>Severity</td> <td>Probability</td> <td>Risk Code</td> </tr> <tr> <td>Critical</td> <td>Likely</td> <td>High</td> </tr> </table>	Severity	Probability	Risk Code	Critical	Likely	High	<p>Unstable placement; the load exceeds the stability of the anchor. Climbing tree to place and maintain anchor.</p>	<ul style="list-style-type: none"> Anchors must be strong enough to safely withstand the force required to move loads. Anchors set for hoists and winches should be set at a convenient height to provide safe and effective operation. 	<table border="1" data-bbox="316 1606 535 2016"> <tr> <td>Severity</td> <td>Probability</td> <td>Risk Code</td> </tr> <tr> <td>Critical</td> <td>Unlikely</td> <td>Low</td> </tr> </table>	Severity	Probability	Risk Code	Critical	Unlikely	Low
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Working load calculations

Pre Abatement Risk Rating		
Severity	Probability	Risk Code
Catastrophic	Likely	Extremely High

Equipment failure, (hoist, wire rope, blocks)

Maintain a working load of 5:1, never load gear more than 1/5 the limit. This is taken into account with the labeled working load limit posted on Fire's rigging gear.

Critical

Unlikely

Low

Line Safety

Pre Abatement Risk Rating		
Severity	Probability	Risk Code
Catastrophic	Occasional	High

Crushing or cutting injury due to equipment failure

Crew members will be educated and trained on how to inspect, setup, and operate equipment. All equipment will be inspected prior to use. Use of Personal Protective Equipment is required at all times (hard hats, safety glasses, gloves, long sleeved shirt, etc.)

Critical

Unlikely

Low

Shear Pins

Pre Abatement Risk Rating		
Severity	Probability	Risk Code
Catastrophic	Occasional	High

Incorrect placement or improper useage resulting in overloading and equipment failure

Only use pins rated for grip hoist. Do not use nails, files, drill bits or anything else in place of shear pins.

Critical

Unlikely

Low

Work Site Control

Pre Abatement Risk Rating		
Severity	Probability	Risk Code
Catastrophic	Occasional	High

Lack of experience or not being aware of potential consequences

- Coordinate how the crew will communicate prior to loading.
- Use verbal and nonverbal communication to move load (hand signals and radios). Always acknowledge that commands have been received and understood.
- The crew will be briefed and educated on the terminology and use of equipment prior to handling.
- Assign crew members as trail guards as needed. Incorporate qualified road guards as needed.
- When practicable post signs to notify public of possible trail closures, dangerous equipment and estimated time travel through work area at trailheads.

Critical

Unlikely

Low

Fly Away Zone

Pre Abatement Risk Rating

Severity	Probability	Risk Code
Catastrophic	Occasional	High

Crushing or cutting injury

Avoid areas where failed rigging would likely go and communicate those areas to others that may not be aware. Utilize tarps placed over cables to reduce or eliminate cable flight.

Critical

Unlikely

Low

10. LINE OFFICER SIGNATURE



11. TITLE

Russ Manner
(over)

12. DATE

2/23/2018

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 official approving the JHA. The official 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 suspected 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. Work Leader
- 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 values for Severity, Probability and the overall Risk Assessment Code (RAC) will correspond to the Risk Management Matrix. When completing this form using a computer, simply use the pull down feature to populate these cells. If completing by hand, use the Risk Matrix to determine these values.

Block 11: The JHA must be reviewed and approved by the appropriate manager / supervisor as identified in the Risk Decision Authority Matrix.

Blocks 12 and 13: 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.

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