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| <p>U.S. Department of Agriculture Forest Service</p> | <p>1. WORK PROJECT/ACTIVITY POST FIRE MANAGEMENT ACTIVITIES IN BURN ZONE</p> | <p>2. LOCATION Columbia River Gorge National Scenic Area</p> | <p>3. UNIT ALL</p> |
| <p>JOB HAZARD ANALYSIS (JHA) References-FSH 6709.11 and -12 (Instructions on Reverse)</p> | <p>4. NAME OF ANALYST Dawn Stender</p> | <p>5. JOB TITLE Trails Supervisor</p> | <p>6. DATE PREPARED 2/5/18</p> |
| <p>7. TASKS/PROCEDURES</p> | <p>8. HAZARDS</p> | <p>9. ABATEMENT ACTIONS Engineering Controls * Substitution * Administrative Controls * PPE</p> | <p>10. POST ABATEMENT ACTION RISK RATING (from the Severity/Probability Matrix)</p> |
| <p>Severity Probability Risk Code</p> | | | |
| <p>1. Driving to project areas</p> <ul style="list-style-type: none"> • Traffic • Road conditions • Roadside trees and snags • Driving on mud, snow, and ice | <p>Other vehicles driving too fast for conditions.. Road wash outs, debris in roads, trees and snags ready to fall due to fire or saturation. Winter driving conditions.</p> | <p>Drive slowly and to the right.. Expect traffic from private industry. Warn others in your convoy by radio of traffic coming down the hill. Watch for rocks and landslides particularly after inclement weather. Remove road hazards whenever practicable. Avoid parking under danger trees, snags, and trees with limbs hung-up overhead. It is unreasonable to assume entire road systems will be hazard/danger tree felled.</p> | <p>1 C HIGH (RAC 2)</p> |
| <p>2. Communication</p> <ul style="list-style-type: none"> • Safety briefings • In/Out Board • Radios • Weather monitoring • Information transfer • Word of mouth | <p>Important knowledge not shared to all workers. Supervisors unsure of where crews are working. Uninformed of important weather forecasts. Radios not working or employees not trained in their use. No spare batteries.</p> | <p>Ensure safety briefings occur. Included should be: radio frequencies, weather forecasts, work tasks and location, and safe driving reminders. Ensure crew has a trained leader and go over DRA or JHA. Perform periodic radio checks. Use the In/Out Board to sign out. Include location, vehicle #, all crew members, ETA, and other important info. Keep track of all crew members while in the field on the post fire assignment. Consider hourly check ins with dispatch. Know where dead zones exist for cell and radio communication and</p> | <p>2 D MEDIUM (RAC 3)</p> |

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| | utilize human repeaters if needed. Notify IC if going in to fire perimeter. | | | |
| 3. Personal Protective Equipment (PPE) | <p>Not wearing proper PPE</p> | <p>Full PPE shall be worn including: hard hat, gloves, boots, long pants and shirts. Eye and hearing protection should also be available and worn when needed Chaps shall be worn by sawyers and swampers. <u>Wear eye protection when refueling chainsaws.</u></p> | 2 | D |
| 4. First Aid and Hazard Recognition <ul style="list-style-type: none"> • Insects / plants / animals • Hazard treesciffs/cut banks | <p>Hypothermia, heat related illnesses, cardiac arrest, infection from wounds not treated in a timely manner. Bee stings, Lyme disease, wild and domestic animal bites. Injuries caused by falls/cave-ins.</p> | <p>Have a qualified basic 1st aid provider with each crew at a minimum. Have 1st aid kits adequately stocked with each crew. Perform tick checks regularly. If bitten extract, collect, and deliver the tick to the safety officer for testing. Mark and avoid known bees nests. Recognize and avoid poison oak. Avoid contact with wild and feral animals. Make special hazards such as slide areas, hazard trees, loose rocks and sheer cliffs known.</p> | 2 | D |
| 5. Extreme Weather <ul style="list-style-type: none"> • Working in very hot, cold, or windy conditions • Snow, sleet, ice • Heat exhaustion, heat stroke, Rhabdomyolysis | <p>Hypothermia, heat related illnesses, falling debris. Slipping on ice causing twisting sprains or broken bones from falling on the hard ice.</p> | <p>Remain hydrated, nourished, and well rested. Wear hard hats in the field. Memorize the signs/symptoms of heat and cold related illness: <i>Signs and Symptoms of heat Related Injuries</i></p> <p>Heat Cramps – Heat Exhaustion</p> <ul style="list-style-type: none"> ❖ Mild to severe muscle cramps in legs and abdomen ❖ Exhaustion, dizziness, nausea ❖ Weak pulse and rapid shallow breathing ❖ Heavy perspiration ❖ Normal to pale skin color – cool damp skin | 2 | D |

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| <p>Heat Stroke – Hyperthermia</p> <ul style="list-style-type: none"> ❖ Altered mental state ❖ Hot skin to the touch ❖ Strong rapid pulse, rapid shallow breathing ❖ Weakness and then unresponsiveness ❖ Dry skin – no perspiration ❖ Dilated pupils ❖ Seizures, muscle twitching, death. <p><i>Treatment of Heat Related Injuries</i></p> <p>Heat Cramps – Heat Exhaustion</p> <p>This is not usually a medical emergency but left untreated or unnoticed, can result in one</p> <ul style="list-style-type: none"> ❖ Move the person into the shade ❖ Give them water to drink ❖ Cool them down but do not chill them. Watch for shivering. ❖ Bring them into the shop or office; they are done working for the day. ❖ Have them recover the next day by drinking water, juice, some nutritious foods such as fruits. Usually, they are ready for work the day after the rest and recovery day. <p>Heat Stroke – Hyperthermia</p> <p>This is a medical emergency. Call 911 immediately.</p> <ul style="list-style-type: none"> ❖ While waiting for the ambulance, move the person into a cool place, | | |
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remove clothing, and cool them down as quickly as possible with copious amounts of water, ice packs, or whatever is available.


- ❖ Monitor the person for breathing and pulse.
- ❖ If the person stops breathing while waiting for the ambulance, start CPR.
- ❖ The patient who displays heat stroke signs needs hospitalization immediately. Call 911 for assistance. The heat stroke patient has probably been suffering from heat exhaustion for a while. They have not been telling anyone about their symptoms and no one on the crew has noticed some signs.

Rhabdomyolysis is a medical condition resulting from the breakdown of damaged muscle tissue. Signs/symptoms:

- ❖ Muscle pain/cramping
- ❖ Muscle aches or pains out of proportion for the amount of exercise done
- ❖ Tea or cola colored urine

If a person is suffering from heat stroke or hyperthermia, the signs and symptoms of heat exhaustion may have been unnoticed or neglected.

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| | <p>Treat cold related injuries the following way: Signs of hypothermia include: shivering, cool or cold skin, confusion, loss of coordination, difficulty speaking and performing normal tasks, and diminishing level of responsiveness.</p> <ul style="list-style-type: none"> • Treat the hypothermia patient by moving them from the cold environment, remove wet clothing, and cover with dry blanket or jackets. • DO NOT let them eat or drink, DO NOT rub or massage limbs, and DO NOT let the patient walk unaccompanied or exert themselves. People with hypothermia will need to see a doctor ASAP. • If patient is conscious, provide warm non caffeinated drinks • . Frostbitten tissue may be cold, pale and solid. They may not have feeling in the frostbitten area. • These patients need to see a doctor. Do not try to thaw out body parts. Get the person transported ASAP. | | |
| | <p>Be aware of your surroundings. Notice <i>white ash as it may be retaining extreme heat</i> or be sign of potential sinkhole. Be aware of stump holes and burned out root systems below the trail surface. Note cabins or structures</p> | <p>Falling objects, broken or burned legs from stump holes, power lines, hostile public, wildlife.</p> | <p>6. Hazards Inside The Fire Perimeter</p> <ul style="list-style-type: none"> • Snags, weakened trees, hung-up limbs • Stump holes |
| | <p>3</p> | <p>C</p> | <p>MEDIUM (RAC 3)</p> |

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| <ul style="list-style-type: none"> • Special hazards • Footing | <p>which seem out of place; avoid them and make them known. Avoid animals. Look up often. Note: fire weakened trees, snags, overhead dislodged limbs (widow makers)</p> | <p>3</p> | <p>C</p> | <p>MEDIUM (RAC 3)</p> |
| <p>7. Medical Emergency Procedures</p> | <p>Delayed medical treatment of the ill or injured. Providers not wearing proper PPE becoming exposed to blood borne pathogens. Shock</p> | <p>2</p> | <p>E</p> | <p>LOW (RAC 4)</p> |
| <p>8.</p> | | | | |
| <p>11. LINE OFFICER SIGNATURE</p> |  | <p>12. TITLE</p> <p>ASEP Manager</p> | <p>13. DATE</p> <p>3/1/2018</p> | |

Risk Management Matrix

| Safety Risk Assessment Codes | | | | | | | |
|-------------------------------------|--------------|----------|---------------------------|----------------|----------------|-------------------|-------------------|
| HAZARD PROBABILITY | | | | | | | |
| | | Frequent | Likely | Occasional | Seldom | Unlikely | |
| | | A | | B | C | D | E |
| SEVERITY | Catastrophic | I | Extremely High (RAC 1) | High (RAC 2) | High (RAC 2) | Medium (RAC 3) | Medium (RAC 3) |
| | Critical | II | Extremely High (RAC 1) | High (RAC 2) | High (RAC 2) | Medium (RAC 3) | Low (RAC 4) |
| | Marginal | III | High (RAC 2) | Medium (RAC 3) | Medium (RAC 3) | Low (RAC 4) | Low (RAC 4) |
| | Negligible | IV | Low (RAC 4) | | | | |

Severity Definitions

| Severity | Effect |
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| Catastrophic I | Death or permanent disability, system loss, major property damage |
| Critical II | Permanent partial disability, temporary total disability in excess of three months, major system damage, significant property damage |
| Marginal III | Minor injury, lost workday mishap, compensable injury/illness, minor system damage, minor property damage |
| Negligible IV | First aid or minor medical treatment, minor system impairment |

Probability Definitions

| Probability | Definition |
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| A. Frequent | The event occurs often, frequently, or with regularity in one's career or the life cycle of equipment items |
| B. Likely | The event occurs periodically with some regularity but not frequently enough to be predictable |
| C. Occasional | The event occurs sporadically but not with consistent regularity or predictability in ones career of the life cycle of equipment |
| D. Remote | Possible to occur but the chances of the event occurring are remote |
| E. Unlikely | In this case, it is unlikely the event will ever occur |