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| U.S. Department of Agriculture Forest Service | 1. WORK PROJECT/ACTIVITY Facility Maintenance | 2. LOCATION Flathead National Forest | 3. UNIT Spotted Bear RD. |
| JOB HAZARD ANALYSIS (JHA) References-FSH 6709.11 and -12 (Instructions on Reverse) | 4. NAME OF ANALYST Richard Sievers | 5. JOB TITLE Maintenance Worker | 6. DATE PREPARED 1/8/2019 |
| 7. TASKS/PROCEDURES | 8. HAZARDS | 9. ABATEMENT ACTIONS Engineering Controls * Substitution * Administrative Controls * PPE | |
| Power Tool Use | Cuts, Electrical Shock | <ul style="list-style-type: none"> - Only trained and authorized personnel can operate or repair power tools. - If the power goes off when you are using a power tool, turn the switch off and unplug it to prevent injury when the power comes back on. - Be sure all electrical cords are in working order with no exposed wiring, Discard cords if wires become exposed. - Use cords connected to power-operated handtools that are rated for the power tool. - Do not wear clothing or jewelry that could become entangled in the powertool. - Be sure tools are operating properly, Use correct tool for the job - wear safety glasses, ear protection, dust mask if needed - <u>See Health and Safety 43.11, 43.12</u> | |
| Hand Tools | | <ul style="list-style-type: none"> - All tools must be in good shape with out missing parts - Tools must be sharp - Use the appropriate tool for the job and use it for the purpose it was intended - Keep tools clean and serviceable - Wear safety glasses and other ppe as appropriate to the task - <u>See Health and Safety 41.01 – 42.1</u> | |
| Ladders and Scaffolding | Fall hazard | <ul style="list-style-type: none"> - Before use, inspect ladders to ensure they are in good shape and serviceable - Place ladder on solid level ground - Only one person is allowed on a ladder at one time - Keep your weight centered on the ladder - Do not overload ladders beyond mfg. weight rating - If working with another individual, have them hold the ladder - Scaffolding will only used under the supervision of personell familiar with their set up and use hazards - <u>See Health and Safety 33.1 – 33.22</u> | |
| Chemicals, Solvents, Paints, etc | Chemical burns, | <ul style="list-style-type: none"> - refer to MSDS for specific produt information | |

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| Lifting | combustion hazard | <ul style="list-style-type: none"> - Use and wear appropriate personal protective equipment (ie. gloves, eye protection, coveralls, etc.) - <u>See Health and Safety 61.4</u> (list of incompatible chemicals) - <u>See Health and Safety 27.22</u> (Painting) 31.3 (Concrete) |
| | Sprains/strains | <ul style="list-style-type: none"> - Use appropriate body lifting techniques by bending legs - Ask for help when needed - Do not extend body or twist while carrying heavy items - <u>See Health and Safety (39.63 – 39.64)</u> |
| High Places | Fall hazard | <ul style="list-style-type: none"> - Employees working at height will be briefed by a competent person on the hazards associated with the work to be performed - Fallrestraint/protection equipment will be provided - Employees will not work at height if they are alone - <u>See health and safety (33)</u>. |
| Tire Repair | Tires Exploding | <ul style="list-style-type: none"> - always wear eye protection - Overinflated tires or tires mounted on the wrong sized rims can explode producing hazardous flying debris. - Tires can explode when: <ol style="list-style-type: none"> (1). Rim Diameter does not exactly match the tire diameter. (2). Rim or tire is damaged. (3). More than 40 PSI is used when seating the tire beads. - Inspect tire and rim carefully for wear or defects before mounting. - Be certain the tire and rim are the same diameter. The rim size is stamped on the rim. - Use approved tire bead lubricant. - Keep hands and entire body back from inflating tire. - Inflate tires with short bursts of air, checking pressure frequently. - Do not exceed 40 PSI while seating beads. - Do not exceed tire manufacturers recommended air pressure. - Inflate tires on the tire machine with hold-down cone secure. - Do not remove the hold-down cone from the center post until inflation is complete. |
| Storage | Fire Hazard | <ul style="list-style-type: none"> - Do not store flammables under stairways, flammables under stairways can ignite during structure fires and burn the stairs, cutting off escape routes. -Do not store flammables next to propane furnaces or propane hot water heaters. -Do not store anything in front of electrical panels (3 feet). |

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| Electrical Repair | Electrocution | <ul style="list-style-type: none"> - Be sure power supply is off - Do not use metal ladders - Do not touch metal pipes while working on electrical wiring - Use appropriate PPE - <u>See Health and Safety 36.11 – 36.13</u> |
| Propane Use/ Tank Storage and Transportation | Explosion and Fire | <ul style="list-style-type: none"> -Transport propane tanks upright and secure them so they do not tip over roll or shift around - Don't store propane tanks indoors. - Keep propane tanks in an upright position, away from heat sources - Don't smoke near a propane tank - Inspect propane tanks for corrosion and damage at the beginning of each work season, tanks showing serious dents, bulging, gouging, or excessive corrosion shall be removed from service and destroyed - Seal the gas outlet of the tank with a plastic plug when transporting |
| | Propane Leaks | <ul style="list-style-type: none"> - Do not switch on or switch off any appliances or lights if you smell propane, operating switches causes an electrical spark which could cause an explosion. - Turn the valve off on the propane tank to stop the leak. - Open all doors and windows for ventilation - Never use an electric fan for ventilation - Use a soap and water solution to check for leaks around pipe/fitting joints - Never allow propane gas to contact your skin or clothing, it can cause freeze burns |
| Propane Line Installation and Repair | Explosion and Fire | <ul style="list-style-type: none"> - Be sure propane tank valve is off - Use non-sparking tools (aluminum tools) when working with propane. - Do not ignite appliances until lines are checked for leaks |
| Lookout Tower Maintenance | Fall hazard | <ul style="list-style-type: none"> - Plan out work strategy before starting work. - Progression of work should proceed slowly, always be aware of danger of falling - When working with someone, be aware of falling objects such as tools and materials. - Wear hardhats with chin straps if overhead hazards exist - If weather dictates, postpone work until it is safe, especially if thunderstorms are expected or high winds are present. - Hang safety line when appropriate - Keep work area of obstacles |

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:

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