

VOLUNTEER SERVICE AGREEMENT—NATURAL & CULTURAL RESOURCES

1. <input type="checkbox"/> INDIVIDUAL		2. <input type="checkbox"/> GROUP	
3. NAME OF AGENCY		4. AGREEMENT #	
5. NAME OF VOLUNTEER (First, Last)		6. U.S. CITIZEN OR PERMANENT RESIDENT <input type="checkbox"/> Yes <input type="checkbox"/> No, list visa type _____	
7. NAME OF GROUP		8. NAME OF GROUP CONTACT (First, Last)	
9. STREET ADDRESS		10. CITY, STATE, ZIP CODE	
11. EMAIL ADDRESS		12. PHONE Home: Mobile:	
13. AGE <input type="checkbox"/> Under 15 <input type="checkbox"/> 15 – 18 <input type="checkbox"/> 19 - 25 <input type="checkbox"/> 26 – 35 <input type="checkbox"/> 36 – 54 <input type="checkbox"/> 55 and Older			
14. ETHNICITY & RACE (Optional): Please report both ethnicity and race and tell us if you are a veteran or have a disability. Multiracial respondents may select two or more races. This information will inform our understanding of diversity and inclusion among the volunteer force in the natural and cultural resource areas.			
14a. Ethnicity (Select one): <input type="checkbox"/> Hispanic or Latino <input type="checkbox"/> Not Hispanic or Latino		14b. Race (Select one or more, regardless of ethnicity): <input type="checkbox"/> American Indian or Alaskan Native <input type="checkbox"/> Asian <input type="checkbox"/> Black or African American <input type="checkbox"/> White <input type="checkbox"/> Native Hawaiian or Other Pacific Islander	
		14c. Are you a Veteran? <input type="checkbox"/> Yes <input type="checkbox"/> No	
		14d. Do you have a disability? <input type="checkbox"/> Yes <input type="checkbox"/> No	
EMERGENCY CONTACT INFORMATION			
15. NAME (Last, First)		16. PHONE Home: Mobile:	
		17. EMAIL ADDRESS	
18. STREET ADDRESS		19. CITY, STATE, ZIP CODE	
GOVERNMENT OFFICIAL COMPLETES THIS SECTION			
20. AGENCY CONTACT NAME (Last, First)		21. AGENCY CONTACT EMAIL & PHONE	
22. REIMBURSEMENTS APPROVED: <input type="checkbox"/> Yes <input type="checkbox"/> No Type and Rate of Reimbursement:		23. VOLUNTEER POSITION/GROUP PROJECT TITLE:	
24. Description of service to be performed. Provide a brief abstract of volunteer or service activity and the location of the volunteer activity, and attach description of service to be performed. Service description should include details such as time and schedule commitment, use of government vehicle, use of personal equipment and/or vehicle, skills required (note certifications if necessary), level of physical activity required, etc. If this is a group agreement, the leader is to provide the group name and attach a complete list of group participants or optional form 301b for each volunteer.			
VOLUNTEER/SERVICE ACTIVITY ABSTRACT			
25. Check all that apply: <input type="checkbox"/> Description of service attached <input type="checkbox"/> List of group participants/optional form 301b attached <input type="checkbox"/> Job Hazard Analysis <input type="checkbox"/> Valid Driver's License Verified (if required)			

PARENTAL CONSENT FOR VOLUNTEER UNDER AGE 18		
26. PARENT OR LEGAL GUARDIAN (First, Last)	27. PHONE Home: Mobile:	28. EMAIL ADDRESS
29. STREET ADDRESS	30. CITY, STATE, ZIP CODE	
31. I affirm that I am the parent/guardian of the above named volunteer. I understand that the agency volunteer program does not provide compensation, except as otherwise provided by law; and that the service will not confer on the volunteer the status of a Federal employee. I have read the attached description of the service that the volunteer will perform. I give my permission for _____ to participate in the specified volunteer activity. 32. (NAME OF YOUTH)		
33. Parent/Guardian Signature		Date
VOLUNTEER & GROUP LEADER AFFIRMATION		
<p>34. I understand that I will not receive any compensation for the above service and that volunteers are NOT considered Federal employees except as otherwise provided by law. I understand that volunteer service is not creditable for leave accrual or any other employee benefits. I also understand that either the government or I may cancel this agreement at any time by notifying the other party. I understand that my volunteer position may require a reference check, background investigation, and/or a criminal history inquiry in order for me to perform my duties. I understand that all publications, films, slides, videos, artistic or similar endeavors, resulting from my volunteer services as specifically stated in the attached job description, will become the property of the United States, and as such, will be in the public domain and not subject to copyright laws. I understand the health and physical condition requirements for doing the work as described in the job description and at the project location, and certify that the statements I have checked below are true:</p> <p><input checked="" type="checkbox"/> I or group leader know of no medical condition or physical limitation that may adversely affect my or members of the group ability to provide this service. If a group see attached OF301b.</p> <p><input type="checkbox"/> I or a member of the group have a medical condition or physical limitation that may adversely affect my ability to provide this service and have informed the Government Representative. If a member of a group see attached OF301b.</p> <p><input type="checkbox"/> I or group member do not consent to being photographed or to the release of my photographic image. If a member of a group see attached OF301b.</p> <p>I do hereby volunteer my services as described above, to assist in authorized activities at <u>Denali State Natural Forest</u> and I agree to follow all applicable safety guidelines. See attached OF301b attached if a member of a group. (NAME OF FEDERAL AGENCY)</p>		
35. Signature of Volunteer or Group Leader		Date
The above-named agency agrees, while this arrangement is in effect, to provide such materials, equipment, and facilities that are available and needed to perform the service described above, and to consider you as a Federal employee only for the purposes of tort claims, liability and injury compensation to the extent not covered by your volunteer group, if any.		
36. Signature of Government Representative		Date
TERMINATION OF AGREEMENT		
37. Agreement Terminated Date:		Total Hours Completed:
38. Signature of Government Representative:		
PUBLIC BURDEN STATEMENT		
According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0596-0080. The time required to complete this information collection is estimated to average 15 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. USDA, DOI, DOC and DOD prohibit discrimination in all programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. Not all prohibited bases apply to all programs.		
PRIVACY ACT STATEMENT		
Collection and use is covered by Privacy Act System of Records OPM/GOVT-1 and USDA/OP-1, and is consistent with the provisions of 5 USC 552a (Privacy Act of 1974), which authorizes acceptance of the information requested on this form. The data will be used to maintain official records of volunteers of the USDA and USDI for the purposes of tort claims, injury compensation, and other volunteer claims allowed by law. Furnishing this data is voluntary, however if this form is incomplete, enrollment in the program cannot proceed.		

Sheltowee Trace Association—Daniel Boone National Forest
Volunteer Agreement Addendum

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Section 1: Description of Service to be Performed

The following section of the Sheltopee Trace Association—Daniel Boone National Forest (STA-DBNF) Volunteer Agreement Addendum describes the nature of volunteer service that will be performed under this agreement. This section includes the agreement's parameters, a description of volunteer services covered by this agreement, requirements for emergency planning, a list of pertinent special provisions, useful links, and space for representatives from both parties to sign their agreement to the following parameters, description, and provisions.

Agreement Parameters:

The intent of this agreement addendum is to streamline administrative processes associated with signing up volunteers by eliminating the need for the Shelton Trace Association (STA) to enter its members into Individual Volunteer Agreements or to establish multiple Group Volunteer Agreements with each district of the Daniel Boone National Forest. The Forest Service and the STA together are responsible for the success of this agreement. Both organizations are responsible for providing oversight, coordination, and supervision as mutually determined necessary for a given project.

The Executive Director of the STA will meet with the Daniel Boone National Forest Supervisor and District Rangers annually to coordinate tasks related to this agreement. Additionally, leadership from each STA chapter will meet at least bi-annually with the District Ranger(s), who is responsible for their geographical range, to outline a program of work that will occur on the district. Annual project coordination should occur prior to the field season, preferably around February. The various laws and regulations (National Environmental Policy Act, Historic Preservation Act, Endangered Species Act, etc.) associated with the planned tasks will be discussed, and both partners will discuss the lead time realistically needed to ensure compliance. Any deviations from the prescribed line of work will require advance clearance from the appropriate district ranger and/or Forest Supervisor.

The Executive Director for STA is designated to serve as the liaison with the Forest Service in day-to-day operations under this agreement. The STA may designate local representatives from area chapters to work directly with district volunteers or trail coordinators.

Description of Volunteer Services:

Volunteer Outreach – The STA will train, equip, and organize volunteers to aid the Forest Service in trail maintenance as approved by the USFS along the Shelton Trace National Recreation Trail and connecting side trails within the Daniel Boone National Forest, excluding the section of the Shelton Trace that traverses the Red River Gorge. STA will obtain parental or guardian consent for individuals under 18 years of age and will comply with child labor laws. Volunteers may be subject to a background check and will be notified if a background check will be conducted.

Volunteers will be subdivided into two broad distinctions for the purposes of this agreement: 1.) trail maintenance volunteers and 2.) trail leader volunteers. Trail maintenance volunteers will be defined as those members of STA who provide their time and effort in support of this agreement but who do not lead other volunteers or assume direct responsibility in the co-creation of provisions of this agreement. Trail leader volunteers will be defined as those volunteers who provide their time and effort in support of this agreement and who lead other volunteers or assume direct responsibility in the co-creation of the provisions of this agreement. Trail leader volunteers are expected to have greater interaction with Forest Service personnel and will be required to partake in additional trainings commensurate to the program of work agreed to by the Forest Service and STA to ensure that said program can be completed safely and effectively. Such training may include skills-based training and safety training as well as training regarding the Forest Service Code of Conduct and expectations regarding the maintenance of a safe, respectful work environment. Training may be organized by the STA with Forest Service support and will be held at least once a year. No volunteer (either trail maintenance or trail leader) may use power tools or trail machines without proper safety training and certification. Volunteers who wish to use such machinery in support of this agreement must seek guidance from the District Ranger(s) on how to properly ensure all provisions of this agreement are met, prior to beginning work with said equipment.

Trail Maintenance – The STA and its affiliated Chapters will help design, build, maintain, and relocate trails, install and maintain trail signs, and maintain trailhead structures, in accordance with the FSH 2309.18 Trails Management Handbook, which can be reviewed at the following link: https://www.fs.fed.us/cgi-bin/Directives/get_dirs/fsh?2309.18. Trail work

will include basic tread maintenance, such as removing slough and berm, re-establishing out slope for improved drainage, reshaping, resetting, or cleaning water bars and grade dips, brushing and clearing, tree blow-down removal, debris removal, rock removal, drainage system cleaning, blaze maintenance, and trail tread reconstruction. Trail sign installation and maintenance is also a part of the scope of work under this agreement. Trail sign inventory work and placement may be performed. Tread work in wet areas may include refilling and reshaping turnpikes and repairing or replacing rotted or damaged puncheon. All trail work and the locations of all trail work will be proposed in a written plan of operations and approved by a district ranger; in special cases the district ranger may give verbal approval for routine trail maintenance. Trail bridge repair will be approved on a case-by-case basis and volunteers will participate in repairs based on their training and experience. Corridor clearing will include pruning or removing small trees and brush within the trail corridor. No work will be performed outside the trail corridor without written permission from the U.S. Forest Service. This includes but is not limited to the following: rerouting the existing trail, realigning the existing trail, and moving the trail onto user created trail instead of the designated trail. No maintenance will occur on non-system routes, such as user-created trails or decommissioned roads *unless explicitly agreed upon by the U.S. Forest Service and STA*. Additionally, the following activities are restricted and must be explicitly cleared by the District Ranger(s) before they can be completed: any digging, any work on water bars or other water control features, any work in or adjacent to a waterway; installation, removal, and replacement of trail infrastructure such as stairs, bridges, retaining walls, and armoring; obliteration and restoration of user-created trails, trail junctions, and features; obliteration and restoration of illegal or unsustainable user-created campsites; trailhead construction and reconstruction – grading, reconditioning, resizing, establishing or improving wayfinding, signing and kiosks, placing restrooms, revegetating unneeded or user impacted areas; installation of infrastructure to support trail users – Examples may include but are not limited to hitching rails, stairs, bicycle racks, bollards, and gates; repair, reconstruction, and stabilization of landslides, slips, and slope erosion that threatens trail stability or sustainability; repair, replacement, and placement of new culverts, rock, and other structures to maintain and improve forest hydrology; and the creation, use of, or restoration of borrow pits and rock sourcing to support trail work.

All trail maintenance and construction activities must meet FSH 6709.11 Health and Safety Code Handbook requirements, which can be found in full at the following link: https://www.fs.fed.us/td/pubs/ppt_html/htm06672C02/document/6709.11.pdf. Appropriate Personal Protection Equipment (PPE) as addressed in the attached Job Hazard Analyses (JHAs) will be used while performing trail work. Ranger districts may provide tools and PPE to trail volunteers based on availability of supply. Crew leaders will conduct, document, and report a tailgate safety session prior to engaging in work (form can be found below in the *Volunteering Session Required Forms* section). This tailgate safety meeting should cover the hazards of the work to be performed, provisions of the relevant JHAs, as well as an overview of expectations around maintaining a respectful work environment, working around the public, representing the agency and our communities, and treating each other and visitors equally and respectfully. Crew leaders must submit the tailgate safety form to STA staff after each work event. STA is responsible for ensuring that these forms are sent to the DBNF volunteer coordinator within a month of each work event.¹ The followings JHAs apply to this agreement and can be found in the *Job Hazard Analyses* section, below:

1. Trail Maintenance-General Safety
2. Use of Equipment & Machinery
3. Use of Weed & Brush Trimmer
4. Volunteer Chainsaw Operations
5. Trash Collection

¹ The Forest Service is currently considering the possibility of setting up a shared folder that would allow representatives of STA to upload such forms directly to a folder that would be accessible to both the STA and the Forest Service.

STA will be familiar with these JHAs, and a representative from STA will brief volunteers on their pertinent safety information during the tailgate safety session before each work session. Volunteers will signify their awareness of hazards and mitigation measures by signing the Tailgate Safety Sign-in Sheet provided in the *Volunteering Session Required Forms* section, below.

Anyone using a chainsaw will be required to have a current Forest Service chainsaw certification card as well as a current First Aid and CPR card. A list of certified chainsaw operators will be provided at the annual planning meeting. Further information regarding the use of chainsaws by volunteers can be found in the Volunteer Chainsaw Operations JHA, provided below.

Volunteer Program Administration – STA will assist the Forest Service with the annual reporting of volunteer program accomplishments by providing the Daniel Boone National Forest with the total number of individuals and volunteer hours contributed via this Sponsored Volunteer Agreement. STA must use the U.S. Forest Service reporting format and submit the required information by October 6th. STA will be familiar with the demographic data requested by the Forest Service Volunteer & Service database reporting tool and will assist the Forest Service in reporting this data. To track such pertinent information effectively, representatives from STA should refer to the “Reporting Template” form found in the *Reporting Tools* section below.

Emergency Plan:

STA is responsible for developing an emergency plan that works for their organization: one that is well understood and easy for volunteers to implement in case of an emergency. This plan should include provisions that account for optimal evacuation routes by district or large areas within a district if more than one medical facility is accessible, include the location of the nearest medical facility, include provisions regarding communications in the event of an emergency, and account for how a safety net will be applied to keep volunteers safe in the event of an emergency. If medical treatment is needed, volunteers should contact 911 or local EMS and use any training they have to the best of their knowledge. District personnel should be notified of any injury as soon as feasibly possible.

Check in/Check Out Procedure:

Develop and adhere to a check in-check out plan that includes methods to provide for documenting volunteer itineraries, tracking of volunteers to ensure they safely return from trips, and allow for communication with rescuers in case of emergency. The Trail Partner will submit the plan to the Forest Service for approval. If requested and agreed to, volunteers operating under this agreement will carry and STA provided In-Reach device or a Forest Service issued radio or SPOT Device (Satellite tracking) when performing trail maintenance activities to provide for communication if needed in case of emergency. If SPOT Devices are used, the STA will provide a list of any emergency contacts and the email addresses of those contacts. These contacts will be input into the SPOT Device prior to each trip to be notified in case of emergency. Other systems may be used as long as they meet the requirements outlined above and are mutually agreed upon by STA and the Forest Service.

Special Provisions:

1. In accordance with U.S. Forest Service policy and the authorities contained within the Volunteers in the National Forests Act of 1972 (VIF), volunteers contributing under this agreement will be considered federal employees for the purposes (and only for the purposes) of workers' compensation and tort to the extent not covered by the sponsor. This applies to volunteers who are officially signed up under a completed Volunteer Service Agreement, which entitles them to the same protections and considerations that regular government employees receive in the case of work-related injuries or tort issues, provided that they are working within their Description of Volunteer Services. STA will not provide worker's compensation.
2. Privately Owned Equipment, Hand Tools: The Forest Service recognizes that volunteers may prefer to use their own hand tools in support of this agreement. Private, personal equipment may be used for this purpose. The U.S. Forest Service does not assume liability or responsibility for any repair, maintenance, or operational wear and tear to privately owned equipment used in support of trail projects unless otherwise approved and documented in advance by a Forest Service District Ranger or Forest Supervisor. Any privately owned equipment must comply with FSH 6709.11 Health and Safety Code Handbook requirements and this agreement's JHAs. STA should ensure that volunteer-owned tools and equipment are fully operational and contain appropriate working parts (i.e. safety guards, covers etc.) before allowing use on the forest. Examples of privately owned equipment include but are not limited to the following:
 - a. Trail hand tools, such as single bit axe, double-bit axe, Pulaski, adze, loppers, swing blade, weed whip, machete, Sandvik, brush saw, pole saw, fire rake, shovel, pick mattock, rock bar, single-jack hammer, double-jack hammer, sledgehammer, log carrier, drawknife, ratchet winch, and grip hoist.
 - b. STA will be responsible for informing its members who choose to bring their own equipment of this provision.
3. Privately Owned Equipment, Power Tools and Trail Machines: The Forest Service recognizes that volunteers may wish to use their own privately owned power tools and trail machines in support of this agreement. Use of such equipment is restricted and their use must be approved in advance. Individuals seeking to use power tools and trail machines must be properly trained and certified to the standard laid out by District Ranger(s) and relevant safety representatives of the Forest Service. The U.S. Forest Service does not assume liability or responsibility for any repair, maintenance, or operational wear and tear to privately owned equipment used in support of trail projects unless otherwise approved and documented in advance by a Forest Service District Ranger or Forest Supervisor. Any privately owned equipment must comply with FSH 6709.11 Health and Safety Code Handbook requirements and this agreement's JHAs. Volunteers are expected to perform a general inspection of their own motorized equipment prior to use, as outlined in the respective JHAs. Volunteer-owned motorized equipment must be fully operational and contain appropriate working parts (i.e. safety guards, covers etc.) Proper PPE should be worn while using specialized equipment. STA is responsible for ensuring these requirements are met. Operating manuals must be accessible and on file. **NO WORK SHALL BE DONE WITH POWER TOOLS OR TRAIL MACHINES UNTIL ALL OF THIS AGREEMENT'S PROVISIONS REGARDING THEIR USE HAVE BEEN MET.** Examples of privately owned equipment include but are not limited to the following:
 - a. Power tools, such as powered weed/brush trimmers, pole saws, drills, Pionjar, and chainsaws. (Power equipment other than chainsaws and weed and brush trimmers will need to be approved by the managing Ranger District or Forest Supervisor prior to trail work.)
 - b. Trail machines, such as the Toro Dingo, Ditch Witch, mini-excavators, skid steers, or other mechanized trail equipment. (Trail machine use shall be approved by the managing Ranger District or Forest Supervisor prior to trail work.)

- c. STA will be responsible for informing its members of restrictions on the use of such equipment and for ensuring compliance with above stated provisions.
4. STA agrees to keep an up-to-date and accurate list of all volunteers contributing under this agreement, along with their designation as either a trail maintenance volunteer or a trail leader volunteer, and to provide that list to U.S. Forest Service managers *by October 6th annually*. The OF301b form, which should be signed by all volunteers at the beginning of each work day, will serve as a list of covered members. STA must have every volunteer sign the OF-301b Form (found below in the *Volunteering Session Required Forms* section) for them to be covered under this agreement. Safety tailgate forms should be signed by each volunteer at the beginning of the work day as well, in accordance with safety/JHA review. OF301b forms and tailgate safety session forms should be sent to the Forest Service within one month of an event for documentation. Official representatives of STA will be allowed to recruit, train, sign-up, and coordinate volunteers on behalf of STA and the Forest Service.
5. STA will inform volunteers of the health and physical condition requirements of the service project for which they are being recruited and will provide volunteers with an opportunity to disclose any medical conditions that may affect their ability to serve.
6. If at any time either the Forest Service or STA identifies a condition that may lead to a volunteer being a danger to himself/herself or others on a given project, an alternate service project will be identified, and the volunteer will be redirected by either the Forest Service or STA, depending on who can alleviate the safety concern more quickly. STA will notify the USFS as soon as practicable that such a situation occurred.
7. Commuting time – travel from the volunteer’s home to the project site parking area – is not covered by this agreement and mileage will not be reimbursed. The project site parking area is defined as the on-Forest rendezvous point for volunteers, where vehicle travel ends and hiking begins, most typically a trailhead, ranger station, or similarly recognizable meeting point. Hiking from the parking area to the specific project site where work will take place is covered by this agreement.
8. The Forest Service and STA recognize that users may occasionally perform beneficial services, such as trash collection, unplanned phenology monitoring, or other tasks included in the description of services above, while recreating on the trail. These users will only be considered volunteers if the primary intent of their use is volunteer service and they have coordinated their service with STA, such that STA can provide oversight for the service activity and to coordinate the activity with the Forest Service.
9. This volunteer agreement will be in effect on the date signed by the Forest Supervisor and will remain in effect for five years from that date. The agreement will be reviewed annually by the Forest Service and STA, and any subsequent amendments or modifications will be by mutual consent of both partners. Either the Forest Service or STA may cancel this agreement at any time, providing 30 days’ notice and notifying the other party in writing.
10. STA will make the following information available to its Official Representatives and will inform representatives of the information’s availability on the STA website: Forest Service Health and Safety Code Handbook; Job Hazard Analyses related to the Description of Services, provided with this agreement; OF-301b group volunteer sign-up sheet; safety tailgate session instructions and form; and procedures and forms associated with volunteer injury response requirements. STA and the Forest Service will work together to comply with the Forest Service Health and Safety Code Handbook and will treat volunteers no differently than Forest Service employees with respect to safety requirements.

- 11. The Forest Service expects all its representatives, including volunteers, to adhere to civic-minded principles in their personal conduct and exhibit a high degree of personal integrity. Acceptable conduct involves sincere respect for the rights and feelings of others and the assurance their personal conduct will not harm or be considered discriminatory to other volunteers, employees, or the Forest Service—or cause an unfavorable reaction from the public. People serving as Forest Service volunteers may not fight, use derogatory language, or participate in discrimination, sexual harassment, or violent or threatening behavior. All Forest Service volunteers have the right to: be treated with respect; a workplace free of harassment; and a workplace free of hostile conditions. The Daniel Boone National Forest and STA will work to ensure all volunteers are aware of their rights and responsibilities, and will inform volunteers of the agency’s anti-harassment policy and the information found on <https://www.fs.fed.us/about-agency/anti-harassment-policy>. Volunteers will be informed of the **Forest Service’s Harassment Reporting Center** and will be given the number, (844) 815- 8943, in case they encounter a need to report an incident.

- 12. Minors must be signed up using OF-301a with parental or guardian consent in advance of volunteer activities. Activities involving minors must include either parental/guardian supervision or reliable partner organizations that have liability insurance and proven records as outreach leaders. STA is responsible for ensuring, to the fullest extent possible, that activities involving minors reflect the existing best practices for protection of minors, including training and background checks of outreach leaders. Organizations like the Boy Scouts of America may be looked to for examples of best practices for child protection for outdoor activities involving minors.


Acceptance of Agreement Addendum:

Acceptance by the US Forest Service

Forest Supervisor

Date

Acceptance by STA

 29 October 2021

STA Executive Director

Date

Useful Links:

- a. Forest Service Health and Safety Code Handbook
https://www.fs.fed.us/cgi-bin/Directives/get_dirs/fsh?6709.11
- b. FSH 2309.18 Trails Management Handbook
https://www.fs.fed.us/cgi-bin/Directives/get_dirs/fsh?2309.18
- c. USDA Forest Service Standard Trail Plans and Specifications
<https://www.fs.usda.gov/managing-land/trails/trail-management-tools/trailplans#:~:text=The%20USDA%20Forest%20Service%20Standard%20Trail%20Plans%20and,local%20agencies,%20communities,%20trail%20partners,%20volunteers,%20and%20entities.>
- d. OSHA Hearing Conservation Program
<https://www.osha.gov/sites/default/files/publications/osha3074.pdf>
- e. In case of injury, contact ASC-HRM Workers' Compensation Customer Service
 - i. (877)-372-7248
 - ii. Click on the website below and click on forms at the top of the page to access forms. The following information is critical when completing the CA-1, CA-2, CA-16
 - Legal Name of Volunteer, including middle initial (no nicknames)
 - Volunteer's Title and Duty Station
 - Date of Injury
 - Nature of Injury, including body parts involved
 - Name, address, phone, and fax number of Medical Facility Volunteer is transported to.
 - iii. <http://www.dol.gov/owcp/dfec/fec-faq.htm>

For assistance accessing any of the above documents, please contact the forest volunteer coordinator.

Section 2: Reporting Tools

The following section of the STA-DBNF Volunteer Agreement Addendum provides a document that will be useful for reporting volunteer activities to the U.S. Forest Service, as required under this agreement.

The document is a blank copy of the “Reporting Template”. This blank copy provides a sense of the information which must be reported to the Forest Service each year as a requirement of this agreement. An excel spreadsheet version of this document, which can be used to aggregate running totals of volunteer activities completed under this agreement throughout the fiscal year, will be provided to STA leadership.

This document can be used to effectively collect necessary data for end of year reporting. This data should be sent to the U.S. Forest Service by *October 6th annually*.

USDA Forest Service VSReports FS-1800-16 Report Reporting Deadline: October 6th, 2021						
1. Reporting Unit:						
Deputy Area	National Forest System	Region/Station/ Area	Region 8 - Southern Region	Forest/Grasslands/Unit	Daniel Boone National Forest	??? Ranger District(s)
Project Start Date	10/1/2020	Project End Date	9/30/2021			
2. Volunteer Work Title/Description:						
A. FUNCTIONAL AREA:						
Enter hours only; value and person years will automatically populate						
Ecosystem, Forest & Natural Resource Management - This includes work in timber, silviculture, and rangeland management activities. Examples include timber marking, tree planting, and research projects for timber and range. This section does not include work in conjunction with State and Private Forestry and Fire programs such as fire prevention or suppression, nor stewardship projects. Typically this includes working with the Forest Service Staff in Timber and Silviculture.						
Data Management Analysis	0.00	\$0.00	0.00			
Education and Outreach	0.00	\$0.00	0.00			
Interpretation	0.00	\$0.00	0.00			
Grazing and rangeland monitoring and improvements	0.00	\$0.00	0.00			
Miscellaneous forest products and timber and salvage sales	0.00	\$0.00	0.00			
Reforestation, rehabilitation, restoration and monitoring	0.00	\$0.00	0.00			
Engineering, Road Maintenance, Safety & Sustainable Ops - This includes work that is overseen by our forest engineers, Green Team activities, and safety trainings or certifications. Project examples would be completing road or facilities assessments, large conservation activities, and time spent completing risk assessments. Typically this includes working with the Forest Service Staff in Engineering and Roads.						
Data Management Analysis	0.00	\$0.00	0.00			
Decommissioning, maintenance and improvement of roads	0.00	\$0.00	0.00			
Design, construction, maintenance and improvement of facilities	0.00	\$0.00	0.00			
Green Team and energy conservation projects	0.00	\$0.00	0.00			
Safety and health inspections, training and certifications	0.00	\$0.00	0.00			
Heritage & Archeology Resources - This may include projects supervised by the Forest archaeologists such as research, shovel test surveys, site delineation, Passport in Time events, and outreach or educational events.						
Archives, excavation, site surveys, stabilization and tours	0.00	\$0.00	0.00			
Data Management Analysis	0.00	\$0.00	0.00			
Education and Outreach	0.00	\$0.00	0.00			
Interpretation	0.00	\$0.00	0.00			
Heritage facility projects	0.00	\$0.00	0.00			
				Note: Calculations shown here are based on the rate below. Rate can be changed to current year value to view accurate calculations. <u>VSReports has the latest rate configured and only needs the hours.</u> Hourly Rate: \$28.54		

Passport in Time projects	0.00	\$0.00	0.00
Information Resources & Business Operations - Work incorporated in this area includes office automation, frontliner assistance, GIS data collection, and communications.			
Administrative/business operations support	0.00	\$0.00	0.00
Data Management Analysis	0.00	\$0.00	0.00
Education and Outreach	0.00	\$0.00	0.00
Geographic information systems, geospatial data, website support	0.00	\$0.00	0.00
Digital media and communications	0.00	\$0.00	0.00
Lands, Minerals, Geology & Special Uses - This discipline area includes projects such as performing landline/boundary maintenance, well inspections, and special-use compliance checks. Typically this includes working with the Forest Service Staff in Lands and Surveying			
Boundary surveys, reclamation, abandoned mines	0.00	\$0.00	0.00
Data Management Analysis	0.00	\$0.00	0.00
Education and Outreach	0.00	\$0.00	0.00
Mapping, inventory, monitoring of geological resources	0.00	\$0.00	0.00
Recreation Management - Projects may include serving as campground hosts; trails and developed recreation maintenance; and backcountry patrols.			
Backcountry/front country trail patrols	0.00	\$0.00	0.00
Campground hosts/facility caretakers	0.00	\$0.00	0.00
Cave and karst monitoring, surveys and protection	0.00	\$0.00	0.00
Education and Outreach	0.00	\$0.00	0.00
Interpretation	0.00	\$0.00	0.00
Data Management Analysis	0.00	\$0.00	0.00
Developed and dispersed resource maintenance and improvement	0.00	\$0.00	0.00
Front desk, public information, visitor services	0.00	\$0.00	0.00
Volunteer coordination/non-profit boards/partnerships	0.00	\$0.00	0.00
Wilderness trail maintenance and construction	0.00	\$0.00	0.00
Wilderness, wild and scenic river management and monitoring	0.00	\$0.00	0.00
Trail maintenance and construction (non-wilderness)	0.00	\$0.00	0.00
Research and Development - This includes work with the Southern Research Station and the International Institute for Tropical Forestry. All other research projects can be reported under the respective discipline area.			
Education and Outreach	0.00	\$0.00	0.00
Invasive Species	0.00	\$0.00	0.00
Inventory and Monitoring	0.00	\$0.00	0.00
Recreation	0.00	\$0.00	0.00
Resource Management and Use	0.00	\$0.00	0.00
Research and Administration	0.00	\$0.00	0.00
Water, Air, and Soil	0.00	\$0.00	0.00
Wildland Fire and Fuels	0.00	\$0.00	0.00
Wildlife & Fish	0.00	\$0.00	0.00

USDA Forest Service VSReports FS-1800-16 Report Reporting Deadline: October 6th, 2021			
State & Private Forestry and Fire - This discipline area includes volunteer work coordinated with state and private partners for timber and fire management. This may include educational outreach programs focused on school and tribal youth, projects in fire prevention and prescribed burning, and timber cruising on state lands.			
Data Management Analysis	0.00	\$0.00	0.00
Sustainable Development		\$0.00	
Education and Outreach	0.00	\$0.00	0.00
Interpretation		\$0.00	
Fire Aviation Management	0.00	\$0.00	0.00
Fire prevention activities and education outreach	0.00	\$0.00	0.00
Forest and grassland stewardship and restoration	0.00	\$0.00	0.00
Forest Health Protection	0.00	\$0.00	0.00
Tribal Relations and Engagement	0.00	\$0.00	0.00
Urban and Community Forestry	0.00	\$0.00	0.00
Urban support and development projects	0.00	\$0.00	0.00
Wild land/urban interface fuels management	0.00	\$0.00	0.00
Veg. Watershed & Air, Natural Resources Management - This includes work in botanical gardens, vegetation management, and invasive species management. Typically this includes working with the Forest Service Staff in Botany, Biology, and Hydrology.			
Air quality monitoring/management	0.00	\$0.00	0.00
Botanical gardens, rare plant surveys, monitoring, protection	0.00	\$0.00	0.00
Data Management Analysis	0.00	\$0.00	0.00
Education and Outreach	0.00	\$0.00	0.00
Interpretation	0.00	\$0.00	0.00
Invasive plants and animal activities	0.00	\$0.00	0.00
Water/soil improvements and stewardship projects	0.00	\$0.00	0.00
Wildlife, Fish, and Threatened & Endangered Species - This area encompasses projects such as wildlife habitat improvement, fisheries surveys, and threatened & endangered (T & E) species management. Typically this includes working with the Forest Service Staff in Wildlife & Fisheries Biology.			
Data Management Analysis	0.00	\$0.00	0.00
Education and Outreach	0.00	\$0.00	0.00
Interpretation	0.00	\$0.00	0.00
Restoration and rehabilitation activities	0.00	\$0.00	0.00
Threatened & endangered species monitoring, surveys and protection	0.00	\$0.00	0.00
Total	0.00	\$0.00	0.00

B. AGE DATA	Male	Female	Total	Percentage	Enter number of people who contributed the hours reported in section A by male and female in the appropriate age group.	
UNDER 15	0	0	0	#DIV/0!		
15-18	0	0	0	#DIV/0!		
19-24	0	0	0	#DIV/0!		
25-35	0	0	0	#DIV/0!		
36-54	0	0	0	#DIV/0!		
55 Plus	0	0	0	#DIV/0!		
Unknown	0	0	0	#DIV/0!		
Total	0	0	0	#DIV/0!		
C. ETHNICITY AND RACE DATA	Male	Female	Total	Percentage	Enter number of people who contributed the hours reported in section A by male and female in the appropriate ethnic group.	
Although reporting of race and ethnicity data by program participants is optional, please make every effort to encourage volunteers, partners and other program participants to report this information. Demographic information is essential to our ability to understand who we are engaging in our programs and the development of outreach strategies which could enhance and expand participation by underrepresented groups.						
White (Non-Hispanic)	0	0	0	#DIV/0!		
Black or African American (Non-Hispanic)	0	0	0	#DIV/0!		
Hispanic or Latino	0	0	0	#DIV/0!		
Native American/Alaskan Native	0	0	0	#DIV/0!		
Asian/Pacific Islander	0	0	0	#REF!		
Other	0	0	0	#DIV/0!		
Unknown	0	0	0	#DIV/0!		
Total	0	0	0	#DIV/0!		
D. OTHER DEMOGRAPHIC DATA	Male	Female	Total			
Persons with Disabilities	0	0	0			
Veterans Designation	0	0	0			
Total	0	0	0			
E. PROGRAM MANAGEMENT COST DATA						
Category	WO/Region/Station	Forest/Lab/R S	District/JCC	Subtotal	Partner	Total
Participant Wages/Stipends/Benefits	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Volunteer Reimbursements	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Materials/Supplies	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Equipment/Vehicles	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Administration/Training	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Section 3: Volunteering Session Required Forms

The following section of the STA-DBNF Volunteer Agreement provides the required forms which must be used to successfully complete volunteer activities laid out under this agreement. These forms should be used on the day of a work session to record that each volunteer understands and agrees to the parameters of this agreement and its associated JHAs.

The first document is an embedded image of the OF-301b Form group sign-up sheet. This form is required to sign up each volunteer who will be participating in each volunteering session. A pdf version of this form will be provided to STA leadership. Printed copies of this pdf must be available at all volunteering sessions, so that volunteers can sign the OF-301b Form. The signing of this form constitutes agreement to the parameters of the OF-301a agreement (herein called the STA-DBNF Volunteer Agreement). As such, it is recommended that a copy of the OF-301a agreement be provided at each work session, so that each volunteer can reference this agreement in its entirety. At a minimum, all pages of this agreement (excluding the note on its final page) from this point until the end of the agreement document (OF-301b, Tailgate Safety Meeting Record, all JHAs, FSH 6709.11 – Health and Safety Code Handbook, Chapter 40 – Equipment and Machinery) must be provided for the review of each volunteer.

The second document is a copy of the “Tailgate Safety Meeting Record” form. This document should be used at the beginning of each work session to identify potential hazards of the work environment, to review the safety provisions outlined in this agreement, and to ensure that all volunteers are able to perform planned work safely. This form must be completed by the work leader and signed by all volunteers (including the work leader) at each volunteering session before work begins.

Current OF301b Form

OMB No. 0596-0080
Expires 10/31/2021

GROUP NAME:

AGENCY NAME:

Volunteer Service Agreement—Natural & Cultural Resources

Volunteer Sign-up Form for Groups

All volunteers that participate with an organized group on an episodic volunteer project on a unit of a public lands agency must be signed up on this form. By signing this form you agree to the terms of the project as defined in the attached Volunteer Service Agreement and affirmed by the organization and federal agency represents. Volunteers under age 18 must complete a Volunteer Service Agreement—Natural & Cultural Resources and must be signed by the parent or guardian. Please indicate your willingness (yes) or unwillingness (no) for the Agency to use your photographic, video or audio images in performance of volunteer duties.

Burden Statement: According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0596-0080. The time required to complete this information collection is estimated to average 1.9 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

Project Title:						
Group Name:				Agency:		
Group Contact Name (First, Last):		Telephone:	Agency Contact Name (First, Last):		Telephone:	
		Email:			Email:	
#	Volunteer Name (First, Last)	Signature	Telephone Number	Email Address	Photo Release	
					Yes	No

Section 4: Job Hazard Analyses (JHAs)

The following section of the STA-DBNF Volunteer Agreement contains this agreement's JHAs. The provisions of these JHAs should be used to mitigate the risks associated with volunteer activities. All work is subject to the FSH 6709.11 Health and Safety Code Handbook requirements, which can be found in full at the following link: https://www.fs.fed.us/t-d/pubs/ppt_html/htm06672C02/document/6709.11.pdf.

FS-6700-7 (2/98)			
U.S. Department of Agriculture Forest Service	1. WORK PROJECT/ACTIVITY	2. LOCATION	3. UNIT
	Trail Maintenance- General Safety	Daniel Boone National Forest	Forest Wide
JOB HAZARD ANALYSIS (JHA) References-FSH 6709.11 and -12 (Instructions on Reverse)	4. NAME OF ANALYST	5. JOB TITLE	6. DATE PREPARED
	Laurie Smith – updated D. Shannon	Supervisory Forester- Forestry Technician	12/22/20
7. TASKS/PROCEDURES	8. HAZARDS	9. ABATEMENT ACTIONS Engineering Controls * Substitution * Administrative Controls * PPE	
Working in forested and wilderness areas; use of personal protective equipment	Head injures from falling branches Eye injuries from chips or branches	Wear hard hats, gloves, safety glasses, nonskid footwear, and protectivce clothing. Leave plenty of room between crew members when working. Wear safety goggles if using axe, loppers, or chopping tools. Wear proper gear if operating a chainsaw. (Refer to Volunteer Chainsaw Operations JHA.) (Note that chainsaw use is permitted only in non- wilderness areas.)	
General foot travel	Bats, bees, yellow jackets, wasps, ticks, spiders, scorpions, rattlesnakes, copperheads, poision oak, poision ivy, noxious weeds Improper footwear Uneven terrain Undergrowth	Be aware that rattlesnakes may not be readily visible and may not sound warning rattle before striking. Be particularly watchful while walking in rocky country, espeically near ledges or in areas obscured by foliage. Walk on clear paths whenever possible. If someone is bitten or stung by venomous snakes, insects, spiders or scorpions, and develops symptoms, such as chills, fever, joint pains, nausea, vomiting, profuse sweating or salivating, difficulty breating or swallowing, or pain and inflammation at site of bite or sting, seek medical attention immediately. Do not work in insect- infested areas during insect season, if you have known allergies or react violently to insect bites or stings. If allergic to insect stings, consult your physician for proper advice and vaccine or allergy medication, or both, before going into the field. When working near bees, wasps, or yellow jackets, wear long-sleeved shirts with close- fitting collars, keep trousers tucked in boots, and avoid wearing strong-scented lotions, which can attract insects like bees. If allergic to poision ivy, poision oak, or noxious weeds, be aware of their appearance during different times throughout the year. Wear well-fitting, laced boots with good ankle support, slip-resistant soles and heels, that are in good condition and broken in before duty. If working in wet conditions, water proof or treated boots are recommended. Break in new footwear before work projects. Protect tender spots with adhesive tape or moleskin when first redness, tenderness, or blistering occurs. Identify safe routes. When contouring a steep slope, do not lean into the hill, which tends to loosen footing; erect posture or slightly leaning out provides more secure footing. Plan ahead; select safe routes; watch out for changes in ground surface, slick spots, tripping hazards, overhanging limbs or rocks, or unusual hazards. On slippery, loose ground, or when going downhill, keep most of your weight on your heels, shorten your stride, keep knees bent, and lean slightly backward. When moving uphill or in sandy soils, lean slightly forward, turn feet outward, shorten stride, and use as much of the inside of the foot as possible. Always carry tools on the downhill side. Know how to fall: try to land in the least obstructed spot; protect your head and back; roll with the fall; do not stick out your arms to break a fall. In heavy undergrowth, lift your knees high to clear obstacles. Slow down and exaggerate steps in the area of exposed roots to keep from catching your toes. Walk far enough behind the person ahead	

	Log, rocks	of you that branches brushing past them do not hit you as they snap back. Avoid walking on logs or rocks, unless they have been tested for secure footing.
Walking and hiking on trails	Slips, trips, falls, and blisters	Walking and hiking on trails are the leading causes of field injuries. Watch where you are walking. Be aware of boulders, branches, holes, and other obstacles on the trail. If adverse weather is present, be alert of areas that might be wet and icy. Wear proper footwear, including boots and socks. Leave plenty of room between crew members when walking.
Clifflines and steep country	Falls from unstable grounds	Keep crews out of steep country with unstable soils during hazardous conditions, such as heavey rainfall or high winds. Be cautious on wet plant material and loose rocks/gravel on steep slopes. Be aware of clifflines and do not approach clieff edges for work or views.
Working with tools	Bodily injury	Use gloves, protective clothing, and footwear. Make sure you are familiar with and know how to operate all tools you might use. If there is uncertainty as to the use of any tool, check with a supervisor/leader and learn proper operating technqies prior to using that tool. (See JHA on Use of Equipment & Machinery and the attached FSH 6709.11 - HEALTH AND SAFETY CODE HANDBOOK CHAPTER 40 - EQUIPMENT AND MACHINERY for more information).
Lifting	Back injury	Use proper lifting techniques. Bend knees when lifting. Lift with legs and not with back. Do not exceed your personal ability.
Loading equipment	Back injury	Use your legs and not your back to lift; get help to lift if equipment is too heavy.
Driving on low maintenance roads	Vehicle Accident	Be aware that vehicles, hikers, and motorcycles frequently use such roads. Drive defensively and use your headlights.
Hauling trailer	Vehicle Accident	Drive defensively and perform safety checks regularly to assure proper maintenance and drivability. Drive slower when hauling trailer and round corners more gently. Be aware of the tracking of your trailer.
Backing trailer	Vehicle Accident	If a second person is available, allow them to guide you but keep them in view at all times. If you're alone and unsure of what's behind you, get out and inspect the area before backing.
Working in warm/hot weather	Heat exhaustion and dehydration	DRINK PLENTY OF WATER. Take periodic breaks in shaded areas. Pace yourself while working.
Crossing fences	Cuts (especially on barb wire)	Be careful when going over, through, or along barb wire fencing. When going over or through, use extreme caution and make sure of your footing. Use buddy system, where one person holds wire apart as the other goes through, when possible.
10. LINE OFFICER SIGNATURE	11. TITLE	12. DATE

JHA Instructions (References-FSH 6709.11 and .12)	Emergency Evacuation Instructions (Reference FSH 6709.11)																						
<p>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.</p> <p>Blocks 1, 2, 3, 4, 5, and 6: Self-explanatory.</p> <p>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).</p> <p>Block 8: Identify all known or suspect hazards associated with each respective task/procedure listed in block 7. For example:</p> <ol style="list-style-type: none"> 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 <p>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:</p> <ol style="list-style-type: none"> 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. <p>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.</p> <p>Blocks 11 and 12: Self-explanatory.</p>	<p>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.</p> <p>Be prepared to provide the following information:</p> <ol style="list-style-type: none"> 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. <p>The items listed above serve only as guidelines for the development of emergency evacuation procedures.</p> <p style="text-align: center;">JHA and Emergency Evacuation Procedures Acknowledgment</p> <p>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:</p> <table style="width: 100%; margin-top: 20px;"> <thead> <tr> <th style="width: 50%; text-align: center;">SIGNATURE DATE</th> <th style="width: 50%; text-align: center;">SIGNATURE DATE</th> </tr> </thead> <tbody> <tr><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td></tr> </tbody> </table>	SIGNATURE DATE	SIGNATURE DATE	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
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U.S. Department of Agriculture	1. WORK PROJECT/ACTIVITY	2. LOCATION	3. UNIT
Forest Service	Use of Equipment & Machinery	Daniel Boone National Forest	Forest Wide
JOB HAZARD ANALYSIS (JHA)	4. NAME OF ANALYST	5. JOB TITLE	6. DATE PREPARED
References-FSH 6709.11 and 12 (Instructions on Reverse)	Franklin Vaughan	Forest Safety Manager	2/11/21
7. TASKS/PROCEDURES	8. HAZARDS	9. ABATEMENT ACTIONS Engineering Controls * Substitution * Administrative Controls * PPE	
Qualifications	General	Personnel working alone should have up to date training in First Aid and CPR, should have all necessary immunizations and be in good health, should be aware of any adverse life threatening reactions (bee sting, asthma, etc), and be qualified to operate any equipment required by the task. Consult Health and Safety Code manual for required PPE.	
Check Out & Check In	No one aware of working individual location	Perform tailgate safety meeting with crew leader before beginning work and ensure the leader knows when you are leaving.	
Working Away from Vehicle	Personal Injury	Ensure adequate radio/cell phone communications at all times. Do not deviate from check-out plan without calling in correction. Be aware of additional degree of exposure when working alone; avoid all risks that could lead to incapacitating injury.	
Contacts with Public	Confrontation with unknown personnel	Assume all unknown personnel to be potentially dangerous, avoid confrontation. Make other person aware that you are in radio contact. Be aware of alcohol or firearms.	
Procedures	Increased Risk Inherent in Solo Work	Review JHA, FSH 6709.11 Health & Safety Code Handbook and conduct tailgate safety session. Correct recognized hazards prior to beginning work. Identify hazards that cannot be corrected.	
Working in Non-Developed Areas	Environmental (Wind, Rain, Snow, and Intense Sun)	Required PPE include a hardhat, first-aid kit, radio communication, and appropriate clothing and foot wear for field work projects as identified in FSH 6709.11 Health & Safety Code Handbook. Be aware of weather forecasts prior to beginning work and plan appropriately. Evaluate risks prior and during work frequently.	
	Biological (Insects, Poisonous Plants, and Animals)	Be aware of potential biological hazards, know appropriate defensive techniques, avoid unnecessary exposure. Know appropriate first-aid techniques for the hazardous situations likely to be encountered.	
Using Non-Motorized Equipment & Machinery	Bodily Injury	Refer to FSH 6709.11 - HEALTH AND SAFETY CODE HANDBOOK CHAPTER 40 - EQUIPMENT AND MACHINERY prior to using any of the following: Hand and Portable Tools Other Tools and Equipment Power-Operated Tools *This direction is available online at the following link and a copy is attached to this agreement: https://www.fs.fed.us/cgi-bin/Directives/get_dirs/fsh?6709.11 . Do not begin work until this direction is reviewed and documented that the individuals performing the work have done so on the tailgate safety form.	

<p>Use of Equipment & Machinery (Non-Motorized)</p>	<p>Bodily Injury</p>	<p>All volunteers shall follow these basic safety practices for maintenance and use.</p> <ol style="list-style-type: none"> 1. Volunteers shall be instructed in proper chopping techniques and tool sharpening. 2. Carry a chopping tool by grasping around the shoulder of the handle close to the tool head. Hold the tool so that the flat surface of the blade is vertical (parallel to your leg), with the arm hanging naturally at one's side. Use of a sheath is recommended, especially when carrying a tool for long distances. Never carry a chopping tool on your shoulder. 3. Always remove branches, debris, or underbrush that might interfere with chopping. <p>All Volunteers shall read FSH 6709.11 - HEALTH AND SAFETY CODE HANDBOOK; Chapter 40 - equipment and machinery, SECTIONS 41.2 and 41.21, PAGES 5-6 (page numbers refer to the internal page numbering of this chapter, which is attached below in Appendix A) for additional information and specific guidance regarding the safe use of chopping tools.</p>
<p>Use of chopping tools, including axes, adzes, brush hooks, hatchets, machetes, and Pulaskis</p>	<p>Bodily Injury</p>	<p>Cutting tools must be handled with extra care. Do not store them with other tools where someone could be cut accidentally by inadvertently grabbing a sharp edge. The nuts and bolts on tools, such as shears and snips, require frequent adjustment. Wipe the edges of cutting tools frequently with a lightly oiled rag. Never hit a cutting tool with a striking tool.</p> <p>For specific guidance on the use of Handsaws (Bow Saws Hacksaws) Knives, Chisels/Punches, Files, see FSH 6709.11 - HEALTH AND SAFETY CODE HANDBOOK; Chapter 40 - equipment and machinery, SECTIONS 41.2 and 41.21, PAGES 6-7 (page numbers refer to the internal page numbering of this chapter, which is attached below in Appendix A).</p>
<p>Use of cutting tools</p> <ol style="list-style-type: none"> 1. Pry bar; digging and tamping bars 2. Grubbing tools, including combination tools, grubbing hoes, mattocks, McLeods, picks, Pulaskis, and various types of hoes 3. Wrenches 4. Hammers 5. Pliers 6. Screwdrivers 7. Vises 8. Jacks 9. High-lift Jacks 10. Hand Trucks 11. Hoists. 12. Peaveys, cant hooks, and pike poles 13. Shovels 14. Wheelbarrows 15. Wedges 	<p>Bodily Injury</p>	<p>All volunteers shall read FSH 6709.11 - HEALTH AND SAFETY CODE HANDBOOK; Chapter 40 - equipment and machinery, SECTION 42, PAGES 9-19 for additional information and specific guidance for other tools.</p> <ol style="list-style-type: none"> 1. Section 42.1, Item 1, Page 9 2. Section 42.1, Item 2, Page 10 3. Section 42.1, Item 3, Page 10 4. Section 42.1, Item 4, Page 11 5. Section 42.1, Item 4, Page 11 6. Section 42.1, Item 4, Page 11 7. Section 42.1, Item 4, Page 12 8. Section 42.1, Item 4, Page 12-13 9. Section 42.1, Item 4, Page 13 10. Section 42.1, Item 4, Page 13-14 11. Section 42.1, Item 4, Page 14-15 12. Section 42.1, Item 4, Page 15 13. Section 42.1, Item 4, Page 15 14. Section 42.1, Item 4, Page 15 15. Section 42.1, Item 4, Page 16 <p><i>All page number references in this section refer to the internal page numbering of the referenced chapter, which is attached below in Appendix A.</i></p>
<p>Use of other tools and equipment</p>	<p>Hazards Using Motorized Equipment & Machinery</p>	<p>All employees/volunteers operating motorized equipment and machinery must be agency qualified to operate this machinery or equipment. Each piece of motorized equipment and machinery has an individual JHA and manufacturers'</p>

		<p>instructions. These must be followed. Document prior to operating such motorized equipment and machinery that its safety information has been reviewed and attach appropriate documentation to a copy of the signed tailgate meeting safety form.</p> <p>For specific guidance on Volunteer Chainsaw Operations and Weed and Bush Trimmer operation, see the succeeding two JHAs.</p>
10. LINE OFFICER SIGNATURE	11. TITLE	12. DATE

<p align="center">JHA Instructions (References-FSH 6709.11 and .12)</p> <p>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.</p> <p>Blocks 1, 2, 3, 4, 5, and 6: Self-explanatory.</p> <p>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).</p> <p>Block 8: Identify all known or suspect hazards associated with each respective task/procedure listed in block 7. For example:</p> <ul style="list-style-type: none"> a. Research past accidents/incidents 	<p align="center">Emergency Evacuation Instructions (Reference FSH 6709.11)</p> <p>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.</p> <p>Be prepared to provide the following information:</p> <ul style="list-style-type: none"> 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.
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			FS-6700-7 (2/98)
U.S. Department of Agriculture Forest Service	1. WORK PROJECT/ACTIVITY Use of Weed & Brush Trimmer	2. LOCATION Daniel Boone National Forest	3. UNIT Forest Wide
JOB HAZARD ANALYSIS (JHA)	4. NAME OF ANALYST	5. JOB TITLE	6. DATE PREPARED

References-FSH 6709.11 and -12 (Instructions on Reverse)	Matt Able	Trails/Dispersed Rec Program Manager	02/28/21
7. TASKS/PROCEDURES	8. HAZARDS	9. ABATEMENT ACTIONS Engineering Controls * Substitution * Administrative Controls * PPE	
Inspection of weedtrimmer prior to use	Lack of maintenance; equipment unfit for use	Before running trimmer, consult operators manual for instruction. Check for missing, worn, and loose parts. Ensure guards are attached. Inspect fuel lines and fuel tank. Adjust handle and strap for comfort and balance. If unit is unsafe to operate, tag it out of service in a position that will be immediately obvious to anyone attempting to operate it. Do not repair unit without proper instructions. Follow manufacturer's maintenance and servicing guidelines.	
Operation of unit	Lack of training Flying objects, cutting head, hot muffler, hot gear shaft	Read the operator's manual. Locate the safety decals on your unit. Make sure the decals are legible and that you understand and follow the instructions on them. You should be in good mental and physical health in order to operate the unit. Never operate the cutting head above your knees. Always start the unit on the ground. Shut down immediately, if the unit starts to shake or vibrate. Keep feet and hands away from rotating cutting head. Keep two hands on the unit at all times while it is in operation. Always hold the unit with your fingers and thumbs encircling the handles. Avoid touching the muffler and gear shaft until the unit has adequately cooled following use.	
Preparation of the work site	Uneven and steep terrain, bottles and glass, hidden objects, snags, widowmakers, etc.	Inspect area before using the unit. Remove, mark, or flag hazards. Remove objects upon which the unit may become entangled or which it may throw. Flag obstructions which must be avoided during operation. Other workers in the area should be warned of your intent to operate the unit; children and animals should not be allowed within 50 feet of the timmer while in operation.	
Use of proper PPE	Bees, snakes, flying objects: dust, glass, rocks, cans, wood; hearing loss	Wear safety glasses or goggles in compliance with eye protection standards set out in ANSI Standard Z87.1. Face shield may be used in addition to proper safety glasses or goggles but may not serve as a replacement for ASNI Standard Z78.1 compliant eye protection. Additionally, face shield must be ANSI Z78.1 compliant. Wear ear plugs or hearing protection headsets. Gloves must be worn. Long sleeves, long pants, and sturdy boots are required. Dust masks are recommended.	
Fueling	Fire spills	Fill unit from labeled fuel container only. Let unit cool before fueling. Never refuel running unit. Wear eye protection while refueling. Wipe any spilled fuel away from unit and move at least 10 feet from fueling spot before starting. Do not smoke or bring flame or sparks near fueling area. Have fire extinguishing device, such as extinguisher or appropriate hand tools nearby.	
Emergency Evacuation	Serious illness or injuy	First aid kits shall be available at each work site. Supervisors or work leaders shall be trained in first aid and CPR. Minor injuries should be treated by agency trained employees. If an employee or worker becomes seriously injured or ill and is need of Advanced Life Support and transport, notify ECC by Radio or call 911 by telephone. Render first aid to the sick and injured until local agency medical first responders take over care. Notify the District Ranger and Forest Supervisor as soon as possible. Complete the required paperwork once emergency situation has been stabilized.	
10. LINE OFFICER SIGNATURE	11. TITLE	12. DATE	

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FS-6700-7 (2/98)		
U.S. Department of Agriculture	1. WORK PROJECT/ACTIVITY	2. LOCATION
		3. UNIT

Forest Service	Volunteer Chainsaw Operations	Daniel Boone National Forest	Forest Wide
JOB HAZARD ANALYSIS (JHA) References-FSH 6709.11 and -12 (Instructions on Reverse)	4. NAME OF ANALYST Matt Able	5. JOB TITLE Trails/Dispersed Rec Program Manager	6. DATE PREPARED 02/28/21
7. TASKS/PROCEDURES	8. HAZARDS	9. ABATEMENT ACTIONS Engineering Controls * Substitution * Administrative Controls * PPE	
GENERAL CHAINSAW OPERATIONS:			
Obtaining certification and training	Serious potential injury while attempting to operate saw outside of skill and training level	Maintain Required Qualifications: <ol style="list-style-type: none"> 1. Current first aid/CPR, blood borne pathogens, and Hazcom (employee right to know) training 2. Successfully complete an approved chain saw program: classroom and field training encompassing in part or in total a national training program (for example, Wildfire Power Saws S-212 or MTDC Chain Saw course) Chain saw program training/certification elements include: <ol style="list-style-type: none"> 1. Demonstration of sawing ability in accordance with Forest chain saw policy 2. Employees/volunteers certified for the first time should be supervised by a certified instructor or certified operator when operating a chain saw during project work 3. First line supervisors should monitor proficiency of sawyers to recognize additional recertification/training needs 4. Recertification training required a minimum of every three years for nonfire personnel 5. Follow risk management procedures 	
Tailgate safety meeting	Site specific hazards not identified	Hold tailgate safety meetings at start of each work session and if conditions or crew personnel change.	
Fueling	Fire from gas spilled on muffler or other ignition source Chemical burn from gas spilled on clothes, skin, eyes	<ol style="list-style-type: none"> 1. Let saw cool before refueling 2. Fuel on bare ground; avoid spillage during fueling 3. NO SMOKING DURING REFUELING 4. Move at least 10 feet away from fueling area before starting saw 5. Stay 20 feet away from ignition sources when fueling 6. Replace excessively gas/oil soaked gloves 7. Read and remain familiar with MSDS 8. Mix fuel in well ventilated area 9. Clean up spills promptly 10. Use labeled containers <ol style="list-style-type: none"> 1. Wear gloves and safety eye wear 2. Remove contaminated clothing and gloves; immediately wash exposed are with soap and water 	
Saw maintenance	Improperly operating saw may lead to fatigue and injury	<ol style="list-style-type: none"> 1. Keep saw in good working order 2. Ensure spark arrester is in good condition 3. Keep idle adjusted properly 4. Inspect bar for wear and proper chain tension 5. Do not use a saw that is not properly maintained 	
Sharpening chain	Cuts to hands	<ol style="list-style-type: none"> 1. Wear gloves when sharpening chain 2. When sharpening chain, use a vise if available 3. Never file chain while saw is running 4. Keep guard over chain when saw is not in use 5. Understand proper angle, raker height, and filing 6. Adjust raker height as needed but avoid taking too much off 	
7. TASKS/PROCEDURES	8. HAZARDS	9. ABATEMENT ACTIONS Engineering Controls * Substitution * Administrative Controls * PPE	

<p>Transporting saw by vehicle</p>	<p>Injury to vehicle occupants and damage to vehicle</p>	<ol style="list-style-type: none"> 1. Driver and passengers shall not ride in enclosed cargo portion of vehicle hauling flammable/combustible liquids, and chain saws 2. Ensure that fuel will not leak during transit, down load fuel if necessary to prevent leak 3. Bars should be covered with commercial coverings, chaps, etc. 4. Chain saws should be secured
<p>General cutting</p>	<p>Cuts to body</p> <p>Struck on head by falling material</p> <p>Struck in eye by flying objects</p> <p>Hearing Loss</p> <p>Slips, trips, and falls</p> <p>Cuts to body from thrown chain</p> <p>Fatigue</p> <p>Back injury, pulled muscles, torn ligaments</p> <p>Heat exhaustion and hypothermia</p> <p>Lack of communications with employees in cutting area</p> <p>Serious cuts to body from KICKBACK</p> <p>Cuts to co-workers in area</p> <p>Slips/trips/falls</p>	<p>Wear required PPE:</p> <ol style="list-style-type: none"> 1. Sturdy leather gloves 2. Long-sleeve (non-synthetic) shirt 3. Forest Service (FS) approved chainsaw chaps (minimum 2 inches overlap with boot) <ol style="list-style-type: none"> 1. Wear FS approved hard hat <ol style="list-style-type: none"> 1. Wear approved (ANSI Z-87 marked) safety eye glasses <ol style="list-style-type: none"> 1. Wear ear protection 2. Follow direction outlined by OSHA Hearing Conservation Program (link found in "Useful Links" subsection above) <ol style="list-style-type: none"> 1. Wear 8-inch high, heavy-duty, nonskid sole, cut-resistant, laced leather boots <ol style="list-style-type: none"> 1. To reduce risk of throwing chain, check chain tension each time saw is refueled 2. Do not operate saw above shoulder height <ol style="list-style-type: none"> 1. Take frequent breaks 2. Alternate cutting tasks, and ask for additional sawyers if needed 3. Stop cutting when tired <ol style="list-style-type: none"> 1. Do not attempt to carry heavy logs 2. Cut materials to sizes which can be safely carried or ask for help <ol style="list-style-type: none"> 1. Wear proper clothing for time of year and weather conditions 2. Wear layers that can be removed or added to, as conditions dictate 3. Take breaks and drink fluids <ol style="list-style-type: none"> 1. Radio contact from cutting operations will be maintained with dispatch of ICP 2. Verbal and visual communications will be established and maintained with crewmembers <ol style="list-style-type: none"> 1. Keep bar tip extended through the cut, keep bar tip clear of all other objects; wear protective equipment 2. Ensure saw has a chain break 3. Keep thumb and fingers wrapped around handlebar at all times <ol style="list-style-type: none"> 1. Maintain a minimum 10 feet spacing 2. Be alert, and do not permit co-workers to work immediately behind sawyer 3. Shut off saw, and/or engage chain break if co-worker needs to access the area near the saw <ol style="list-style-type: none"> 1. Step over logs, not on them 2. Clear work area around material that is being cut
<p>7. TASKS/PROCEDURES</p>	<p>8. HAZARDS</p>	<p>9. ABATEMENT ACTIONS</p> <p>Engineering Controls * Substitution * Administrative Controls * PPE</p>

Cutting with a bind or side winders	Serious bodily injury	<ol style="list-style-type: none"> 1. Properly assess binds/pressure before making cuts 2. Use wedges to avoid getting bar pinched 3. Watch for spring poles and rolling logs before making release cuts 4. Cut on the uphill side of the log
Limbing/bucking	Spring poles, unstable logs and rocks, widow makers, steep terrain	<ol style="list-style-type: none"> 1. Walk out the material prior to limbing/bucking to look for hazards 2. Limb one side of the tree first, then the other 3. Limb from top of large logs 4. When bucking, stay on uphill side 5. Use wedges and/or pie cut, know when to insert your wedge 6. Determine all binds before attempting to cut 7. Block material before bucking, if there is a potential for it to roll out of control 8. Those not operating a saw must stay away from sawyer a sufficient distance to avoid injury by saw, material that is being cut, and flying debris 9. Do not cross over with saw, limb on the same side as saw 10. Know where tip of bar is at all times
Felling		**VOLUNTEERS ARE NOT CERTIFIED TO FELL TREES**
**Saw certification; working within felling area	Injury to other crewmembers who observe felling procedures	<ol style="list-style-type: none"> 1. Make sure all trainees are aware of which tree is to be felled and in which direction it is planned to be felled 2. Point out identified hazards from size up 3. It is at the faller's discretion to allow trainees within 2.5 tree lengths to observe felling; in any case, maintain a reasonable, safe distance and be aware of the established escape route 4. ALL OBSERVERS MUST REMAIN QUIET DURING FELLING
Medical emergencies	Insect stings, bites, and allergic reactions; personal injury	<ol style="list-style-type: none"> 1. Watch for bee nests or swarms while walking, cutting, and after tree has been felled 2. People who know they are allergic to bees should have a sting kit and know how to use it; such persons should make it know they are allergic and inform other crewmembers on how to use the sting kit 3. All sawyers will maintain current first aid/CPR training 4. Communications must be established and maintained at all times so that advanced emergency medical treatment can be requested, and promptly obtained, if necessary
10. LINE OFFICER SIGNATURE	11. TITLE	12. DATE

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Attach a copy of the JHA as justification for purchase orders when procuring PPE.</p> <p>Blocks 11 and 12: Self-explanatory.</p>	<p>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.</p> <p>Be prepared to provide the following information:</p> <ol style="list-style-type: none"> 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. <p>The items listed above serve only as guidelines for the development of emergency evacuation procedures.</p> <p style="text-align: center;">JHA and Emergency Evacuation Procedures Acknowledgment</p> <p>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:</p> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="width: 25%; text-align: center;">SIGNATURE</th> <th style="width: 25%; text-align: center;">DATE</th> <th style="width: 25%; text-align: center;">SIGNATURE</th> <th style="width: 25%; text-align: center;">DATE</th> </tr> </thead> <tbody> <tr> <td style="border-top: 1px solid black; height: 20px;"></td> <td style="border-top: 1px solid black; height: 20px;"></td> <td style="border-top: 1px solid black; height: 20px;"></td> <td style="border-top: 1px solid black; height: 20px;"></td> </tr> <tr> <td style="border-top: 1px solid black; height: 20px;"></td> <td style="border-top: 1px solid black; height: 20px;"></td> <td style="border-top: 1px solid black; height: 20px;"></td> <td style="border-top: 1px solid black; height: 20px;"></td> </tr> <tr> <td style="border-top: 1px solid black; height: 20px;"></td> <td style="border-top: 1px solid black; height: 20px;"></td> <td style="border-top: 1px solid black; height: 20px;"></td> <td style="border-top: 1px solid black; height: 20px;"></td> </tr> <tr> <td style="border-top: 1px solid black; height: 20px;"></td> <td style="border-top: 1px solid black; height: 20px;"></td> <td style="border-top: 1px solid black; height: 20px;"></td> <td style="border-top: 1px solid black; height: 20px;"></td> </tr> <tr> <td style="border-top: 1px solid black; height: 20px;"></td> <td style="border-top: 1px solid black; height: 20px;"></td> <td style="border-top: 1px solid black; height: 20px;"></td> <td style="border-top: 1px solid black; height: 20px;"></td> </tr> <tr> <td style="border-top: 1px solid black; height: 20px;"></td> <td style="border-top: 1px solid black; height: 20px;"></td> <td style="border-top: 1px solid black; height: 20px;"></td> <td style="border-top: 1px solid black; height: 20px;"></td> </tr> </tbody> </table>	SIGNATURE	DATE	SIGNATURE	DATE																								
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Appendix A

This appendix contains the following document: FSH 6709.11 – Health and Safety Code Handbook, Chapter 40 – Equipment and Machinery. This chapter of the Health and Safety Code Handbook is referenced heavily by the “Use of Equipment & Machinery” JHA from the preceding section; therefore, this chapter is included here as an important addendum to this agreement. It should be used as reference material to ensure all safety provisions associated with each piece of equipment and machinery are being followed.

This document follows its own internal page numbering. As such, page 39 of this agreement (the next page) corresponds to page 1 of FSH 6709.11 – Health and Safety Code Handbook, Chapter 40 – Equipment and Machinery. There is a note at the bottom of each page of the FSH 6709.11 addendum, which provides guidance on how to calculate the corresponding page number for the agreement as a whole. (Notably the page references from the “Use of Equipment and Machinery” JHA correspond to the addendum’s internal pagination.)

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The authority for safeguards for personnel protection (relevant to electrical hazards) is in Title 29, Code of Federal Regulations (29 CFR), section 1910.335. The authority for eye and face protection, storage, and use of hand and portable powered tools is in 1910.133 and 1910.138.

41.04 - Responsibility**41.04a - Supervisors**

Supervisors are responsible for the following actions:

1. Ensuring that tools are not modified or used in any manner that increases the risk of injury.
2. Ensuring that tools remain in a safe condition through periodic inspection and repair. This includes tools furnished by employees.
3. Monitoring employee performance periodically to ensure proper methods are followed.

41.04b - Employees

Employees are responsible for using hand- and portable-powered tools in the prescribed manner. Employees assigned to tool rooms are responsible for inspecting and for repairing or replacing hand- and portable-powered tools as necessary.

41.1 - Qualifications

Supervisors shall ensure that employees are trained in the proper use and care of hand- and portable-powered tools required by the work project or activity. Only employees who have demonstrated the ability to handle a tool safely shall be permitted to work alone with that tool. Basic training may include the following:

1. Appropriate use of tools and personal protective equipment (PPE).
2. Tool operating limitations.

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3. Inspections.
4. Adjustments and maintenance (changing bits, blades, handles, and heads).
5. Safety features.
6. Care and cleaning.

41.11 - Personal Protective Equipment (PPE)

Where PPE is required, a formal certification must be accomplished in accordance with Federal Occupational Safety and Health Administration (OSHA) criteria outlined in 29 CFR 1910.132(d) (2), which identifies the workplace evaluated; the Supervisor or person certifying the evaluation has been performed; the hazard assessment date; and the PPE necessary to protect employees from specific hazards of the work performed. The certification can be documented using a variety of risk assessment (RA) products, such as a job hazard analysis (JHA).

41.13 - Safety Practices

Because hand- and portable-powered tools seem easy to use, people often expect them to do more than they were designed to do and frequently use the wrong tool for the job. Using wrenches as hammers and hammers in place of striking wrenches when working with particularly stubborn nuts are two typical examples. Observe the following guidelines when selecting and using tools:

1. Where required, Supervisors shall select the proper PPE (see FSH 6709.11, Ch. 70) for the tool being utilized and ensure employees are properly trained on PPE use, care, and storage.
2. Review and adhere to manufacturer's recommendations regarding tool use, care, storage, and limitations.
3. Select ergonomically designed tools (weight, size, and type) and consider buying several versions or sizes of the same tool. Use each tool only for the job for which it was designed.
4. Keep blades, cutters, and jaw teeth sharp for better results. Sharp tools improve accuracy, lower fatigue, and lessen accident and injury risk. Inspect hand- and portable-powered tools periodically for chips, cracks, distortion, mushrooming, or wear.

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5. Keep all tools clean and in working order. Protect them against corrosion damage. Wipe off accumulated grease and dirt. Lubricate adjustable and moving parts to prevent misalignment and wear.
6. Keep handles tight; secure them with wedges when necessary. Inspect wood handles for checking, cracking, splinters, splitting, and warping. Do not use a tool with a loose or damaged handle.
7. In the presence of flammable materials or explosive dusts and vapors, use non-sparking tools. Do not expose tools to excessive heat or use urethane-coated tools in excessive temperatures.
8. Never throw tools under any circumstances.
9. When a tool is not in use, shield any sharp edges and place the tool in a predetermined location, away from personnel. When transporting tools to and from the job site, ensure that sharp edges are guarded and that all tools are securely stored.
10. Never transport loose tools inside the same compartment with employees unless the vehicle is equipped with a net, protective screen, or secured stationary toolbox.
11. Discard or repair damaged tools promptly. Temporary and makeshift repairs are prohibited. If tools cannot be repaired on site, return them to the tool room for repairs or replacement. Separate and tag tools needing repair from tools that are in good working order.
12. Provide suitable bins and storage racks for all tools.

41.2 - Chopping Tools

Chopping tools include axes, adzes, brush hooks, hatchets, machetes, and Pulaskis. Employees who utilize these types of chopping tools should review One Moving Part, National Technology and Development Program (NTDP) publication.

41.21 - Safety Practices

All employees shall follow these basic safety practices for maintenance and use.

1. Employees shall be instructed in proper chopping techniques and tool sharpening.

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- a. When filing a chopping tool, secure the tool in a clamp or vise when available. Stroke the file across the tool's edge. Finish the edge with a hand stone.
 - b. Replace and discard axes, hatchets, and Pulaskis that show excessive signs of wear or have mushroomed edges or rounded corners that are beyond repair. Check tools against standard templates. Inspect for cracked or loose heads and crooked, split, splintered, or warped handles.
2. Carry a chopping tool by grasping around the shoulder of the handle close to the tool head. Hold the tool so that the flat surface of the blade is vertical (parallel to your leg), with the arm hanging naturally at one's side. Use of a sheath is recommended, especially when carrying a tool for long distances. Never carry a chopping tool on your shoulder.
3. Always remove branches, debris, or underbrush that might interfere with chopping. Follow these general rules:
- a. Do not allow people to stand in the chopping area and alert other workers of the distance chopped materials may fly.
 - b. Remove all overhead obstructions in which the tool might become hung up or strike. Always position your body securely while working with a tool.
 - c. Be alert when working on hillsides or uneven ground.
 - d. Be especially watchful for spring poles if cutting a sapling that is bound down and under tension. Be alert for sudden breakage. If there is not a need to cut it, leave it.
 - e. Standing on a log to chop is not recommended. Exceptions exist; exercise caution in such situations.
 - f. When chopping limbs from a felled tree, stand on the opposite side of the log from the limb being chopped and swing toward the top of the branch or tree.
 - g. When swinging a chopping tool vertically, the finish stroke should be in a plane that is parallel to the ground in most situations.
 - h. If the cutting edge picks up a wood chip, stop chopping and remove the chip before continuing.
 - i. To prevent glancing, keep the striking angle of the tool head almost perpendicular to the tree trunk.

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- j. Use special foot and shin/leg protection if needed.

41.3 - Cutting Tools

Cutting tools include chisels, files, saws, knives, shears, and snips.

41.31 - Safety Practices

Employees should follow the following basic guidelines for maintenance and use:

1. General Guidelines. Cutting tools must be handled with extra care. Do not store them with other tools where someone could be cut accidentally by inadvertently grabbing a sharp edge. The nuts and bolts on tools, such as shears and snips, require frequent adjustment. Wipe the edges of cutting tools frequently with a lightly oiled rag. Never hit a cutting tool with a striking tool.

2. Handsaws. Keep saw teeth sharp and properly set. Protect saw teeth with a sheath/guard when not in use. Consider the tooth shape and pattern for the material to be cut. Examine materials being cut for knots, nails, and other objects that may damage the saw or cause the saw to buckle. Hold pieces being cut firmly in place.

a. Bow Saws. Specific techniques include the following:

(1) When inserting a blade in a bow-saw frame, keep your hands and fingers in the clear when the tension lever snaps into or against the saw frame.

(2) When removing a bow-saw blade from the frame, ensure that the blade guard is in place.

(3) Carry a bow saw with the guarded blade to the rear. Ensure the cutting edge faces away from your body even when the guard is in place.

b. Hacksaws. Specific techniques include the following:

(1) Elect the proper blade for the material being cut.

(2) Point the blade teeth forward. Always keep the blade taut and the frame properly aligned.

(3) Use strong, steady strokes directed away from your body.

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(4) Do not cut thin, flat pieces from edge to edge; always clamp them securely and cut so that several teeth are cutting at all times.

3. Knives. Specific techniques include the following:
 - a. Keep handles in place and cutting edges sharp and free of nicks.
 - b. When using drawknives, place material at working height; firmly anchor; and hold steady. Do not use a drawknife on material being braced by a worker.
 - c. When possible, use knives that lock open. Keep your fingers away from the knife's edge when closing.
4. Chisels/Punches. Specific techniques include the following:
 - a. Select the proper hammer for striking. When striking a chisel, punch, or wedge, always wear eye protection and use a hammer with a striking face that is approximately 3/8 inch (9-1/2 mm) larger than the face of the tool being struck.
 - b. Select a wood chisel large enough for the job and drive with a wooden or rubber maul of sufficient weight. Use the proper chisel for the material being cut.
 - c. Hold chisels near the top with a steady but relaxed grip. Keep your eyes on chisel's cutting edge.
 - d. Repair or replace chipped, deformed, or mushroomed chisels and discard broken or cracked chisel handles. When sharpening a chisel, maintain its original shape and angle.
 - e. Punches must be straight and heavy enough for the work. Keep them accurately ground at all times.
 - f. Start punches with light taps. Hold them securely, especially on rounded surfaces. When knocking out rivets and pins, begin with a starting punch; finish with a pin punch.
5. Files. Specific techniques include the following:
 - a. Equip files with properly sized handles and wear cut-resistant (or leather) gloves when using files.

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- b. Tap the file into the handle by striking the handle end on a flat surface. Do not drive the handle onto the file with a hammer.
- c. Keep the file free of grease, oil, and shavings. Discard dull files or files with hard spots.
- d. Use the correct type of file for the work. Cut on the forward pass of the file only; do not file backwards. When filing small objects, clamp the material securely in a vise or clamp with sufficient pressure.

41.4 - Storage

Cabinets, chests, and toolboxes may seem safe, but improper use can lead to serious accidents resulting in injuries. Always ensure that all drawers are closed. Overloaded overhead drawers are unsafe and can cause the unit to suddenly tumble over onto the user.

41.41 - Safety Practices

Toolbox guidelines include the following:

1. Select a toolbox that is compatible with the intended use. The toolbox design should accommodate the following:
 - a. Allow for storage, removal, and transportation of tools efficiently and without damage.
 - b. Include carrying handles for easy moving.
2. Limit the size of a portable toolbox so that it can be easily handled and secured in position on a vehicle.
3. Keep toolbox lids and edges free of rough, sharp edges, and surfaces.
4. Never walk backward while pulling a toolbox with wheels.

42 - OTHER TOOLS AND EQUIPMENT**42.01 - Authority**

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The authority for handling materials, portable equipment tools and equipment, and slings is in Title 29, Code of Federal Regulations (29 CFR), sections 1910.176, 1910.184, and 1910.244. The authority for storage, rigging equipment for hoists, jacks, material handling, and wedges is in 29 CFR 1926.250 - 1926.252, 1926.305, and 1926.552 - 1926.554.

42.1 - Safety Practices

Follow these basic guidelines for maintenance and use:

1. Pry bar (42.1, Exhibit 01); digging and tamping bars (42.1, Exhibit 02).
 - a. Secure fulcrums and toeholds. When prying, push with your palms. When applying leverage, keep your face, feet, and other body parts out of line with the bar.
 - b. When breaking, chipping, or prying rock or similar materials, wear protective eyewear and ensure that other people are not within striking distance of flying particles.
 - c. Lay the bar flat and in the clear when not in use.
 - d. Maintain bars by keeping them straight. Sharpen tips to retain the factory bevel.
 - e. Replace bent or twisted bars. Bent or twisted bars can rotate during use and strike the user.
 - f. Store bars so that they do not present a tip-over or falling hazard.

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2. Grubbing tools. Such tools include combination tools, grubbing hoes (42.1, Exhibit 03), mattocks, McLeods, picks, Pulaskis (42.1, Exhibit 04), and various types of hoes.
 - a. Keep the blade eye tight-fitting and secured. Repair or replace defective or excessively worn tools immediately.
 - b. When working, ensure secure footing. Maintain a tight grip on the handle and keep legs and feet in the clear when swinging. Avoid directing the tool toward the body. Keep the tool out in front. Use gentle but deliberate swinging or hoeing motions.
 - c. Do not allow people to stand in the chopping, grubbing, or hoeing area. Watch for rocks or objects that will cause the tool to glance, rebound, or create excessive flying material. When swinging a tool vertically, the finish stroke should be in a plane that is parallel with the ground and out in front.
 - d. Where feasible, maintain 10 feet (3 m) minimum between employees while working.
 - e. Remove all overhead obstructions the tool might strike or snag.
3. Wrenches. Generally, the safest wrench is a box or socket type. Adjustable, flare nut, and open-end wrenches are not as strong as the corresponding sizes of box or socket wrenches and are not intended for heavy loads, such as breaking loose frozen fasteners or final tightening. If the wrench is not the correct size for the fastener, it is likely to damage the corners of the fastener or slip or break and cause an injury.
 - a. Use tools with insulated handles for electrical work.
 - b. Do not extend the wrench handle with pipe or other “cheater bar” to add leverage.
 - c. Whenever possible, pull rather than push a wrench handle. Pull it toward you at right angles. Adjustable wrenches should be tightly adjusted to the nut and pulled in such a manner that the force is on the side of the fixed jaw.
 - d. Never use a wrench on machinery or material in motion.
 - e. Do not position hands so that they can be jammed against other objects if a wrench slips.
 - f. Replace and discard wrenches when the jaws are sprung.

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- g. Keep jaw corrugations on pipe wrenches sharp and clean.
 - h. Keep handles and adjusting screws on all wrenches in good condition.
4. Hammers. Hammers are one of the most widely used type of hand tool and one of the most often abused. More than two dozen styles of hammers are manufactured in various configurations, sizes, and types for very specific purposes. It is essential for safety and efficiency to select the proper hammer for the specific activity or work project.
- a. Always use a wood or rubber maul of sufficient weight when striking a wood-handle chisel to prevent cracking the handle.
 - b. Hold nails being driven just under the head and not at the base.
 - c. Never use a hammer to strike a nail-puller bar.
 - d. Use a maul tempered harder than the object being struck.
5. Pliers. Pliers are designed and manufactured to perform specific functions; pliers are not wrenches, and they should not be used to turn nuts or bolts.
- a. Use specifically manufactured pliers to cut hardened wire.
 - b. Always cut at right angles.
 - c. Do not rock pliers from side to side or bend the wire back and forth against the cutting edges.
 - d. Pliers with plastic coated handles are not designed to provide electrical protection.
6. Screwdrivers. Screwdrivers come in many sizes and shapes and are to be used only for driving and withdrawing threaded fasteners. Suggested safety practices include the following:
- a. Keep a proper assortment of screwdrivers on hand.
 - b. Select a properly fitted screwdriver; the blade will make a snug fit.
 - c. Select a handle design that provides both comfort and proper leverage. Plastic and other handle coatings are for comfort only. They do not provide protection when working around electricity.

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- d. Do not use a screwdriver at eye level when directing pressure upward.
- e. Always be prepared to respond should the screwdriver slip.

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7. Vises. Vises (42.1, Exhibit 05) come in many sizes and shapes and are manufactured to hold specific types of work. A vise with bolt holes must be bolted, not screwed, to a bench. A vise that is loose at its base or with its jaws clamped too loosely on the work can cause accidents and injury. A vise with overtightened jaws can crush or damage the work. Proper pressure must be applied.

- a. Use arm power only to close the jaws of a vise. Do not use an extension handle or hammer to tighten the jaws.
- b. For a safe, secure hold, do the work as close to the vise jaws as possible.
- c. Support long overhanging work at the far end with a saw horse or similar device.
- d. When possible, clamp work centrally in the jaws instead of the corners. Use special jaw inserts for contoured or soft work pieces.

8. Jacks. Employees use various types of jacks, such as hydraulic, lever, ratchet, and screw jacks (42.1, Exhibit 06).

- a. Select jacks strong enough to hold the load safely and securely.
- b. See that the manufacturer's rated capacity is legibly marked on all jacks. Never exceed the rated capacity.
- c. Use only jacks that have a positive stop to prevent over travel. The operator must watch the stop indicator, which has to be kept clean in order to determine the limit of travel.
- d. Inspect jacks before using. Tag jacks if they are inoperable and do not use them until repairs are made. Follow this inspection timetable and inspect each jack thoroughly:
 - (1) For constant or intermittent use at one locality: at least once every six months.
 - (2) For jacks sent out of the shop for special work: when sent out and when returned.
 - (3) For a jack subjected to abnormal load or shock: immediately before and immediately after use.
- e. Lubricate jacks at regular intervals according to manufacturer's specifications or at least twice a year. Store them away from moisture.

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- f. Supply hydraulic jacks exposed to freezing temperatures with an adequate antifreeze liquid.
 - g. Always place the base of the jack on a level, firm foundation. When using cup-provided jacks, if there is a possibility of cup slippage, place a block between the cup and the load. Center the load to prevent tipping.
 - h. Chock or block and secure vehicles before raising them.
 - i. After the load has been raised, crib, block, or otherwise secure at once.
 - j. Shore any load that must remain raised in a position for any length of time.
 - k. Never get under a load supported by a jack unless the object is securely blocked on jack stands or on other approved support designed for the load.
 - l. Tag any jack that is out of order. Do not use until repaired. Replace jacks not easily repaired.
9. High-lift Jacks. High-lift jacks (42.1, Exhibit 07), such as the “handyman” jack, if misused or not maintained correctly, are potentially hazardous (refer to the Glossary).
- a. Review the conditions under which specific jacks may be used and ensure that operators are trained to use them properly.
 - b. Never stand directly in front of a high-lift jack.
10. Hand Trucks. It is extremely important to select the appropriate hand trucks (42.1, Exhibit 08) for the specific load to be moved or for the work project to be performed. Consider the following:
- a. Load-carrying capacity, strength of frame, leverage, and nose plate for stability.
 - b. Handle configuration and type (single, double, continuous, integral, or a combination).
 - c. Ergonomic design to allow the load balance point to move easily over the wheels, reducing break-over effort.
 - d. Rear casters that support the load’s weight to help keep the load balanced and casters that swivel to reduce the maneuvering effort.

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- e. Specially designed heavy-duty appliance hand trucks with auto-rewind ratchet tighteners and retractable molded casters (42.1, Exhibit 08).

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f. Proper hand truck operation is as follows:

(1) Before moving forward, make sure the path is smooth and clear. Bumps or obstacles can cause the load to fall.

(2) Ensure the load does not block your vision. Keep the load secure and well-balanced.

(3) Where feasible, strap the object securely to the frame.

(4) Ensure that wheels are secured to the frame and that the frame is straight and in good repair.

(5) Keep your feet away from moving hand truck wheels; position your hands and fingers away from pinch points.

(6) When possible, push instead of pull.

(7) Slow down at blind corners and intersections.

(8) Store hand trucks clear of aisles, exits, general traffic, passageways, and stairways.

11. Hoists. Hoists must meet the applicable requirements for construction, design, installation, testing, inspection, maintenance, and operation, as the manufacturer prescribes.

a. Select the appropriate hoist for the load by referring to the manufacturer's determined workload capacity as indicated on the hoist. Mark the hoist body or hook with the rated load capacity, recommended speed, and special hazard warnings.

b. Never let the hoist capacities exceed structure or building capacities. Use overhead support and rigging strong enough to carry maximum loads with a safety factor of two and one-half to one (2 ½ times stronger than the maximum load they are rated to carry).

c. Inspect chains, hooks, running gear, and straps for cracks and other signs of fatigue to make sure they will not slip or give way under stress.

d. Ensure that hook openings do not exceed 15 percent of the original hook gap throat (opening) or more than a 10-degree twist from the plane of the unbent hook.

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- e. Ensure that hoists are securely anchored.
 - f. Guide heavy loads with ropes rather than by hand.
 - g. Side-pull the chain hoist only when the superstructure is braced to withstand lateral stress.
 - h. Engage the ratchet pawl when lifting or suspending loads. Remove the crank when the load is suspended.
 - i. Use only crank handles with a free-floating grip.
 - j. Ensure that all hooks meet the manufacturer's recommendations and are not overloaded.
12. Peaveys, cant hooks, and pike poles (42.1, Exhibit 09).
- a. Keep your body balanced when pushing/pulling the pole.
 - b. Grip the handle firmly. Do not overstress the handle.
 - c. Place guards on points when the tool is not in use or is being transported.
13. Shovels.
- a. Keep shovels sharp and replace them if they show cracks, ragged edges, or splits. Follow sharpening guides carefully. Never sharpen cutting edges all the way to the foot plate.
 - b. When shoveling, support your upper body by bracing the forearm closest to your body against your thigh as you pivot the blade sideways.
14. Wheelbarrows.
- a. Select the appropriate wheelbarrow for the job, with a strong, straight frame and strong wheels that are well secured to the frame.
 - b. Keep your back straight and use your legs when lifting the handles of a loaded wheelbarrow. Never overload a wheelbarrow; keep the load evenly balanced, with weight well forward to avoid lifting strain. Push, do not pull, wheelbarrows.

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c. Watch for obstacles that will stop or tip a wheelbarrow. Do not run with a wheelbarrow. Check the route before moving the wheelbarrow.

(1) Allow enough clearance to avoid injuring fingers and hands.

(2) Exercise caution when ascending or descending ramps, especially when frosted, snow-covered, or wet.

15. Wedges.

a. Select the correct wedge(s) for the job. The proper type, size, length, and combination are essential for efficiency and safety.

b. Check wedges daily or before each job and do not use cracked or flawed wedges.

c. Carry wedges in an appropriate belt or other container, not in clothing pockets.

d. Always drive wedges by striking them squarely on the head and driving them carefully into the cut to prevent them from flying out of the cut or kerf.

e. Recondition heads and the tapered ends of wedges to the manufacturer's original shape and angle. Wear eye protection and a dust mask when grinding to recondition wedges.

42.1 – Exhibit 01 – Pry Bar



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42.1 – Exhibit 02 – Digging and Tamping Bar



42.1 – Exhibit 03 – Grubbing Hoes



42.1 – Exhibit 04 – Pulaski

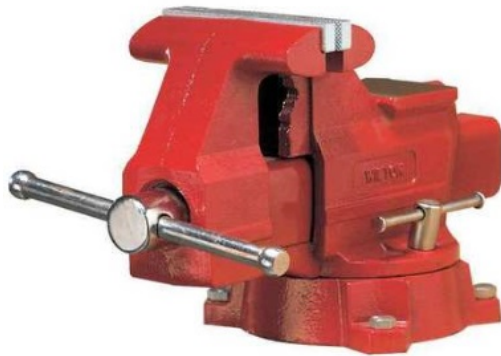
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42.1 – Exhibit 05 – Vise



42.1 – Exhibit 06 – Hydraulic Jacks



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42.1 – Exhibit 07 – High Lift Jacks



42.1 – Exhibit 08 – Hand Trucks



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42.1 – Exhibit 09 – Peavey and Cant Hook



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42.2 - Rigging Equipment for Material Handling

This section covers the use of fiber, synthetic, and wire ropes for lifting and structural support.

42.21 - Safety Practices

1. General Guidelines.

a. Inspect ropes and related equipment before each shift. Tag all equipment with safe working load ratings. Replace cracked blocks, hubs, flanges or sheaves, spokes, and winches. Discard hooks, rings, shackles, and slings that are bent, spread, or otherwise damaged. Continue to monitor ropes during use for broken strands, cuts, and frayed or worn spots. Immediately remove from service any defective rigging equipment.

b. Ensure that only a qualified splicer makes splices. Never use knots in lieu of splices. Ensure only qualified persons tie knots for tie-downs and loads. Match the type of knot to the purpose.

c. Carefully match the rope and the job:

(1) Use manila ropes preferably on rigging and other jobs where tight bends and sharp corners occur.

(2) Never use dynamic ropes where stretching causes problems.

(3) Use wire ropes for hoisting where slings and hardware are provided; for permanent guy wires and structured tension members; and for running or working ropes under heavy loads. (Use chains when hooks, ratchets, and other holding devices are used.)

(4) Never exceed the rigging equipment's recommended safe working load. Refer to 29 CFR 1910.184 and 29 CFR 1926.251 for specific rated capacities of rigging equipment.

(5) Always remove rigging equipment in the immediate work area when not in use so as to remove any potential hazard to workers.

2. Natural Rope and Synthetic Fiber.

a. Never overload rope.

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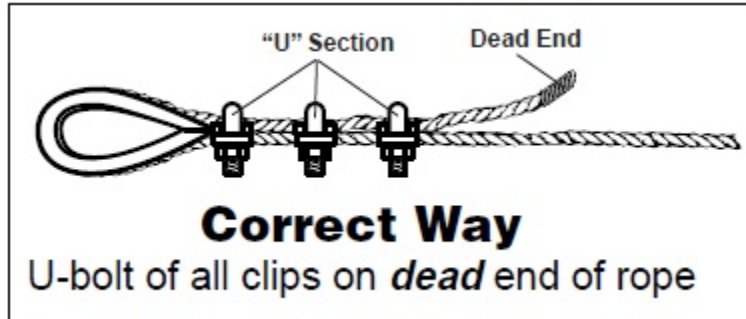
- b. Uncoil new natural fiber rope from the inside of the spool. Uncoil new synthetic rope by rolling the rope off the spool as it spins on an axle or spindle.
 - c. Never drag rope over rough or sharp surfaces.
 - d. Keep acids and acid fumes away from ropes.
 - e. Thoroughly dry rope after use. Coil and pile or suspend rope so air can circulate through the coils. Never pile frozen or wet rope against heat sources. When wet, natural fiber ropes lose strength, and wet synthetic ropes are slippery and may not hold knots well.
 - f. Store synthetic ropes away from sunlight, oil, and any other petroleum products that may cause deterioration.
 - g. Replace all ropes per the manufactures guidelines even when they have been maintained in good condition.
3. Wire Rope. Consult the unit engineer and/or tables for wire rope strength; requirements for proper use of wire rope are in 29 CFR 1910.184 and 29 CFR 1926.251. Serious accidents have resulted from improper handling of wire ropes and installation of wire rope clamps.
- a. Wear leather gloves while handling wire ropes.
 - b. Apply a safety factor of not less than five and never let the working load of a wire rope exceed one-fifth of its breaking strength.
 - c. Do not let wire rope kink. A common cause of wire rope failure is kinking.
 - d. Never allow wire rope to overwrap unevenly on drums.
 - e. Always use the proper size clamps. Inspect clamp nuts daily when rope is in use and tighten them often. Retighten newly installed nuts or slips after one hour of use.
 - f. When used for eye splices, apply the U-bolt so that the U section is in contact with the dead end of the wire rope (ex. 01).
 - g. Remove wire rope from service when the total number of visible broken wires exceeds ten percent of the total number of wires or if the rope shows other signs of corrosion, defect, or excessive wear.

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- h. Maintain the safety of wire rope by lubricating it regularly to protect against corrosion and excessive wear. Be sure the lubricant penetrates to inner wires.

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42.21 – Exhibit 01 – Proper Installation of Wire Rope Clamp



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42.3 - Chains

42.31 - Safety Practices

1. Consult an Engineer when selecting chains.
2. Inspect chains for corrosion, pits, and small cracks and for deformed, gouged, stretched, or weak links. If a chain is defective, repair or replace it. Dispose of unserviceable chain.
3. Do not splice broken chain with bolts or clamps.
4. Do not use shop hooks and links or makeshift fasteners formed from bolts, rods, or other such attachments.
5. Ensure that hooks; oblong links; pear-shaped links; rings; welded or mechanical coupling links; or other attachments, when used with alloy steel chains, have a rated capacity at least equal to that of the chain.
6. Do not subject chains to impact loads or jerking.
7. When hooking chain, ensure that the hook is completely over the link, so the chain cannot slip and the hook will not bend. The hook must be as far from the load as possible, so the pull is on the back of the hook. Ensure that a straight pull is made. The hook opening must be away from the object being pulled or lifted.
8. After hitching or hooking chains to a load, stand far enough away to avoid being hit by a broken chain, the load, or flying parts or pieces.

42.4 - Slings

42.41 - Safety Practices

1. Each day before use, a competent person shall inspect the sling and all fastenings and attachments for damage or defects. Perform additional inspections during sling use where service conditions warrant. Immediately remove from service any damaged or defective slings.
2. Follow manufacturer's recommendations to determine safe working loads of the various sizes and types of chains, hooks, ropes, slings, and other such rigging equipment. Tag safe working load ratings on all rigging equipment.

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3. Do not shorten slings with bolts, knots, or other makeshift devices.
4. Do not allow sling legs to be kinked.
5. Do not exceed safe working load ratings.
6. Pad or otherwise protect a sling from the sharp edges of a load.
7. Always ensure that suspended loads are clear of all obstructions.
8. Ensure that all workers are clear of loads about to be lifted and of suspended loads.
9. Never place hands or fingers between the sling and its load while the sling is being tightened around the load.
10. Do not permit shock loading.
11. Do not pull a sling out from under a load when the load is resting on the sling.

43 - POWER-OPERATED TOOLS

Generally, power tool accidents are caused by improper handling and poor maintenance. Most accidents can be avoided with proper training.

43.01 - Authority

The authority for general requirements on machines, abrasive wheel machinery, mechanical power-transmission apparatus, and guarding of portable powered tools is in Title 29, Code of Federal Regulations (29 CFR), sections 1910.212-1920.213, 1910.215, 1910.219, and 1910.242-1910.243. The authority for general tool and equipment requirements is in 29 CFR 1926.300 1926.304, 1926.306, and 1926.702.

43.04 - Responsibility**43.04a - Supervisor**

Supervisors are responsible for the following actions:

1. Ensure that tools are not modified or allowed to be used in any manner that increases the risk of injury.

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2. Ensure that tools are maintained in a safe condition through periodic inspection and repair, including tools furnished by employees.
3. Monitor employee performance periodically to ensure that proper methods and workplace practices are followed.

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Employees are responsible for operating power tools in a safe, prescribed manner, including using all protective equipment provided by the tool manufacturer. Employees are responsible for wearing all required and provided PPE.

43.1 - Qualifications

Employees shall not work alone with a tool until they have thoroughly demonstrated their ability to handle it safely. Training must be documented.

43.11 - Personal Protective Equipment

Employees using power-operated tools who are exposed to the hazard of abrasive, falling, flying, moving, rotating, or sharp objects or are exposed to harmful chemical dusts, fumes, gases, mists, or vapors shall be provided with PPE necessary to protect them from the specific hazard(s).

43.12 - Safety Practices

The following apply to all types of power tools:

1. Proper handling.
 - a. Use cord connected power-operated hand- and portable-powered tools in accordance with the manufacturer's operating, safety, and maintenance instructions.
 - b. When possible, select ergonomically designed tools that may lower fatigue and lessen accident or injury risk.
 - c. Replace or repair worn or damaged cords, equipment, and tools immediately. Temporary and make-shift repairs are prohibited.
 - d. Tag all tools in need of repair with a "do not use" tag and provide suitable storage bins for tools needing repair or maintenance.
 - e. Check power cords frequently for abrasions, cracks, cuts, and broken insulation.
 - f. Keep power cords clean and free of kinks. Never carry a portable power tool by the cord.

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- g. Provide electric tools with a grounding connection or provide double-insulated tools.
 - h. Always unplug the power cord from the outlet before changing parts or making adjustments and after the project is finished.
 - i. Place power tools in designated storage areas when not in use.
2. Proper maintenance.
 - a. Do not alter, bypass, or nullify manufacturer's guards and safety equipment on power tools unless the manufacturer identifies specific uses.
 - b. Adjust, inspect, and maintain all guards and safety equipment based on the manufacturer's recommendations or otherwise at regular intervals.
 - c. Keep the work area clean, dry, and well lit. Good housekeeping is essential to good workmanship.
 - d. Do not wear clothing or jewelry that could become entangled in power tools.

43.2 - Air Receivers

Air receivers are used in many different kinds of activities, including chipping, drilling, hoisting, inflating, painting, and abrasive blast cleaning.

43.21 - Safety Practices

1. Locate air receivers so handholds, maintenance drains, and safety inspections are easily accessible and so that the pressure indicator gauge is readily visible.
2. Ensure that the drain valve is opened and drained frequently to prevent the accumulation of liquid in the receiver.
3. Test all safety valves (pressure relief) at regular intervals to ensure that they are in good operating condition. Maintain a record of tank draining and safety valve tests at the air receiver.
4. Observe explosion and fire precautions related to air receiver operation.

43.3 - Pneumatic Power Tools

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Generally, follow the same precautions for the use and care of pneumatic tools as for electric and gasoline engine-driven equipment.

43.31 - Safety Practices

1. General Guidelines. Observe fire and explosion precautions related to pneumatic tool operation.
 - a. Ensure that hose and hose connections are designed for the pressure and service needed. Use the air hose only for the purposes for which it was designed.
 - b. Inspect air supply lines, connections, and hoses regularly and maintain them in optimum condition.
 - c. Protect air supply lines, connections, and hoses from vehicle, hand-truck traffic, and other physical damage.
 - d. All hoses that exceed one-half inch (12 ³/₄ mm) inside diameter must have a safety device at the source of the supply or the branch.
 - e. Do not use hoses for hoisting or lowering pneumatic tools.
 - f. Secure hose connection to pneumatic power tools by a positive means to prevent accidental disconnection.
 - g. Ensure that safety clips or retainers are securely installed and maintained on pneumatic impact (percussion) tools to prevent attachments from being accidentally expelled.
 - h. If an air hose becomes crimped, entangled, or snagged, do not jerk or pull excessively to free it.
 - i. Do not use compressed air for cleaning purposes except where the pressure is reduced to less than 30 psi (214kPa) and then only with a chip guard and appropriate PPE.
 - j. Ensure that others are not in the line of airflow and never aim an air hose at anyone.
 - k. Do not use compressed air for cleaning off clothing or parts of the body.
2. Air Hammers. Air hammer operators shall observe the following:

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- a. Be especially careful when laying down an air hammer so that the trigger cannot be pulled accidentally.
- b. Loosen a tool that is stuck by rocking it back and forth instead of trying to pull it out.
- c. Never leave an air hammer standing when not in use.

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A variety of tools using powder/explosive charges to propel fasteners, pins, or studs for the purpose of affixing an object to another surface are available and widely used.

43.41 - Safety Practices

All powder/explosive-actuated tools must be treated with respect.

1. Inspect the tool each day before use. Follow the manufacturer's recommended procedures for testing the tool. Only employees who have been trained in a particular tool's operation shall be allowed to operate a powder-actuated tool.
2. Ensure that all tools are used with the correct attachment, guard, or shield recommended by the manufacturer.
3. Do not load a tool unless it is being prepared for immediate use. Never point an empty or loaded tool at any person.
4. Never leave a loaded tool unattended.
5. Do not use tools in an explosive or flammable atmosphere.
6. Use only fasteners specifically manufactured for the tool. Do not drive fasteners into very hard or brittle materials, such as cast iron, face brick, glazed or hollow tile, line rock, or surface-hardened steel.
7. Avoid driving into materials that are easily penetrated unless the material is backed by a substance that prevents the fastener or pin from passing completely through.
8. Provide suitable and secure storage for cartridges and munitions.

43.5 - Woodworking Equipment

Power-driven woodworking equipment includes band saws, circular saws, portable saws, and radial arm saws; jointers; sanders; and others. This equipment may provide for more efficient, productive work; however, it requires individual operator training, skill, and caution.

43.51 - Safety Practices

When operating such equipment, the following applies:

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1. Ensure that the work area is kept free of debris that creates tripping or fire hazards.
2. Inspect all power-driven woodworking machines and associated equipment at regular intervals to ensure that they are in safe operating condition.
3. Remove from service any woodworking machine, tool, or machine equipment not in proper working order. Tag “do not use;” replace or repair.
4. Prohibit temporary or makeshift repairs.
5. Remove immediately from service badly set, cracked, dull, improperly filed, or tensioned saws.
6. Ensure that guards are in place on belts, gears, pulleys, shafts, and moving parts.
7. Secure and anchor woodworking machines designed for a fixed location to prevent moving or walking.
8. Ground all power-driven woodworking machines.
9. Equip each machine with a mechanical or electrical power control so that the operator can cut off the power without leaving the work position.
10. Provide all fixed power-driven woodworking tools with a disconnect switch that can be locked or tagged in the off position.
11. Provide automatic shut-offs to prevent the machine from restarting when power is restored after failures.
12. Lock out the power source when leaving at night.
13. Immediately clean saws that have gum adhering to the sides.
14. Keep all knives and cutting heads sharp, properly adjusted, and firmly secured.
15. Adjust bearings to eliminate play and keep them well lubricated.
16. Only trained persons shall sharpen and tension saw blades or cutting heads.
17. Ensure arbors of all circular saws are kept free from play.

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18. Maintain good housekeeping and cleanliness around woodworking machinery. It is particularly important to clean switch enclosures, bearings, and motors to reduce fire and explosion hazards.
19. Provide push blocks or push sticks at the worksite in several sizes and types suitable for the work to be done.
20. Make adjustments and accessory changes only when machinery is turned off and unplugged.
21. When operating machinery, do not wear loose fitting clothing or jewelry that could become caught in the machinery.
22. Take breaks when you are tired. When using equipment, do not take your eyes off your work or talk to anyone.

43.51a - Portable Saws, Jointers, and Sanders

1. General Safety Practices.

- a. Ensure that saws are equipped with a fixed guard over the upper half of the blade and a movable guard covering the lower half of the blade. Leave both of these guards in place. Blocking or bypassing safety guards is prohibited.
- b. Secure small pieces being cut with bench clamps or by some other means.
- c. Check saw blades regularly and keep them in good condition. Use the blade recommended for the material being cut and never use a dull blade or cutting edge.
- d. Never jam or crowd a saw into the work. Cut green or wet material slowly and with extra caution.
- e. Require approved respiratory and eye protection for operators cutting concrete, stone, or tile.

2. Circular Table Saws.

- a. Ensure that guards include the following:

- (1) Hood covering the saw at least to the depth of the teeth and giving a clear view of the line of cut.

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- (2) Spreader and anti-kickback device that are part of the guard.
 - (3) Safe under-table protection.
 - b. Use a saw only for the work for which it is designed.
 - c. Use the correct type of cutting blade for the material to be cut.
 - d. For each day of use, check to ensure that saw teeth are set and sharp and that the arbor nut is tight.
 - e. Never use the ripping fence as a guide for crosscutting material.
 - f. Kickback is one of the greatest hazards in running a table saw. To avoid it, observe the following:
 - (1) Use the splitter guard.
 - (2) Never use a dull blade.
 - (3) Do not cut freehand or attempt to rip badly warped wood.
 - (4) Do not drop wood on an unguarded saw.
 - (5) Always stand slightly to one side, not in line with the saw.
 - (6) Do not reach over the saw to push stock that has been sawed (43.51a, Exhibit 01).
 - g. Ensure that circular table saws have magnetic switches.
3. Radial Arm Saws.
- a. Keep the machine in proper alignment and adjustment to prevent excessive vibration.
 - b. Use the appropriate load and speed for the saw. If the motor slows while cutting, it may mean that it is overloaded or that the material is being fed too fast.
 - c. Provide and use upper and lower blade guards.
 - d. Ensure that anti-kickback fingers or dogs contact material when ripping and that the guard just clears the work.

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e. Make sure that saw rotation is conspicuously marked on the hood. In addition, affix a sign to the rear of the guard that reads: “Danger - Do Not Rip or Plough from This End.” It is imperative that work be fed into radial arm saws from the proper direction.

f. Ensure that radial arm saws have the following features:

(1) Are equipped with an adjustable stop to prevent the saw blade from traveling beyond the front of the table.

(2) Are installed so the front end of the unit is slightly higher than the rear. This allows the cutting head to return to the starting position when the operator releases it.

(3) Has the direction of rip posted on the saw.

(4) Is equipped with a floating lower blade guard.

(5) Is equipped with magnetic switches.

4. Band Saws.

a. Ensure that band saws have the following:

(1) Wheels that are fully encased or guarded.

(2) Effective brakes to stop the wheels in case of blade breakage.

(3) A self-adjusting guard for that portion of the blade between the sliding guide and the upper saw wheel guard.

(4) A tension control device.

(5) Guard-powered feed rolls.

(6) Magnetic switches.

b. With power disconnected, turn the upper wheel manually before starting to ensure that the saw band travels smoothly on both upper and lower wheels and through the band guide.

c. Use a saw band as wide as the work permits.

5. Jointers.

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- a. Ensure that each hand-fed jointer has an automatic guard that covers all of the cutting head on the working side of the fence or gauge and a guard on the exposed portion of cutting head in back of the gauge or fence.
 - b. Ensure that jointers with a vertical head either have an exhaust hood or have guards so arranged as to completely enclose the revolving head.
 - c. Ensure that jointers have magnetic switches.
 - d. Use push blocks or sticks to push stock over cutting heads.
6. Sanders.
- a. Provide belt sanders with guards at each nip point where the sanding belt runs onto a pulley.
 - b. Use particulate (dust) masks or respirators for intermittent or occasional dust.
 - c. Where sander use is frequent, ensure that dust is exhausted and collected; otherwise, dust may create an explosion hazard. These measures are in addition to dust collection systems installed directly on sanders. Avoid open flame and sparks.
 - d. Arrange the power cord so that the abrasive belt cannot damage it.
 - e. Keep both hands on the sander for good control.
 - f. Clean dust and chips from the motor and vent holes regularly.
 - g. Follow the manufacturer's recommended maintenance and service schedule.

43.51a – Exhibit 01 – Spreader and Anti-Kickback Device

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Drills are available in a variety of configurations, power ratings, and sizes, and they may be corded or cordless. These drills also offer features such as high torque, reversible, and variable-speed, and there are special drills for drilling and hammering.

43.61 - Safety Practices

Follow these basic guidelines:

1. Select the correct bit for the material to be drilled.
2. Where necessary, provide a prick punch or pilot hole for the drill point. Some bits, such as zirconium, may not require center punching.
3. Before drilling, ensure that the material to be drilled is secured to prevent movement or rotation.
4. If the bit may penetrate through the material to be drilled, take necessary steps to protect against damage or injury.
5. Do not straddle a drill or position your body to apply pressure that may exceed the drill's capability or capacity.
6. Always securely anchor drill presses to prevent them from moving or walking.
7. Locate the power control so that it allows the operator to cut off the power without leaving the work position.
8. Equip drill presses with guards to protect the operator from contacting hazards created by rotating parts and nip points.
9. Use the appropriate drill speed for the material being drilled.

43.7 - Grinders

Bench grinders are used for shaping, sharpening, and smoothing metal, plastic, stone, or wood. For additional safety requirements, refer to 29 CFR 1910.212, 1910.215, 1910.303, and 1926.300.

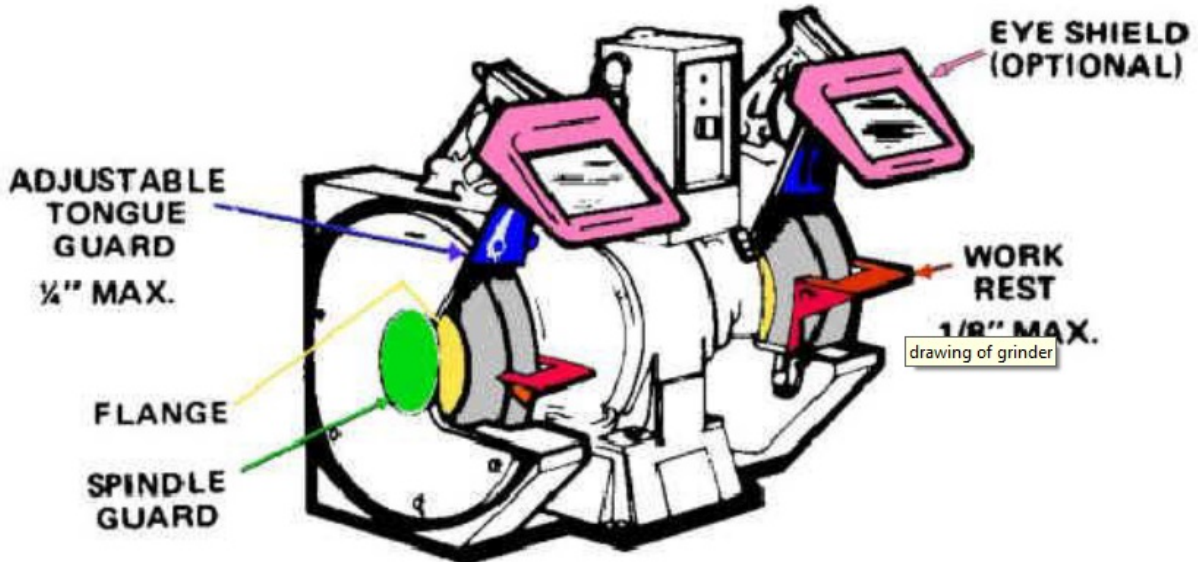
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Basic safety practices for grinder use include the following:

1. Inspect all abrasive wheels closely before mounting to ensure that they are free from cracks or defects. Follow up with regular inspections.
2. Always match the abrasive wheel rotation per minute (rpm) rating with the rpm rating of the grinding machine.
3. When using hand-held grinding machines, always use work rests to support the work.
4. Always keep work rests on the floor and bench-mounted grinders adjusted closely to the wheel with a maximum opening of 1/8 inch (3-1/4 mm). This prevents the work from being jammed between the wheel and the rest, and possibly causing breakage (ex. 01).
5. Always securely clamp the rest after each adjustment.
6. Adjust the tongue guard (when equipped) so that it is 1/4 inch (6-1/2 mm) from wheel.
7. Never make adjustments with the wheel in motion.
8. Keep all machine guards in place and functional. Wear eye and/or face protection.
9. Securely attach bench and floor model grinders and buffers to the floor or work bench before use.
10. Keep abrasive wheels free from oil and properly dressed.
11. Do not leave a running machine unattended.
12. Always stand to one side of the machine while starting the motor until the operating speed is reached to prevent injury if a defective wheel should break and fly apart.
13. Use light pressure when starting to grind. Too much pressure may cause a cold wheel to fail.
14. Always conduct a visual inspection to detect defects before installing parts on a grinder.

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43.71 – Exhibit 01 – Work Rest Adjustment



Note

In conjunction with this Sheltopee Trace Association—Daniel Boone National Forest Volunteer Agreement document, the following resources have been provided to STA leadership:

Reporting Tools

Excel spreadsheet of the “Reporting Template” document (p. 12)

Volunteering Session Required Forms

PDF of the OF-301b Form (p. 17)

PDF of the Tailgate Safety Meeting Record (p. 19)

The page numbers following each listed document corresponds with the location of its counterpart within this agreement. A description of each document can be found within their respective sections: *Reporting Tools* (p. 11) and *Volunteering Session Required Forms* (p. 16).