NOTE: Any yellow text shading or red text annotations have been added by ORNL Subject Matter Experts (SMEs). The annotations have been made in order to document (1) certain Forest Service requirements that have been waived or (2) where some requirements for the ORNL participants have been clarified or established within the ORNL Research Safety Summary (RSS) instead. The RSS 7728 is the work control document that governs the ES&H the activities/actions of the ORNL participants doing work at the Marcell Experiment Station.

U.S. Department of Agriculture	1. WORK	PROJECT/ACTIVITY		2. LOCATION	3. UNIT
Forest Service Forest F		Research		Grand Rapids MN	RWU 4101/4351
JOB HAZARD ANALYSIS (JHA) References-FSH 6709.11 and -12 (Instructions on Reverse)	4. NAME	OF ANALYST		5. JOB TITLE	6. DATE PREPARED
7. TASKS/PROCEDURES		8. HAZARDS	9. ABATEMENT ACTIONS Engineering Controls * Substitution * Administrative Controls * PPE		
Dehydration and/or low blood sugar			Provide (in addition to regular meals) fruit and liquids that		
a. Excessive heat 95° to 100° temperatures.			replace the loss of carbohydrates and maintain blood sugar		
b. Long physically demanding work shifts.			levels to normal limits. This will benefit the government by		
c. Working on asphalt surfaces reaching			reducing employee illness, injury and agency provided		
temperatures in excess if 100° Fahrenheit.			medi	cal care.	
d. Hot exhaust turbulents and winds create					
aircraft (fixed wing and Rotorcraft)					
e. Many locations involve dusty operations	s (i.e.,				
hover hook-ups, etc.)					
f. Long tours of duty up to 21 days exposure			*NOTE: When extreme weather and burning conditions return to		
g. Not eating a normal diet (meals ready to eat)			norm	normalallowing employees to subsist for themselves this Job	
(MRE's) and freeze dried food.			Haza	Hazard Analysis is no longer in effect.	
h. to Deter motion sickness.					
			ORNI heat a	L SME: Also see RSS Question 12.3 j and cold stress including the links to (	for additional information on OSHA publications.
This analysis applies to:				Ŭ	•
Retardant base operations					
Helicopter operations					
Smokejumper operations					
Other airfields, helibases, heliports and					
related support operations within Region 1.					
*					
*					

Previous edition is obsolete

(over)

JHA Instructions (References-FSH 6709.11 and .12)	Emergency Evacuation Instructions (Reference FSH 6709.11)			
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.	Work supervisors and crew members are responsible for developing and discussing field emergency evacuation procedures (EEP) and alternatives in the event a person(s) becomes seriously ill or injured at the worksite. Be prepared to provide the following information:			
<ul> <li>Blocks 1, 2, 3, 4, 5, and 6: Self-explanatory.</li> <li>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).</li> <li>Block 8: Identify all known or suspect bazards associated with each respective.</li> </ul>	<ul> <li>a. Nature of the accident or injury (avoid using victim's name).</li> <li>b. Type of assistance needed, if any (ground, air, or water evacuation)</li> <li>c. Location of accident or injury, best access route into the worksite (road name/number), identifiable ground/air landmarks.</li> <li>d. Radio frequency(s).</li> <li>e. Contact person.</li> <li>f. Local bazards to ground vehicles or aviation.</li> </ul>			
task/procedure listed in block 7. For example:	g. Weather conditions (wind speed & direction, visibility, temp).			
a. Research past accidents/incidents	<ul> <li>h. Topography.</li> <li>i. Number of person(s) to be transported</li> <li>j. Estimated weight of passengers for air/water evacuation.</li> </ul>			
<ul> <li>Research the Health and Safety Code, FSH 6709.11 or other appropriate literature.</li> </ul>				
c. Discuss the work project/activity with participants	The items listed above serve only as guidelines for the development of emergency			
d. Observe the work project/activity				
<ul> <li>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:</li> <li>a. Engineering Controls (the meet desires block method of abatement).</li> </ul>	JHA and Emergency Evacuation Procedures Acknowledgement We, the undersigned work leader and crew members, acknowledge participation in the development and/or review of this JHA (as applicable) and accompanying emergency evacuation procedures. We have thoroughly discussed and understand the provisions of each of these documents:			
For example, ergonomically designed tools, equipment, and furniture.	SIGNATURE DATE SIGNATURE DATE			
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.				
<ul> <li>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)</li> </ul>				
e. A combination of the above.				
<b>Block 10:</b> The JHA must be reviewed and approved by a line officer. Attach a copy of the JHA as justification for purchase orders when procuring PPE.				
Blocks 11 and 12: Self-explanatory.				

\_