FS-6700-7 (2/98)

U.S. Department of Agriculture 1. WO Forest Service	RK PROJECT/ACTIVITY		3. UNIT
	WORK CAPCITY TES		O DATE DREDADED
JOB HAZARD ANALYSIS (JHA) References-FSH 6709.11 and -12 (Instructions on Reverse)	ME OF ANALYST	5. JOB TITLE	6. DATE PREPARED
7. TASKS/PROCEDURES	8. HAZARDS	9. ABATEMI	ENT ACTIONS
			ution * Mitigations * Administrative ols * PPE
Firefighter Work Capacity Pre-Test	Test Adminstration &	Review that all candidates have condocumentation appropriate for their	
	Site Preparation		
NOTE: Each District, Forest and Region may have additional requirements/guidelines for local conditions.		BSI, and oxygen) is on site for the d proximity to medical care in makling department/EMS personnel on stan adminstaror should ensure a means phone, radio, etc)	this decision. Having local fire d-by may be appropriate. Test
EVERY WCT ADMINISTRATOR SHOULD CONDUCT A THOROUGH PRE-WCT JHA!		Be aware of the local weather fore doesn't adviserly impact WCT.	cast. Ensure inclement weather
		Ensure all candidates and WCT as for expected weather conditions.	ssistants are dressed appropriately
		Ensure the course is: flat, free of t marked (and well lit, if in darkness	
		Preferrably, select a course route	without motor vehicle conflicts.
		If necessary, arrange for traffic correcognized traffic hazards (e.g., ro	
		Have sufficent fluids on hand to hy WCT before, during and after the caffinated/"energy" drinks.	ydrate personnel particpating in the test. Refrain from
	Post Test	Remove all course markings (e.g., and any refuse generated by the W	flagging, cones, road closure signs) CT
Firefighter Work Capacity Testing	Physical Exertion		ore starting the test. Begin physical
Walking on flat surface in measured distances of:		exercise with a slow warm-up and g may take up to 30 minutes or more	
> 1 Mile ("Light or Walk" @ no lbs)		Monitors along course shall provide	de fluids.
2 Miles ("Moderate or Field" @ 25 lbs)		Immediately notify the WCT Admir	nistrator, Course Monitor, Timer or

> 3 Miles ("Arduous or Pack" @ 45 lbs)	Walking	EMT, if ill or injured. Advise your supervisor, if the test cannot be completed by an individual, for whatever reason, see WCT Adminstrator. Cool down properly and stretch after the test. Replenish fluids. Do not exceed a walking pace. If subject doesn't satisfactorily complete the test for any reason, consult with the WCT adminstrator for further direction.
Firefighter Work Capacity Testing	Heart Attack	Signs and symptoms include:
		 Chest discomfort. Most heart attacks involve discomfort in the center of the chest that lasts more than a few minutes, or that goes away and comes back. It can feel like uncomfortable pressure, squeezing, fullness or pain. Discomfort in other areas of the upper body. Symptoms can include pain or discomfort in one or both arms, the back, neck, jaw or stomach. Shortness of breath with or without chest discomfort. Other signs may include breaking out in a cold sweat, nausea or lightheadedness and pain in other areas of the body even. Sudden loss of responsiveness (no response to tapping on shoulders). Absent of normal breathing (the victim does not take a normal breath when you tilt the head up and check for at least five seconds).
		 Activate the EMS system (Call 911 – even if EMT present). Cease physical exertion. Place in shaded, cool area. Have patient lay down. Provide oxygen, if available (at high flow) Remove/loosen restrictive clothing. Elevate lower extremities (legs) 12'-18"
Firefighter Work Capacity Testing	Knee and Back Pain	Use proper lifting technique or a partner when putting on or taking off the pack.
		Have pack/vest adjusted to fit before starting the test. If while taking the test the pack/vest moves or is not sitting right, STOP , (you have plenty of time) make the adjustments and then continue on with the test.
		Contact site medical personnel and your supervisor.

Firefighter Work Capacity Testing	Over-exertion	Stop the test if feeling faint, dizzy, or nauseated. Call for assistance.
		Stay hydrated, keep a proper diet, and get plenty of rest. Mitigate with good pre test physical preparation
		Contact site medical personnel and your supervisor.
Firefighter Work Capacity Testing	Muscle Cramps	If possible, plan to take the test at a time of day when temperatures are less likely to cause heat related issues such as muscle cramps, usually in the morning.
		Cool down when the test is completed.
		Contact site medical personnel and supervisor.
Firefighter Work Capacity Testing	Blisters	Properly fitted pack/vest and footwear should be used. If while taking the WCT the pack/vest or footwear becomes uncomfortable, STOP , make the adjustments and then continue on with the test. If pain is too great to continue, seek medical attention. Advise WCT Adminstrator and your supervisor.
		Properly fitted socks/footwear.
		Double layer or "dry wick" socks, powder, or moleskin as needed.
		Treat "hot-spots" as soon as detected to prevent blisters from forming. Consult with the site medical personnel and notify your supervisor.
Firefighter Work Capacity Testing	Shin Splints/Bone Bruises	Insure footwear is properly fitted, broken in and provides adequate protection and support.
		Walk on smooth, level surfaces when possible.
		Contact site medical personnel and your supervisor.
Firefighter Work Capacity Testing	Strains and Sprains	Time intervals at posted distances will be given for subjects to adjust walking pace, if needed.
		Wear comfortable footwear and socks that provide adequate support and protection to the feet and ankles.
		Do not exceed a walking pace. Do not run or jog with the weighted pack/vest. Be careful lifting and removing the weighted pack/vest.
		Contact site medical personnel and your supervisor.

Firefighter Work Capacity Testing	Heat Related Illness:	Heat stress occurs when the body's core temperature rises beyond safe limits. Evaporation of sweat is the body's main defense against heat. When fluids are not replaced, the body can no longer regulate its' temperature. Have an adequate supply of water available and that persons are drinking enough water (approximately 1 liter per hour).
	1) Heat Exhaustion	Signs and symptoms of heat exhaustion include: fatigue, weakness and collapse. The skin becomes pale, cold, and clammy associated nausea, vomiting, dizziness, headache, problems breathing, and diarrhea.
		 Treatment inlcudes: Place the victim in a cool, shady place, lying down with feet raised 8-12 inches above the head. Loosen clothing and apply cool compresses/wet cloths to skin. Transport the victim to a hospital for care as soon as possible.
	2) Heat Stroke	Heat stroke is a true medical emergency.
		Symptoms include: confusion, high body temperature (up to 106F), hot (red) and often dry skin, rapid pulse, convulsions, loss of consciousness, and coma. <i>Death is possible without prompt treatment.</i> Lack of sweating is one possible sign of imminent heatstroke. Do not delay treatment, it must be immediate!
		 Emeregncy treatment includes: Cool the body quickly with cool compresses and cool, wet cloths. Place ice packs in arm pits and groin area, if available. Move the victim into a cool, shady area. If possible move person into an air conditioned vehicle or fan subject. Prevent further exposure to heat. If conscious, administer small sips of cool fluids. Transport the victim to a medical facility as quickly as possible. Activate the EMS system (Call 911)
Firefighter Work Capacity Testing	General Course Conditions	Locate and mark a suitable test course route with a walking surface free of recognized hazards.
	(e.g., rocks, logs, gravel, potholes, ice,	All participants should wear properly fitting and broken-in footwear and socks.
	snow or mud, and hard pack surfaces)	Anyone taking the WCT should wear a properly fitted backpack/vest

		and, shall be worn with proper weight for the test Watch footing on all course surfaces.	fitness level.
	Weather		
	vveatner	Postpone testing until a suitable safe route/time can be designated Select a course route without motor vehicle conflicts. Consider temporary closures.	
Firefighter Work Capacity Testing	Traffic		
		If necessary, arrange for traffic control to elimin recognized traffic hazards.	ate or abate
10. LINE OFFICER SIGNATURE		11. TITLE	12. DATE
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JHA Instructions (References-FSH 6709.11 and .12)

The JHA shall identify the location of the work project or activity, the name of employee(s) writing the JHA, the date(s) of development, and the name of the appropriate line officer approving it. The supervisor acknowledges that employees have read and understand the contents, have received the required training, and are qualified to perform the work project or activity.

- Blocks 1, 2, 3, 4, 5, and 6: Self-explanatory.
- **Block 7:** Identify all tasks and procedures associated with the work project or activity that have potential to cause injury or illness to personnel and damage to property or material. Include emergency evacuation procedures (EEP).
- **Block 8:** Identify all known or suspect hazards associated with each respective task/procedure listed in block 7. For example:
 - a. Research past accidents/incidents
 - b. Research the Health and Safety Code, FSH 6709.11 or other appropriate literature.
 - c. Discuss the work project/activity with participants
 - d. Observe the work project/activity
 - e. A combination of the above
- **Block 9:** Identify appropriate actions to reduce or eliminate the hazards identified in block 8. Abatement measures listed below are in the order of the preferred abatement method:
 - a. Engineering Controls (the most desirable method of abatement).
 - For example, ergonomically designed tools, equipment, and furniture.
 - Substitution. For example, switching to high flash point, nontoxic 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)

Emergency Evacuation Instructions (Reference FSH 6709.11)

Work supervisors and crew members are responsible for developing and discussing field emergency evacuation procedures (EEP) and alternatives in the event a person(s) becomes seriously ill or injured at the worksite.

Be prepared to provide the following information:

- a. Nature of the accident or injury (avoid using victim's name).
- b. Type of assistance needed, if any (ground, air, or water evacuation)
- c. Location of accident or injury, best access route into the worksite (road name/number), identifiable ground/air landmarks.
- d. Radio frequency(s).
- e. Contact person.
- f. Local hazards to ground vehicles or aviation.
- g. Weather conditions (wind speed & direction, visibility, temp).
- h. Topography.
- i. Number of person(s) to be transported
- j. Estimated weight of passengers for air/water evacuation.

The items listed above serve only as guidelines for the development of emergency evacuation procedures.

JHA and Emergency Evacuation Procedures Acknowledgment

We, the undersigned work leader and crew members, acknowledge participation in the development of this JHA (as applicable) and accompanying emergency evacuation procedures. We have thoroughly discussed and understand the provisions of each of these documents:

	SIGNATURE	DATE	SIGNATURE	DATE
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	Work Lead	ier		
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e. A combination of the above.	
Block 10: The JHA must be reviewed and approved by a line officer. Attach a copy of the JHA as justification for purchase orders when procuring PPE.	
Blocks 11 and 12: Self-explanatory.	