

Task Hazard Analysis Worksheet

JOB/TASK Heavy Equipment Operation

DATE 05/20/13

Work Area/JOB # PG&E KPP Project #201207

Permits(s) Required and attached YES NO

Major Steps of Task:	Recognized/Unanticipated Hazards:	Safe Plan:	Tools Required to do the job safely:
Pre-operational Inspection/Fueling of Equipment	<ul style="list-style-type: none"> -Leaks -Damaged hoses -Moving parts -Eye hazard -Crushing, pinch points & run over hazards -Slip, Trip & Fall (entering and exiting the equipment) -Combustible fuel and hydraulic oils -Fire hazard 	<ul style="list-style-type: none"> -Only authorized personnel and operators allowed to work on equipment. -Before starting equipment confirm that all technicians or operators are clear of moving parts and engine compartment. -Check fluid levels prior to starting. -Insure that all hoses are securely connected. -Do not disengage controls lock-out until operator has communicated intention to do so to other mechanics/operators of his intention to do so. -No jumping off of equipment. Use hand & foot holds. 	<p>4-Sight</p> <ul style="list-style-type: none"> -What is the task? -What could go Wrong? -What could be done to make it safer? -What have we done to communicate the hazard?-Stay clear of operation <ul style="list-style-type: none"> -Safety briefings prior to the start of work in the morning. -Complete equipment safety checklist prior to operation. -Hard hat, high visibility vest, safety glasses, work boots, hearing protection if required do to loud muffler.
Operation	<ul style="list-style-type: none"> -Non-essential personnel in work zone -Collision hazards -Crushing, pinch points & run over hazards -Equipment roll-over hazards -Equipment used for purposes not intended -Inexperienced operator -Equipment failure or breakdown -Changing tools (crushing and pinch hazards) -Hot hydraulic fluids when changing tools or when hydraulic hoses break. Heat Stress 	<ul style="list-style-type: none"> -Laborers to stay clear of heavy equipment and operation. -No laborers allowed in work zone of equipment. -Non-authorized personnel to stay out of work area. -Only authorized operators allowed to operate equipment. -Place controls in neutral position and disengage controls whenever leaving cab. -Stop work and lower booms, blades, buckets to ground whenever anyone approaches equipment. -When leaving the equipment for over 5 minutes, place all equipment in neutral position, lock-out controls and turn off engine. -No jumping off of equipment. Use hand & foot holds. -When restarting equipment of engaging control lock-out, check 	<ul style="list-style-type: none"> -Safety briefing prior to startup of activity. -Hard hat, high visibility vest, safety glasses, work boots, hearing protection if required do to loud muffler. -2 way radio communication with personal and operator

		behind equipment for personnel before moving the equipment.	
Shutdown	<ul style="list-style-type: none"> -Leaks -Damaged hoses -Moving parts -Eye hazard -Crushing, pinch points & run over hazards -Slip, Trip & Fall (entering and exiting the equipment) -Combustible fuel and hydraulic oils -Fire hazard 	<ul style="list-style-type: none"> - Place all equipment in neutral position, lock-out controls and turn off engine. -No jumping off of equipment. Use hand & foot holds. -Beware of hot engine and hydraulic parts. -Take care not to spill fuel or hydraulic fluids when servicing in afternoon. -Laborers must make eye contact with operator prior to approaching loader - Use water over pile to control dust -Do not climb around stockpiles unless covering with visqueen 	-See above.

Adjacent Work/Processes and/or co-occupancy Yes No Other workers adjacent, above, below
 Notified them of our presence Coordinated with adjacent work supervisor/customer operator Can work safely

TEAM MEMBERS SIGNATURES

The signature of the Supervisor certifies the completion of the Hazard Assessment and Safe Plan of Action by the crew.

Supervisor's Signature: _____ Date _____

Instructions: 1. Write the name of the job or task in the space provided. 2. Conduct a walk-through survey of work area. 3. Write the steps of the task in a safe sequence. 4. List all possible hazards involved in each step as well as reaction to failure. 5. In the Safe Plan column, provide the corrective actions that will be taken to keep the hazard from becoming an accident or injury. 6. In Tools column list tools needed to do the job, additional safety equipment, etc. 7. Have each team member that helped develop and will use this STA sign in the spaces provided at the bottom. 8. Review the STA at the end of the task for improvements. (NOTE: THE WORK SHALL STOP IF CONDITIONS CHANGE, JOB CHANGES, OR DEFICIENCY IN PLAN IS NOTED.)

Review checklist on page 3

Safe Plan of Action Checklist (Check the items that apply)

Permits/Clearances	Hazards	Safe Plan		
<input type="checkbox"/> Utility Clearance Obtained		<input type="checkbox"/> Power de-energization required	<input type="checkbox"/> Insulation blankets required <input type="checkbox"/> Wire watcher required	
<input type="checkbox"/> Confined Space	<input type="checkbox"/> Overhead Utilities	<input type="checkbox"/> Required clearance distance = 10 ft.	<input type="checkbox"/> Safe work zone marked	
<input type="checkbox"/> Critical Lift		<input type="checkbox"/> Signalman assigned <input type="checkbox"/> Tag lines in use	<input type="checkbox"/> Area around crane barricaded	
<input type="checkbox"/> Hoisting & Rigging Safety Review	<input type="checkbox"/> Crane or other Lifting Equipment	<input type="checkbox"/> Lifting equipment inspected	<input type="checkbox"/> Personnel protected from overhead load	
<input type="checkbox"/> Boom Assembly and Breakdown		<input type="checkbox"/> Reviewed as-builts	<input type="checkbox"/> Subsurface surveys <input type="checkbox"/> Received dig permit	
<input type="checkbox"/> Boom Proximity	<input type="checkbox"/> Underground Utilities	<input type="checkbox"/> Required clearance distance = ____ ft.	<input type="checkbox"/> Safe work zone marked	
<input type="checkbox"/> Concrete Structure Penetration		<input type="checkbox"/> Lock Out/Tag Out/Try Out?	<input type="checkbox"/> Permit required <input type="checkbox"/> Confirm that equipment is de-energized	
<input type="checkbox"/> Soil Excavation	<input type="checkbox"/> Electrical	<input type="checkbox"/> Reviewed electrical safety procedures	<input type="checkbox"/> Additional info below	
<input type="checkbox"/> Pneumatic Test		<input type="checkbox"/> Permits <input type="checkbox"/> Inspected prior to entering	<input type="checkbox"/> Proper sloping/shoring	
<input type="checkbox"/> Hot Work	<input type="checkbox"/> Excavations	<input type="checkbox"/> Barricades provided <input type="checkbox"/> Access/egress provided	<input type="checkbox"/> Protection from accumulated water	
<input type="checkbox"/> Scaffolding Erection Plan		<input type="checkbox"/> Permit <input checked="" type="checkbox"/> Fire Extinguishers	<input type="checkbox"/> Fire watch <input checked="" type="checkbox"/> Adjacent area protected	
<input type="checkbox"/> Steel Erection/Decking/Flooring/ Grating Checklist	<input checked="" type="checkbox"/> Fire Hazard	<input type="checkbox"/> Unnecessary flammable material removed	<input type="checkbox"/> Additional info below	
<input type="checkbox"/> Request for Shutdown		<input type="checkbox"/> Traffic Barricades <input type="checkbox"/> Cones <input type="checkbox"/> Signs	<input type="checkbox"/> Flagmen <input type="checkbox"/> Lane closure	
<input type="checkbox"/> Electrically Hazardous Work	<input checked="" type="checkbox"/> Vehicular Traffic or Heavy Equipment	<input checked="" type="checkbox"/> Communication with equipment operator	<input type="checkbox"/> Additional information below	
<input type="checkbox"/> Radiation Work Permit for Visitors		<input checked="" type="checkbox"/> Noise > 85 dB	Hearing protection is required: <input checked="" type="checkbox"/> Ear plugs <input type="checkbox"/> Ear muffs	
Required PPE		<input checked="" type="checkbox"/> Hard Hat	<input type="checkbox"/> Both <input type="checkbox"/> Additional info below	
<input checked="" type="checkbox"/> Ear Plugs/Ear Muffs	<input checked="" type="checkbox"/> Hand & Power Tools:	<input checked="" type="checkbox"/> Inspect general condition <input type="checkbox"/> GFCI in use	<input type="checkbox"/> Identified PEP required for each tool	
Eye Protection		<input checked="" type="checkbox"/> Reviewed safety requirements in operators manual(s)	<input type="checkbox"/> Guarding OK <input type="checkbox"/> Additional info below	
<input checked="" type="checkbox"/> Safety Glasses	<input checked="" type="checkbox"/> Hand Hazards	<input type="checkbox"/> List sharp tools, material, equipment		
<input type="checkbox"/> Face Shield		<input checked="" type="checkbox"/> PPE gloves, etc. <input type="checkbox"/> Protected sharp edges as necessary	<input type="checkbox"/> Additional info below	
<input type="checkbox"/> Chemical Goggles	<input checked="" type="checkbox"/> Manual Lifting	<input checked="" type="checkbox"/> Reviewed proper lifting tech.	<input checked="" type="checkbox"/> Identified material requiring lifting equipment	
<input type="checkbox"/> Welding Hood		<input checked="" type="checkbox"/> Hand protection required <input type="checkbox"/> Back support belts	<input type="checkbox"/> Additional information below	
Hand Protection		<input type="checkbox"/> Ladders	<input type="checkbox"/> Ladder inspected within last quarter	
<input checked="" type="checkbox"/> Cut Resistant Gloves	<input type="checkbox"/> Scaffolds	<input type="checkbox"/> Inspect general condition before use	<input type="checkbox"/> Reviewed ladder safety	
<input type="checkbox"/> Welders Gloves		<input type="checkbox"/> Ladder tied off <input type="checkbox"/> Proper angle and placement	<input type="checkbox"/> Tags in place <input type="checkbox"/> Properly secured	
<input type="checkbox"/> Nitrile Gloves	<input type="checkbox"/> Slips, Trips, Falls	<input type="checkbox"/> Inspect general condition before use	<input type="checkbox"/> Materials properly stored on scaffold	
<input type="checkbox"/> Surgical Gloves	<input checked="" type="checkbox"/> Pinch Points	<input type="checkbox"/> Toe boards used <input type="checkbox"/> Footings adequate		
<input type="checkbox"/> Rubber Gloves		<input checked="" type="checkbox"/> Inspect for trip hazards <input type="checkbox"/> Hazards marked	<input checked="" type="checkbox"/> Tools & material properly stored	
<input type="checkbox"/> Electrical Insulated Gloves		<input type="checkbox"/> Extension cords properly secured <input type="checkbox"/> Work zone free of debris	<input type="checkbox"/> Additional information below	
<input type="checkbox"/> Arm Sleeves		List potential pinch points:		
Foot Protection		<input checked="" type="checkbox"/> Working near operating equipment <input checked="" type="checkbox"/> Hand/Body positioning	<input checked="" type="checkbox"/> Additional information below	
<input checked="" type="checkbox"/> Safety Toe Boots	<input checked="" type="checkbox"/> Working w/Chemicals	<input type="checkbox"/> The task creates potential for direct contact with hazardous chemicals.	<input type="checkbox"/> Have proper containers and labels	
<input type="checkbox"/> Rubber Boots		<input checked="" type="checkbox"/> Reviewed MSDS hazards and precautions		
<input type="checkbox"/> Rubber Boot Covers	<input checked="" type="checkbox"/> Heat Stress Potential	<input type="checkbox"/> Have identified proper PPE (respirators, clothing, gloves, etc.)		
<input type="checkbox"/> Dielectric Footwear		<input checked="" type="checkbox"/> Heat stress monitoring (>85° F; 29.4° C) <input checked="" type="checkbox"/> Liquids available	<input type="checkbox"/> Cool down periods	
Respiratory Protection		<input checked="" type="checkbox"/> Sun Screen <input checked="" type="checkbox"/> Reviewed Heat Stress symptoms	<input type="checkbox"/> Additional info below	
<input type="checkbox"/> Dust Mask (NIOSH)	<input type="checkbox"/> Cold Stress Potential	<input type="checkbox"/> Proper clothing (i.e., gloves, coat, coveralls)	<input type="checkbox"/> Wind chill (<32° F; 0° C)	
<input type="checkbox"/> Air Purifying Respirator		<input type="checkbox"/> Reviewed Cold Stress symptoms <input type="checkbox"/> Warm up periods	<input type="checkbox"/> Additional information below	
<input type="checkbox"/> Supplied Air Respirator	<input type="checkbox"/> Environmental	<input type="checkbox"/> Air emissions <input type="checkbox"/> Water discharge	<input type="checkbox"/> Hazardous wastes <input checked="" type="checkbox"/> Other wastes	
<input type="checkbox"/> SCBA		<input type="checkbox"/> Pollution prevention	<input type="checkbox"/> Waste minimization	
<input type="checkbox"/> Emergency Escape Respirator	<input checked="" type="checkbox"/> Natural or Site Hazards	<input type="checkbox"/> Weather <input checked="" type="checkbox"/> Terrain	<input type="checkbox"/> Adjacent operations or processes <input checked="" type="checkbox"/> Biological hazards	
Special Clothing		<input checked="" type="checkbox"/> Animals/reptiles/insects hazards		
<input type="checkbox"/> Tyvek®	<input type="checkbox"/> Overhead Work	<input type="checkbox"/> Caution barricade tape required	<input type="checkbox"/> Danger barricade tape required	
<input type="checkbox"/> Poly Coated Tyvek®		<input type="checkbox"/> Rigid railing required <input type="checkbox"/> Covers over opening	<input type="checkbox"/> Warning signs required	
<input type="checkbox"/> NOMEX®	Additional Information			
<input type="checkbox"/> Rain Suit	Pinch points-Equipment has multiple moving parts. Take caution when working on or when changing out tools.			
Fall Protection				
<input type="checkbox"/> Harness				
<input type="checkbox"/> Double Lanyard Required				
<input type="checkbox"/> Anchorage Point Available				