



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: APPLICATION OF PESTICIDES AND HERBICIDES

Training Considerations:

- Safe Lifting/Ergonomics
- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training
- Hazard Communication (Haz-Com)
- Firefighters shall adhere to NFPA 1072.

Modification to Daily Attire Considerations: Secure long hair, long pants, or equivalent such as coveralls, Tyvek suit or apron.

PPE Considerations: Protective clothing including high visibility vest, boots w/steel or composite toe, eye and hearing protection, and gloves and respirator.

TASK	HAZARDS	CONTROLS
Initial assessment	Chemical Exposure	<ul style="list-style-type: none"> • Read SDS and understand chemical exposure hazards and treatment • Follow manufacture’s instruction for mixing. • Mix chemicals in a well-ventilated area. • Contain chemical spills immediately • Improper PPE use and inspection can lead to unnecessary hazards created by wrong PPE or faulty PPE. Make sure to use proper PPE for the job at hand. • Improperly donning or not donning PPE can lead to an unnecessary exposure.
General Operation	Bodily Injury and Burns	<ul style="list-style-type: none"> • Wear appropriate clothing and PPE • Spray the chemical downwind from the upwind position and directly on the area to be treated
	Eye Injury	<ul style="list-style-type: none"> • Wear safety goggles/safety glasses with side shields • Spray the chemical downwind from the upwind position and directly on the area to be treated
	Inhalation of product	<ul style="list-style-type: none"> • Wear the appropriate respirator

		<ul style="list-style-type: none"> • Spray the chemical downwind from the upwind position and directly on the area to be treated
Site Safety	Injury to Others	<ul style="list-style-type: none"> • Maintain a reasonable safety zone from others - DO NOT allow the mist of chemicals to drift • Suspend use if heavy pedestrian traffic is present • Be aware of changing conditions
Storage	Injury to Self and Others	<ul style="list-style-type: none"> • Improper storage can lead to lower lifespan of tools and PPE. • Only store chemicals in the predetermined storage location • Improper doffing can lead to unnecessary exposure. • Make sure to doff properly and clean PPE as needed
Procedure for malfunctioning or broken equipment	Bodily Injury	<ul style="list-style-type: none"> • Obtain Accident Prevention Tag-mark equipment "DO NOT USE" – specify problem or hazard • Whenever possible isolate power source so equipment cannot be used. (Lockout/Tagout) • Notify shop and/or take equipment to shop

Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards. Apply sunscreen, stay hydrated and watch for stinging and biting insects and animals.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: CHANGING LIGHT BULB OR FLUORESCENT TUBE

Training Considerations:

- Safe Lifting/Ergonomics
- Ladder safety training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training

Modification to Daily Attire Considerations: Long pants, or equivalent such as coveralls, or Tyvek suit.

PPE Considerations: Eye protection, gloves, and slip resistant shoes.

TASK	HAZARDS	CONTROLS
Select and prepare ladder for use	Bodily Injury	<ul style="list-style-type: none"> • Carefully remove ladder from storage; be aware of storage that may be dislodged and fall • Use safe lifting techniques Read SDS and understand chemical exposure hazards and treatment
	Shock/Electrocution	<ul style="list-style-type: none"> • Use non-conductive ladder (fiberglass)
	Fall	<ul style="list-style-type: none"> • Inspect ladder if not used and/or inspected recently • Set-up ladder properly – follow all warning labels on ladder
Set-up and Use of Ladder	Fall	<ul style="list-style-type: none"> • Follow ladder training- look for hazards, set up cones to prevent others from moving ladder, etc. • Never stand on top step or top of ladder- follow ladder warning label instructions
	Skin Abrasions	<ul style="list-style-type: none"> • Wear long pants or equivalent protection
Changing Light Bulb or Fluorescent Tube	Eye Injury	<ul style="list-style-type: none"> • Wear safety goggles/safety glasses with side shields
	Shock/Electrocution	<ul style="list-style-type: none"> • Use non-conductive ladder (fiberglass) • Turn off switch/shut off power to light fixture before changing bulb
Cleaning Up Broken Light Bulb or Florescent Light Tube	Cuts and Scrapes	<ul style="list-style-type: none"> • Wear gloves when cleaning up broken glass
	Mercury Exposure	<ul style="list-style-type: none"> • If bulb breaks while you are nearby, leave the area for 15 minutes to allow time for contents to settle • Gently sweep (create no dust) debris into bag or sealed container

Proper Disposal of Florescent Light Tube	Cuts/ Mercury Exposure	<ul style="list-style-type: none"> • Use same controls as above for cuts/mercury exposure (wear appropriate gloves) • Place in box or other secure container to avoid breakage
Returning Ladder to Storage	Bodily Injury/Muscle Strain	<ul style="list-style-type: none"> • Use Safe Lifting techniques • Carefully return ladder to storage; be aware of items that may become dislodged and fall when placing ladder into storage area

Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: EMPTYING TRASH CANS

Training Considerations:

- Safe Lifting/Ergonomics
- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Hazard Communication (Haz-Com)

Modification to Daily Attire Considerations: Secure long hair, long pants, or equivalent such as coveralls.

PPE Considerations: Protective clothing including boots w/steel or composite toe and gloves.

TASK	HAZARDS	CONTROLS
General Lifting and Carrying Considerations	Bodily Injury (Slips, Trips, Falls, Twisting, Cut, Puncture Injuries)	<ul style="list-style-type: none"> • Use proper lifting techniques, DO NOT twist with the heavy bag, or lift with your back while bent over. (Lift with knees) • Avoid allowing the bag to brush up against the body • Look for punctures or something protruding in the bag that may indicate something sharp is in the bag • If sharps are found in a container that should not contain them, please leave the bag, and contact the supervisor. • The supervisor will educate staff and prevent it from happening in the future.

Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards. Apply sunscreen, stay hydrated and watch for stinging and biting insects and animals.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: FUELING VEHICLES AND HEAVY EQUIPMENT

Training Considerations:

- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training
- Hazard Communication (Haz-Com)
- Firefighters shall adhere to NFPA 1002.

Modification to Daily Attire Considerations: Secure long hair.

PPE Considerations: Protective clothing including gloves.

TASK	HAZARDS	CONTROLS
Fueling Operation	Bodily Injury (Explosion/Fire)	<ul style="list-style-type: none"> • Fuel vapors are extremely flammable extra caution should be taken not to produce any static electricity. • NO Cell phone use while pumping gas or fuel. • Make sure the vehicle is in Park and turned off before exiting. • NEVER smoke or use a lighter around fuel vapors. • Know where the Emergency STOP button is located.
Fueling Process	Bodily Injury (Slip/Trip Fall)	<ul style="list-style-type: none"> • Make sure fuel cap and vent are locked. • Be sure not to trip over nozzle hose while fueling vehicle

Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards. Apply sunscreen, stay hydrated and watch for stinging and biting insects and animals.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: HANDLING OF HEAVY OBJECTS

Training Considerations:

- Safe Lifting/Ergonomics
- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Hazard Communication (Haz-Com)

Modification to Daily Attire Considerations: Secure long hair.

PPE Considerations: Protective clothing including boots w/steel or composite toe, and gloves.

TASK	HAZARDS	CONTROLS
General Lifting Considerations	Bodily Injury (Slips, Trips, Falls, Twisting Injuries)	<ul style="list-style-type: none"> • Size up the load before lifting. Divide the load if it is too heavy or ask for help/mechanical assistance. • Wear gloves to assist with gripping the item. • Wear steel toed shoes to protect the feet • Inspect area for clearance and tripping hazards including wet surfaces and uneven terrain. • Make sure slippery surfaces due to exterior conditions such as snow and ice are cleared from the walking surface. • Prepare to install temporary lighting if required. • When feasible, use lift assists, forklift, dolly, cart, hand truck or hoist.
Lifting Process	Bodily Injury (Slip, Trip, Fall)	<ul style="list-style-type: none"> • Wear the appropriate PPE; as a minimum steel toed shoes, back brace and gloves as required. • NEVER lift more than fifty pounds without assistance. • Lifting process: <ol style="list-style-type: none"> a. Grip the object firmly. b. Stand close to object with feet solid and shoulder width apart. <p style="text-align: center;">DO NOT reach over an obstacle</p>

		<p>to lift the load.</p> <p>c. Squat down, bending your knees. Keep your back straight and upright.</p> <p>d. Grip the object firmly and pull it close to you.</p> <p>e. Tighten your abdomen.</p> <p>f. Lift with your legs in a gradual and smooth movement. Keep your back straight and keep the load close to our body.</p> <p>g. DO NOT twist your body while lifting.</p> <p>h. DO NOT lift objects over your head.</p> <p>i. In tight places, set the load down close to the final location and slide it into place.</p> <p>j. NEVER carry a load on one shoulder, under an arm or in one hand. This creates uneven pressure on the spine.</p>
Moving Process	Bodily Injury (Slip, Trip, Fall, Twisting Injuries)	<ul style="list-style-type: none"> • Moving the load: <ul style="list-style-type: none"> a. DO NOT twist or turn the body; move our feet to turn. b. Hips, shoulders, toes, and knees should stay facing the same direction. c. Keep the load close to your body. d. If fatigued, set the load down and rest for a few minutes.
Lowering Process	Bodily Injury (Slip, Trip, Fall, Twisting and Crushing Injuries)	<ul style="list-style-type: none"> • Lowering the load: <ul style="list-style-type: none"> a. Reverse the order of the lifting. b. Bend the knees, not the hips. c. Keep your head up, your abdomen tight, and DO NOT twist the body. d. Keep the load close to the body. e. Wait until the load is secure to release your handhold.

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JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: INSTALLATION, ALTERATION, MAINTENANCE, OR REPAIR OF ELECTRICAL BREAKERS AND PANELS

Training Considerations:

- Safe Lifting/Ergonomics
- Read, understand, and follow safety instructions.
- Arc Flash Training per NFPA 70 prior to task.
- Lockout/Tagout (LOTO) Training

Modification to Daily Attire Considerations: Secure long hair, flame-resistant clothing, or equivalent such as flame-resistant coveralls. Use insulated mats and tools as appropriate for voltage.

PPE Considerations: Eye and face protection, protective clothing including insulated boots and insulated gloves as appropriate for voltage.

TASK	HAZARDS	CONTROLS
Preparing to Access Electrical Panel	Injuries from the Impact of Doors Adjacent to the Panel or from Foot/Cart Traffic	<ul style="list-style-type: none"> • Post warning signs • Set-up barriers • Use an assistant
	Slips, Trips and Falls	<ul style="list-style-type: none"> • Clear the area surrounding access to the panel • Clean-up any hazards around the panel
	Shock or Electrocution	<ul style="list-style-type: none"> • Wear all required FR rated clothing, eye/face protection, gloves, eye/face protection, etc. • Lay down a non-conductive mat to avoid slippage
Remove the Outer Cover and Opening Dead Front	Foot or Hand Injury from Handling the Cover	<ul style="list-style-type: none"> • Obtain assistance with removing panel cover • Plan for the handling of the panel cover
	Muscle Strain	<ul style="list-style-type: none"> • Lift using the legs – use safe lifting techniques
	Shock or Electrocution	<ul style="list-style-type: none"> • Use all required PPE appropriate for voltage load • Watch the edges of the panel and be sure they do not touch the wires in the panel box • Use insulated mats (as needed)
Accessing and Working on Breaker(s) or Panel	Shock or Electrocution	<ul style="list-style-type: none"> • Ensure LOTO is completed and pre-test to ensure power has been

		disconnected
	Arc Flash Injuries including Burns	<ul style="list-style-type: none"> • Use voltage appropriate PPE: FR clothing, eye/face protection, gloves, and insulated tools
	Injuries to Others	<ul style="list-style-type: none"> • Use signs, barricades, or cones to mark hazardous area • Ensure LOTO procedures are followed, and tags are visible from 5-feet away
Reassembling Panel	All Hazards previously listed, considering tasks are in reverse order	<ul style="list-style-type: none"> • Use care with panel locks to make sure they do not catch on any wires or other components while being replaced • Use all precautions and all PPE as required for voltage load

Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards. Use insulated mats and tools as appropriate for voltage.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: MOPPING A FLOOR

Training Considerations:

- Safe Lifting/Ergonomics
- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Hazard Communication (Haz-Com)

Modification to Daily Attire Requirements:

PPE Considerations: Protective clothing including eye protection and gloves.

TASK	HAZARDS	CONTROLS
Initial assessment	Bodily Injury	<ul style="list-style-type: none"> • Using improper equipment can lead to ergonomic issues that can lead to injury
	Slip/Trip/Fall	<ul style="list-style-type: none"> • Determining work location will allow for the employee to mop an entire area and exit safely without walking on the wet floor
	Eye Injury	<ul style="list-style-type: none"> • Improper PPE use and inspection can lead to unnecessary hazards created by wrong PPE or faulty PPE
General Operation	Bodily Injury	<ul style="list-style-type: none"> • Improperly donning or not donning PPE can lead to an unnecessary exposure. • Ensure all PPE is on correctly and passed inspection • Improper mixing can lead to unnecessary exposure depending on the chemicals
	Eye Injury	<ul style="list-style-type: none"> • Wear safety goggles/safety glasses with side shields or wear a face shield • Improper mixing can lead to unnecessary exposure depending on the chemicals
Site Safety	Injury to Others (Slip/Trip/Fall)	<ul style="list-style-type: none"> • Maintain a reasonable safety zone from others • Suspend use if heavy pedestrian traffic is present • Work backwards towards the exit to avoid walking in the wet areas
Storage	Injury to Self and Others	<ul style="list-style-type: none"> • Improper storage can lead to lower lifespan of tools and PPE. • Only store chemicals in the

		<p>predetermined storage location</p> <ul style="list-style-type: none"> • Improper doffing can lead to unnecessary exposure. • Make sure to doff properly and clean PPE as needed
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JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: MOVING DRUMS BY DRUM DOLLY

Training Considerations:

- Safe Lifting/Ergonomics
- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training
- Hazard Communication (Haz-Com)

Modification to Daily Attire Considerations: Secure long hair, long pants, or equivalent such as coveralls.

PPE Considerations: Protective clothing including boots w/steel or composite toe, eye protection, and gloves.

TASK	HAZARDS	CONTROLS
General Operation	Bodily Injury	<ul style="list-style-type: none"> • Using improper tools or parts can lead to ergonomic issues that can lead to injury • Make sure the path is clear in front of the moving dolly. • Improper PPE use and inspection can lead to unnecessary hazards created by wrong PPE or faulty PPE
	Bodily Injury (Leaks/Spills)	<ul style="list-style-type: none"> • Improperly donning or not donning PPE can lead to an unnecessary exposure. • Ensure all PPE is on correctly and passed inspection • Know where the spill cleanup kit is in the event of a spill.
Using Dolly	Bodily Injury	<ul style="list-style-type: none"> • Make sure the drum is correctly positioned before attempting to add to the dolly. • Seek assistance with tipping the drum if the material inside is heavy. • Make sure the lock is properly engaged. • Hold the dolly in position with your dominant hand while engaging the lock with the other hand. • Use smooth single pull motion while

		adding drum to dolly. • NEVER walk backwards while using a dolly with drum loaded
Removal of Drum from Dolly	Bodily Injury	• Rest the dolly flat on the surface/ground. • Release the dolly lock to remove the drum. • Tip the dolly forward to remove from drum once in the desired location

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JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: OFFICE/COMPUTER WORK

Training Considerations:

- Safe Lifting/Ergonomics
- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training

Modification to Daily Requirements: Ergonomic keyboards, desk chairs, standup desks, etc.

PPE Considerations: Protective clothing including boots w/steel or composite toe and gloves.

TASK	HAZARDS	CONTROLS
General Office Work	Back Strain, Eye Strain, Repetitive Motion Injury	<ul style="list-style-type: none"> • Change work activity often to interrupt repetitions activity or motion. • Avoid excessive unnatural or awkward motions such as twisting the arm or wrist and overexertion. • Make a conscious effort to avoid incorrect posture.
	Bodily Injury and/or Trauma (Slips, Trips, Falls)	<ul style="list-style-type: none"> • Practice Good Housekeeping i.e., keep floors clear of debris and liquid spills. • DO NOT block or restrict doorways, halls, closets, or paths of egress. • DO NOT stand on chairs, use foot stool or ladder. • Open only one file drawer at a time and secure cabinet to the wall if feasible. • NEVER overload shelves and stack evenly to avoid tipping.
	Electrical Shock	<ul style="list-style-type: none"> • NEVER use extension cords in place of permanent wiring. • If a cord must be used make sure it is properly sized for the voltage and amperage of the equipment. • Avoid unnecessary use of adapters and multi-outlet strips. • DO NOT run power cords through door openings or under chairs where

		it might be walked on or pinched.
Handling/Moving Heavy Items and Equipment	Bodily Injury and/or Trauma	<ul style="list-style-type: none"> • Use mechanical means to lift and move heavy items, use push carts and dolly. • Always employ proper lifting techniques and get help with loads that cannot be safely lifted by one person. • Wear hand and foot protection to safeguard against crushing and pinching injuries. • Use proper lifting technique. Avoid twisting, lifting and strain.
Procedure for malfunctioning or broken equipment	Bodily Injury	<ul style="list-style-type: none"> • Obtain Accident Prevention Tag-mark equipment “DO NOT USE” – specify problem or hazard • Whenever possible isolate power source so equipment cannot be used. (Lockout/Tagout) • Notify shop and/or take equipment to shop

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JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: OPERATING A 4 POST VEHICLE LIFT

Training Considerations:

- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training
- Hazard Communication (Haz-Com)

Modification to Daily Attire Considerations: Secure long hair, long pants, or equivalent such as coveralls.

PPE Considerations: Protective clothing including boots w/steel or composite toe, eye protection, and gloves.

TASK	HAZARDS	CONTROLS
Initial Assessment	Bodily Injury	<ul style="list-style-type: none"> • The daily pre-operational check consists of the following: <ol style="list-style-type: none"> 1. Check safety lock audibly and visually while in operation. 2. Check safety latches for free movement and full engagement with rack. 3. Check hydraulic connections, and hoses for leakage. 4. Check chain connections - bends, cracks-and loose links. 5. Check cable connections- bends, cracks-and looseness. 6. Check for frayed cables in both raised and lowered positions. 7. Check snap rings at all rollers and sheaves. 8. Check bolts, nuts, and screws and tighten if needed. 9. Check wiring & switches for damage. 10. Keep base plate free of dirt, grease, or any other corrosive substances. 11. Check floor for stress cracks near anchor bolts
General Operation	Traumatic Injury	<ul style="list-style-type: none"> • NEVER allow unauthorized or untrained persons to operate lift or rolling jacks. • Be sure no one is standing in front or behind lift while vehicle is being driven onto or backed off the lift • DO NOT permit employees or on lift

		<p>when it is either being raised or lowered.</p> <ul style="list-style-type: none"> • Always stand clear of lift when raising or lowering and observe “Pinch Points” Warning. <p>CAPACITY SHOULD NOT BE EXCEEDED.</p> <ul style="list-style-type: none"> • Always engage parking brake and use the rear wheel chocks to keep the vehicle from rolling freely on the runways. • Always lower lift on locks before working on vehicle. • Keep area around lift clean of tools, debris, grease, and oil. • Always keep runway clean
Site Safety	Injury to Others	<ul style="list-style-type: none"> • Non-authorized persons are prohibited from being in the shop area while lift is in use.
Loading	Bodily Injury	<ul style="list-style-type: none"> • Lift must be fully lowered • STOP vehicle when it contacts the front wheel stops. • At all times, be sure rear wheels are forward of the ramp/chocks and the ramp/chocks will clear tires when the lift is raised. • Engage the parking brake and/or install wheel chocks.
Lowering	Bodily Injury	<ul style="list-style-type: none"> • Be sure no one is in the lift area and that all tools, tool trays, etc. have been removed from under the lift and vehicle
Periodic Inspection (40hrs)	Bodily Injury	<ul style="list-style-type: none"> • Check for any loose anchor bolts. Retighten, as necessary. DO NOT USE an impact wrench. • Check floor for stress cracks near anchor bolts. • Check hydraulic oil level. • Check and tighten bolts, nuts, and screws. • Check all cables and chain assemblies for free movement or excessive wear.
Procedure for malfunctioning or broken equipment	Bodily Injury	<ul style="list-style-type: none"> • Obtain Accident Prevention Tag-mark equipment “DO NOT USE” –

		<p>specify problem or hazard</p> <ul style="list-style-type: none">• Whenever possible isolate power source so equipment cannot be used. (Lockout/Tagout)• Notify shop and/or take equipment to shop
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JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: OPERATING AN A/C RECOVERY, RECYCLING AND RECHARGE UNIT

Training Considerations:

- Safe Lifting/Ergonomics
- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training
- Hazard Communication (Haz-Com)

Modification to Daily Attire Considerations: Secure long hair.

PPE Considerations: Protective clothing including boots w/steel or composite toe, eye protection, and gloves.

TASK	HAZARDS	CONTROLS
General Operation	Bodily Injury	<ul style="list-style-type: none"> • Allow only qualified personnel to operate unit
	Explosion	<ul style="list-style-type: none"> • Pressurized tank contains liquid refrigerant. • DO NOT overfill the internal storage vessel, because overfilling may cause explosion and personal injury or death. • DO NOT recover refrigerants into nonrefillable containers; use only federally authorized refillable containers.
	Eye Injury	<ul style="list-style-type: none"> • Hoses might contain liquid refrigerant under pressure. • Contact with refrigerant may cause personal injury. • Wear protective equipment, including safety goggles. • Disconnect hoses using extreme caution.
	Inhalation Injury	<ul style="list-style-type: none"> • AVOID breathing A/C refrigerant and lubricant vapor or mist. • Exposure may irritate eyes, nose, and throat. • To remove refrigerant from the A/C system, use only equipment certified for the type of refrigerant being removed.

		<ul style="list-style-type: none"> • Use the unit in locations with mechanical ventilation that provides at least four air changes per hour. • If accidental system discharge occurs, ventilate the work area before resuming service.
	Fire	<ul style="list-style-type: none"> • DO NOT USE an extension cord. • An extension cord may overheat and cause fire. • If you must use an extension cord, use the shortest possible cord with a minimum size of 14 AWG. • To reduce the risk of fire, DO NOT USE the unit in the vicinity of spilled or open containers of gasoline or other flammable substances. • CAUTION—DO NOT pressurize test or leak test equipment and/or vehicle air conditioning systems with compressed air. • Some mixtures of air and refrigerant have been shown to be combustible at elevated pressures. • These mixtures, if ignited, may cause injury or property damage
	Electrical Shock	<ul style="list-style-type: none"> • High voltage electricity inside the unit has a risk of electrical shock. • Exposure may cause personal injury. • Disconnect the power before servicing the unit.
Procedure for malfunctioning or broken equipment	Bodily Injury	<ul style="list-style-type: none"> • Obtain Accident Prevention Tag-mark equipment “DO NOT USE” – specify problem or hazard • Whenever possible isolate power source so equipment cannot be used. (Lockout/Tagout) • Notify shop and/or take equipment to shop

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JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: OPERATING A BACKHOE

Training Considerations:

- Ergonomics
- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training
- Hazard Communication (Haz-Com)

Modification to Daily Attire Considerations: Long pants or equivalent such as coveralls.

PPE Considerations: Protective clothing including hard hat and high visibility vest, boots w/steel or composite toe, eye and hearing protection, and gloves.

TASK	HAZARDS	CONTROLS
Preparing Job Site and Equipment	Trips and Falls	<ul style="list-style-type: none"> • Clear area within work zone; Remove trip hazards and/or mark clearly hazards with cones, etc.
	Bodily injury to others	<ul style="list-style-type: none"> • Identify work zone with cones, barricades, and other means necessary to keep pedestrian and other traffic out of the work zone
	Cuts	<ul style="list-style-type: none"> • Wear gloves to check equipment or adjust
Preparing Job Site	Operator/Crew Safety and Potential for Damage	<ul style="list-style-type: none"> • Prior to starting work, review site plan that includes the location of underground utilities, water, and other concealed items that have potential to cause injury or property damage. • If unsure of site features, contact Job site supervisor to confirm with design team or appropriate person
Connecting or Removing Attachments	Cuts, Pinching, Hand Injury	<ul style="list-style-type: none"> • Ensure equipment is shut off and controls are in neutral • Wear appropriate gloves • Use only appropriate tools to attach or adjust attachments
Loading Backhoe for Transport to Job Site	Muscle Strain	<ul style="list-style-type: none"> • Use ramp to load mower into cart • Drive at slowest speed; use caution
	Cuts/Scrapes	<ul style="list-style-type: none"> • Wear appropriate gloves • Avoid contact with blades or other sharp edges
Driving Backhoe on City Streets	Bodily Injury – Vehicle Accident	<ul style="list-style-type: none"> • Ensure reflective placard is visible on back of equipment

		<ul style="list-style-type: none"> • Wear reflective safety vest • If needed during heavy traffic periods; provide vehicle escort behind with headlights and emergency flashers on to warn other motorists • Drive at a safe speed – DO NOT exceed speed stated by manufacturer
General Operation	Bodily Injury	<ul style="list-style-type: none"> • Wear a reflective safety vest and hard hat. (Safety glasses as needed) • A pre-job discussion should occur to ensure both the equipment operator and assisting workers understand the scope of the project • Operator should keep watch for ground workers near equipment and ensure they are aware of operator’s intended direction of movement. Use spotter as needed to warn/watch for ground workers. • Ground workers should watch operator and equipment, staying clear of equipment’s path • All workers need to be aware of <u>changing conditions</u> at work site
Equipment Operations	Falling off equipment	<ul style="list-style-type: none"> • Fasten seatbelt or use safety bar properly
	Rollover	<ul style="list-style-type: none"> • Understand and follow equipment roll over protection (R.O.P.) guidelines • Follow manufacturer load capacity and stability speed guidelines • NEVER reach into areas with moving parts such as hydraulic arms, bucket, or armature
	Bodily injury to Operator	<ul style="list-style-type: none"> • NEVER leave equipment running to troubleshoot problems • DO NOT operate damaged or malfunctioning equipment • Be aware of changing conditions at work site
After operations or during periods when area is not occupied by workers.	Bodily injury to workers and others.	<ul style="list-style-type: none"> • Operator should always leave equipment with bucket/attachments down • Operator should ensure equipment is secure and locked out so it cannot be used by unauthorized personnel

		<ul style="list-style-type: none"> • Workers should secure job site with barricades, cones, and signs to warn others to keep out of work site • Supervisor may place employee to watch job site if extreme hazards exist
	Eye Injury	<ul style="list-style-type: none"> • Wear safety glasses or goggles
	Foot Injury	<ul style="list-style-type: none"> • Wear safety boots w/reinforced toe (steel or composite)
Servicing or Repair of Equipment	Bodily Injury	<ul style="list-style-type: none"> • Obtain Accident Prevention Tag-mark equipment “DO NOT USE” – specify problem or hazard • Whenever possible isolate power source so equipment cannot be used. (Lockout/Tagout) • Notify shop and/or take equipment to shop

Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards. Apply sunscreen, stay hydrated and watch for stinging and biting insects.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: OPERATING A BATTERY CHARGER

Training Considerations:

- Safe Lifting/Ergonomics
- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training
- Hazard Communication (Haz-Com)

Modification to Daily Attire Considerations: Long pants or equivalent such as coveralls.

PPE Considerations: Protective clothing including boots w/steel or composite toe, eye protection, and gloves.

TASK	HAZARDS	CONTROLS
Initial Assessment	Fire/Explosion	<ul style="list-style-type: none"> • Inspect battery for any damage, defects, cracks, swelling or any signs of fatigue and discard if any is noted. • Ensure adequate ventilation. • DO NOT overcharge battery.
General Operation	Bodily Injury/Burns	<ul style="list-style-type: none"> • Wear appropriate clothing- long pants and long sleeves or an apron. • Use proper lifting technique. Avoid twisting, lifting and strain.
	Eye Injury	<ul style="list-style-type: none"> • Wear safety goggles/safety glasses with side shields or wear a face shield
	Foot Injury	<ul style="list-style-type: none"> • Wear safety boots w/reinforced toe (steel or composite)
Procedure for malfunctioning or broken equipment	Bodily Injury/Electrical Shock	<ul style="list-style-type: none"> • Obtain Accident Prevention Tag-mark equipment "DO NOT USE" – specify problem or hazard • Whenever possible isolate power source so equipment cannot be used. (Lockout/Tagout) • Notify shop and/or take equipment to shop

Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: OPERATING A BENCH GRINDER

Training Considerations:

- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training

Modification to Daily Attire Considerations: Secure long hair, long pants, or equivalent such as coveralls.

PPE Considerations: Protective clothing including boots w/steel or composite toe, eye and hearing protection, and gloves and respirator.

TASK	HAZARDS	CONTROLS
Initial assessment	Fire/Explosion	<ul style="list-style-type: none"> • NEVER operate within ten feet of flammable or combustible liquids • Clean fuel spills immediately; DO NOT operate until fumes have dispersed
General Operation	Bodily Injury	<ul style="list-style-type: none"> • Wear appropriate clothing- long pants and long sleeves. • Keep all guards and shields in place • Keep hands and loose clothing clear of all moving parts, secure loose sleeves • Secure long hair
	Head or Eye Injury	<ul style="list-style-type: none"> • Wear safety goggles/safety glasses with side shields or wear a face shield
	Hearing Damage	<ul style="list-style-type: none"> • Wear ear plugs or earmuffs
	Inhalation of Dusts/Particulates	<ul style="list-style-type: none"> • Wear N95 dust mask as needed
	Eye Injury	<ul style="list-style-type: none"> • Wear safety glasses or goggles
	Foot Injury	<ul style="list-style-type: none"> • Wear safety boots w/reinforced toe (steel or composite)
Site Safety	Injury to Others	<ul style="list-style-type: none"> • Maintain a reasonable safety zone from others - DO NOT allow debris to fly towards others • Suspend use if heavy pedestrian traffic is present • Be aware of changing conditions
Procedure for malfunctioning or broken equipment	Bodily Injury	<ul style="list-style-type: none"> • Obtain Accident Prevention Tag-mark equipment "DO NOT USE" – specify problem or hazard • Whenever possible isolate power

		source so equipment cannot be used. (Lockout/Tagout) • Notify shop and/or take equipment to shop
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Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: OPERATING A CIRCULAR SAW

Training Considerations:

- Safe Lifting/Ergonomics
- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training
- Firefighters shall adhere to NFPA 1006.

Modification to Daily Attire Considerations: Secure long hair, long pants, or equivalent such as coveralls, or chaps.

PPE Considerations: Protective clothing including hard hat and high visibility vest, boots w/steel or composite toe, eye and hearing protection, and gloves and respirator.

TASK	HAZARDS	CONTROLS
Initial assessment	Fire/Explosion	<ul style="list-style-type: none"> • NEVER operate within ten feet of flammable or combustible liquids • Clean fuel spills immediately; DO NOT operate until fumes have dispersed
General Operation	Bodily Injury	<ul style="list-style-type: none"> • Wear appropriate clothing- long pants and long sleeves. • Keep hands and loose clothing clear of all moving parts, secure loose sleeves • Secure long hair • Disconnect power when changing saw blades
	Head or Eye Injury	<ul style="list-style-type: none"> • Wear safety goggles/safety glasses with side shields or wear a face shield
	Hearing Damage	<ul style="list-style-type: none"> • Wear ear plugs or earmuffs as needed
	Inhalation of Dusts/Particulates	<ul style="list-style-type: none"> • Wear N95 dust mask as needed
	Eye Injury	<ul style="list-style-type: none"> • Wear safety glasses or goggles
	Foot Injury	<ul style="list-style-type: none"> • Wear safety boots w/reinforced toe (steel or composite)
Site Safety	Injury to Others	<ul style="list-style-type: none"> • Maintain a reasonable safety zone from others - DO NOT allow debris to fly towards others • Suspend use if heavy pedestrian traffic is present • Be aware of changing conditions
Procedure for malfunctioning or broken equipment	Bodily Injury	<ul style="list-style-type: none"> • Obtain Accident Prevention Tag-mark equipment "DO NOT USE" –

		<p>specify problem or hazard</p> <ul style="list-style-type: none">• Whenever possible isolate power source so equipment cannot be used. (Lockout/Tagout)• Notify shop and/or take equipment to shop
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Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: OPERATING A DRILL PRESS

Training Considerations:

- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training

Modification to Daily Attire Considerations: Secure long hair, long pants, or equivalent such as coveralls.

PPE Considerations: Protective clothing including boots w/steel or composite toe, eye and hearing protection, and gloves and respirator.

TASK	HAZARDS	CONTROLS
Initial assessment	Fire/Explosion	<ul style="list-style-type: none"> • NEVER operate within ten feet of flammable or combustible liquids • Clean fuel spills immediately; DO NOT operate until fumes have dispersed
General Operation	Bodily Injury	<ul style="list-style-type: none"> • Wear appropriate clothing- long pants and long sleeves. • Keep hands and loose clothing clear of all moving parts, secure loose sleeves • Secure long hair • Disconnect power when changing drill bits
	Head or Eye Injury	• Wear safety goggles/safety glasses with side shields or wear a face shield
	Hearing Damage	• Wear ear plugs or earmuffs as needed
	Inhalation of Dusts/Particulates	• Wear N95 dust mask as needed
	Eye Injury	• Wear safety glasses or goggles
	Foot Injury	• Wear safety boots w/reinforced toe (steel or composite)
Site Safety	Injury to Others	<ul style="list-style-type: none"> • Maintain a reasonable safety zone from others - DO NOT allow debris to fly towards others • Suspend use if heavy pedestrian traffic is present • Be aware of changing conditions
Procedure for malfunctioning or broken equipment	Bodily Injury	• Obtain Accident Prevention Tag-mark equipment " DO NOT USE " – specify problem or hazard

		<ul style="list-style-type: none">• Whenever possible isolate power source so equipment cannot be used. (Lockout/Tagout)• Notify shop and/or take equipment to shop
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Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: OPERATING A GASOLINE POWERED CHAINSAW

Training Considerations:

- Safe Lifting/Ergonomics
- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training
- Hazard Communication (Haz-Com)
- Firefighters shall adhere to NFPA 1001 & NFPA 1006.

Modification to Daily Attire Considerations: Secure long hair, long pants, or equivalent such as coveralls, chaps, or structural firefighting turnout gear.

PPE Considerations: Protective clothing including hard hat and high visibility vest, boots w/steel or composite toe, eye and hearing protection, and gloves and respirator.

TASK	HAZARDS	CONTROLS
Initial assessment (i.e. – Fluids, loose parts)	Fire/Explosion Skin or Eye Exposure to Fuel/Oil	<ul style="list-style-type: none"> • NEVER add fuel to hot or running equipment • Always add fuel outdoors, ensure fuel cap is secure before use of equipment • DO NOT add fuel near open flame, sparks, or other ignition sources • Clean fuel spills immediately; DO NOT start engine until fumes have dispersed
General Operation	Bodily Injury	<ul style="list-style-type: none"> • Wear appropriate clothing- long pants and long sleeves or equivalent such as chaps or structural firefighting turnout gear • Keep all guards and shields in place • Keep hands and loose clothing clear of all moving parts, secure loose sleeves • Secure long hair • If working overhead or where anything may fall on to a worker, wear a hard hat <p>Note: (Hard hat required for all workers in area of tree work)</p>
	Head or Eye Injury	<ul style="list-style-type: none"> • Wear hard hat if working where anything can fall on worker

		<ul style="list-style-type: none"> • Wear safety goggles/safety glasses with side shields or wear a face shield.
	Muscle Strain/Injury	<ul style="list-style-type: none"> • Be aware of changing conditions • Avoid rushing
	Hearing Damage	<ul style="list-style-type: none"> • Wear ear plugs or earmuffs
	Inhalation of Dusts/Particulates	<ul style="list-style-type: none"> • Wear N95 dust mask as needed or SCBA
	Eye Injury	<ul style="list-style-type: none"> • Wear safety glasses, goggles, or face shield
	Foot Injury	<ul style="list-style-type: none"> • Wear safety boots w/ reinforced toe (steel or composite)
Site Safety	Injury to Others	<ul style="list-style-type: none"> • Use signs, cones, barricades to warn others of work activities • Maintain a reasonable safety zone from others - DO NOT allow debris to fly towards pedestrians • Suspend use if heavy pedestrian traffic is present • Be aware of changing conditions
Additional Precautions for Fuel Powered Engines	Injury and Fire	<ul style="list-style-type: none"> • Always operate in well-ventilated area • NEVER fuel engine while running • STOP engine before performing maintenance or trouble shooting • Avoid contact with hot engine parts • DO NOT place hot engine in dry vegetation
Procedure for malfunctioning or broken equipment	Bodily Injury	<ul style="list-style-type: none"> • Obtain Accident Prevention Tag-mark equipment "DO NOT USE" – specify problem or hazard • Whenever possible isolate power source so equipment cannot be used. (Lockout/Tagout) • Notify shop and/or take equipment to shop

Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards. Apply sunscreen, stay hydrated and watch for stinging and biting insects and animals.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: OPERATING A GASOLINE POWERED DEBRIS BLOWER

Training Considerations:

- Safe Lifting/Ergonomics
- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training
- Hazard Communication (Haz-Com)

Modification to Daily Attire Considerations: Long pants or equivalent such as coveralls.

PPE Considerations: Protective clothing including boots w/steel or composite toe, eye and hearing protection and gloves.

TASK	HAZARDS	CONTROLS
Initial Assessment (i.e. – Fluids, loose parts)	Might be unstable due to the weight of the piece of equipment.	<ul style="list-style-type: none"> • Make sure the blower is on a secure surface before inspecting it.
General Use	Flying debris.	<ul style="list-style-type: none"> • Eye protection should be worn along with long pants or chaps due to flying debris. • Always maintain awareness of surroundings.
	Pedestrians walking by when working in particular areas.	<ul style="list-style-type: none"> • When pedestrians are approaching within proximity of the work area, cut the machine off until they pass by to prevent any debris from flying in their direction.
	Fatigue due to the weight of the equipment and heat.	<ul style="list-style-type: none"> • Take breaks as needed to help prevent fatigue, and injury.
Additional Precautions	Slips/Trips/Falls	<ul style="list-style-type: none"> • Maintain awareness of whether the surface of the area is flat, a gradual slope, or a steep incline. • Slip resistant shoes should be worn if the working area is on a slope, and/or if the area is wet.

Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards. Apply sunscreen, stay hydrated and watch for stinging and biting insects and animals.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: OPERATING A GASOLINE POWERED GRASS/WEED TRIMMER

Training Considerations:

- Safe Lifting/Ergonomics
- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training
- Hazard Communication (Haz-Com)

Modification to Daily Attire Considerations: Secure long hair, long pants, or equivalent such as coveralls or chaps.

PPE Considerations: Protective clothing including boots w/steel or composite toe, eye and hearing protection, gloves, and respirator.

TASK	HAZARDS	CONTROLS
Initial assessment (i.e. – Fluids, loose parts)	Fire/Explosion Skin or Eye Exposure to Fuel/Oil	<ul style="list-style-type: none"> • NEVER add fuel to hot or running equipment • Always add fuel outdoors, ensure fuel cap is secure before use of equipment • DO NOT add fuel near open flame, sparks, or other ignition sources • Clean fuel spills immediately; DO NOT start engine until fumes have dispersed
	Skin or Eye Exposure to Fuel/Oil	<ul style="list-style-type: none"> • Wear safety glasses or full-face shield
General Operation	Eye Injury	<ul style="list-style-type: none"> • Wear safety glasses or full-face shield as needed to prevent injury from flying objects
	Hearing Damage	<ul style="list-style-type: none"> • Wear hearing protection: ear plugs or earmuff
	Bodily Injury Cuts, Scrapes, Burns, etc.	<ul style="list-style-type: none"> • Remain aware of your surroundings and be aware of changing conditions • Watch for loose materials that can become airborne
	Muscle Strain	<ul style="list-style-type: none"> • Always maintain control of equipment. • Keep hands and fingers away from moving parts • Avoid contact with hot engine parts • Use proper ergonomics; maintain balance, avoid overreaching and

		<p>twisting</p> <ul style="list-style-type: none"> • NEVER bend and twist at the same time
Site Safety	Injury to Others	<ul style="list-style-type: none"> • Use signs, cones, barricades to warn others of work activities • Maintain a reasonable safety zone from others - DO NOT allow debris to fly towards pedestrians • Suspend use if heavy pedestrian traffic is present • Be aware of changing conditions
Procedure for malfunctioning or broken equipment	Bodily Injury	<ul style="list-style-type: none"> • Obtain Accident Prevention Tag-mark equipment "DO NOT USE" – specify problem or hazard • Whenever possible isolate power source so equipment cannot be used. (Lockout/Tagout) • Notify shop and/or take equipment to shop

Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards. Apply sunscreen, stay hydrated and watch for stinging and biting insects and animals.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: OPERATING A GASOLINE POWERED HEDGE TRIMMER/POLE SAW

Training Considerations:

- Safe Lifting/Ergonomics
- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training
- Hazard Communication (Haz-Com)

Modification to Daily Attire Considerations: Secure long hair, long pants, or equivalent such as coveralls or chaps.

PPE Considerations: Protective clothing including hard hat, boots w/steel or composite toe, eye and hearing protection, gloves, and respirator.

TASK	HAZARDS	CONTROLS
Initial assessment (i.e. – Fluids, loose parts)	Fire/Explosion Skin or Eye Exposure to Fuel/Oil	<ul style="list-style-type: none"> • NEVER add fuel to hot or running equipment • Always add fuel outdoors, ensure fuel cap is secure before use of equipment • DO NOT add fuel near open flame, sparks, or other ignition sources • Clean fuel spills immediately; DO NOT start engine until fumes have dispersed
General Operation	Eye Injury	<ul style="list-style-type: none"> • Wear safety glasses or full-face shield as needed to prevent injury from flying objects
	Hearing Damage	<ul style="list-style-type: none"> • Wear hearing protection: ear plugs or earmuff
	Foot Injury	<ul style="list-style-type: none"> • Wear safety shoes or boots
	Bodily Injury Cuts, Scrapes, Burns, etc.	<ul style="list-style-type: none"> • Wear leather (or other durable) gloves, use caution when handling blades • Wear appropriate clothing, including boots, long pants, and chaps as needed • Keep all guards and shields in place • Keep hands, clothing, and hair clear of all moving parts • Secure long hair • If working overhead or under other

		workers, wear hard hat
	Inhalation of Dusts or Particles from Cutting	<ul style="list-style-type: none"> • Wear N95 dust mask as needed • Remain aware of your surroundings and be aware of changing conditions • Watch for loose materials that can become airborne
	Muscle Strain	<ul style="list-style-type: none"> • Always maintain control of equipment • Keep hands and fingers away from moving parts • Use proper ergonomics; maintain balance, avoid overreaching and twisting • NEVER bend and twist at the same time
	Bodily Injury from Vehicles, Bicyclists, etc.	<ul style="list-style-type: none"> • Place signs, cones, barricades, caution tape, and lookouts as needed. • Wear reflective safety vests
Site Safety	Injury to Others	<ul style="list-style-type: none"> • Use signs, cones, barricades to warn others of work activities • Maintain a reasonable safety zone from others - DO NOT allow debris to fly towards pedestrians • Suspend use if heavy pedestrian traffic is present • Be aware of changing conditions
Procedure for malfunctioning or broken equipment	Bodily Injury	<ul style="list-style-type: none"> • Obtain Accident Prevention Tag-mark equipment "DO NOT USE" – specify problem or hazard • Whenever possible isolate power source so equipment cannot be used. (Lockout/Tagout) • Notify shop and/or take equipment to shop

Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards. Apply sunscreen, stay hydrated and watch for stinging and biting insects and animals.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: OPERATING A GASOLINE POWERED HIGH PRESSURE WASHER

Training Considerations:

- Safe Lifting/Ergonomics
- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training
- Hazard Communication (Haz-Com)

Modification to Daily Attire Considerations: Secure long hair, long pants, or equivalent such as coveralls, Tyvek suit or apron.

PPE Considerations: Protective clothing including hard hat, boots w/steel or composite toe, eye and hearing protection, gloves, and respirator.

TASK	HAZARDS	CONTROLS
Preparation	Trips & Falls Bodily Injury to Self or Others	<ul style="list-style-type: none"> • Clear work area of debris and trip hazards • Use cones, signs, and barricades to warn and prevent unauthorized personnel and pedestrian traffic from entering the work area
Initial assessment (i.e. – Fluids, loose parts)	Fire/Explosion Skin or Eye Exposure to Fuel/Oil	<ul style="list-style-type: none"> • NEVER add fuel to hot or running equipment • Always add fuel outdoors, ensure fuel cap is secure before use of equipment • DO NOT add fuel near open flame, sparks, or other ignition sources • Clean fuel spills immediately; DO NOT start engine until fumes have dispersed
General Operation	Bodily Injury	<ul style="list-style-type: none"> • Avoid contact with high pressure steam tips and nozzles: Use extreme caution • Keep hands, hair, and loose clothing away from moving parts • Secure long hair • Wear safety shoes • Wear protective apron (if needed)
	Head or Eye Injury	<ul style="list-style-type: none"> • Wear hard hat if working where anything can fall on worker

		<ul style="list-style-type: none"> • Wear safety goggles/safety glasses with side shields or wear a face shield.
Using Pressure Washer	Hand Injury	<ul style="list-style-type: none"> • Wear appropriate gloves
	Hearing Damage	<ul style="list-style-type: none"> • Wear ear plugs or earmuffs
	Burns	<ul style="list-style-type: none"> • Avoid contact with hot parts of engine such as muffler, etc.
	Electric Shock	<ul style="list-style-type: none"> • Follow manufacturer’s instructions, DO NOT spray electrical equipment, or energized electrical components, and stay an approved distance from all power lines. • Ensure power is locked out by campus electricians if potential to contact energized electrical equipment. • Secure area if electrical hazards are present
Site Safety	Injury to Others	<ul style="list-style-type: none"> • Use signs, cones, barricades to warn others of work activities • Maintain a reasonable safety zone from others - DO NOT allow debris to fly towards pedestrians • Suspend use if heavy pedestrian traffic is present • Be aware of changing conditions
Procedure for malfunctioning or broken equipment	Bodily Injury	<ul style="list-style-type: none"> • Obtain Accident Prevention Tag-mark equipment “DO NOT USE” – specify problem or hazard • Whenever possible isolate power source so equipment cannot be used. (Lockout/Tagout) • Notify shop and/or take equipment to shop

Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards. Apply sunscreen, stay hydrated and watch for stinging and biting insects and animals.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: OPERATING A GASOLINE POWERED LAWN MOWER/TRACTOR

Training Considerations:

- Ergonomics
- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training
- Hazard Communication (Haz-Com)

Modification to Daily Attire Considerations: Long pants or equivalent such as coveralls or chaps.

PPE Considerations: Protective clothing including, boots w/steel or composite toe, eye and hearing protection, and gloves.

TASK	HAZARDS	CONTROLS
Initial assessment (i.e. – Fluids, loose parts)	Fire/Explosion Skin or Eye Exposure to Fuel / Oil	<ul style="list-style-type: none"> • NEVER add fuel to hot or running equipment • Always add fuel outdoors, ensure fuel cap is secure before use of equipment • DO NOT add fuel near open flame, sparks, or other ignition sources • Clean fuel spills immediately; DO NOT start engine until fumes have dispersed
Connecting or Removing Attachments	Cuts, Pinching, Hand Injury	<ul style="list-style-type: none"> • Ensure equipment is shut off and controls are in neutral • Wear appropriate gloves • Use only appropriate tools to attach or adjust attachments
Loading Mower for Transport to Job Site	Muscle Strain	<ul style="list-style-type: none"> • Use ramp to load mower into cart • Drive at slowest speed; use caution
	Cuts/Scrapes	<ul style="list-style-type: none"> • Wear appropriate gloves • Avoid contact with blades or other sharp edges
Driving Mower/Tractor on City Streets	Bodily Injury – Vehicle Accident	<ul style="list-style-type: none"> • Ensure reflective placard is visible on back of equipment • Wear reflective safety vest • If needed during heavy traffic periods; provide vehicle escort behind with headlights and

		<p>emergency flashers on to warn other motorists</p> <ul style="list-style-type: none"> • Drive at a safe speed – DO NOT exceed speed stated by manufacturer
General Operation	Bodily Injury	<ul style="list-style-type: none"> • Keep hands, hair, and loose clothing clear of all moving parts • Wear gloves as needed to protect from sharp, rough or parts that can puncture skin.
	Head or Eye Injury	<ul style="list-style-type: none"> • Wear hard hat if working where anything can fall on worker • Wear safety goggles/safety glasses with side shields or wear a face shield.
	Muscle Strain/Injury	<ul style="list-style-type: none"> • Adjust seat properly to accommodate driver • Wear seat belt if provided • Be aware of changing conditions • Avoid rushing
	Hearing Damage	<ul style="list-style-type: none"> • Wear ear plugs or earmuffs
	Inhalation of Dusts/Particulates by Self and/or Others	<ul style="list-style-type: none"> • Avoid creating excessive dust. Pre-wet or wet area as needed. • Wear N95 dust mask as needed • Pause work to allow pedestrians, bicyclists, and motorists to pass
	Eye Injury	<ul style="list-style-type: none"> • Wear safety glasses or goggles
Site Safety	Injury to Others	<ul style="list-style-type: none"> • Use signs, cones, barricades to warn others of work activities • Maintain a reasonable safety zone from others - DO NOT allow debris to fly towards pedestrians • Suspend use if heavy pedestrian traffic is present • Be aware of changing conditions
Storage of Mower	Fire	<ul style="list-style-type: none"> • DO NOT place hot equipment on or near combustible materials or flammable liquids • Allow engine to cool before storing. Avoid contact with combustibles. • Store so fluids DO NOT leak out of equipment
Procedure for malfunctioning or broken equipment	Bodily Injury	<ul style="list-style-type: none"> • Obtain Accident Prevention Tag-mark equipment “DO NOT USE” – specify problem or hazard

		<ul style="list-style-type: none">• Whenever possible isolate power source so equipment cannot be used. (Lockout/Tagout)• Notify shop and/or take equipment to shop
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Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards. Apply sunscreen, stay hydrated and watch for stinging and biting insects and animals.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: OPERATING A GASOLINE POWERED MASONRY SAW/CIRCULAR SAW/K12

Training Considerations:

- Safe Lifting/Ergonomics
- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training
- Hazard Communication (Haz-Com)
- Firefighters shall adhere to NFPA 1001

Modification to Daily Attire Considerations: Secure long hair, long pants, or equivalent such as coveralls, chaps, or structural firefighting turnout gear.

PPE Considerations: Protective clothing including hard hat and high visibility vest, boots w/steel or composite toe, eye and hearing protection, and gloves and respirator.

TASK	HAZARDS	CONTROLS
Initial assessment (i.e. – Fluids, loose parts)	Fire/Explosion Skin or Eye Exposure to Fuel / Oil	<ul style="list-style-type: none"> • NEVER add fuel to hot or running equipment • Always add fuel outdoors, ensure fuel cap is secure before use of equipment • DO NOT add fuel near open flame, sparks, or other ignition sources • Clean fuel spills immediately; DO NOT start engine until fumes have dispersed • NEVER operate within ten feet of flammable or combustible liquids unless a charged fire suppression line has been deployed
General Operation	Bodily Injury	<ul style="list-style-type: none"> • Wear appropriate clothing- long pants and long sleeves or equivalent such as chaps or structural firefighting turnout gear. • Keep all guards and shields in place • Keep hands and loose clothing clear of all moving parts, secure loose sleeves • Secure long hair • If working overhead or where anything may fall on to a worker, wear a hard hat or firefighting helmet

		Note: (Hard hat required for all workers in area of tree work)
	Head or Eye Injury	<ul style="list-style-type: none"> • Wear hard hat if working where anything can fall on worker • Wear safety goggles/safety glasses with side shields or wear a face shield.
	Muscle Strain/Injury	<ul style="list-style-type: none"> • Be aware of changing conditions • Avoid rushing
	Hearing Damage	<ul style="list-style-type: none"> • Wear ear plugs or earmuffs
	Inhalation of Dusts/Particulates	<ul style="list-style-type: none"> • Wear N95 dust mask or SCBA as needed
	Eye Injury	<ul style="list-style-type: none"> • Wear safety glasses or goggles
	Foot Injury	<ul style="list-style-type: none"> • Wear safety boots w/ reinforced toe (steel or composite)
	Electrical Shock	<ul style="list-style-type: none"> • Know where electrical circuits and fuels lines run if applicable • Disconnect power to area being cut if applicable
Site Safety	Injury to Others	<ul style="list-style-type: none"> • Use signs, cones, barricades to warn others of work activities • Maintain a reasonable safety zone from others - DO NOT allow debris to fly towards pedestrians • Suspend use if heavy pedestrian traffic is present • Be aware of changing conditions
Additional Precautions for Fuel Powered Engines	Injury and Fire	<ul style="list-style-type: none"> • Always operate in well-ventilated area • NEVER fuel engine while running • STOP engine before performing maintenance or trouble shooting • Avoid contact with hot engine parts • DO NOT place hot engine in dry vegetation
Procedure for malfunctioning or broken equipment	Bodily Injury	<ul style="list-style-type: none"> • Obtain Accident Prevention Tag-mark equipment “DO NOT USE” – specify problem or hazard • Whenever possible isolate power source so equipment cannot be used. (Lockout/Tagout) • Notify shop and/or take equipment to shop

Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: OPERATING A HAND DRILL (CORDLESS OR CORDED)

Training Considerations:

- Safe Lifting/Ergonomics
- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training
- Firefighters shall adhere to NFPA 1006.

Modification to Daily Attire Considerations: Secure long hair, long pants, or equivalent such as coveralls.

PPE Considerations: Protective clothing including hard hat and high visibility vest, boots w/steel or composite toe, eye and hearing protection, and gloves and respirator.

TASK	HAZARDS	CONTROLS
Initial assessment	Fire/Explosion	<ul style="list-style-type: none"> • NEVER operate within ten feet of flammable or combustible liquids • Clean fuel spills immediately; DO NOT operate until fumes have dispersed
General Operation	Bodily Injury	<ul style="list-style-type: none"> • Wear appropriate clothing- long pants and long sleeves. • Keep hands and loose clothing clear of all moving parts, secure loose sleeves • Secure long hair • Disconnect power when changing drill bits
	Head or Eye Injury	<ul style="list-style-type: none"> • Wear safety goggles/safety glasses with side shields or wear a face shield
	Hearing Damage	<ul style="list-style-type: none"> • Wear ear plugs or earmuffs as needed
	Inhalation of Dusts/Particulates	<ul style="list-style-type: none"> • Wear N95 dust mask as needed
	Eye Injury	<ul style="list-style-type: none"> • Wear safety glasses or goggles
	Foot Injury	<ul style="list-style-type: none"> • Wear safety boots w/reinforced toe (steel or composite)
Site Safety	Injury to Others	<ul style="list-style-type: none"> • Maintain a reasonable safety zone from others - DO NOT allow debris to fly towards others • Suspend use if heavy pedestrian traffic is present • Be aware of changing conditions
Procedure for malfunctioning or broken equipment	Bodily Injury	<ul style="list-style-type: none"> • Obtain Accident Prevention Tag-mark equipment "DO NOT USE" –

		<p>specify problem or hazard</p> <ul style="list-style-type: none">• Whenever possible isolate power source so equipment cannot be used. (Lockout/Tagout)• Notify shop and/or take equipment to shop
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Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: OPERATING A HEAT GUN

Training Considerations:

- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training

Modification to Daily Attire Considerations: Secure long hair, long pants, or equivalent such as coveralls.

PPE Considerations: Protective clothing including gloves.

TASK	HAZARDS	CONTROLS
General Operation	Inhalation	<ul style="list-style-type: none"> • Follow manufacturer’s instructions. • Use proper lifting technique. Avoid twisting, lifting and strain.
	Burns	<ul style="list-style-type: none"> • Ensure adequate ventilation. • DO NOT operate near combustible materials.
Procedure for malfunctioning or broken equipment	Bodily Injury	<ul style="list-style-type: none"> • Obtain Accident Prevention Tag-mark equipment “DO NOT USE” – specify problem or hazard • Whenever possible isolate power source so equipment cannot be used. (Lockout/Tagout) • Notify shop and/or take equipment to shop

Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: OPERATING A HYDRAULIC JACK OR JACK STANDS

Training Considerations:

- Safe Lifting/Ergonomics
- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training

Modification to Daily Attire Considerations: Secure long hair, long pants, or equivalent such as coveralls.

PPE Considerations: Protective clothing including boots w/steel or composite toe and gloves.

TASK	HAZARDS	CONTROLS
General Operation	Hand Injury	<ul style="list-style-type: none"> • Wear gloves • Be aware of pinch points • Follow manufacturer’s recommendation for jack placement
	Foot Injury	<ul style="list-style-type: none"> • Wear safety boots w/reinforced toe (steel or composite) • Follow manufacturer’s recommendation for jack placement
	Trauma	<ul style="list-style-type: none"> • Follow manufacturer’s recommendation • DO NOT overload the jack
Procedure for malfunctioning or broken equipment	Bodily Injury	<ul style="list-style-type: none"> • Obtain Accident Prevention Tag-mark equipment “DO NOT USE” – specify problem or hazard • Whenever possible isolate power source so equipment cannot be used. (Lockout/Tagout) • Notify shop and/or take equipment to shop

Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: OPERATING A HYDRAULIC PRESS

Training Considerations:

- Safe Lifting/Ergonomics
- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training

Modification to Daily Attire Considerations: Secure long hair, long pants, or equivalent such as coveralls.

PPE Considerations: Protective clothing including boots w/steel or composite toe, eye protection, and gloves.

TASK	HAZARDS	CONTROLS
General Operation	Eye Injury	<ul style="list-style-type: none"> • Safety glasses with side shield or appropriate safety goggles • Be aware of flyer objects
	Hand Injury	<ul style="list-style-type: none"> • Wear gloves • Be aware of pinch points • Be aware of flyer objects
	Foot Injury	<ul style="list-style-type: none"> • Wear safety boots w/reinforced toe (steel or composite)
Site Safety	Injury to others	<ul style="list-style-type: none"> • Maintain a reasonable safety zone from others • Suspend use if heavy pedestrian traffic is present • Be aware of flyer objects
Procedure for malfunctioning or broken equipment	Bodily Injury	<ul style="list-style-type: none"> • Obtain Accident Prevention Tag-mark equipment “DO NOT USE” – specify problem or hazard • Whenever possible isolate power source so equipment cannot be used. (Lockout/Tagout) • Notify shop and/or take equipment to shop

Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: OPERATING A PAPER SHREDDER

Training Considerations:

- Safe Lifting/Ergonomics
- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training

Modification to Daily Attire Considerations: Secure long hair.

PPE Considerations:

TASK	HAZARDS	CONTROLS
General Operation	Bodily Injury	• Maintain situational awareness
	Electrical Shock	• Strictly follow manufacturer's instructions, proper grounding
	Hand Injury	• Maintain awareness of pinch point and moving parts
	Eye Injury	• Maintain situational awareness
Procedure for malfunctioning or broken equipment	Electrical Shock	<ul style="list-style-type: none"> • Obtain Accident Prevention Tag-mark equipment "DO NOT USE" – specify problem or hazard • Whenever possible isolate power source so equipment cannot be used. (Lockout/Tagout) • Notify shop and/or take equipment to shop

Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: OPERATING A PARTS CLEANER

Training Considerations:

- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training
- Hazard Communication (Haz-Com)

Modification to Daily Attire Considerations: Secure long hair, long pants, or equivalent such as coveralls, or apron.

PPE Considerations: Protective clothing including boots w/steel or composite toe, eye protection, gloves, and respirator.

TASK	HAZARDS	CONTROLS
General Operation, Maintenance and Repair	Inhalation Injury	<ul style="list-style-type: none"> • Be aware of organic vapors, hydrocarbons • Appropriate ventilation, respirators when needed
	Fire	<ul style="list-style-type: none"> • Watch for heat, sparks, slag • Have an appropriately placed fire extinguisher • Remove all combustibles and fire hazards from area
	Skin Irritation/Absorption	<ul style="list-style-type: none"> • Be aware of chemical splash, contact with vat liquids • Maintain situational awareness • Wear gloves, protective clothing
	Eye Injury	<ul style="list-style-type: none"> • Be aware of chemical splash, fumes • Wear goggles or face shield
Procedure for malfunctioning or broken equipment	Bodily Injury	<ul style="list-style-type: none"> • Obtain Accident Prevention Tag-mark equipment “DO NOT USE” – specify problem or hazard • Whenever possible isolate power source so equipment cannot be used. (Lockout/Tagout) • Notify shop and/or take equipment to shop

Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: OPERATING A RECIPROCATING SAW

Training Considerations:

- Safe Lifting/Ergonomics
- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training
- Firefighters shall adhere to NFPA 1006.

Modification to Daily Attire Considerations: Secure long hair, long pants, or equivalent such as coveralls, chaps, or structural firefighting turnout gear.

PPE Considerations: Protective clothing including boots w/steel or composite toe, eye and hearing protection, and gloves and respirator.

TASK	HAZARDS	CONTROLS
Initial assessment	Fire/Explosion	<ul style="list-style-type: none"> • NEVER operate within ten feet of flammable or combustible liquids • Clean fuel spills immediately; DO NOT operate until fumes have dispersed
General Operation	Bodily Injury	<ul style="list-style-type: none"> • Wear appropriate clothing- long pants and long sleeves. • Keep hands and loose clothing clear of all moving parts, secure loose sleeves • Secure long hair • Disconnect power when changing saw blades
	Head or Eye Injury	<ul style="list-style-type: none"> • Wear safety goggles/safety glasses with side shields or wear a face shield
	Hearing Damage	<ul style="list-style-type: none"> • Wear ear plugs or earmuffs as needed
	Inhalation of Dusts/Particulates	<ul style="list-style-type: none"> • Wear N95 dust mask as needed
	Eye Injury	<ul style="list-style-type: none"> • Wear safety glasses or goggles
	Foot Injury	<ul style="list-style-type: none"> • Wear safety boots w/reinforced toe (steel or composite)
	Electrical Shock	<ul style="list-style-type: none"> • Know where electrical circuits and fuels lines run if applicable • Disconnect power to object being cut if applicable
Site Safety	Injury to Others	<ul style="list-style-type: none"> • Maintain a reasonable safety zone from others - DO NOT allow debris to fly towards others

		<ul style="list-style-type: none"> • Suspend use if heavy pedestrian traffic is present • Be aware of changing conditions
Procedure for malfunctioning or broken equipment	Bodily Injury	<ul style="list-style-type: none"> • Obtain Accident Prevention Tag-mark equipment “DO NOT USE” – specify problem or hazard • Whenever possible isolate power source so equipment cannot be used. (Lockout/Tagout) • Notify shop and/or take equipment to shop

Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: OPERATING A SCBA AIR COMPRESSOR/FILL STATION

Training Considerations:

- Safe Lifting/Ergonomics
- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training
- Hazard Communication (Haz-Com)
- Firefighters shall adhere to NFPA 1989.

Modification to Daily Attire Considerations: Secure long hair.

PPE Considerations: Protective clothing including boots w/steel or composite toe, eye and hearing protection, and gloves.

TASK	HAZARDS	CONTROLS
General Operation	Bodily Injury	<ul style="list-style-type: none"> • Keep hands and loose clothing clear of the blast door and moving parts, secure loose sleeves • Secure long hair • Note SCBA cylinder hydrostatic date • Note SCBA cylinder pressure • Makes sure all connections are secure and DO NOT leak • DO NOT overpressure SCBA cylinders
	Back Injury	<ul style="list-style-type: none"> • Use proper lifting technique. Avoid twisting, lifting and strain.
	Head or Eye Injury	<ul style="list-style-type: none"> • Wear safety goggles/safety glasses with side shields or wear a face shield
	Hearing Damage	<ul style="list-style-type: none"> • Wear ear plugs or earmuffs as needed
	Eye Injury	<ul style="list-style-type: none"> • Wear safety glasses or goggles
	Foot Injury	<ul style="list-style-type: none"> • Wear safety boots w/reinforced toe (steel or composite)
Site Safety	Inhalation of Dusts/Particulates	<ul style="list-style-type: none"> • Be aware of changing conditions
Procedure for malfunctioning or broken equipment	Bodily Injury	<ul style="list-style-type: none"> • Obtain Accident Prevention Tag-mark equipment "DO NOT USE" – specify problem or hazard • Whenever possible isolate power source so equipment cannot be used. (Lockout/Tagout) • Notify shop and/or take equipment to

Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: OPERATING A SEWER SNAKE

Training Considerations:

- Safe Lifting/Ergonomics
- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training
- Hazard Communication (Haz-Com)

Modification to Daily Considerations: Secure long hair, long pants, or equivalent such as coveralls or Tyvek suit.

PPE Considerations: Protective clothing including hard hat and high visibility vest, boots w/steel or composite toe, eye and hearing protection, and gloves.

TASK	HAZARDS	CONTROLS
General Operation	Bodily Injury	<ul style="list-style-type: none"> • Maintain Situational Awareness • Maintain awareness of moving parts
	Hand Injury	<ul style="list-style-type: none"> • Wear appropriate gloves
	Eye Injury	<ul style="list-style-type: none"> • Wear appropriate eye protection to guard against flying debris and substances
Site Safety	Atmospheric Hazards	<ul style="list-style-type: none"> • Follow Permit-Required Confined Space Entry Procedures when entering sewer utility holes or lift stations
	Injury to Others	<ul style="list-style-type: none"> • Maintain situational awareness and watch for flying debris and substances • Suspend use in the presence of bystanders
Procedure for malfunctioning or broken equipment	Electrical Shock	<ul style="list-style-type: none"> • Obtain Accident Prevention Tag-mark equipment “DO NOT USE” – specify problem or hazard • Whenever possible isolate power source so equipment cannot be used. (Lockout/Tagout) • Notify shop and/or take equipment to shop

Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards. Apply sunscreen, stay hydrated and watch for stinging and biting insects and animals.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: OPERATING A SHOP VAC

Training Considerations:

- Safe Lifting/Ergonomics
- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training

Modification to Daily Attire Considerations: Secure long hair.

PPE Considerations: Protective clothing including boots w/steel or composite toe, eye and hearing protection, and gloves and respirator.

TASK	HAZARDS	CONTROLS
General Operation	Electrical Shock	• Inspect electrical cord for damage
	Back Injury	• Use proper lifting technique. Avoid twisting, lifting and strain.
	Head or Eye Injury	• Wear safety goggles/safety glasses with side shields or wear a face shield
	Hearing Damage	• Wear ear plugs or earmuffs as needed
	Eye Injury	• Wear safety glasses or goggles
	Foot Injury	• Wear safety boots w/reinforced toe (steel or composite)
	Inhalation Injury	• Wear N95 dust mask as needed
Procedure for malfunctioning or broken equipment	Bodily Injury	<ul style="list-style-type: none"> • Obtain Accident Prevention Tag-mark equipment “DO NOT USE” – specify problem or hazard • Whenever possible isolate power source so equipment cannot be used. (Lockout/Tagout) • Notify shop and/or take equipment to shop

Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: OPERATING A SIDE BY SIDE

Training Considerations:

- Ergonomics
- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training
- Hazard Communication (Haz-Com)

Modification to Daily Attire Considerations:

PPE Considerations: Protective clothing including hard hat and high visibility vest, boots w/steel or composite toe, eye and hearing protection, and gloves.

TASK	HAZARDS	CONTROLS
Preparing Job Site and Equipment	Trips and Falls	<ul style="list-style-type: none"> • Clear area within work zone; Remove trip hazards and/or mark clearly hazards with cones, etc.
	Bodily injury to others	<ul style="list-style-type: none"> • Identify work zone with cones, barricades, and other means necessary to keep pedestrian and other traffic out of the work zone
	Cuts	<ul style="list-style-type: none"> • Wear gloves to check equipment or adjust and change attachments
Preparing Job Site	Operator/Crew Safety and Potential for Damage	<ul style="list-style-type: none"> • Prior to starting work, review site plan that includes the location of underground utilities, water, and other concealed items that have potential to cause injury or property damage. • If unsure of site features, contact Job site supervisor to confirm with design team or appropriate person
Connecting or Removing Attachments	Cuts, Pinching, Hand Injury	<ul style="list-style-type: none"> • Ensure equipment is shut off and controls are in neutral • Wear appropriate gloves • Use only appropriate tools to attach or adjust attachments
Loading Side by Side for Transport to Job Site	Muscle Strain	<ul style="list-style-type: none"> • Use ramp to load mower into cart • Drive at slowest speed; use caution
	Cuts/Scrapes	<ul style="list-style-type: none"> • Wear appropriate gloves • Avoid contact with blades or other sharp edges
Driving Side by Side on City Streets	Bodily Injury – Vehicle Accident	<ul style="list-style-type: none"> • Ensure reflective placard is visible on back of equipment

		<ul style="list-style-type: none"> • Wear reflective safety vest • If needed during heavy traffic periods; provide vehicle escort behind with headlights and emergency flashers on to warn other motorists • Drive at a safe speed – DO NOT exceed speed stated by manufacturer
General Operation	Bodily Injury	<ul style="list-style-type: none"> • Wear a reflective safety vest and hard hat. (Safety glasses as needed) • A pre-job discussion should occur to ensure both the equipment operator and assisting workers understand the scope of the project • Operator should keep watch for ground workers near equipment and ensure they are aware of operator’s intended direction of movement. Use spotter as needed to warn/watch for ground workers. • Ground workers should watch operator and equipment, staying clear of equipment’s path • All workers need to be aware of <u>changing conditions</u> at work site
	Falling off equipment	<ul style="list-style-type: none"> • Fasten seatbelt or use safety bar properly
	Rollover	<ul style="list-style-type: none"> • Understand and follow equipment roll over protection (R.O.P.) guidelines • Follow manufacturer load capacity and stability speed guidelines • NEVER reach into areas with moving parts such as hydraulic arms, bucket, or armature
	Bodily injury to Operator	<ul style="list-style-type: none"> • NEVER leave equipment running to troubleshoot problems • DO NOT operate damaged or malfunctioning equipment • Be aware of changing conditions at work site
After operations or during periods when area is not occupied by workers.	Bodily injury to workers and others.	<ul style="list-style-type: none"> • Operator should always leave equipment with bucket/attachments down • Operator should ensure equipment is secure and locked out so it cannot be

		<p>used by unauthorized personnel</p> <ul style="list-style-type: none"> • Workers should secure job site with barricades, cones, and signs to warn others to keep out of work site • Supervisor may place employee to watch job site if extreme hazards exist
	Eye Injury	<ul style="list-style-type: none"> • Wear safety glasses or goggles
	Foot Injury	<ul style="list-style-type: none"> • Wear safety boots w/reinforced toe (steel or composite)
Servicing or Repair of Equipment	Bodily Injury	<ul style="list-style-type: none"> • Obtain Accident Prevention Tag-mark equipment “DO NOT USE” – specify problem or hazard • Whenever possible isolate power source so equipment cannot be used. (Lockout/Tagout) • Notify shop and/or take equipment to shop

Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: OPERATING A SKID LOADER/SKID STEER LOADER

Training Considerations:

- Ergonomics
- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training
- Hazard Communication (Haz-Com)

Modification to Daily Attire Considerations: Secure long hair, long pants, or equivalent such as coveralls.

PPE Considerations: Protective clothing including hard hat and high visibility vest, boots w/steel or composite toe, eye and hearing protection, and gloves.

TASK	HAZARDS	CONTROLS
Preparing Job Site and Equipment	Trips and Falls	<ul style="list-style-type: none"> • Clear area within work zone; Remove trip hazards and/or mark clearly hazards with cones, etc.
	Bodily injury to others	<ul style="list-style-type: none"> • Identify work zone with cones, barricades, and other means necessary to keep pedestrian and other traffic out of the work zone
	Cuts	<ul style="list-style-type: none"> • Wear gloves to check equipment or adjust
Preparing Job Site	Operator/Crew Safety and Potential for Damage	<ul style="list-style-type: none"> • Prior to starting work, review site plan that includes the location of underground utilities, water, and other concealed items that have potential to cause injury or property damage. • If unsure of site features, contact Job site supervisor to confirm with design team or appropriate person
Connecting or Removing Attachments	Cuts, Pinching, Hand Injury	<ul style="list-style-type: none"> • Ensure equipment is shut off and controls are in neutral • Wear appropriate gloves • Use only appropriate tools to attach or adjust attachments
Loading Skid Loader/Skid Steer Loader for Transport to Job Site	Muscle Strain	<ul style="list-style-type: none"> • Use ramp to load mower into cart • Drive at slowest speed; use caution
	Cuts/Scrapes	<ul style="list-style-type: none"> • Wear appropriate gloves • Avoid contact with blades or other sharp edges
Driving Skid Loader/Skid Steer	Bodily Injury – Vehicle Accident	<ul style="list-style-type: none"> • Ensure reflective placard is visible on

Loader on City Streets		back of equipment <ul style="list-style-type: none"> • Wear reflective safety vest • If needed during heavy traffic periods; provide vehicle escort behind with headlights and emergency flashers on to warn other motorists • Drive at a safe speed – DO NOT exceed speed stated by manufacturer
General Operation	Bodily Injury	<ul style="list-style-type: none"> • Wear a reflective safety vest and hard hat. (Safety glasses as needed) • A pre-job discussion should occur to ensure both the equipment operator and assisting workers understand the scope of the project • Operator should keep watch for ground workers near equipment and ensure they are aware of operator’s intended direction of movement. Use spotter as needed to warn/watch for ground workers. • Ground workers should watch operator and equipment, staying clear of equipment’s path • All workers need to be aware of <u>changing conditions</u> at work site
Equipment Operations	Falling off equipment	<ul style="list-style-type: none"> • Fasten seatbelt or use safety bar properly
	Rollover	<ul style="list-style-type: none"> • Understand and follow equipment rollover protection (R.O.P.) guidelines. • Follow manufacturer load capacity and stability speed guidelines. • NEVER reach into areas with moving parts such as hydraulic arms, bucket, or armature.
	Bodily injury to Operator	<ul style="list-style-type: none"> • NEVER leave equipment running to troubleshoot problems • DO NOT operate damaged or malfunctioning equipment. • Be aware of changing conditions at work site
After operations or during periods when area is not occupied by workers.	Bodily injury to workers and others.	<ul style="list-style-type: none"> • Operator should always leave equipment with bucket/attachments down. • Operator should ensure equipment is

		<p>secure and locked out so it cannot be used by unauthorized personnel.</p> <ul style="list-style-type: none"> • Workers should secure jobsite with barricades, cones, and signs to warn others to keep out of work site. • Supervisor may place employee to watch job site if extreme hazards exist.
	Eye Injury	<ul style="list-style-type: none"> • Wear safety glasses or goggles
	Foot Injury	<ul style="list-style-type: none"> • Wear safety boots w/reinforced toe (steel or composite)
Servicing or Repair of Equipment	Bodily Injury	<ul style="list-style-type: none"> • Obtain Accident Prevention Tag-mark equipment “DO NOT USE” – specify problem or hazard • Whenever possible isolate power source so equipment cannot be used. (Lockout/Tagout) • Notify shop and/or take equipment to shop

Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards. Apply sunscreen, stay hydrated and watch for stinging and biting insects.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: OPERATING A STREET SWEEPER

Training Considerations:

- Safe Lifting/Ergonomics
- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training
- Hazard Communication (Haz-Com)

Modification to Daily Attire Considerations: Secure long hair, long pants, or equivalent such as coveralls.

PPE Considerations: Protective clothing including hard hat and high visibility vest, boots w/steel or composite toe, eye and hearing protection, and gloves.

TASK	HAZARDS	CONTROLS
Connecting or Removing Attachments	Cuts, Pinching, Hand Injury	<ul style="list-style-type: none"> • Ensure equipment is shut off and controls are in neutral • Wear appropriate gloves • Use only appropriate tools to attach or adjust attachments
Loading Street Sweeper for Transport to Job Site	Muscle Strain	<ul style="list-style-type: none"> • Use ramp to load mower into cart • Drive at slowest speed; use caution
	Cuts/Scrapes	<ul style="list-style-type: none"> • Wear appropriate gloves • Avoid contact with blades or other sharp edges
Driving Street Sweeper on City Streets	Bodily Injury – Vehicle Accident	<ul style="list-style-type: none"> • Ensure reflective placard is visible on back of equipment • Wear reflective safety vest • If needed during heavy traffic periods; provide vehicle escort behind with headlights and emergency flashers on to warn other motorists • Drive at a safe speed – DO NOT exceed speed stated by manufacturer
General Operation	Bodily Injury	<ul style="list-style-type: none"> • Wear gloves to check equipment or adjust • Wear a reflective safety vest and hard hat. (Safety glasses as needed) • Operator should keep watch for

		<p>vehicles and pedestrians near equipment and ensure they are aware of operator's intended direction of movement.</p> <ul style="list-style-type: none"> • Maintain awareness of changing conditions
	Falling off equipment	<ul style="list-style-type: none"> • Fasten seatbelt or use safety bar properly
	Rollover	<ul style="list-style-type: none"> • Understand and follow equipment roll over protection (R.O.P.) guidelines • Follow manufacturer load capacity and stability speed guidelines • NEVER reach into areas with moving parts such as hydraulic arms, bucket, or armature
	Bodily injury to Operator	<ul style="list-style-type: none"> • NEVER leave equipment running to troubleshoot problems • DO NOT operate damaged or malfunctioning equipment • Be aware of changing conditions at work site
	Bodily injury to others.	<ul style="list-style-type: none"> • Operator should always leave equipment with bucket/attachments down • Operator should ensure equipment is secure and locked out so it cannot be used by unauthorized personnel • Workers should secure job site with barricades, cones, and signs to warn others to keep out of work site • Supervisor may place employee to watch job site if extreme hazards exist
	Eye Injury	<ul style="list-style-type: none"> • Wear safety glasses or goggles
	Foot Injury	<ul style="list-style-type: none"> • Wear safety boots w/reinforced toe (steel or composite)
	Inhalation Injury	<ul style="list-style-type: none"> • Wear N95 dust mask as needed
Servicing or Repair of Equipment	Bodily Injury	<ul style="list-style-type: none"> • Obtain Accident Prevention Tag-mark equipment "DO NOT USE" – specify problem or hazard • Whenever possible isolate power source so equipment cannot be used. (Lockout/Tagout) • Notify shop and/or take equipment to shop

Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: OPERATING A TIRE CHANGER

Training Considerations:

- Safe Lifting/Ergonomics
- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training

Modification to Daily Attire Considerations: Secure long hair, long pants, or equivalent such as coveralls, chaps, or apron.

PPE Considerations: Protective clothing including boots w/steel or composite toe, eye protection, and gloves.

TASK	HAZARDS	CONTROLS
Initial Assessment	Traumatic Injury	<ul style="list-style-type: none"> • Inspect rim for any damage, defects, cracks or any signs of fatigue and discard if any is noted. • Read and note tire manufacturer's recommended pressure. • Properly secure wheel in restraining device before inflating. • DO NOT overinflate tire.
General Operation	Bodily Injury	<ul style="list-style-type: none"> • Wear appropriate clothing- long pants and long sleeves. • Keep hands and loose clothing clear of all moving parts, secure loose sleeves • Secure long hair • Use proper lifting technique. Avoid twisting, lifting and strain. • Slide, tilt, or role tire when possible
	Eye Injury	<ul style="list-style-type: none"> • Wear safety goggles/safety glasses with side shields or wear a face shield
	Foot Injury	<ul style="list-style-type: none"> • Wear safety boots w/reinforced toe (steel or composite)
Site Safety	Injury to Others	<ul style="list-style-type: none"> • Maintain a reasonable safety zone from others - DO NOT allow debris to fly towards others • Suspend use if heavy pedestrian traffic is present

Procedure for malfunctioning or broken equipment	Bodily Injury	<ul style="list-style-type: none"> • Be aware of changing conditions • Obtain Accident Prevention Tag-mark equipment “DO NOT USE” – specify problem or hazard • Whenever possible isolate power source so equipment cannot be used. (Lockout/Tagout) • Notify shop and/or take equipment to shop
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Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: OPERATING A TRACTOR

Training Considerations:

- Ergonomics
- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training
- Hazard Communication (Haz-Com)

Modification to Daily Attire Considerations: Secure long hair, long pants, or equivalent such as coveralls.

PPE Considerations: Protective clothing including hard hat and high visibility vest, boots w/steel or composite toe, eye and hearing protection, and gloves.

TASK	HAZARDS	CONTROLS
Connecting or Removing Attachments	Cuts, Pinching, Hand Injury	<ul style="list-style-type: none"> • Ensure equipment is shut off and controls are in neutral • Wear appropriate gloves • Use only appropriate tools to attach or adjust attachments
Loading Tractor for Transport to Job Site	Muscle Strain	<ul style="list-style-type: none"> • Use ramp to load mower into cart • Drive at slowest speed; use caution
	Cuts/Scrapes	<ul style="list-style-type: none"> • Wear appropriate gloves • Avoid contact with blades or other sharp edges
Driving Tractor on City Streets	Bodily Injury – Vehicle Accident	<ul style="list-style-type: none"> • Ensure reflective placard is visible on back of equipment • Wear reflective safety vest • If needed during heavy traffic periods; provide vehicle escort behind with headlights and emergency flashers on to warn other motorists • Drive at a safe speed – DO NOT exceed speed stated by manufacturer
General Operation, Maintenance and Repair	Hand Injury	<ul style="list-style-type: none"> • Be aware of confined work areas, sharp edges/objects, rotating parts • Gloves, situational awareness
	Foot Injury	<ul style="list-style-type: none"> • Equipment could roll over foot • Objects could drop on foot

	<ul style="list-style-type: none"> • Safety toe shoes
Trauma	<ul style="list-style-type: none"> • Situational awareness, watch for rotating parts • Wear appropriate clothing • Wear Seat Belt
Eye Injury	<ul style="list-style-type: none"> • Be aware of flying particles • Wear safety glasses
Hearing Injury	<ul style="list-style-type: none"> • Be aware of noisy equipment • Wear appropriate hearing protection
Head Injury	<ul style="list-style-type: none"> • Wear a hard hat if there is a potential for falling debris or bumping the head

Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: OPERATING A WOODCHIPPER

Training Considerations:

- Safe Lifting/Ergonomics
- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training
- Hazard Communication (Haz-Com)

Modification to Daily Attire Considerations: Secure long hair, long sleeves and long pants, or chaps.

PPE Considerations: Protective clothing including boots w/steel or composite toe, eye and hearing protection, and gloves.

TASK	HAZARDS	CONTROLS
Initial Assessment	Bodily Injury	<ul style="list-style-type: none"> • Inspect before use • Position equipment away from other workers • NEVER operate equipment without all guards in place. • Always work in groups of two or more.
General Operation	Hand Injury	<ul style="list-style-type: none"> • Wear gloves • Be aware of moving parts • NEVER reach into a running chipper/shredder
	Traumatic Injury (Falling into chipper)	<ul style="list-style-type: none"> • Be aware of moving parts • Wear close-fitting clothes, NO jewelry, NO loose shirt sleeves, NO loose pant legs, NO gloves with loose cuffs. • Pull back long hair. • Wear long pants without cuffs and sturdy, non-slip boots
	Head/Face Injury	<ul style="list-style-type: none"> • Wear hard hat • Wear safety glasses or face shield • NEVER open or close the hood of a running chipper/shredder
	Hearing Injury	<ul style="list-style-type: none"> • Wear appropriate hearing protection

<p>Procedure for malfunctioning or broken equipment</p>	<p>Bodily Injury</p>	<ul style="list-style-type: none"> • Obtain Accident Prevention Tag-mark equipment “DO NOT USE” – specify problem or hazard • Whenever possible isolate power source so equipment cannot be used. (Lockout/Tagout) • Notify shop and/or take equipment to shop
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Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards. Apply sunscreen, stay hydrated and watch for stinging and biting insects and animals.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: OPERATING AN ABRASIVE CUT OFF SAW/ANGLE GRINDER

Training Considerations:

- Safe Lifting/Ergonomics
- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training
- Firefighters shall adhere to NFPA 1006.

Modification to Daily Attire Considerations: Secure long hair, long pants, or equivalent such as coveralls or chaps.

PPE Considerations: Protective clothing including hard hat and high visibility vest, boots w/steel or composite toe, eye and hearing protection, and gloves and respirator.

TASK	HAZARDS	CONTROLS
Initial assessment	Fire/Explosion	<ul style="list-style-type: none"> • NEVER operate within ten feet of flammable or combustible liquids • Clean fuel spills immediately; DO NOT operate until fumes have dispersed
General Operation	Bodily Injury	<ul style="list-style-type: none"> • Wear appropriate clothing- long pants and long sleeves. • Keep all guards and shields in place • Keep hands and loose clothing clear of all moving parts, secure loose sleeves • Secure long hair • If working overhead or where anything may fall on to a worker, wear a hard hat
	Head or Eye Injury	<ul style="list-style-type: none"> • Wear hard hat if working where anything can fall on worker • Wear safety goggles/safety glasses with side shields or wear a face shield.
	Muscle Strain/Injury	<ul style="list-style-type: none"> • Be aware of changing conditions • Avoid rushing
	Hearing Damage	<ul style="list-style-type: none"> • Wear ear plugs or earmuffs
	Inhalation of Dusts/Particulates	<ul style="list-style-type: none"> • Wear N95 dust mask as needed
	Eye Injury	<ul style="list-style-type: none"> • Wear safety glasses or goggles
	Foot Injury	<ul style="list-style-type: none"> • Wear safety boots w/ reinforced toe

		(steel or composite)
Site Safety	Injury to Others	<ul style="list-style-type: none"> • Maintain a reasonable safety zone from others - DO NOT allow debris to fly towards others • Suspend use if heavy pedestrian traffic is present • Be aware of changing conditions
Procedure for malfunctioning or broken equipment	Bodily Injury	<ul style="list-style-type: none"> • Obtain Accident Prevention Tag-mark equipment "DO NOT USE" – specify problem or hazard • Whenever possible isolate power source so equipment cannot be used. (Lockout/Tagout) • Notify shop and/or take equipment to shop

Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: OPERATING AN ARC OR WIRE FED WELDER

Training Considerations:

- Safe Lifting/Ergonomics
- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training
- Hazard Communication (Haz-Com)

Modification to Daily Attire Considerations: Secure long hair, long sleeves and long pants, or equivalent such as coveralls, and apron.

PPE Considerations: Protective clothing including boots w/steel or composite toe, eye protection, and gloves.

TASK	HAZARDS	CONTROLS
Initial Assessment	Fire/Explosion	<ul style="list-style-type: none"> • Inspect hoses, regulators and valves for leaks, any damage, or defects.
General Operation	Inhalation	<ul style="list-style-type: none"> • Ensure adequate ventilation. • Follow manufacturer’s instructions. • Use an approved respirator.
	Burns	<ul style="list-style-type: none"> • Wear gloves and protective clothing. • DO NOT operate near flammable or combustible materials.
	Foot Injury	<ul style="list-style-type: none"> • Wear safety boots w/reinforced toe (steel or composite)
Site Safety	Injury to others	<ul style="list-style-type: none"> • Maintain a reasonable safety zone from others • Suspend use if heavy pedestrian traffic is present • Be aware of changing conditions
Procedure for malfunctioning or broken equipment	Bodily Injury/Electrical Shock	<ul style="list-style-type: none"> • Obtain Accident Prevention Tag-mark equipment “DO NOT USE” – specify problem or hazard • Whenever possible isolate power source so equipment cannot be used. (Lockout/Tagout) • Notify shop and/or take equipment to shop

Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: OPERATING AN ENGINE AND/OR TRANSMISSION JACK/HOIST/STAND

Training Considerations:

- Safe Lifting/Ergonomics
- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training

Modification to Daily Attire Considerations: Secure long hair, long pants, or equivalent such as coveralls.

PPE Considerations: Protective clothing including boots w/steel or composite toe.

TASK	HAZARDS	CONTROLS
Initial Assessment	Bodily Injury	<ul style="list-style-type: none"> • Note maximum weight capacity of engine stand compared to weight of engine. • Ensure engine/transmission is properly secured. • DO NOT overload engine/transmission stand.
General Operation	Trauma	<ul style="list-style-type: none"> • Follow manufacturer's instructions. • Use proper lifting technique. Avoid twisting, lifting and strain.
	Foot Injury	<ul style="list-style-type: none"> • Wear safety boots w/reinforced toe (steel or composite)
Procedure for malfunctioning or broken equipment	Bodily Injury	<ul style="list-style-type: none"> • Obtain Accident Prevention Tag-mark equipment "DO NOT USE" – specify problem or hazard • Whenever possible isolate power source so equipment cannot be used. (Lockout/Tagout) • Notify shop and/or take equipment to shop

Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: OPERATING AN EXCAVATOR

Training Considerations:

- Ergonomics
- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training
- Hazard Communication (Haz-Com)

Modification to Daily Attire Considerations: Secure long hair, long pants, or equivalent such as coveralls.

PPE Considerations: Protective clothing including hard hat and high visibility vest, boots w/steel or composite toe, eye and hearing protection, and gloves.

TASK	HAZARDS	CONTROLS
Initial Assessment	Electrical Shock/Bodily Injury	<ul style="list-style-type: none"> • Locate underground utilities to avoid Electrical Shock, explosion, blasts, gas leak, or flooding, caused by damage to underground services • Have trench boxes on site and ready for use • Have pumping equipment on site and ready for use • Have structural ramps and ground pads on site and ready for use • Planning and implementation of safety measures must be done by a competent person
Connecting or Removing Attachments	Cuts, Pinching, Hand Injury	<ul style="list-style-type: none"> • Ensure equipment is shut off and controls are in neutral • Wear appropriate gloves • Use only appropriate tools to attach or adjust attachments
Loading Excavator for Transport to Job Site	Muscle Strain	<ul style="list-style-type: none"> • Use ramp to load mower into cart • Drive at slowest speed; use caution
	Cuts/Scrapes	<ul style="list-style-type: none"> • Wear appropriate gloves • Avoid contact with blades or other sharp edges
General Operation	Hand Injury	<ul style="list-style-type: none"> • Wear gloves • Be aware of moving parts

	Traumatic Injury (Collapse)	<ul style="list-style-type: none"> • Collapsing should be avoided by supporting the sides by either battering them or supporting them with sheets. • Materials from the excavation should be stored at a safe distance from the excavation, this will help reduce the risk of them falling onto people. • Keep heavy equipment away from trench edges. • Protective systems like benching, sloping, shoring, and shielding must be created
	Head Injury	<ul style="list-style-type: none"> • Wear hard hat • DO NOT work beneath raised loads. • Keep heavy equipment away from trench edges.
	Hearing Injury	<ul style="list-style-type: none"> • Wear appropriate hearing protection
Site Safety	Injury to Others	<ul style="list-style-type: none"> • Vehicle should be kept completely out of the excavation area • Barriers and stop-blocks should be used to help mitigate danger. • Adding barriers to excavation is an essential precaution to avoid people falling into the excavation.
Procedure for malfunctioning or broken equipment	Bodily Injury	<ul style="list-style-type: none"> • Obtain Accident Prevention Tag-mark equipment “DO NOT USE” – specify problem or hazard • Whenever possible isolate power source so equipment cannot be used. (Lockout/Tagout) • Notify shop and/or take equipment to shop

Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: OPERATING AN OXYGEN-ACETYLENE TORCH

Training Considerations:

- Safe Lifting/Ergonomics
- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training
- Hazard Communication (Haz-Com)
- Firefighters shall adhere to NFPA 1006.

Modification to Daily Attire Considerations: Secure long hair, long sleeves and long pants, or equivalent such as coveralls, and apron.

PPE Considerations: Protective clothing including boots w/steel or composite toe, eye protection, and gloves.

TASK	HAZARDS	CONTROLS
Initial Assessment	Fire/Explosion	<ul style="list-style-type: none"> • Inspect hoses, regulators and valves for leaks, any damage, or defects.
General Operation	Inhalation	<ul style="list-style-type: none"> • Ensure adequate ventilation. • Follow manufacturer’s instructions. • Use an approved respirator.
	Burns	<ul style="list-style-type: none"> • Wear gloves and protective clothing. • DO NOT operate near flammable or combustible materials.
Site Safety	Injury to others	<ul style="list-style-type: none"> • Maintain a reasonable safety zone from others • Suspend use if heavy pedestrian traffic is present • Be aware of changing conditions
Procedure for malfunctioning or broken equipment	Bodily Injury	<ul style="list-style-type: none"> • Obtain Accident Prevention Tag-mark equipment “DO NOT USE” – specify problem or hazard • Whenever possible isolate power source so equipment cannot be used. (Lockout/Tagout) • Notify shop and/or take equipment to shop

Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: OPERATING FUEL POWERED EQUIPMENT

Training Considerations:

- Safe Lifting/Ergonomics
- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training
- Hazard Communication (Haz-Com)
- Firefighter shall adhere to NFPA 1001 & NFPA 1006.

Modification to Daily Attire Considerations: Long pants or equivalent such as coveralls.

PPE Considerations: Protective clothing including boots w/steel or composite toe, eye and hearing protection and gloves and respirator.

TASK	HAZARDS	CONTROLS
Initial assessment (i.e. – Fluids, loose parts)	Fire/Explosion Skin or Eye Exposure to Fuel/Oil	<ul style="list-style-type: none"> • Always add fuel outdoors, ensure fuel cap is secure before use of equipment • DO NOT add fuel if near open flame or sparks • Clean up spilled fuel immediately; DO NOT start engine until fumes have dispersed • Have a fire extinguisher nearby
General Operation	Chemical Exposure	<ul style="list-style-type: none"> • Wear appropriate clothing to cover exposed skin • Wear the appropriate gloves, safety glasses or safety goggles or face shield. <p>NOTE: The product label and/or the SDS for all chemicals MUST be reviewed to determine the proper PPE!</p>
	Bodily Injury	<ul style="list-style-type: none"> • Wear appropriate clothing, including boots, long pants, gloves, and other PPE (as needed) • Keep all guards and shields in place • Keep hands, clothing clear of all moving parts • Secure long hair • If working overhead or anywhere

		subject to materials falling from overhead - wear a hard hat
	Inhalation of Dusts or Particulate	• Wear N95 dust mask
	Eye Injury/Head Injury	• Wear safety goggles or a full-face shield to prevent eye/face injury from flying wood chips, vegetation, etc. • Wear hard hat if subject to falling items or working over head
	Hearing Damage	• Wear hearing protection: ear plugs or earmuff headset
	Foot Injury	• Wear safety shoes or boots w/reinforced toe (steel or composite)
	Injury to others	• Work area safety - Use cones, barricades, caution tape as needed • Post lookout to keep area clear and warn others to stay clear of area
Additional Precautions	Injury & Fire	• Always operate in well-ventilated area • NEVER fuel engine while running • STOP engine before performing maintenance or trouble shooting
Procedure for malfunctioning or broken equipment	Bodily Injury	• Obtain Accident Prevention Tag-mark equipment “ DO NOT USE ” – specify problem or hazard • Whenever possible isolate power source so equipment cannot be used. (Lockout/Tagout) • Notify shop and/or take equipment to shop

Note: Avoid using the incorrect fuel or gas mixtures or types. Remain aware of environmental hazards. Apply sunscreen, stay hydrated and watch for stinging and biting insects and animals.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: OPERATING HYDRAULIC CUTTER/SPREADERS/RAMS

Training Considerations:

- Safe Lifting/Ergonomics
- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training
- Hazard Communication (Haz-Com)
- Firefighter shall adhere to NFPA 1006.

Modification to Daily Attire Considerations: Secure long hair, structural firefighting turnout gear.

PPE Considerations: Protective clothing including hard hat and high visibility vest, boots w/steel or composite toe, eye and hearing protection, and gloves and respirator.

TASK	HAZARDS	CONTROLS
Initial assessment	Fire/Explosion	<ul style="list-style-type: none"> • NEVER operate within ten feet of flammable or combustible liquids • Isolate and eliminate any ignition sources • Contain fuel spills immediately • Deploy a fire suppression line prior to operation • Apply fire suppression foam if necessary
General Operation	Bodily Injury	<ul style="list-style-type: none"> • Wear appropriate clothing • Keep hands and loose clothing clear of all moving parts
	Head or Eye Injury	<ul style="list-style-type: none"> • Wear safety goggles/safety glasses with side shields and helmet
	Inhalation of Dusts/Particulates	<ul style="list-style-type: none"> • Wear SCBA as needed
	Eye Injury	<ul style="list-style-type: none"> • Wear safety glasses or goggles
	Foot Injury	<ul style="list-style-type: none"> • Wear safety boots w/reinforced toe (steel or composite)
General Operation	Electrical Shock	<ul style="list-style-type: none"> • Know where electrical circuits and fuels lines run if applicable • Disconnect power to object being cut if applicable
	Injury to Others	<ul style="list-style-type: none"> • Maintain a reasonable safety zone from others - DO NOT allow debris to fly towards others • Suspend use if heavy pedestrian
Site Safety	Injury to Others	<ul style="list-style-type: none"> • Maintain a reasonable safety zone from others - DO NOT allow debris to fly towards others • Suspend use if heavy pedestrian

		<p>traffic is present</p> <ul style="list-style-type: none"> • Be aware of changing conditions
Procedure for malfunctioning or broken equipment	Bodily Injury	<ul style="list-style-type: none"> • Obtain Accident Prevention Tag-mark equipment “DO NOT USE” – specify problem or hazard • Whenever possible isolate power source so equipment cannot be used. (Lockout/Tagout) • Notify shop and/or take equipment to shop

Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: USING A BOX CUTTER

Training Considerations:

- Safe Lifting/Ergonomics
- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Hazard Communication (Haz-Com)

Modification to Daily Attire Requirements:

PPE Considerations: Protective clothing including gloves.

TASK	HAZARDS	CONTROLS
Handling a Box Cutter	Bodily Injury/Lacerations	<ul style="list-style-type: none"> • Always make sure the blade is retracted before walking around with the tool. • DO NOT toss the tool at or to other coworkers. • Use caution and pay attention to your surroundings.
General Operation	Bodily Injury/Lacerations	<ul style="list-style-type: none"> • Cut resistant gloves may be worn. • Avoid running your finger/hand along the blade to make sure it is sharp. A visual inspection will be adequate. • Check the blade to make sure it is secure. • Be aware of others in the work area. • DO NOT cut towards your body. • DO NOT place your free hand in the area or in the direction that you will be cutting. • Use caution and focus on the task on which you are working. Avoid distractions. • Pay attention to any slips or erratic movements the blade may make. You may be working on an unstable surface, or the tool may need maintenance

Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: USING A WHEELBARROW

Training Considerations:

- Safe Lifting/Ergonomics
- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training

Modification to Daily Attire Considerations: Secure long hair, long pants, or equivalent such as coveralls.

PPE Considerations: Protective clothing including hard hat and high visibility vest, boots w/steel or composite toe, eye and hearing protection, and gloves.

TASK	HAZARDS	CONTROLS
General Operation	Bodily Injury/Ergonomic Hazards	<ul style="list-style-type: none"> • Ergonomic hazards include shoveling or carrying too much weight so employees should only shovel or move safe amounts of material based on their physical ability. • Ergonomic hazards from transporting material can be mitigated by taking lighter loads and lifting with the legs to get the wheelbarrow rolling. • Avoid trying to catch the wheelbarrow if it begins to tip, this will help keep hands and feet away from the heavy material and wheelbarrow as it falls. • Mitigate these ergonomic hazards by lifting legs and continue to take lighter loads • Avoid trying to catch the wheelbarrow if it begins to tip, this will help keep hands and feet away from the heavy material and wheelbarrow as it falls

Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards. Apply sunscreen, stay hydrated and watch for stinging and biting insects and animals.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: USING LADDERS

Training Considerations:

- Safe Lifting/Ergonomics
- Read, understand, and follow safety instructions.
- Training with qualified person prior to use.
- Lockout/Tagout (LOTO) Training
- Firefighters shall adhere to NFPA 1001 & NFPA 1932.

Modification to Daily Attire Considerations: Secure long hair, long pants, or equivalent such as coveralls, or structural firefighting turnout gear.

PPE Considerations: Protective clothing including boots w/steel or composite toe and gloves.

TASK	HAZARDS	CONTROLS
General Lifting and Carrying Considerations	Bodily Injury (Slips, Trips, Falls, Twisting Injuries)	<ul style="list-style-type: none"> • Use Proper Lift & Carry Techniques • Ask for help if the ladder is too heavy. • Bend at the knees and lift the ladder with your leg muscles instead of your back muscles. • Limit turning and twisting motions while carrying the ladder. This may cause a back injury.
Ladder Inspection Prior to Use	Bodily Injury	<ul style="list-style-type: none"> • Inspect the ladder • Check for loose or bent ladder rungs. • Check the ‘feet’ or base of the ladder for cracks, bends, and missing parts. • Check screws, bolts, rivets, and other metal parts to make sure they are not loose. • Evaluate all movable parts to ensure they DO NOT malfunction or present a hazard. • Check for cracked, split or broken uprights, braces, steps, or rungs on wood and metal ladders. • Locate the Duty Rating sticker to ensure the ladder meets the needs of the employee using it

		<ul style="list-style-type: none"> • Check the stability of the ladder. (ex. Does it move from side to side or is it sturdy?) • Check for loose or bent hinge spreaders. Also, check for broken stops on hinge spreaders. • Ladder should be clean, free from grease, oil, snow, mud, wet paint, or any slippery material to prevent slips and falls. Slip resistant shoes should always be worn. • Check for protruding screws, rivets, broken metal, or other metal parts that may cause a cut or scrape during use. <p>**NEVER attempt to repair a ladder and notify the supervisor of any defective ladders.</p> <p>**Supervisors are required to decommission a ladder if it has broken/missing parts or a missing duty rating sticker.</p>
Ladder Placement	Bodily Injury (Slip, Trip, Fall)	<ul style="list-style-type: none"> • Ensure the surface that the ladder is to be placed on is even, dry, and constructed of a solid material. • Before and after setup of the ladder, make sure there is no debris above or near the ladder that could pose a potential falling object hazard or slipping hazard. • Ladder Set Up: <ul style="list-style-type: none"> • Place the ladder in a position that is safe for you as an employee and others (employees/pedestrians). • If a ladder must be placed in front of a door or walkway area make sure: <ul style="list-style-type: none"> • The area is blocked off from pedestrians entering the area. • A spotter (another employee) is present to guide pedestrians away from the work area. • NEVER leave a ladder unattended
	Electrical Shock	<ul style="list-style-type: none"> • Use a Fiberglass Ladder if working on, around, or near an electrical hazard or a possible electrical hazard.
Climbing Ladder	Bodily Injury (Slip, Trip, Fall)	<ul style="list-style-type: none"> • Always maintain three points of

		<p>contact.</p> <ul style="list-style-type: none"> • Make sure one hand is holding on to the ladder and both feet are firmly on a ladder rung. • Use your free hand to perform the job task (cleaning), and only clean the area that is directly in front of the ladder. • Overreaching in front or to the side of the ladder can cause the ladder to tip over resulting in employee injury. • Move the ladder as needed to reach objects and perform a job task. NEVER 'walk' or 'jog' the ladder to another work area. • NEVER stand on or above the second rung from the top of the ladder or sit on the top of the ladder to perform a job task. • Make sure all objects on the ladder and above the ladder are secure. • Have a spotter present if working around other employees or pedestrians. • Always face the ladder when climbing down. • Keep body centered between the side rails to maintain balance. • If needed, have another employee hold, and secure the base of the ladder before climbing down. • Remove all objects and housekeeping tools from the top the ladder before climbing down.
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Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards.



JOB HAZARD ANALYSIS (JHA) WORKSHEET

Task: USING SHOVELS, PICKS, PITCH FORKS AND RAKES

Training Considerations:

- Safe Lifting/Ergonomics
- Firefighters shall adhere to NFPA 1001

Modification to Daily Attire Considerations: Long pants or equivalent such as coveralls.

PPE Considerations: Protective clothing including boots w/steel or composite toe and gloves.

TASK	HAZARDS	CONTROLS
Prepare Work Area	Pedestrians and vehicle traffic entering work area	<ul style="list-style-type: none"> • Prior to beginning workplace safety cones, flagging tape and/or barricades around area
Initial Assessment	Splinters, Cuts, and Bruises	<ul style="list-style-type: none"> • Ensure tool handle is in attractive shape, tool handle and base are attached • Wear leather gloves to protect hands
General Use	Back strain or injury	<ul style="list-style-type: none"> • Pivot instead of twisting when throwing soil or materials to one side: • Keep one foot forward with feet well separated • Load tool moderately, and pull load in close • Keep one foot planted and move other foot back and to the side, toward where you are throwing the material
	Cuts and/or scrapes from blade	<ul style="list-style-type: none"> • Use appropriate protection for legs • Wear boots

Note: Stretching the body, especially the back, prior to work is highly recommended. Avoid lengthy periods of the same activity; perform other tasks intermittently, if possible, take short breaks to stretch. Remain aware of environmental hazards. Apply sunscreen, stay hydrated and watch for stinging and biting insects and animals.



JOB HAZARD ANALYSIS (JHA) WORKSHEETS

APPLICATION OF PESTICIDES AND HERBICIDES	1-2
CHANGING LIGHT BULB OR FLUORESCENT TUBE	3-4
EMPTYING TRASH CANS	5
FUELING VEHICLES AND HEAVY EQUIPMENT	6
HANDLING OF HEAVY OBJECTS	7-8
INSTALLATION, ALTERATION, MAINTENANCE, OR REPAIR OF ELECTRICAL BREAKERS AND PANELS.	9-10
MOPPING A FLOOR	11-12
MOVING DRUMS BY DRUM DOLLY	13-14
OFFICE/COMPUTER WORK	15-16
OPERATING A 4 POST VEHICLE LIFT	17-19
OPERATING AN A/C RECOVERY, RECYCLING AND RECHARGE UNIT	20-21
OPERATING A BACKHOE	22-24
OPERATING A BATTERY CHARGER	25
OPERATING A BENCH GRINDER	26-27
OPERATING A CIRCULAR SAW	28-29
OPERATING A DRILL PRESS	30-31
OPERATING A GASOLINE POWERED CHAINSAW	32-33
OPERATING A GASOLINE POWERED DEBRIS BLOWER	34
OPERATING A GASOLINE POWERED GRASS/WEED TRIMMER	35-36
OPERATING A GASOLINE POWERED HEDGE TRIMMER/POLE SAW	37-38
OPERATING A GASOLINE POWERED HIGH PRESSURE WASHER	39-40
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