

UAF Facilities Services

Job Hazard Analysis Manual

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CERTIFICATION OF HAZARD ASSESSMENTS

This manual contains hazard assessments for routine tasks and the use of general and specific tools and equipment for all employees of the University of Alaska Fairbanks, Facilities Services. The hazard assessments contained in this manual were initially performed by the FS Safety Officer in May 2004 and have been amended as required due to changes in equipment and methods of performing maintenance tasks throughout the UAF campus and all remote sites and campus'.

Hazard Analysis Air Compressor

TASK	HAZARD	CAUSE	PREVENTION
Shutdown and Isolate Unit	Unit Activation during repair	Auto start and/or human error	Lockout/Tagout
	Noise	Equipment Operation	

Air Compressor, Portable, Electric

TASK	HAZARD	CAUSE	PREVENTION
Routine Maintenance/Repair	Electric Shock	Improper operation and maintenance	Unplug electrical cord and retain control of plug during repair/maintenance
Routine Operation	Noise	Equipment operation	Use hearing protection
	Trauma	Improper use, uncontrolled release of compressed air	Use appropriate nozzle for specific work activity, situational awareness
	Eye Injury	Projectiles, flying debris	Goggles or safety glasses with side shields

PPE REQUIRED:

Goggles or Safety glasses with side shield Hearing Protection

- 1. Operate equipment in strict accordance with Manufacturer's instructions.
- 2. Only authorized users can operate equipment.
- 3. Hearing Protection must be worn when using compressor.
- 4. When used for cleaning purposes, air pressure must be adjusted to less than 30 psi, and effective chip guarding and PPE must be used.
- 5. Report any observed defect or safety hazard to your supervisor immediately.
- 6. Never use compressed air to clean your body or clothing.
- 7. Where any object handled would possibly cause injury to feet if dropped, safety shoes will be worn.
- 8. Where any object handled could possibly cause cuts, punctures or abrasions to hands, appropriate gloves will be worn. (Exception: where rotating machinery presents a greater hazard of entangling gloves, they are optional at the supervisor's discretion).
- 9. Keep hands, hair and loose clothing clear of all moving parts.

Hazard Analysis Air Sprayer

TASK	HAZARD	CAUSE	PREVENTION
Shutdown and Isolate Unit	Unit Activation during repair	Auto start and/or human error	Lockout/Tagout
	Noise	Equipment Operation	Use Hearing Protection
Routine Maintenance/Repair	Hand Injury	Confined work areas, sharp	'

Eye Injury

Electric Shock

Noise

Arc Welder, Electric

TASK	HAZARD	CAUSE	PREVENTION
General Use	Inhalation	Hazardous fumes, gases, dusts	Appropriate ventilation, as required appropriate respirators
	Eye Injury	Projectiles, fumes, dusts, flashes	Helmets, goggles, appropriate noncombustible or flame-proof screens
	Trauma	Projectiles, burns	Situational awareness, PPE, protective clothing, switch guards
	Foot Injury	Drop object on foot	Wear safety shoes
	Fire	Heat, sparks, slag	Appropriate placed
	Electrical Shock	Improper grounding, improper operations and maintenance, improper switching device	

Hazard Analysis ATV 4-Wheeler

TASK	HAZARD	CAUSE	PREVENTION
Routine	Hand Injury	Confined work areas, sharp	Gloves, situational awareness
Maintenance/Repair		edges/objects, rotating parts	
	Foot Injury	Equipment rolls over foot, object	Wear safety shoes
	1 oot injury	drops on foot	wear sarety snoes
			Situational awareness, appropriate
	Trauma	Rotating parts	clothing
	Muscle/Ligament	Awkward working positions	Position body to avoid strains, take
	Strain	81	appropriate breaks
	Eye Injury	Flying Particles	Goggles/Safety Glasses w/side shields
	Noise	Equipment Operation	Use hearing protection
	1.010	24mpment operation	goo noming protection
Routine Operation	Noise	Equipment Operation	Use hearing protection
	Head Injury	Fall from 4-Wheeler, accident	Wear helmet

PPE REQUIRED:

Helmet
Safety glasses, goggles or helmet face shield
Gloves
Hearing Protection
Safety Shoes/boots
Protective clothing (optional)

Hazard Analysis Band Saw

TASK	IIA ZADD	CAUSE	PREVENTION
Į.	HAZARD	I e	l l
General Use	Inhalation	Hazardous fumes, gases, dusts	Appropriate ventilation, as required
			disposable respirators
	Eye Injury	Projectiles	Safety glasses with side shield or appropriate safety goggles
	_		
	Trauma	Projectiles, rotating parts, point	Situational awareness, PPE, protective
		of operation, ingoing nip points,	clothing, machine guards
		flying chips & sparks	
	Foot Injury	Drop object on foot	Wear safety shoes
	Hand Injury	Sharp objects	Gloves as appropriate for task
	Fire	Sparks	Appropriate placed fire extinguisher,
			remove all combustibles and fire hazards
	Electrical Shock	Improper grounding, improper	Proper grounding of frame,
		operations and maintenance	manufacturers instructions strictly
			followed

Battery Charger

TASK	HAZARD	CAUSE	PREVENTION
General Use	Foot Injury	Drop object on foot	Wear safety shoes
	Trauma (Burns)	Batty acid spills	
	Eye Injury	Battery acid splashes	
	Electrical Shock	Improper operation and maintenance, battery condition	
	Fire	Sparks, improper storage of flammables, combustibles	
	Explosion	Spark/poor ventilation, smoking, improper procedures	

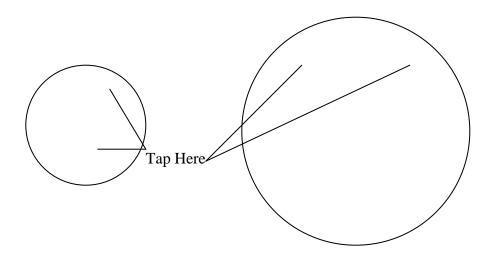
Hazard Analysis Belt Sander

TASK	HAZARD	CAUSE	PREVENTION
General Use	Inhalation	Dust/particles generated during machine operation	'
	Eye Injury	Projectiles	
	Trauma	Projectiles, rotating parts, point of operation, ingoing nip points, flying chips & sparks	
	Foot Injury	Drop object on foot	
	Hand Injury	Point of Operation, ingoing nip points, rotating parts, flying	
	Fire/Explosion		
	Electrical Shock		

Hazard Analysis Bench Grinder

Ring Test

To sound wheels using the Ring Test, tap the wheels gently using with a light nonmetallic implement, such as the handle of a screwdriver for a light wheel, or a wooden mallet for heavier wheels. The wheels should be tapped about 45 degrees each side of the vertical centerline and about 1 or 2 inches from the periphery. Then rotate the wheel 45 degrees and repeat the test (see figures below). An undamaged wheel will give you a clear metallic tone. A cracked wheel will have a dead sound and not a clear ring. If the wheels sound cracked (dead) when tapped, they shall not be used. Ensure you document the ring test and its results for future reference.



Blower, Gasoline Powered

TASK	HAZARD	CAUSE	PREVENTION
General Use	Eye Injury	Flying debris	Safety glasses, goggles or face shield
	Trauma	Flying debris, Rotating parts, Burns	Protective clothing (long pants), situational awareness, appropriate guards in place, adequate clearance(s)
	Foot Injury	Equipment dropped on foot	Safety toe shoes
	Noise	Equipment Operation	Hearing protection
	Rotating parts	Loose clothing, jewelry, long hair caught in machinery	Wear close fitting clothing, do not wear jewelry that can become entangled in moving parts, secure long hair so it will not come in contact with moving parts or air intake

PPE REQUIRED:

Safety Glasses/Goggles/Face Shield Hearing Protection Protective Clothing (long pants, gloves, close fitting clothing) Safety Shoes

- 1. Operate equipment in strict accordance with Manufacturer's instructions.
- 2. Only authorized users can operate equipment.
- 3. Report any observed defect or safety hazard to your supervisor immediately.
- 4

Hazard Analysis	Brush Mower/Trimmer, Gasoline Powered



Hazard Analysis Buffer (Floor)

TASK	HAZARD	CAUSE	PREVENTION
General Use	Eye Injury	Splashes	Goggles (for splash hazards)
	Trauma	Projectiles, impact, vibration, burns	Situational awareness, gloves,
	Foot Injury	Dropped object on foot	
	Ingestion	Dust, chemicals	

Hazard Analysis Chain Hoist

TASK	HAZARD	CAUSE	PREVENTION
General Use	Foot Injury	Drop object on foot	Wear Safety shoes
	Hand Injury	Impact, burns	Gloves, Situational awareness
	Head Protection	Swinging chain/hoisted equipment	Hard hat

PPE REQUIRED:

Gloves Safety Shoes/Boots Hard Hat

- 1. Operate equipment in strict accordance with Manufacturer's instructions.
- 2. Only authorized users can operate equipment.
- 3. DO NOT overload hoist beyond its rated capacity.
- 4. Report any observed defect or safety hazard to your supervisor immediately.
- 5. Verify hoist has a current inspection certificate (good for 1 year from last inspection date).

Cleaning (Sweeping/Mopping/Buffing)

TASK	HAZARD	CAUSE	PREVENTION	
General Use	Trauma	Projectiles, impact, chemical contact	Situational awareness, gloves, protective clothing	
	Foot Injury	Dropped object on foot		
	Ingestion	Chemicals, dust		



Ditchwitch Trencher

TASK	HAZARD	CAUSE	PREVENTION
Routine Maintenance/Repair	Hand Injury	Confined work areas, sharp edges/objects, rotating parts	Gloves, situational awareness
	Foot Injury	Equipment rolls over foot, object drops on foot	Wear safety shoes
	Trauma	Rotating parts	Situational awareness, appropriate clothing
	Eye Injury	Flying particles	Safety glasses
	Noise	Equipment Operation	Use hearing protection
Routine Operation	Noise	Equipment Operation	Use hearing protection
	Head Injury	Bump head, objects fall on head	Wear hard hat (as necessary)
	Foot Injury	Equipment rolls over foot, object drops on foot	Wear safety shoes
	Hand Injury	Sharp edges/objects	Wear Gloves

PPE REQUIRED:

Protective Clothing Safety Shoes/Boots

Safety Glasses Hard Hat

Gloves Hearing Protection

EQUIPMENT PROCEDURES/REQUIREMENTS:

- 1. Operate equipment in strict accordance with Manufacturer's instructions.
- 2. All controls shall be in a neutral position with the motors stopped and brakes set, unless work being performed requires otherwise.
- 3. Whenever equipment is parked, the parking brake shall be set.
- 4. All authorized personnel shall have training in the safe operation of equipment.
- 5. Only authorized users can operate or perform routine maintenance and repairs on equipment.
- 6. Report any observed defect or safety hazard to your supervisor immediately.
- 7. Where any object handled would possibly cause injury to feet if dropped, safety shoes will be worn.
- 8. Where any object handled could possibly cause cuts, punctures or abrasions to hands, appropriate gloves will be worn. (Exception: where rotating machinery presents a greater hazard of entangling gloves, they are optional at the supervisor's discretion).
- 9. Keep hands, hair and loose clothing clear of all moving parts.

ADDITIONAL PRECAUTIONS FOR FUEL POWERED ENGINES:

- 1. Always operate in an open well-ventilated area or vent the engine exhaust directly outdoors.
- 2. Never fuel the engine while running or in the presence of an open flame.
- 3. Wipe spilled fuel immediately and wait for fumes to disperse before starting the engine.
- 4. Never remove the radiator pressure cap from liquid cooled engines while they are hot to prevent scalding.
- 5. Stop the engine before performing any maintenance or troubleshooting. The ignition system should be disabled to prevent accidental start of the engine.
- 6. Keep all guards and shields in place.
- 7. Keep hands, hair and clothing away from moving parts.

Drill Bit Sharpener

TASK	HAZARD	CAUSE	PREVENTION
General Use	Eye Injury	Projectiles, filings	Safety glasses with side shield or appropriate safety goggles
	Hand Injury	Point of operation, ingoing nip points, rotating parts, flying chips and sparks	Situational awareness
	Electrical Shock	Improper grounding, improper operations and maintenance	Proper grounding of frame, manufacturers instructions strictly followed

PPE REQUIRED:

Safety Glasses w/side shield

- 1. Operate equipment in strict accordance with Manufacturer's instructions and in accordance with OSHA 29 CFR 1910.212.
- 2. Only authorized users can operate equipment.
- 3. Report any observed defect or safety hazard to your supervisor immediately.

Hazard Analysis Drill Press

TASK	HAZARD	CAUSE	PREVENTION
General Use	Inhalation	Filings/particles generated during machine operation	Appropriate natural ventilation, disposable respirators
	Eye Injury	Projectiles, flying sparks	
	Trauma	Projectiles, rotating parts, point of operation, ingoing nip points, flying chips & sparks	
	Foot Injury	Drop object on foot	
	Hand Injury	Point of operation, ingoing nip points, rotating parts, flying chips & sparks	
	Head Protection	Projectiles	
	Fire	Sparks, friction	
	Electrical Shock	Improper grounding, improper operations and maintenance	

Driving

TASK	HAZARD	CAUSE	PREVENTION
General Use	Trauma	Projectiles, impact, vibration,	Situational awareness, gloves
		burns	(optional), seat belts
	Noise	Engine, impact	Wear hearing protection for noise level over 85db

PPE REQUIRED:

Hearing Protection Gloves (optional)

EQUIPMENT PROCEDURES/REQUIREMENTS:

- 1. Operate vehicle/equipment in strict accordance with Manufacturer's instructions.
- 2. Only authorized users can operate equipment.
- 3. Use a spotter where reduced visibility is experienced.
- 4. Drive at speeds consistent with conditions.
- 5. Report any observed defect or safety hazard to your supervisor immediately.
- 6. Where any object handled would possibly cause injury to feet if dropped, safety shoes will be worn.
- 7. Where any object handled could possibly cause cuts, punctures or abrasions to hands, appropriate gloves will be worn. (Exception: where rotating machinery presents a greater hazard of entangling gloves, they are optional at the supervisor's discretion).
- 8. Keep hands, hair and loose clothing clear of all moving parts.

ADDITIONAL PRECAUTIONS FOR FUEL POWERED ENGINES:

- 1. Always operate in an open well-ventilated area or vent the engine exhaust directly outdoors.
- 2. Never fuel the engine while running or in the presence of an open flame.
- 3. Wipe up spilled fuel immediately and wait for fumes to disperse before starting the engine.
- 4. Never remove the radiator pressure cap from liquid cooled engines while they are hot to prevent scalding.
- 5. Stop the en-nng mi.9(d(res)6, pu)TJ31742575 0 TD.0011 Tt8(pe)8.1(s)-oubleetyo Set. T1(s.)8.6(h)-4.ign5.1(i-.56)4. m(ng mr)-.hd

Dust Collector, Vacuum

TASK	HAZARD	CAUSE	PREVENTION
General Use	Foot Injury	Drop object on foot	Wear safety shoes
	Electric Shock	Improper operation and maintenance, improper grounding	Manufacturers instructions strictly followed, proper grounding
	Eye Injury	Flying Debris	Wear safety glasses w/side shields
	Noise	Equipment Operation	Use hearing protection

PPE REQUIRED:

Safety Glasses with side shield Hearing Protection Safety Shoes/Boots

- 1. Operate equipment in strict accordance with Manufacturer's instructions.
- 2. Report any observed defect or safety hazard to your supervisor immediately.
- 3. Where any object handled would possibly cause injury to feet if dropped, safety shoes will be worn.
- 4. Where any object handled could possibly cause cuts, punctures or abrasions to hands, appropriate gloves will be worn. (Exception: where rotating machinery presents a greater hazard of entangling gloves, they are optional at the supervisor's discretion).
- 5. Keep hands, hair and loose clothing clear of all moving parts.

Engine Stand, Manual

TASK	HAZARD	CAUSE	PREVENTION
General Use	Foot Injury	Improper placement of load	Situational awareness, wear safety shoes
	Trauma	Overloading engine stand beyond rated capacity	Follow manufacturer's instructions. Ensure that rated load is legibly and permanently on engine stand, and rated capacity is not exceeded.

PPE REQUIRED:

Safety Shoes/Boots

- 1. Operate equipment in strict accordance with Manufacturer's instructions.
- 2. DO NOT overload engine stand beyond its rated capacity.
- 3. Report any observed defect or safety hazard to your supervisor immediately.
- 4. Where any object handled would possibly cause injury to feet if dropped, safety shoes will be worn.
- 5. Where any object handled could possibly cause cuts, punctures or abrasions to hands, appropriate gloves will be worn. (Exception: where rotating machinery presents a greater hazard of entangling gloves, they are optional at the supervisor's discretion).
- 6. Keep hands, hair and loose clothing clear of all moving parts.

Floor Jack, Hydraulic

TASK	HAZARD	CAUSE	PREVENTION	
General Use	Foot Injury	Roll jack over foot	Wear safety shoes	
	Trauma	Overloading jack beyond rated capacity, using jack for support rather than just lifting	Follow manufacturer's instructions. Ensure that rated load is legibly and permanently marked in a prominent	

Framing Nailer, Paslode Impulse

TASK HAZARD	CAUSE	PREVENTION
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Fuel Transfer Pump

TASK	HAZARD	CAUSE	PREVENTION
General Use	Eye Injury	Fuel splashes	Goggles
	Hand Injury	Fuel contact in sub-zero weather	Gloves
	Fire, Explosion	Smoking, sparks, improper grounding and bonding	No smoking or exposure to sparks or open flame during fueling. Fill stem shall be bonded to the container during filling operations by means of a bond wide. Appropriate placed fire extinguisher.

PPE REQUIRED:

Goggles Gloves

- 1. Operate equipment in strict accordance with Manufacturer's instructions.
- 2. Only authorized users can operate equipment.

Hand Held Pneumatic Tools

TASK HAZARD CAUSE PREVENTION

Hand Held Portable Power Tools

TASK	HAZARD	CAUSE	PREVENTION
General Use	Inhalation	Dust/particles generated during machine operation	Appropriate natural ventilation, disposable respirators, automatic vacuum machine
	Eye Injury	Projectiles	
	Foot Injury	Drop object on foot	
	Hand Injury	Point of operation, ingoing nip points, rotating parts, flying chips & sparks	
	Head Protection	Projectiles	
	Fire	Sparks	
	Noise	Machine operation	
	Electrical Shock	Improper grounding, improper operations and maintenance	

High Pressure Washer, Gasoline Powered

TASK	HAZARD	CAUSE	PREVENTION
General Use	Trauma	Flying debris, contact with high pressure stream	Situational awareness, protective clothing
	Hand Injury	Flying debris, contact with high pressure stream	Situational awareness, gloves
	Head Injury	Flying debris	Situational awareness, face shield, hard hat (as necessary)
	Foot Injury	Drop object on foot, contact with high pressure stream	Wear safety shoes
	Eye Injury	Flying debris	Goggles/safety glasses with side shields, face shield
	Electric Shock	Improper operation and maintenance	Manufacturers instructions strictly followed
	Fire	Smoking, sparks	No smoking or exposure to sparks or open flame during fueling. Appropriate placed fire extinguisher.
	Noise	Equipment Operation	Use hearing protection

PPE REQUIRED:

Protective Clothing (optional) Safety Shoes/Boots Goggles Hard Hat (as necessary)

Face shield Gloves

Hearing Protection Apron (optional)

EQUIPMENT PROCEDURES/REQUIREMENTS:

- 1. Operate equipment in strict accordance with Manufacturer's instructions.
- 2. Only authorized users can operate equipment.
- 3. Contact with high pressure stream may cause severe injury. Use extreme caution to prevent body contact with pressure stream. Maximum pressure at nozzle is 3400 psi.
- 4. Report any observed defect or safety hazard to your supervisor immediately.
- 5. Where any object handled would possibly cause injury to feet if dropped, safety shoes will be worn.
- 6. Where any object handled could possibly cause cuts, punctures or abrasions to hands, appropriate gloves will be worn. (Exception: where rotating machinery presents a greater hazard of entangling gloves, they are optional at the supervisor's discretion).
- 7. Keep hands, hair and loose clothing clear of all moving parts.

ADDITIONAL PRECAUTIONS FOR FUEL POWERED ENGINES:

- 1. Always operate in an open well-ventilated area or vent the engine exhaust directly outdoors.
- 2. Never fuel the engine while running or in the presence of an open flame.
- 3. Wipe spilled fuel immediately and wait for fumes to disperse before starting the engine.
- 4. Never remove the radiator pressure cap from liquid cooled ee we gately any ase ra

Hoist (Electric/Manual)/Slings

TASK	HAZARD	CAUSE	PREVENTION
General Use	Trauma	Impact	Situational awareness, gloves, hardhat
	Foot Injury	Dropped object on foot	Wear safety shoes

PPE REQUIRED:

Safety Shoes/boots Gloves Hard hat

- 1. Operate equipment in strict accordance with Manufacturer's instructions.
- 2. Only authorized users can operate equipment.
- 3. Ensure current certification of hoist (good for 1 year from date of last inspection).
- 4. Do not overload or exceed any design specification of hoist/sling.
- 5. Keep all body parts out of danger areas to avoid pinch/crush injuries.
- 6. Use 2 people to control awkward loads.
- 7. Use a spotter as necessary for lifting loads that create reduced visibility.
- 8. Use a hard hat when any portion of load rises above shoulder level.
- 9. Use tag lines to control loads when necessary.
- 10. Inspect sling and hoist prior to use.
- 11. Report any observed defect or safety hazard to your supervisor immediately.
- 12. Where any object handled would possibly cause injury to feet if dropped, safety shoes will be worn.
- 13. Where any object handled could possibly cause cuts, punctures or abrasions to hands, appropriate gloves will be worn. (Exception: where rotating machinery presents a greater hazard of entangling gloves, they are optional at the supervisor's discretion).
- 14. Keep hands, hair and loose clothing clear of all moving parts.

Hydraulic Press

TASK	HAZARD	CAUSE	PREVENTION
General Use	Eye Injury	Projectiles	Safety glasses with side shield or appropriate safety goggles
	Trauma	Projectiles, moving parts, point of operation, pinch points, flying items	Situational awareness, PPE, protective clothing, machine guards
	Foot Injury	Drop object on foot	Wear safety shoes
	Hand Injury	Point of operation, pinch points, moving parts, flying items.	Gloves, machine guards, situational awareness
	Head Protection	Projectiles	Face Shield (as necessary)

PPE REQUIRED:

Protective Clothing (optional) Goggles/Safety Glasses w/side shield Face shield (as necessary) Safety Shoes/Boots Gloves

- Operate equipment in strict accordance with Manufacturer's instructions and in accordance with OSHA 29 CFR 1910.212.
- 2. Only authorized users can operate equipment.
- 3. All operators must be trained and instructed in the safe method of work. The employer shall ensure by adequate supervision that the correct operating procedures are being followed.
- 4. Machines designed for a fixed location shall be securely anchored to prevent walking or moving.
- 5. Every point of operation guard shall prevent entry of hands or fingers into point of operation and shall conform to all requirements as outlined in 29 CFR 1910.217.
- 6. Report any observed defect or safety hazard to your supervisor immediately.
- 7. Where any object handled would possibly cause injury to feet if dropped, safety shoes will be worn.
- 8. Where any object handled could possibly cause cuts, punctures or abrasions to hands, appropriate gloves will be worn. (Exception: where rotating machinery presents a greater hazard of entangling gloves, they are optional at the supervisor's discretion).
- 9. Keep hands, hair and loose clothing clear of all moving parts.

Ice Chipping

TASK	HAZARD	CAUSE	PREVENTION
General Use	Eye Injury	Projectiles	Safety glasses w/side shields or goggles
	Trauma	Projectiles, impact, vibration, cold	Situational awareness, gloves, protective clothing,
	Foot Injury	Dropped object on foot	Wear safety shoes/boots
	Noise	Impact	Wear hearing protection (optional)

PPE REQUIRED:

Safety Glasses w/side shields or Goggles Safety Shoes/boots Hearing Protection (optional) Gloves Protective Clothing (cold weather)

- 1. Take occasional breaks to avoid repetitive motion injury from vibration.
- 2. Operate equipment in strict accordance with Manufacturer's instructions.
- 3. Be aware of frostbite and cold contact hazards to avoid injury.
- 4. Use proper lifting techniques, avoid twisting and over extending when lifting load.
- 5. Ensure firm footing during operations.
- 6. Avoid overheating, dress in layers and properly vent clothing.
- 7

Jack Stands, Manual

TASK	HAZARD	CAUSE	PREVENTION
General Use	Foot Injury	Improper placement of load	Situational awareness, wear safety shoes Follow manufacturer's instructions.
	Trauma	Overloading vehicle stand beyond rated capacity	Ensure that rated load is legibly and permanently marked in a prominent location on vehicle stand, and rated load capacity is not exceeded.

PPE REQUIRED:

Safety Shoes/Boots

- 1. Operate equipment in strict accordance with Manufacturer's instructions.
- 2. DO NOT overload vehicle stand beyond its rated capacity.
- 3. Report any observed defect or safety hazard to your supervisor immediately.
- 4. Where any object handled would possibly cause injury to feet if dropped, safety shoes will be worn.
- 5. Where any object handled could possibly cause cuts, punctures or abrasions to hands, appropriate gloves will be worn. (Exception: where rotating machinery presents a greater hazard of entangling gloves, they are optional at the supervisor's discretion).
- 6. Keep hands, hair and loose clothing clear of all moving parts.

Hazard Analysis Joiner

TASK	HAZARD	CAUSE	PREVENTION
General Use	Inhalation	Dust/particles generated during machine operation	Appropriate natural ventilation, disposable respirators, use vacuum unit
	Eye Injury	Projectiles	Safety glasses with side shields or appropriate safety goggles
	Trauma	Projectiles, rotating parts, points of operation, ingoing nip points, flying chips & sparks	Situational awareness, PPE, protective clothing, machine guards
	Foot Injury	Drop object on foot	Wear safety shoes
	Hand Injury	Point of Operations, ingoing nip points, rotating parts, flying chips and sparks	Machine guards, situational awareness
	Fire	Sparks	Appropriate placed fire extinguisher, remove all combustibles and fire hazards from machine area
	Electrical Shock	Improper grounding, improper operation and maintenance	Lockout/tagout, proper grounding of frame, manufacturers instructions followed

PPE REQUIRED:

Protective Clothing (optional) Safety Shoes/Boots (optional)
Goggles/Safety Glasses w/side shield Disposable Respirators

EQUIPMENT PROCEDURES/REQUIREMENTS:

- 1. Operate equipment in strict accordance with Manufacturer's instructions and in accordance with OSHA 29 CFR 1910.212 and 1910.213.
- 2. Only authorized users can operate equipment.
- 3. Use vacuum unit when in use if available

4.

Hazard Analysis Joiner/Planner

TASK	HAZARD	CAUSE	PREVENTION
General Use	Inhalation	Dust/particles generated during machine operation	Appropriate natural ventilation, disposable respirators, use vacuum unit
	Eye Injury	Projectiles	Safety glasses with side shield or appropriate safety goggles
	Trauma	Projectiles, rotating parts, points of operation, ingoing nip points, flying chips & sparks	Situational awareness, PPE, protective clothing, machine guards
	Foot Injury	Drop object on foot	Wear safety shoes
	Hand Injury	Point of Operations, ingoing nip points, rotating parts, flying chips and sparks	Machine guards, situational awareness
	Fire	Sparks	Appropriate placed fire extinguisher, remove all combustibles and fire hazards from machine area
	Electrical Shock	Improper grounding, improper operation and maintenance	Lockout/tagout, proper grounding of frame, manufacturers instructions followed

PPE REQUIRED:

Protective Clothing (optional)

Goggles/Safety Glasses w/side shield

Safety Shoes/Boots (optional)

Disposable Respirators

- 1. Operate equipment in strict accordance with Manufacturer's instructions and in accordance with OSHA 29 CFR 1910.212 and 1910.213.
- 2. Only authorized users can operate equipment.
- 3. Use vacuum unit when in use if available.
- 4.

Hazard Analysis	Lawn Mower/Trimmer, Gasoline Powered

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Lifting/Carrying Objects

Loft/Mezzanine Operations

TASK	HAZARD	CAUSE	PREVENTION
General Use	Trauma	Impact, falls	Situational awareness, gloves, fall protection (restraint)
	Foot Injury	Dropped object on foot	Wear safety shoes

PPE REQUIRED:

Safety Shoes/boots Fall Protection (restraint) Gloves

EQUIPMENT PROCEDURES/REQUIREMENTS:

1.

LP Gas Torch (14oz to 20oz Propane Cylinder)

TASK	HAZARD	CAUSE	PREVENTION
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Hazard Analysis Miter Saw

TASK	HAZARD	CAUSE	PREVENTION
General Use	Inhalation	Dust/particles generated during machine operation	Appropriate natural ventilation, disposable respirators
	Eye Injury	Projectiles	Safety glasses with side shield or appropriate safety goggles
	Trauma	Projectiles, rotating parts, points of operation, ingoing nip points, flying chips & sparks	Situational awareness, PPE, protective clothing, machine guards
	Foot Injury	Drop object on foot	Wear safety shoes
	Hand Injury	Point of Operations, ingoing nip points, rotating parts, flying chips and sparks	Machine guards, situational awareness
	Head Protection	Projectiles	Face Shield (as necessary)
	Fire	Sparks	Appropriate placed fire extinguisher, remove all combustibles and fire hazards from machine area
	Electrical Shock	Improper grounding, improper operation and maintenance	Proper grounding of frame, manufacturers instructions strictly followed

PPE REQUIRED:

Safety Shoes/Boots Goggles/Safety Glasses w/side shield Face Shield (as necessary) Disposable Respirators

- Operate equipment in strict accordance with Manufacturer's instructions and in accordance with OSHA 29 CFR 1910.212 and 1910.213.
- 2. Only authorized users can operate equipment.
- 3. A mechanical or electrical power control shall provided to make it possible for the operator to cut off power without leaving his position at the point of operation.
- 4. All belts, pulleys, gears, shafts shall be guarded in accordance with the specific requirements of OSHA 29 CFR 1910.219.
- 5. Machines designed for a fixed location shall be securely anchored to prevent walking or moving.
- 6. One or more methods of machine guarding shall be provided to protect the operator and other employees in the area from hazards such as those created by point of operation, ingoing nip points, rotating parts, flying chips and sparks.
- 7. All portions of the saw blade shall be enclosed or guarded, except for the working portion of the blade.
- 8. Report any observed defect or safety hazard to your supervisor immediately.
- 9. Where any object handled would possibly cause injury to feet if dropped, safety shoes will be worn.



Paint Conditioner/Shaker

TASK	HAZARD	CAUSE	PREVENTION
General Use	Foot Injury	Drop object on foot	Safety shoes
	Electric Shock	Improper operation and maintenance, improper grounding	Manufacturers instructions strictly followed, proper grounding
	Hand Injury	Point of Operation, rotating parts	Situational awareness

PPE REQUIRED:

Safety Shoes/Boots

EQUIPMENT PROCEDURES/REQUIREMENTS:

- 1. Operate equipment in strict accordance with Manufacturer's instructions.
- 2. Report any observed defect or safety hazard to your supervisor immediately.
- 3. Where any object handled would possibly cause injury to feet if dropped, safety shoes will be worn.
- 4. Where any object handled could possibly cause cuts, punctu

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Paint Stripper

TASK	HAZARD	CAUSE	PREVENTION
General Use	Inhalation	Fumes, vapors and gases generated during use	Properly ventilate work area, use disposable respirators
	Burns	Hot surface of paint stripper, contact with paint stripper element	Situational awareness, gloves
	Electrical Shock	Improper operation & maintenance	Manufacturers instructions strictly followed, replace worn parts

Parts Cleaner, Vat

TASK	HAZARD	CAUSE	PREVENTION
General Use	Inhalation	Organic vapors, hydrocarbons	Appropriate ventilation, disposable respirators
	Eye Injury	Chemical splash, fumes	Goggles AND face shield
	Skin Irritation/Absorption	Chemical splash, contact with vat liquids	Situational awareness, gloves, protective clothing
	Foot Injury	Drop object on foot	Wear safety shoes
	Fire	Heat, sparks, slag	Appropriate placed fire extinguisher, remove all combustibles and fire hazards from area

PPE REQUIRED:

Protective Clothing (Rubber Apron) Safety Shoes/Boots Goggles AND Face Shield Disposable Respirator (Optional) Rubber gloves

- 1. Operate equipment in strict accordance with Manufacturer's instructions.
- 2.

Pipe Threader

TASK	HAZARD	CAUSE	PREVENTION
General Use	Foot Injury	Drop object on foot	Safety Shoes
	Electric Shock	Improper operation and maintenance, improper grounding	Manufactures instructions strictly followed, proper grounding
	Hand Injury	Point of operation, rotating parts	Gloves, situational awareness
	Eye Injury	Flying particles	Safety glasses w/side shields
	Noise	Running equipment	Hearing protection for noise in excess of 85db

Pneumatic Nail Gun

TASK	HAZARD	CAUSE	PREVENTION
General Use	Eye Injury	Projectiles, residual air pressure, flying debris	Safety glasses with side shields, situational awareness
	Trauma	Air Pressure, ejection of tool	Situational awareness, tool retainer
	Noise	Equipment Operation	Use hearing protection
	Foot Injury	Drop object on foot	Safety shoes
	Hand Injury	Point of Operation	Situational awareness

PPE REQUIRED:

Safety Glasses with side shields Hearing Protection Safety Shoes/ Boots

- 1. Operate equipment in strict accordance with Manufacturer's instructions.
- 2. Only authorized users can operate equipment.
- 3. A tool retainer shall be installed in each piece of utilization equipment, which, without such retainer, may eject tool.
- 4. Hose and hose connections used for conducting compressed air to utilization equipment must be designed for the pressure and service to which they are subjected.
- 5. Hearing Protection must be worn upon when operating pneumatic tools.
- 6. Always wear eye protection.
- 7. Do not hold the trigger down unless you are purposefully firing the tool.
- 8. Never point the tool at anyone.
- 9. Never assume the tool is empty.
- 10. Disconnect the air hose before clearing a jam or making adjustments.
- 11. Do not fire the tool unless the nose is firmly pressed against a work piece.
- 12. Use only compressed air to power the tool, not bottled gas.
- 13. Do not exceed the manufacturer's specified air pressure for the tool, and never exceed 120 psi.
- 14. Keep your free hand out of the way of the tool.
- 15. Do not operate tools around flammables.
- 16. Nail top to bottom when nailing wall sheathing in a vertical position.
- 17. Nail from eaves to the ridge when nailing roof sheathing so that you do not back off the edge of the roof.
- 18. Move forward not backwards when nailing in horizontal areas.
- 19. Secure the hose when working on scaffolding to prevent the weight of the hose from dragging the tool off the scaffold if you set the tool down.
- 20. Keep people out of the range of fire. Exercise extreme caution when using tool around other worker.
- 21. Report any observed defect or safety hazard to your supervisor immediately.
- 22. Where any object handled would possibly cause injury to feet if dropped, safety shoes will be worn.
- 23. Where any object handled could possibly cause cuts, punctures or abrasions to hands, appropriate gloves will be worn. (Exception: where rotating machinery presents a greater hazard of entangling gloves, they are optional at the supervisor's discretion).
- 24. Keep hands, hair and loose clothing clear of all moving parts.

Portable Generator, Gasoline Powered

TASK	HAZARD	CAUSE	PREVENTION
General Use	Inhalation	Exhaust	Appropriate ventilation
	Trauma	Burns	Situational awareness, PPE, protective clothing
	Foot Injury	Roll over foot, drop object on foot	Wear safety shoes
	Fire	Heat, sparks, slag	Appropriate placed fire extinguisher, remove all combustibles and fire hazards from area
	Electrical Shock	Improper operations and maintenance, improper switching device	Strictly follow manufacturers instructions, proper switching for starting up/ shutting down machine

PPE REQUIRED:

Leather Gloves
Safety Shoes/ Boots

EQUIPMENT PROCEDURES/REQUIREMENTS:

- 1. Set up mechanical ventilation when used in an enclosed area. When used outdoors, situate portable generator so that exhaust is directed away from the work area.
- 2. Operate equipment in strict accordance with Manufacturer's instructions.
- 3. Only authorized users can operate equipment.
- 4. Connections and machine grounding shall be checked prior to use.
- 5. Report any observed defect or safety hazard to your supervisor immediately.
- 6. Where any object handled would possibly cause injury to feet if dropped, safety shoes will be worn.
- 7. Where any object handled could possibly cause cuts, punctures or abrasions to hands, appropriate gloves will be worn. (Exception: where rotating machinery presents a greater hazard of entangling gloves, they are optional at the supervisor's discretion).
- 8. Keep hands, hair and loose clothing clear of all moving parts.

ADDITIONAL PRECAUTIONS FOR FUEL POWERED ENGINES:

- 1. Always operate in an open well-ventilated area or vent the engine exhaust directly outdoors.
- 2. Never fuel the engine while running or in the presence of an open flame.
- 3. Wipe up spilled fuel immediately and wait for fumes to disperse before starting the engine.
- 4. Never remove the radiator pressure cap from liquid cooled engines while they are hot to prevent scalding.
- 5. Stop the engine before performing any maintenance or troubleshooting. The ignition system should be disabled to prevent accidental start of the engine.
- 6. Keep all guards and shields in place.
- 7. Keep hands, hair and clothing away from moving parts.

Portable Heater, Electric Powered

TASK	HAZARD	CAUSE	PREVENTION
General Use	Trauma	Burns	Situational awareness, PPE, protective clothing
	Foot Injury	Roll over foot, drop object on foot	Wear safety shoes
	Fire	Heat, sparks, slag	Appropriate placed fire extinguisher, remove all combustibles and fire hazards from area
	Electrical Shock	Improper operations and maintenance, improper switching device	Strictly follow manufacturers instructions, proper switching for starting up/ shutting down machine

PPE REQUIRED:

Leather Gloves Safety Shoes/ Boots

- 1. Set up mechanical ventilation when used in an enclosed area.
- 2. Operate equipment in strict accordance with Manufacturer's instructions.
- 3. Only authorized users can operate equipment.
- 4. Connections and machine grounding shall be checked prior to use.
- 5. Report any observed defect or safety hazard to your supervisor immediately.
- 6. Keep all guards and shields in place.
- 7. Keep hands, hair and clothing away from hot parts.
- 8. Where any object handled would possibly cause injury to feet if dropped, safety shoes will be worn.
- 9. Where any object handled could possibly cause cuts, punctures or abrasions to hands, appropriate gloves will be worn. (Exception: where rotating machinery presents a greater hazard of entangling gloves, they are optional at the supervisor's discretion).
- 10. Keep hands, hair and loose clothing clear of all moving parts.

Portable Heater, Gasoline Powered

TASK	HAZARD	CAUSE	PREVENTION
General Use	Inhalation	Exhaust	Appropriate ventilation
	Trauma	Burns	Situational awareness, PPE, protective clothing
	Foot Injury	Roll over foot, drop object on foot	Wear safety shoes
	Fire	Heat, sparks, slag	Appropriate placed fire extinguisher, remove all combustibles and fire hazards from area
	Electrical Shock	Improper operations and maintenance, improper switching device	Strictly follow manufacturers instructions, proper switching for starting up/ shutting down machine

PPE REQUIRED:

Leather Gloves Safety Shoes/ Boots

- 1. Set up mechanical ventilation when used in an enclosed area. When used outdoors, situate portable heater so that exhaust is directed away from the work area.
- 2. Operate equipment in strict accordance with Manufacturer's instructions.
- 3. Only authorized users can operate equipment.
- 4. Connections and machine grounding shall be checked prior to use.
- 5. Report any observed defect or safety hazard to your supervisor immediately.
- 6. Where any object handled would possibly cause injury to feet if dropped, safety shoes will be worn.
- 7. Where any object handled could possibly cause cuts, punctures or abrasions to hands, appropriate gloves will be worn. (Exception: where rotating machinery presents a greater hazard of entangling gloves, they are optional at the supervisor's discretion).
- 8. Keep hands, hair and loose clothing clear of all moving parts.



Pressurized Cooling System Tester

TASK	HAZARD	CAUSE	PREVENTION

Portable Gasoline Driven Arc Welder

TASK	HAZARD	CAUSE	PREVENTION
General Use	Inhalation	Hazardous fumes, gases, dusts	Appropriate ventilation, respirator as required
	Eye Injury	Projectiles, fumes, dusts, flashes	Helmets, goggles/safety glasses, appropriate noncombustible of flame-proof screens
	Trauma	Projectiles, burns	
	Foot Injury	Drop object on foot	
	Fire	Heat, sparks, slag	
	Electrical Shock	Improper grounding, improper operations and maintenance, improper switching device	

Portable Generator, Gasoline Powered

TASK	HAZARD	CAUSE	PREVENTION
General Use	Inhalation	Exhaust	Appropriate ventilation
	Trauma	Burns	Situational awareness, PPE, protective clothing
	Foot Injury	Roll over foot, drop object on foot	Wear safety shoes
	Fire	Heat, sparks, slag	Appropriate placed fire extinguisher, remove all combustibles and fire hazards from area
	Electrical Shock	Improper grounding, improper operations and maintenance, improper switching device	Strictly follow manufacturers instructions, proper switching for starting up/shutting down machine

PPE REQUIRED:

Leather Gloves Safety Shoes/Boots

EQUIPMENT PROCEDURES/REQUIREMENTS:

- 1. Set up mechanical ventilation when used in an enclosed area. When used outdoors, situate portable generator so that exhaust is directed away from the work area.
- 2. Operate equipment in strict accordance with Manufacturer's instructions.
- 3. Only authorized users can operate equipment.
- 4. Connections and machine grounding shall be checked prior to use.
- 5. Report any observed defect or safety hazard to your supervisor immediately.
- 6. Where any object handled would possibly cause injury to feet if dropped, safety shoes will be worn.
- 7. Where any object handled could possibly cause cuts, punctures or abrasions to hands, appropriate gloves will be worn. (Exception: where rotating machinery presents a greater hazard of entangling gloves, they are optional at the supervisor's discretion).
- 8. Keep hands, hair and loose clothing clear of all moving parts.

ADDITIONAL PRECAUTIONS FOR FUEL POWERED ENGINES:

- 1. Always operate in an open well-ventilated area or vent the engine exhaust directly outdoors.
- 2. Never fuel the engine while running or in the presence of open flame.
- 3. Wipe up spilled fuel immediately and wait for fumes to disperse before starting the engine.
- 4. Never remove the radiator pressure cap from liquid cooled engines while they are hot to prevent scalding.
- 5. Stop the engine before performing any maintenance or troubleshooting. The ignition system should be disabled to prevent accidental start of the engine.
- 6. Keep all guards and shields in place.
- 7. Keep hands, hair and clothing away from moving parts.

Hazard Analysis Radial Arm Saw

TASK	HAZARD	CAUSE	PREVENTION
General Use	Inhalation	Dust/particles generated during machine operation	
	Eye Injury	Projectiles	
	Trauma	Projectiles, rotating parts, point of operation, in-going nip points, flying chips & sparks	
	Foot Injury		
	Hand Injury		
	Head Protection		
	Fire		
	Noise		
	Electrical Shock		

Hazard Analysis Sewer Snake

TASK	HAZARD	CAUSE	PREVENTION
General Use	Trauma	Contact with moving parts	Situational awareness, safety shoes
	Electrical Shock	Improper operations and maintenance, improper grounding	
	Hand Injury	Point of operation, moving parts	
	Eye Injury	Flying particles	
	Noise	Equipment operation	
	Atmospheric hazard	Methane gas, hydrogen sulfide, oxygen deficient atmosphere	

Hazard Analysis			Shop Vac(s)
TASK	HAZARD	CAUSE	PREVENTION

Hazard Analysis

Snow Blower, Gasoline Powered

Snow Shovel(ing)

TASK	HAZARD	CAUSE	PREVENTION
General Use	Trauma	Projectiles, impact, slip/trip/fall, cold	Situational awareness, gloves, positive traction sole footwear, protective clothing
	Foot Injury	Dropped object/impact on foot	Wear safety shoes/boots

PPE REQUIRED:

Safety Shoes/boots (when chipping snow/ice with shovel or chipper) Gloves

Protective Clothing (cold weather)

EQUIPMENT PROCEDURES/REQUIREMENTS:

- 1. Take occasional breaks to avoid repetitive motion injury.
- 2. Ensure snow load on shovel is not too heavy or back injury may result.
- 3. Be aware of frostbite and cold contact hazards to avoid injury.
- 4. Use proper lifting techniques, avoid twisting and over extending when lifting load.
- 5. Ensure firm footing during operations.
- 6. Avoid overheating, dress in layers and properly vent clothing.
- 7. Use caution on stairs, ramps and icy surfaces.
- 8.

6.

Soldering Guns/Irons

TASK HAZARD CAUSE PREVENTION

Spark Plug Service/Tester

TASK	HAZARD	CAUSE	PREVENTION
General Use	Electrical Shock	Improper grounding, improper operations and maintenance	Appropriate placed fire extinguisher, proper grounding, manufacturers instructions strictly followed

Hazard Analysis Steam Cleaner

TASK	HAZARD	CAUSE	PREVENTION
General Use	Trauma	Flying debris, contact with steam	Rotating parts, burns, situational awareness, protective clothing
	Hand Injury	Flying Debris, Contact with steam	Situational awareness, gloves
	Eye Injury	Flying debris	Full face shield
	Fire	Smoking, sparks	No smoking or exposure to sparks or open flame during fueling. Appropriate placed fire extinguisher

PPE REQUIRED:

Full Face Shield Gloves Apron

EQUIPMENT PROCEDURES/REQUIREMENTS:

- 1. Operate equipment in strict accordance with Manufacturer's instructions.
- 2. Only authorized users can equipment.
- 3. Report any observed defect or safety hazard to your supervisor immediately.
- 4. Where any object handled would possibly cause injury to feet if dropped, safety shoes will be worn.
- 5. Where any object handled could possibly cause cuts, punctures or abrasions to hands, appropriate gloves will be worn. (Exception: where rotating machinery presents a greater hazar

Hazard Analysis Table Saw

TASK	HAZARD	CAUSE	PREVENTION
General Use	Inhalation	Dust/particles generated during machine operation, exhaust fumes	Appropriate natural ventilation, disposable respirators, automatic vacuum machine
	Eye Injury	Projectiles	Safety glasses with side shield or appropriate safety goggles
	Trauma	Projectiles, rotating parts, point of operation, ingoing nip points, flying chips & sparks, loose clothing	Situational awareness, PPE, protective
	Foot Injury	Drop object on foot	
	Hand Injury	Point of operation, in-going nip points, rotating parts, flying chips and sparks, rings	
	Head Protection	Projectiles	
	Fire	Sparks	
	Electrical Shock	Improper grounding, improper operations and maintenance	

Tire Changer

TASK	HAZARD	CAUSE	PREVENTION
General Use	Foot Injury	Drop object on foot	Wear safety shoes
	Trauma	Over-inflated tires, bent rims, not properly secured within restraining device	Follow manufacturers instructions
	Eye Injury	Flying Debris	Safety glasses with side shields or safety goggles

PPE REQUIRED:

Safety Shoes/ Boots Safety Glasses with side shield

EQUIPMENT PROCEDURES/REQUIREMEN0.52 -.44dv00056/84991.5(N0.c53tU37T.0B60005 T(N0.52 PR

Torch, Oxygen- Acetylene

TASK	HAZARD	CAUSE	PREVENTION
General Use	Inhalation	Hazard fumes, gases, dusts Drop object on foot	Appropriate mechanical ventilation, as required, respirator
	Eye Injury	Projectiles, fumes, dusts, flashes	Helmets, Safety glasses w/side shields or goggles, appropriate noncombustible or flame-proof screens
	Trauma	Projectile, burns	Situational awareness, PPE, protective clothing
	Foot Injury	Drop object on foot	Wear safety shoes
	Fire	Heat, sparks, slag	Appropriate placed fire extinguisher,

Tractor

TASK	HAZARD	CAUSE	PREVENTION
Routine Maintenance/Repair	Hand Injury	Confined work areas, sharp edges/objects, rotating parts	Gloves, situational awareness
	Head Injury	Bump head, objects fall on head	Wear hard hat (if necessary)
	Foot Injury	Equipment rolls over foot, object drops on foot	Wear safety shoes
	Trauma	Rotating parts	Situational awareness, appropriate clothing
	Eye Injury	Flying Particles	Safety glasses w/side shields
	Noise	Equipment Operation	Use hearing protection

Hazard Analysis Vehicle Lift

TASK	HAZARD	CAUSE	PREVENTION
General Use	Foot Injury	Drop object on foot	Wear safety shoes
	Trauma	Overloading lift beyond rated capacity. Operator error. Not following manufacturer's instruction or safety warnings	Never exceed loading capacity. Ensure that rated load is legibly and permanently marked in a prominent location. Ensure each operator has received adequate training on operation of lift. Follow manufacturer's instructions and warnings.
	Eye Injury	Debris	Safety glasses with side shield/goggles
		Fluids	Goggles

PPE REQUIRED:

Safety Shoes/Boots Safety glasses with side shield Goggles

EQUIPMENT PROCEDURES/REQUIREMENTS:

1. DO NOT USE this lift, or any portion th

Hazard Analysis Vise

TASK	HAZARD	CAUSE	PREVENTION
General Use	Eye Injury	Projectiles	Safety glasses with side shield or appropriate safety goggles
	Foot Injury	Drop object on foot	Wear safety shoes
	Hand Injury	Impact, penetration, compression	Gloves, situational awareness

PPE REQUIRED:

Goggles/ Safety Glasses w/ side shield Gloves Safety Shoes/Boots

EQUIPMENT PROCEDURES/REQUIREMENTS:

- 1. Operate equipment in strict accordance with Manufacturer's instructions.
- 2. Report any observed defect of safety hazard to your supervisor immediately.
- 3. PPE is dependent on job being done in/on vise (hammering, chiseling, etc).
- 4. Where any object handled would possibly cause injury to feet if dropped, safety shoes will be worn.
- 5. Where any object handled could possibly cause cuts, punctures or abrasions to hands, appropriate gloves will be worn. (Exception: where rotating machinery presents a greater hazard of entangling gloves, they are optional at the supervisor's discretion).
- 6. Keep hands, hair and loose clothing clear of all moving parts.

Hazard Analysis Weed/Brush Trimmer, Hand-held, Gasoline Powered

TASK	HAZARD	CAUSE	PREVENTION
General Use	Eye Injury	Flying Debris	Safety glasses w/side shields/Goggles, face shield (optional)
	Trauma	Flying debris, Rotating parts, Burns	Protective clothing, situational awareness, appropriate guards in place
	Foot Injury	Equipment contacts foot	Safety shoes
	Noise	Equipment Operation	Hearing protection

PPE REQUIRED:

Safety Glasses w/side shields/Goggles Face Shield (optional) Hearing Protection Protective Clothing (optional) Safety Shoes

EQUIPMENT PROCEDURES/REQUIREMENTS:

- 1. Operate equipment in strict accordance with Manufacturer's instructions.
- 2. Only authorized users can operate equipment.
- 3. Report any observed defect or safety hazard to your supervisor immediately.
- 4. Where any object handled would possibly cause injury to feet if dropped, safety shoes will be worn.
- 5. Where any object handled could possibly cause cuts, punctures or abrasions to hands, appropriate gloves will be worn. (Exception: where rotating machinery presents a greater hazard of entangling gloves, they are optional at the supervisor's discretion).
- 6. Keep hands, hair and loose clothing clear of all moving parts.

ADDITIONAL PRECAUTIONS FOR FUEL POWERED ENGINES:

1. Always operate in an open well-ventilated area or

Wire Feed Welder, Electric

TASK	HAZARD	CAUSE	PREVENTION
General Use	Inhalation	Hazardous fumes, gases, dusts	Appropriate ventilation, as required disposable respirators
	Eye Injury	Projectiles, fumes, dusts, flashes	Helmet, safety glasses w/side shields/ goggles, appropriate noncombustible or flame-proof screens
	Trauma	Projectiles, burns	Situational awareness, PPE, protective clothing, switch guards
	Foot Injury	Drop object on foot	Wear safety shoes
	Fire	Heat, sparks, slag	Appropriate placed fire extinguisher, remove all combustibles and fire hazards from welding area
	Electrical Shock	Improper grounding, improper operations and maintenance, improper switching device	Lockout/ tag-out, proper grounding of secondary and cTwTble welding transformers, manufacturers instructions strictly followed, proper switching for shutting down machine

PPE REQUIRED:

Eye Safety Shield/Helmet with Filter Lens

Protective Clothing*

*Full sleeves, no front pockets, no cuffs, Shirt left outside of trousers, made of clean fire-resistant materials

Fire resistant Gauntlet Gloves

Safety Shoes/ Boots

Disposable respirator (optional)

Goggles/ Safety Glasses w/side shields

EQUIPMENT PROCEDURES/REQUIREMENTS:

- 1. Before cutting or welding is permitted the area shall be inspected by an individual responsible for authorizing cutting and welding operations;
- 2. Operate equipment in strict accordance with Manufacturer's instructions.
- 3. Employee's assigned to operate equipment will be familiar with the OSHA requirements outlined in 29 CFR 1910.252 and 1910.254.
- 4. Only authorized users can operate equipment.
- 5. Connections and machine grounding shall be checked prior to use.
- 6. Report any observed defect or safety hazard to your supervisor immediately.
- 7. Where any object handled would possibly cause injury to feet if dropped, safety shoes will be worn.
- 8. Where any object handled could possibly cause cuts, punctures or abrasions to hands, appropriate gloves will be worn. (Exception: where rotating machinery presents a greater hazard of entangling gloves, they are optional at the supervisor's discretion).

9.

Hazard Analysis Wire Wrap

TASK	HAZARD	CAUSE	PREVENTION
General Use	Electrical Shock	Faulty electrical cord, improper grounding, improper operations and maintenance	Inspect tool/ cord prior to use, proper grounding, manufacturers instructions strictly followed, appropriate placed fire extinguisher.

PPE REQUIRED:

EQUIPMENT PROCEDURES/REQUIREMENTS:

- 1. Operate equipment in strict accordance with Manufacturer's instructions.
- 2. Only authorized users can operate equipment.
- 3. Report any observed defect or safety hazard to your supervisor immediately.
- 4. Where any object handled would possibly cause injury to feet if dropped, safety shoes will be worn.
- 5. Where any object handled could possibly cause cuts, punctures or abrasions to hands, appropriate gloves will be worn. (Exception: where rotating machinery presents a greater hazard of entangling gloves, they are optional at the supervisor's discretion).
- 6. Keep hands, hair and loose clothing clear of all moving parts.